Volkswagen Environmental Mitigation Trust

APPENDIX D-4
Beneficiary Eligible Mitigation Action Certification

State of Alaska Project 003 – Spring 2019 School Bus Replacement

Prepared by

ALASKA ENERGY AUTHORITY

BENEFICIARY ELIGIBLE MITIGATION ACTION CERTIFICATION

Beneficiary **Alaska**

Lead Agency Authorized to Act on Behalf of the Beneficiary **Alaska Energy Authority**
(Any authorized person with delegation of such authority to direct the Trustee delivered to the Trustee pursuant to a Delegation of Authority and Certificate of Incumbency)

Action Title:	**Spring 2019 School Bus Replacement**
Beneficiary's Project ID:	**34031**
Funding Request No. *(sequential)*	**003**
Request Type:	· **Advance**
Payment to be made to:	· **Beneficiary**
Funding Request & Direction:	· **Attached to this Certification (Attachment A)**

SUMMARY

Eligible Mitigation Action Action Type	· **Appendix D-2 item (specify): EMA 2 Class 4-8 School Bus** · Item 10 - DERA Option (5.2.12):

Explanation of how funding request fits into Beneficiaries Mitigation Plan (5.2.1):

As described in the Alaska Beneficiary Mitigation Plan, Alaska intends to allocate approximately 50% of the State Trust for the replacement of school buses, to be distributed through two competitive RFA processes, one in spring 2019 and a second in the fall of 2019. Alaska Project 003 is for the replacement of 11 school buses that were selected from the spring 2019 applications.

Detailed Description of Mitigation Action Item Including Community and Air Quality Benefits (5.2.2):

AEA will use VW Trust funds to replace 11 diesel school buses with new cleaner diesel buses or an all-electric bus in the following school districts: Anchorage School District (6 diesel buses); Kenai Peninsula Borough School District (4 diesel buses); and Alaska Gateway School District (1 all-electric bus).

Consistent with the Beneficiary Mitigation Plan, Alaska developed a competitive school bus replacement program where each bus was scored independently based on the location of its route of operation and the relative amounts of: 1) ambient on-road NOx emissions; 2) CAA non-attainment areas, CAA maintenance areas, or ambient diesel particulate matter (DPM) emissions; 3) EPA environmental justice index (EJI) of at-risk populations and their exposure to DPM; 4) EPA EJI of at-risk populations and their exposure to traffic proximity and volume; 5) voluntary matching funds; and 6) cost-effectiveness in the lifetime reduction of NOx. Buses operated in areas of relatively poorer ambient air quality or in areas of at-risk communities exposed to DPM, or traffic proximity and volume received higher scores as did bus replacements that would result in greater lifetime NOx reduction. Research shows there is no safe level of exposure to diesel particulate matter.

Estimate of Anticipated NOx Reductions (5.2.3):

The estimated lifetime reduction in NOx emissions is 11.8 short tons over the remaining life of the engines: Anchorage school buses (6.91 short tons); Kenai Peninsula Borough school buses (4.19 short tons); Alaska Gateway School District (0.71 short tons).

Identification of Governmental Entity Responsible for Reviewing and Auditing Expenditures of Eligible Mitigation Action Funds to Ensure Compliance with Applicable Law (5.2.7.1):

Alaska Energy Authority

Describe how the Beneficiary will make documentation publicly available (5.2.7.2).

AEA will follow the guidance set forth in Appendix D-3. AEA will make records related to the VW Trust publicly available on AEA's website (http://www.akenergyauthority.org/programs/vwsettlement). Any VW Trust records not posted on AEA's website will be made available to the public under the Alaska Public Records Act (AS 40.25) and the Act's implementing regulations (2 AAC 96), unless one of the following applies: (1) the records are not "public records," as defined in AS 40.25.220(3); (2) the records are protected under state or federal law or otherwise exempt from disclosure under AS 40.25.120(a); (3) the records are excluded from the Act under another state statute; or (4) the records are readily available for public inspection—e.g., available on the Internet or "during state business hours in an agency's office or in a public library," 2 AAC 96.100(b). (The Alaska Public Records Act does not require AEA "to compile or summarize" records or "to manipulate its data to create new records." 2 AAC 96.210.)

Describe any cost share requirement to be placed on each NOx source proposed to be mitigated (5.2.8).

The cost of the new diesel school buses, shipping, onboarding and scrappage of the old buses will be 100% funded with VW State Trust funds. Based on previous purchases and cost estimates provided by vendors, the average total cost for a new diesel bus with shipping and scrappage of the old bus is estimated to be $145,000. The all-electric bus and associated infrastructure funded by the VW State Trust is expected to be approximately $410,000; Tok Transportation LLC, the Alaska Gateway School District bus contactor, will fund the purchase and installation of a solar system to power the electric charger at an approximate cost of $57,000. A detailed budget estimate is included in Attachment D.

Describe how the Beneficiary complied with subparagraph 4.2.8, related to notice to U.S. Government Agencies (5.2.9).

Pursuant to subparagraph 4.2.8, within 30 days of the filed Notice of Beneficiary Designation listing Alaska as a Beneficiary of the State Trust, the Alaska Energy Authority provided a copy of the State Trust agreement to all federal agencies that have custody, control, or management of land within or adjacent to Alaska (National Park Service, US Forest Service, US Fish and Wildlife Service, Bureau of Land Management) via certified mail**.** AEA was not notified by the NPS, USFWS or BLM of their interest. During Alaska's public comment period regarding the draft Beneficiary Mitigation Plan, USFS staff from Tongass National Forest expressed interest in EV charging stations and electrification of the tour bus fleet in Juneau.

If applicable, describe how the mitigation action will mitigate the impacts of NOx emissions on communities that have historically borne a disproportionate share of the adverse impacts of such emissions (5.2.10).

Consistent with the Beneficiary Mitigation Plan, Alaska developed a competitive school bus replacement program where each bus was scored independently based on the location of its route of operation and the relative amounts of: 1) ambient on-road NOx emissions; 2) CAA non-attainment areas, CAA maintenance areas, or ambient diesel particulate matter (DPM) emissions; 3) EPA environmental justice index (EJI) of at-risk populations and their exposure to DPM; 4) EPA EJI of at-risk populations and their exposure to traffic proximity and volume; 5) voluntary matching funds; and 6) cost-effectiveness in the lifetime reduction of NOx. Buses operated in areas of relatively poorer ambient air quality or in areas of at-risk communities exposed to DPM, or traffic proximity and volume received higher scores as did bus replacements that would result in greater lifetime NOx reduction. Research shows there is no safe level of exposure to diesel particulate matter.

ATTACHMENTS
(CHECK BOX IF ATTACHED)

✓	**Attachment A**	Funding Request and Direction
✓	**Attachment B**	Eligible Mitigation Action Management Plan Including Detailed Budget and Implementation and Expenditures Timeline (5.2.4).
✓	**Attachment C**	Detailed Plan for Reporting on Eligible Mitigation Action Implementation (5.2.11).
✓	**Attachment D**	Detailed cost estimates from selected or potential vendors for each proposed expenditure exceeding $25,000 (5.2.6). [Attach only if project involves vendor expenditures exceeding $25,000.]

CERTIFICATIONS

By submitting this application, the Lead Agency makes the following certifications:

1. This application is submitted on behalf of Beneficiary **Alaska**, and the person executing this certification has authority to make this certification on behalf of the Lead Agency and Beneficiary, pursuant to the Certification for Beneficiary Status filed with the Court.
2. Beneficiary requests and directs that the Trustee make the payments described in this application and Attachment A to this Form.
3. This application contains all information and certifications required by Paragraph 5.2 of the Trust Agreement, and the Trustee may rely on this application, Attachment A, and related certifications in making disbursements of trust funds for the aforementioned Project ID.
4. Any vendors were or will be selected in accordance with a jurisdiction's public contracting law as applicable. (5.2.5)
5. Beneficiary will maintain and make publicly available all documentation submitted in support of this funding request and all records supporting all expenditures of eligible mitigation action funds subject to applicable laws governing the publication of confidential business information and personally identifiable information. (5.2.7.2)

DATED: 9/16/19

Betsy McGregor
Preliminary Design and Environmental Manager

Alaska Energy Authority
[LEAD AGENCY]

for

Alaska
[BENEFICIARY]

ATTACHMENT A

FUNDING REQUEST AND DIRECTION

(Attachment to Appendix D-4, Beneficiary Eligible Mitigation Action Certification, pursuant to Paragraph 5.2 of the Environmental Mitigation Trust Agreement)

Pursuant to the authority granted to Alaska Energy Authority [*insert Lead Agency]* to act on behalf of Beneficiary Alaska under the Mitigation Trust, *[Lead Agency]* directs the Trustee to make the following payments from its subaccount no. 122969-005 to the following payees, for the amounts specified on the dates specified below.

LEAD AGENCY INFORMATION

Beneficiary Name:	Alaska	Lead Agency Contact Person:	Betsy McGregor
Lead Agency Name:	Alaska Energy Authority	Lead Agency Email Address:	bmcgregor@akenergyauthority.org
Lead Agency Address:	813 West Northern Lights Blvd., Anchorage, AK 99503	Lead Agency Fax:	907-771-3044
Lead Agency Phone:	907-771-3000	Lead Agency TIN:	92-6001185

Contact information entered above may correspond to Lead Agency or any authorized person with delegation of such authority to direct the Trustee delivered to the Trustee pursuant to a Delegation of Authority and Certificate of Incumbency

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MITIGATION ACTION INFORMATION

Action Title:	Spring 2019 School Bus Replacement	Funding Request No:	003
Beneficiary's Project ID:	34031		

PAYMENTS REQUESTED

(attach additional pages if needed)

Amount	Requested Date	Payee	Request Type
	9/12/19	Alaska Energy Authority	Advance

PAYEE CONTACT AND WIRE INFORMATION

(fill out both tables below for each payee and payment identified in "Payments Requested" table on p. 1; attach additional pages if needed)

PAYEE CONTACT INFORMATION

Action Title:	Spring 2019 School Bus Replacement	Beneficiary Project ID:	34031
Payee Name:	Alaska Energy Authority	Payee Contact Person:	Amy Adler
Payee Address:	813 West Northern Lights Blvd., Anchorage, AK 99503	Payee Email Address:	aadler@aidea.org
Payee Phone:	907-771-3000	Payee Fax:	907-771-3044
Payee TIN:	92-6001185		

Payment Amount	Requested Date	Request Type
	9/12/19	Advance

WIRE INFORMATION

Receiving Bank Name:	Key Bank National Association		
Receiving Bank Branch:	Key Trust Company		
Receiving Bank Address:	P.O. Box 93885 Clevland, OH 44101-5885		
Bank Swift ID:	N/A	National Routing No. / Bank ABA Number *(Sort Code, BLZ)*	125200879
Amount of Wire:			
Message to Payee:			
Instructions to Receiving Bank:			
For Credit to:	Account: 729681004051 - AEA Clearing Account		
Other Special Instructions:			

[Signature Block]

AEA Assistant Controller

ATTACHMENT B
Project Management Plan

Schedule and Milestones

School Bus Replacement Milestone	Date
Lead Agency (AEA) provides Notice of Availability of Mitigation Action Funds for School Bus Repower/Replacement Program	March 28, 2019
AEA hosts two webinars to explain application process and use of the EPA Diesel Emission Calculator tool	April 2, 2019 April 11, 2019
Project Sponsors (School Districts) submit proposals to AEA	March 28 – June 14, 2019
AEA provides written approval of Project Sponsors' proposals	July 2019; September 2019
AEA submits Project Certification (D-4) to Trustee for advance funded projects	September 2019
Trustee acknowledges receipt of D-4 and funding direction	September 2019
Trustee allocates share of funds to AEA for approved projects	October/November 2019
Grant/Contract agreements between AEA and School Districts signed for approved projects	September 2019
School Districts procure new buses; new buses delivered and on-boarded; old buses scrapped in approved manner	September 2019- September 2021
School Districts certify project completion through submittal of evidence of old bus scrapping, invoices and other documents required for reimbursement	Within 30 days of project completion and no later than October 31, 2021
AEA reviews submissions, requests corrections if necessary, and provides reimbursement	Within 30 days of submittal and no later than November 30, 2021
AEA reports to Trustee semi-annually on status of mitigation actions completed and expenditures and reports project completion.	January 2020, July 2020, January 2021, July 2021, January 2022

Budget

Alaska Project 003 Period of Performance: 1/1/2019 - 12/31/2021			
Budget Category	**Total Approved Budget**	**Share of Total Budget funded by VW Trust**	**Cost Share**
Equipment Expenditure	$1,881,172	$1,881,172	$0
Contract Support	$59,291	$1,691	$57,600
Subrecipient Support	$3,500	$3,500	$0
Administrative (<15%)	$282,954	$282,954	$0
Project Totals	**$2,226,917**	**$2,169,317**	**$57,600**
Percentage		**97%**	**3%**

Projected Trust Allocations

	2019			2020	2021
	Project 001	Project 002	**Project 003**		
1. Anticipated annual project funding request to be paid through the Trust	$497,449	$321,711	**$2,169,317**		
2. Anticipated annual cost share	$1,076,051	$936,063	**$57,600**		
3. Anticipated total project funding by year (line 1 plus line 2)	$1,573,500	$1,257,774	**$2,226,917**		
4. Cumulative Trustee payments made to date against cumulative approved beneficiary allocation	$0	$497,449	**$819,160**		
5. Current beneficiary project funding to be paid through the Trust (line 1)	$497,449	$321,711	**$2,169,317**		
6. Total funding allocated to beneficiary, inclusive of current action by year (line 4 plus line 5)	$497,449	$819,160	**$2,988,477**		
7. Beneficiary share of estimated funds remaining in Trust	$8,125,000	$8,125,000	**$8,125,000**		
8. Net beneficiary funds remaining in Trust, net cumulative beneficiary funding actions (line 7 minus line 6)	$7,627,551	$7,305,840	**$5,136,523**		

ATTACHMENT C
Detailed Plan for Reporting on EMA Implementation

The Alaska Energy Authority (AEA) will provide detailed reporting on the school bus replacement project (Project 003) on its public VW website and will fulfill its reporting obligations to Wilmington Trust.

AEA's VW website (http://www.akenergyauthority.org/What-We-Do/Grants-Loans/Volkswagen-Diesel-Settlement-Grants) was created specifically to provide information related to the Trust, settlement documents, and Alaska's plans for disbursement, funding opportunities and implementation information. In order to provide transparency and accountability, AEA will post timely updates on information, including but not limited to:

- General information on the Partial Consent Decrees and State Trust Agreement
- Alaska Beneficiary Mitigation Plan
- Request for Applications (RFAs) as funding opportunities arise
- All public records supporting funding requests AEA submits to the Trustee and all public records supporting all expenditures of the Trust fund, subject to confidentiality laws and until the Termination Dates of the State Environmental Mitigation Trust Agreement.
- Contact information

AEA will periodically evaluate the implementation of the Beneficiary Mitigation Plan and EMAs to determine if revisions to the plan are necessary to achieve the goals outlined in the plan. Any changes to the plan will be posted on AEA's VW website for at least 30 days prior to implementation.

In addition, the State will also comply with the reporting requirements listed in the Environmental Mitigation Trust Agreement for State Beneficiaries in subparagraph 5.3:

> *For each Eligible Mitigation Action, no later than six months after receiving its first disbursement of Trust Assets, and thereafter no later than January 30 (for the preceding six-month period of July 1 to December 31) and July 30 (for the preceding six-month period of January 1 to June 30) of each year, each Beneficiary shall submit to the Trustee a semiannual report describing the progress implementing each Eligible Mitigation Action during the six-month period leading up to the reporting date (including a summary of all costs expended on the Eligible Mitigation Action through the reporting date). Such reports shall include a complete description of the status (including actual or projected termination date), development, implementation, and any modification of each approved Eligible Mitigation Action. … These reports shall be signed by an official with the authority to submit the report for the Beneficiary and must contain an attestation that the information is true and correct and that the submission is made under penalty of perjury. To the extent a Beneficiary avails itself of the DERA Option described in Appendix D-2, that Beneficiary may submit its DERA Quarterly Programmatic Reports in satisfaction of its obligations under this Paragraph as to those Eligible Mitigation Actions funded through the DERA Option. The Trustee shall post each semiannual report on the State Trust's public-facing website upon receipt.*

ATTACHMENT D
Detailed cost estimate

Budget Category	Total Approved Budget	VW State Trust	Cost Share
Equipment			
ASD			
6 ULSD buses @ $138,000 each[1]	$828,000	$828,000	$0
Shipping 6 buses @ $9,363 each[2]	$56,178	$56,178	$0
KPBSD			
4 ULSD buses @ $138,500 each[3]	$554,000	$554,000	$0
Shipping 4 buses @ $9,305 each[3]	$37,220	$37,220	$0
Tok Transportation LLC (AGSD)			
1 all-electric bus[4]	$376,774	$376,774	$0
Shipping 1 bus[4]	$23,000	$23,000	$0
EV charging infrastructure[5]	$6,000	$6,000	$0
Contractual			
Tok contractor cost for bus scrappage[6]	$1,691	$1,691	$0
Tok 12 kW solar PV system equipment and installation[7]	$57,600	$0	$57,600
Subrecipient			
ASD Labor/cost for scrappage of 6 buses at $350 each[8]	$2,100	$2,100	$0
KPBSD Labor/cost for scrappage of 4 buses at $350 each[8]	$1,400	$1,400	$0
Administrative			
Administrative (<15% project cost)	$282,954	$282,954	$0
Project Totals	**$2,226,917**	**$2,169,317**	**$57,600**
Percentage		**97%**	**3%**

1 ASD assumed 2019 bus would cost 3% more ($133,671.34) than actual cost of 2018 bus ($129,788). ASD will put out an ITB for new buses. AEA is requesting 3% more ($138,000) than ASD's 2019 estimate as a contingency to account for possible cost of 2020 bus.

2 ASD provided a July 2019 shipping cost estimate of $9,363.

3 KPBSD provided June 2019 cost estimate of $138,500 for 2020 bus and $9,305 for shipping.

4 Tok Transportation provided May 2019 cost estimate of $376,774 for 2020 bus with options and $23,000 for shipping.

5 Tok Transportation provided a cost estimate of $6,000 in their application for the purchase and installation of associated EV infrastructure.

6 Tok Transportation provided May 2019 cost estimate of $1,691.25 for contractor to scrap 2006 bus.

7 Tok Transportation was awarded replacement with an all-electric bus based on their commitment to change their electricity generation source from diesel to solar; they provided a May 2019 cost estimate of $57,600 for the purchase and installation of a 12 kW solar PV system.

8 ASD and KPBSD provided labor and bus scrappage cost estimate of $325. AEA is requesting slightly more ($350) as a contingency.

Anchorage School District Cost Estimate Documentation

Six buses selected for replacement:

1. #10
2. #29
3. #55
4. #56
5. #84
6. #123

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School Bus Replacement Application Cover

Date of Application	April 24 ,2019
Applicant/Agency Name	Anchorage School District
Employer/Taxpayer ID (EIN/TIN)	92-6000078
Address	3580 E Tudor Road
City/Zip	Anchorage 99507

Authorized Representative Name	Heather Philp
Contact Title & Association	Director of Transportation - Anchorage School District
Phone	907-742-1219
Email	philp_heather@asdk12.org

Alternative Authorized Representative Name	Dane Sutterfield
Contact Title & Association	Purchasing Supervisor - Anchorage School District
Phone	907-742-8630
Email	sutterfield_dane@asdk12.org

Project Narrative
Please describe in detail the project, including the number of buses being replaced, bus ownership, timeline of events, and plans for scrappage of existing bus(es). Include information such as voluntary matching funds, timing of other funding sources, or in the case of alternative fueled vehicles, related infrastructure plans and funding. Use the next page or attach additional pages if necessary.
Anchorage School District is applying to replace 12 ULSD type D buses, years 2001 and 2003 with 2019 DEF ULSD type D buses. Once rewarded replacement bus(es), the District would solicit through an ITB. It would take approximately (75) seventy five days from the Solicitation to the issuance of the Purchase Order. Based on the ITB, the Anchorage School District would place the bus order that takes approximately (7) seven months for delivery. Once the new buses arrive at ASD Transportation the scrapping would be initiated. To scrap the bus the mechanics will use an oil rifle to put an 1½ " hole in the side of the engine. The frame will be disabled by cutting the frame at an area around the transmission bell housing. The bus will be towed to: Central Recycling Services 311 N. Sitka Street Anchorage, Alaska 99501 Manager: Jake Sneddon Phone number: 907-748-7400

Milestone	Proposed Completion Date	Notes
Purchase order issued for new bus	August 1 ,2019	
Delivery of new bus	January 1, 2020	
Existing bus scrappage with required documentation	January 15, 2020	
Reimbursement request with required documentation	February 15, 2020	

School Bus Replacement Application Cover

ALASKA ENERGY AUTHORITY

Project Narrative - Continued

Application Check List

- ☐ School Bus Application Cover
- ☐ Bus Data Form for each bus
- ☐ EPA DEQ emission results report used in the Bus Data Form for each bus

(For eample see http://www.akenergyauthority.org/Programs/vwsettlement)

- ☐ Project Evaluation Form for each bus
- ☐ Map of bus route including fleet yard location for each bus
- ☐ Bus odometer photo

Application Acknowledgement

The undersigned certifies that they are the authorized agent of the above stated entity, and that all information and documentation submitted to the Alaska Energy Authority for an award of the VW Settlement Funds are truthful and correct, and that the applicant is in compliance with, and will continue to comply with, all applicable state and federal law, and that they can legally commit the entity to these obligations.

Heather Philp
Signature of Authorized Representative

May 28, 2019
Date

Heather Philp
Authorized Representative Name

Senior Director
Title

Applicant: Anchorage School District Bus ID: Bus # 10

Please complete the table below. **The applicant must also enter the data into the EPA Diesel Emission Quantifier tool and attach the DEQ emissions results to this form.** (https://cfpub.epa.gov/quantifier/index.cfm?action=main.home)
*Note: disregard the health benefits output.
Submit a separate Bus Data Form and DEQ output for each bus. For electronic applications, submit one excel worksheet per bus; paper applicants print as many copies of the form as necessary.

Bus Data for EPA Diesel Emission Calculator		
	Existing Bus	**Replacement Bus**
Bus ID #	Bus #10	NA
Bus Ownership (complete next page)	Anchorage School District	
VIN #	4DRBJABNX3A959727	NA
Engine Serial Number	7.4HM2U5044805	NA
Bus Make	IC CORP	
Bus Model	RE SB	
Bus Model Year	2003	2019
Bus Class/Type (Class A-D)	D	D
Gross Vehicle Weight Restriction	31800	31800
Fuel Type[1] (complete next page)	ULSD	ULSD
Average Fuel Efficiency (MPG)	5.77	6.78
Annual Fuel (gals)	1602	NA
Annual Miles Traveled	9248	NA
Annual Idling Hours	250	NA
Total Mileage	187,037	NA
Annual Fuel Reduction (gals)[2]	NA	238
Remaining Life (years)[3]	13	NA
Attrition year (please explain)[4]	2032	NA
The 6.78mpg for replacement was an average from our existing buses from 2017. Same style, make/model + DEF system. Annual miles travelled was taken from March 2018 to March 2019. Engine model year is 2002.		
Equipment Cost limited to cost of bus & shipping[5]	NA	$ 139,182.00
Labor Cost	NA	$ 325.00

1. This funding opportunity is strictly to replace/repower existing diesel school buses MY 2009 or older with at least three years of remaining life. New replacement buses may be diesel, alternate fueled (e.g., propane, CNG, hybrid), or all-electric.
2. Information to be provided by the manufacturer, reasonably extrapolated to the service use conditions for each bus. Example, long haul with intermittent stops vs. frequent urban stop and go conditions.
3. EPA's Quantifier uses remaining life of the existing vehicle to calculate lifetime emission reductions associated with a project. Actual remaining life depends on the age of the vehicle at the time of the project, as well as usage, maintenance, and climate. Remaining life is calculated by taking either the maximum life or the median life value and subtracting the current age of the vehicle based on model year. DEQ will use the maximum life for this calculation. For example, if the on-road vehicle replacement occurs in 2019, and the existing vehicle is a model year 2005, the remaining life would be 30 - (2019-2005) = 16 years. DEQ quantifies the median life of on-road vehicles as 19 years and the maximum life as 30 years.
4. Year in which bus would normally be retired/sold by the fleet owner if not for this funding opportunity.
5. EV charging infrastructure if applicable
6. Not to include administrative costs

Bus Ownership Information	
Both school district-owned buses and buses contracted to the school districts are eligible for repower/replacement. If the bus is contracted to the school district, please complete this section. Attach an explanation of the terms of the contract and what happens to the bus when the contract expires.	
Bus owner name	Anchorage School District
Bus owner address	3580 E. Tudor Road
Bus owner city/state/zip code	Anchorage , Alaska 99507
Contract expiration date	
Can the parties enter a legally binding agreement to ensure the new replacement bus will operate within the usage area described in this application?	Yes

Non-diesel Replacement Buses	
If requesting funding for alternative-fuel buses (compressed natural gas, hybrid-electric, liquid natural gas, or liquid propane gas) or all-electric buses, identify the fuel type and **attach information about fueling infrastructure and indicate if it is in place or provide installation information (e.g., timeline, location of infrastructure, funding source for infrastructure).**	
Fuel Type	

Bus Replacement Cost		
Provide project costs below. Use NA for any fields that are not applicable. Detailed cost estimates from selected or potential vendors are required for all individual expenditures. **Attach a copy of the manufacturer/vendor bid estimates for each vehicle replacement. Note that funds cannot be requested for fueling infrastructure for alternative-fueled buses. Verification and documentation of scrappage of the old bus must be provided for reimbursement of project costs; the old bus shall be scrapped or rendered inoperable and available for recycle by cutting a 3-inch hole in the engine block and, if applicable, disabling the chassis by cutting the vehicle's frame rails completely in half.**		
	Total Cost ($)	**Requested Funds ($)**
Bus	$ 129,812.00	$ 129,812.00
Shipping	$ 9,370.00	$ 9,370.00
Other - (please explain)		
Electric Vehicle charging infrastructure		
Alternative fueling infrastructure		
Labor (includes onboarding, signage, scrapping of old bus)[6]	$ 325.00	$ 325.00
Total Project Cost	$ 139,507.00	

Applicant: Anchorage School District Bus ID: Bus # 29

Please complete the table below. **The applicant must also enter the data into the EPA Diesel Emission Quantifier tool and attach the DEQ emissions results to this form.** (https://cfpub.epa.gov/quantifier/index.cfm?action=main.home)
*Note: disregard the health benefits output.
Submit a separate Bus Data Form and DEQ output for each bus. For electronic applications, submit one excel worksheet per bus; paper applicants print as many copies of the form as necessary.

Bus Data for EPA Diesel Emission Calculator		
	Existing Bus	**Replacement Bus**
Bus ID #	Bus #29	NA
Bus Ownership (complete next page)	Anchorage School District	
VIN #	4DRBJABNX3A956794	NA
Engine Serial Number	7.4HM2U5044743	NA
Bus Make	IC CORP	
Bus Model	RE SB	
Bus Model Year	2003	2019
Bus Class/Type (Class A-D)	D	D
Gross Vehicle Weight Restriction	31800	31800
Fuel Type[1] (complete next page)	ULSD	ULSD
Average Fuel Efficiency (MPG)	5.68	6.78
Annual Fuel (gals)	1699	NA
Annual Miles Traveled	9654	NA
Annual Idling Hours	250	NA
Total Mileage	197,480	NA
Annual Fuel Reduction (gals)[2]	NA	276
Remaining Life (years)[3]	13	NA
Attrition year (please explain)[4]	2032	NA
The 6.78mpg for replacement was an average from our existing buses from 2017. Same style, make/model + DEF system. Annual miles travelled was taken from March 2018 to March 2019. Engine model year is 2002.		
Equipment Cost limited to cost of bus & shipping[5]	NA	$ 139,182.00
Labor Cost	NA	$ 325.00

1. This funding opportunity is strictly to replace/repower existing diesel school buses MY 2009 or older with at least three years of remaining life. New replacement buses may be diesel, alternate fueled (e.g., propane, CNG, hybrid), or all-electric.
2. Information to be provided by the manufacturer, reasonably extrapolated to the service use conditions for each bus. Example, long haul with intermittent stops vs. frequent urban stop and go conditions.
3. EPA's Quantifier uses remaining life of the existing vehicle to calculate lifetime emission reductions associated with a project. Actual remaining life depends on the age of the vehicle at the time of the project, as well as usage, maintenance, and climate. Remaining life is calculated by taking either the maximum life or the median life value and subtracting the current age of the vehicle based on model year. DEQ will use the maximum life for this calculation. For example, if the on-road vehicle replacement occurs in 2019, and the existing vehicle is a model year 2005, the remaining life would be 30 - (2019-2005) = 16 years. DEQ quantifies the median life of on-road vehicles as 19 years and the maximum life as 30 years.
4. Year in which bus would normally be retired/sold by the fleet owner if not for this funding opportunity.
5. EV charging infrastructure if applicable
6. Not to include administrative costs

Bus Ownership Information	
Both school district-owned buses and buses contracted to the school districts are eligible for repower/replacement. If the bus is contracted to the school district, please complete this section. Attach an explanation of the terms of the contract and what happens to the bus when the contract expires.	
Bus owner name	Anchorage School District
Bus owner address	3580 E. Tudor Road
Bus owner city/state/zip code	Anchorage , Alaska 99507
Contract expiration date	
Can the parties enter a legally binding agreement to ensure the new replacement bus will operate within the usage area described in this application?	Yes

Non-diesel Replacement Buses	
If requesting funding for alternative-fuel buses (compressed natural gas, hybrid-electric, liquid natural gas, or liquid propane gas) or all-electric buses, identify the fuel type and **attach information about fueling infrastructure and indicate if it is in place or provide installation information (e.g., timeline, location of infrastructure, funding source for infrastructure).**	
Fuel Type	

Bus Replacement Cost		
Provide project costs below. Use NA for any fields that are not applicable. Detailed cost estimates from selected or potential vendors are required for all individual expenditures. **Attach a copy of the manufacturer/vendor bid estimates for each vehicle replacement. Note that funds cannot be requested for fueling infrastructure for alternative-fueled buses. Verification and documentation of scrappage of the old bus must be provided for reimbursement of project costs; the old bus shall be scrapped or rendered inoperable and available for recycle by cutting a 3-inch hole in the engine block and, if applicable, disabling the chassis by cutting the vehicle's frame rails completely in half.**		
	Total Cost ($)	**Requested Funds ($)**
Bus	$ 129,812.00	$ 129,812.00
Shipping	$ 9,370.00	$ 9,370.00
Other - (please explain)		
Electric Vehicle charging infrastructure		
Alternative fueling infrastructure		
Labor (includes onboarding, signage, scrapping of old bus)[6]	$ 325.00	$ 325.00
Total Project Cost	$ 139,507.00	

Applicant: Anchorage School District

Bus ID: Bus # 55

Please complete the table below. **The applicant must also enter the data into the EPA Diesel Emission Quantifier tool and attach the DEQ emissions results to this form.** (https://cfpub.epa.gov/quantifier/index.cfm?action=main.home)
*Note: disregard the health benefits output.
Submit a separate Bus Data Form and DEQ output for each bus. For electronic applications, submit one excel worksheet per bus; paper applicants print as many copies of the form as necessary.

Bus Data for EPA Diesel Emission Calculator		
	Existing Bus	**Replacement Bus**
Bus ID #	Bus #55	NA
Bus Ownership (complete next page)	Anchorage School District	
VIN #	1HVBJABN81A935759	NA
Engine Serial Number	7.4HM2U1508450	NA
Bus Make	AMTRAN	
Bus Model	RE SB	
Bus Model Year	2001	2019
Bus Class/Type (Class A-D)	D	D
Gross Vehicle Weight Restriction	31800	31800
Fuel Type[1] (complete next page)	ULSD	ULSD
Average Fuel Efficiency (MPG)	5.94	6.78
Annual Fuel (gals)	1599	NA
Annual Miles Traveled	9085	NA
Annual Idling Hours	328	NA
Total Mileage	215,622	NA
Annual Fuel Reduction (gals)[2]	NA	260
Remaining Life (years)[3]	11	NA
Attrition year (please explain)[4]	2031	NA
The 6.78mpg for replacement was an average from our existing buses from 2017. Same style, make/model + DEF system. Annual miles travelled was taken from March 2018 to March 2019. Engine model year is 2002.		
Equipment Cost limited to cost of bus & shipping[5]	NA	$ 139,182.00
Labor Cost	NA	$ 325.00

1. This funding opportunity is strictly to replace/repower existing diesel school buses MY 2009 or older with at least three years of remaining life. New replacement buses may be diesel, alternate fueled (e.g., propane, CNG, hybrid), or all-electric.
2. Information to be provided by the manufacturer, reasonably extrapolated to the service use conditions for each bus. Example, long haul with intermittent stops vs. frequent urban stop and go conditions.
3. EPA's Quantifier uses remaining life of the existing vehicle to calculate lifetime emission reductions associated with a project. Actual remaining life depends on the age of the vehicle at the time of the project, as well as usage, maintenance, and climate. Remaining life is calculated by taking either the maximum life or the median life value and subtracting the current age of the vehicle based on model year. DEQ will use the maximum life for this calculation. For example, if the on-road vehicle replacement occurs in 2019, and the existing vehicle is a model year 2005, the remaining life would be 30 - (2019-2005) = 16 years. DEQ quantifies the median life of on-road vehicles as 19 years and the maximum life as 30 years.
4. Year in which bus would normally be retired/sold by the fleet owner if not for this funding opportunity.
5. EV charging infrastructure if applicable
6. Not to include administrative costs

Bus Ownership Information	
Both school district-owned buses and buses contracted to the school districts are eligible for repower/replacement. If the bus is contracted to the school district, please complete this section. Attach an explanation of the terms of the contract and what happens to the bus when the contract expires.	
Bus owner name	Anchorage School District
Bus owner address	3580 E. Tudor Road
Bus owner city/state/zip code	Anchorage , Alaska 99507
Contract expiration date	
Can the parties enter a legally binding agreement to ensure the new replacement bus will operate within the usage area described in this application?	Yes

Non-diesel Replacement Buses	
If requesting funding for alternative-fuel buses (compressed natural gas, hybrid-electric, liquid natural gas, or liquid propane gas) or all-electric buses, identify the fuel type and **attach information about fueling infrastructure and indicate if it is in place or provide installation information (e.g., timeline, location of infrastructure, funding source for infrastructure).**	
Fuel Type	

Bus Replacement Cost		
Provide project costs below. Use NA for any fields that are not applicable. Detailed cost estimates from selected or potential vendors are required for all individual expenditures. **Attach a copy of the manufacturer/vendor bid estimates for each vehicle replacement. Note that funds cannot be requested for fueling infrastructure for alternative-fueled buses. Verification and documentation of scrappage of the old bus must be provided for reimbursement of project costs; the old bus shall be scrapped or rendered inoperable and available for recycle by cutting a 3-inch hole in the engine block and, if applicable, disabling the chassis by cutting the vehicle's frame rails completely in half.**		
	Total Cost ($)	**Requested Funds ($)**
Bus	$ 129,812.00	$ 129,812.00
Shipping	$ 9,370.00	$ 9,370.00
Other - (please explain)		
Electric Vehicle charging infrastructure		
Alternative fueling infrastructure		
Labor (includes onboarding, signage, scrapping of old bus)[6]	$ 325.00	$ 325.00
Total Project Cost	$ 139,507.00	

Applicant: Anchorage School District Bus ID: Bus # 56

Please complete the table below. **The applicant must also enter the data into the EPA Diesel Emission Quantifier tool and attach the DEQ emissions results to this form.** (https://cfpub.epa.gov/quantifier/index.cfm?action=main.home)
*Note: disregard the health benefits output.
Submit a separate Bus Data Form and DEQ output for each bus. For electronic applications, submit one excel worksheet per bus; paper applicants print as many copies of the form as necessary.

Bus Data for EPA Diesel Emission Calculator		
	Existing Bus	**Replacement Bus**
Bus ID #	Bus #56	NA
Bus Ownership (complete next page)	Anchorage School District	
VIN #	1HVBJABN41A935760	NA
Engine Serial Number	7.4HM2U1508948	NA
Bus Make	AMTRAN	
Bus Model	RE SB	
Bus Model Year	2001	2019
Bus Class/Type (Class A-D)	D	D
Gross Vehicle Weight Restriction	31800	31800
Fuel Type[1] (complete next page)	ULSD	ULSD
Average Fuel Efficiency (MPG)	5.64	6.78
Annual Fuel (gals)	1779	NA
Annual Miles Traveled	10035	NA
Annual Idling Hours	387	NA
Total Mileage	221,362	NA
Annual Fuel Reduction (gals)[2]	NA	299
Remaining Life (years)[3]	11	NA
Attrition year (please explain)[4]	2031	NA
The 6.78mpg for replacement was an average from our existing buses from 2017. Same style, make/model + DEF system. Annual miles travelled was taken from March 2018 to March 2019. Engine model year is 2002.		
Equipment Cost limited to cost of bus & shipping[5]	NA	$ 139,182.00
Labor Cost	NA	$ 325.00

1. This funding opportunity is strictly to replace/repower existing diesel school buses MY 2009 or older with at least three years of remaining life. New replacement buses may be diesel, alternate fueled (e.g., propane, CNG, hybrid), or all-electric.
2. Information to be provided by the manufacturer, reasonably extrapolated to the service use conditions for each bus. Example, long haul with intermittent stops vs. frequent urban stop and go conditions.
3. EPA's Quantifier uses remaining life of the existing vehicle to calculate lifetime emission reductions associated with a project. Actual remaining life depends on the age of the vehicle at the time of the project, as well as usage, maintenance, and climate. Remaining life is calculated by taking either the maximum life or the median life value and subtracting the current age of the vehicle based on model year. DEQ will use the maximum life for this calculation. For example, if the on-road vehicle replacement occurs in 2019, and the existing vehicle is a model year 2005, the remaining life would be 30 - (2019-2005) = 16 years. DEQ
quantifies the median life of on-road vehicles as 19 years and the maximum life as 30 years.
4. Year in which bus would normally be retired/sold by the fleet owner if not for this funding opportunity.
5. EV charging infrastructure if applicable
6. Not to include administrative costs

Bus Ownership Information	
Both school district-owned buses and buses contracted to the school districts are eligible for repower/replacement. If the bus is contracted to the school district, please complete this section. Attach an explanation of the terms of the contract and what happens to the bus when the contract expires.	
Bus owner name	Anchorage School District
Bus owner address	3580 E. Tudor Road
Bus owner city/state/zip code	Anchorage , Alaska 99507
Contract expiration date	
Can the parties enter a legally binding agreement to ensure the new replacement bus will operate within the usage area described in this application?	Yes

Non-diesel Replacement Buses	
If requesting funding for alternative-fuel buses (compressed natural gas, hybrid-electric, liquid natural gas, or liquid propane gas) or all-electric buses, identify the fuel type and **attach information about fueling infrastructure and indicate if it is in place or provide installation information (e.g., timeline, location of infrastructure, funding source for infrastructure).**	
Fuel Type	

Bus Replacement Cost		
Provide project costs below. Use NA for any fields that are not applicable. Detailed cost estimates from selected or potential vendors are required for all individual expenditures. **Attach a copy of the manufacturer/vendor bid estimates for each vehicle replacement. Note that funds cannot be requested for fueling infrastructure for alternative-fueled buses. Verification and documentation of scrappage of the old bus must be provided for reimbursement of project costs; the old bus shall be scrapped or rendered inoperable and available for recycle by cutting a 3-inch hole in the engine block and, if applicable, disabling the chassis by cutting the vehicle's frame rails completely in half.**		
	Total Cost ($)	**Requested Funds ($)**
Bus	$ 129,812.00	$ 129,812.00
Shipping	$ 9,370.00	$ 9,370.00
Other - (please explain)		
Electric Vehicle charging infrastructure		
Alternative fueling infrastructure		
Labor (includes onboarding, signage, scrapping of old bus)[6]	$ 325.00	$ 325.00
Total Project Cost	$ 139,507.00	

Applicant: Anchorage School District Bus ID: Bus # 84

Please complete the table below. **The applicant must also enter the data into the EPA Diesel Emission Quantifier tool and attach the DEQ emissions results to this form.** (https://cfpub.epa.gov/quantifier/index.cfm?action=main.home)
*Note: disregard the health benefits output.
Submit a separate Bus Data Form and DEQ output for each bus. For electronic applications, submit one excel worksheet per bus; paper applicants print as many copies of the form as necessary.

Bus Data for EPA Diesel Emission Calculator		
	Existing Bus	**Replacement Bus**
Bus ID #	Bus #84	NA
Bus Ownership (complete next page)	Anchorage School District	
VIN #	1HVBJABN11A935778	NA
Engine Serial Number	7.4HM2U1513570	NA
Bus Make	AMTRAN	
Bus Model	RE SB	
Bus Model Year	2001	2019
Bus Class/Type (Class A-D)	D	D
Gross Vehicle Weight Restriction	31800	31800
Fuel Type[1] (complete next page)	ULSD	ULSD
Average Fuel Efficiency (MPG)	5.7	6.78
Annual Fuel (gals)	1318	NA
Annual Miles Traveled	7515	NA
Annual Idling Hours	250	NA
Total Mileage	211,697	NA
Annual Fuel Reduction (gals)[2]	NA	210
Remaining Life (years)[3]	11	NA
Attrition year (please explain)[4]	2031	NA
The 6.78mpg for replacement was an average from our existing buses from 2017. Same style, make/model + DEF system. Annual miles travelled was taken from March 2018 to March 2019. Engine model year is 2002.		
Equipment Cost limited to cost of bus & shipping[5]	NA	$ 139,182.00
Labor Cost	NA	$ 325.00

1. This funding opportunity is strictly to replace/repower existing diesel school buses MY 2009 or older with at least three years of remaining life. New replacement buses may be diesel, alternate fueled (e.g., propane, CNG, hybrid), or all-electric.
2. Information to be provided by the manufacturer, reasonably extrapolated to the service use conditions for each bus. Example, long haul with intermittent stops vs. frequent urban stop and go conditions.
3. EPA's Quantifier uses remaining life of the existing vehicle to calculate lifetime emission reductions associated with a project. Actual remaining life depends on the age of the vehicle at the time of the project, as well as usage, maintenance, and climate. Remaining life is calculated by taking either the maximum life or the median life value and subtracting the current age of the vehicle based on model year. DEQ will use the maximum life for this calculation. For example, if the on-road vehicle replacement occurs in 2019, and the existing vehicle is a model year 2005, the remaining life would be 30 - (2019-2005) = 16 years. DEQ
quantifies the median life of on-road vehicles as 19 years and the maximum life as 30 years.
4. Year in which bus would normally be retired/sold by the fleet owner if not for this funding opportunity.
5. EV charging infrastructure if applicable
6. Not to include administrative costs

Bus Ownership Information	
Both school district-owned buses and buses contracted to the school districts are eligible for repower/replacement. If the bus is contracted to the school district, please complete this section. Attach an explanation of the terms of the contract and what happens to the bus when the contract expires.	
Bus owner name	Anchorage School District
Bus owner address	3580 E. Tudor Road
Bus owner city/state/zip code	Anchorage , Alaska 99507
Contract expiration date	
Can the parties enter a legally binding agreement to ensure the new replacement bus will operate within the usage area described in this application?	Yes

Non-diesel Replacement Buses	
If requesting funding for alternative-fuel buses (compressed natural gas, hybrid-electric, liquid natural gas, or liquid propane gas) or all-electric buses, identify the fuel type and **attach information about fueling infrastructure and indicate if it is in place or provide installation information (e.g., timeline, location of infrastructure, funding source for infrastructure).**	
Fuel Type	

Bus Replacement Cost		
Provide project costs below. Use NA for any fields that are not applicable. Detailed cost estimates from selected or potential vendors are required for all individual expenditures. **Attach a copy of the manufacturer/vendor bid estimates for each vehicle replacement. Note that funds cannot be requested for fueling infrastructure for alternative-fueled buses. Verification and documentation of scrappage of the old bus must be provided for reimbursement of project costs; the old bus shall be scrapped or rendered inoperable and available for recycle by cutting a 3-inch hole in the engine block and, if applicable, disabling the chassis by cutting the vehicle's frame rails completely in half.**		
	Total Cost ($)	**Requested Funds ($)**
Bus	$ 129,812.00	$ 129,812.00
Shipping	$ 9,370.00	$ 9,370.00
Other - (please explain)		
Electric Vehicle charging infrastructure		
Alternative fueling infrastructure		
Labor (includes onboarding, signage, scrapping of old bus)[6]	$ 325.00	$ 325.00
Total Project Cost	$ 139,507.00	

Applicant: Anchorage School District Bus ID: Bus # 123

Please complete the table below. **The applicant must also enter the data into the EPA Diesel Emission Quantifier tool and attach the DEQ emissions results to this form.** (https://cfpub.epa.gov/quantifier/index.cfm?action=main.home)
*Note: disregard the health benefits output.
Submit a separate Bus Data Form and DEQ output for each bus. For electronic applications, submit one excel worksheet per bus; paper applicants print as many copies of the form as necessary.

Bus Data for EPA Diesel Emission Calculator		
	Existing Bus	**Replacement Bus**
Bus ID #	Bus #123	NA
Bus Ownership (complete next page)	Anchorage School District	
VIN #	4DRBJABN33A956801	NA
Engine Serial Number	7.4HM2U5041930	NA
Bus Make	AMTRAN	
Bus Model	RE SB	
Bus Model Year	2003	2019
Bus Class/Type (Class A-D)	D	D
Gross Vehicle Weight Restriction	31800	31800
Fuel Type[1] (complete next page)	ULSD	ULSD
Average Fuel Efficiency (MPG)	5.3	6.78
Annual Fuel (gals)	1611	NA
Annual Miles Traveled	8541	NA
Annual Idling Hours	250	NA
Total Mileage	179,793	NA
Annual Fuel Reduction (gals)[2]	NA	352
Remaining Life (years)[3]	13	NA
Attrition year (please explain)[4]	2033	NA
The 6.78mpg for replacement was an average from our existing buses from 2017. Same style, make/model + DEF system. Annual miles travelled was taken from March 2018 to March 2019. Engine model year is 2002.		
Equipment Cost limited to cost of bus & shipping[5]	NA	$ 139,182.00
Labor Cost	NA	$ 325.00

1. This funding opportunity is strictly to replace/repower existing diesel school buses MY 2009 or older with at least three years of remaining life. New replacement buses may be diesel, alternate fueled (e.g., propane, CNG, hybrid), or all-electric.
2. Information to be provided by the manufacturer, reasonably extrapolated to the service use conditions for each bus. Example, long haul with intermittent stops vs. frequent urban stop and go conditions.
3. EPA's Quantifier uses remaining life of the existing vehicle to calculate lifetime emission reductions associated with a project. Actual remaining life depends on the age of the vehicle at the time of the project, as well as usage, maintenance, and climate. Remaining life is calculated by taking either the maximum life or the median life value and subtracting the current age of the vehicle based on model year. DEQ will use the maximum life for this calculation. For example, if the on-road vehicle replacement occurs in 2019, and the existing vehicle is a model year 2005, the remaining life would be 30 - (2019-2005) = 16 years. DEQ
quantifies the median life of on-road vehicles as 19 years and the maximum life as 30 years.
4. Year in which bus would normally be retired/sold by the fleet owner if not for this funding opportunity.
5. EV charging infrastructure if applicable
6. Not to include administrative costs

Bus Ownership Information	
Both school district-owned buses and buses contracted to the school districts are eligible for repower/replacement. If the bus is contracted to the school district, please complete this section. Attach an explanation of the terms of the contract and what happens to the bus when the contract expires.	
Bus owner name	Anchorage School District
Bus owner address	3580 E. Tudor Road
Bus owner city/state/zip code	Anchorage , Alaska 99507
Contract expiration date	
Can the parties enter a legally binding agreement to ensure the new replacement bus will operate within the usage area described in this application?	Yes

Non-diesel Replacement Buses	
If requesting funding for alternative-fuel buses (compressed natural gas, hybrid-electric, liquid natural gas, or liquid propane gas) or all-electric buses, identify the fuel type and **attach information about fueling infrastructure and indicate if it is in place or provide installation information (e.g., timeline, location of infrastructure, funding source for infrastructure).**	
Fuel Type	

Bus Replacement Cost		
Provide project costs below. Use NA for any fields that are not applicable. Detailed cost estimates from selected or potential vendors are required for all individual expenditures. **Attach a copy of the manufacturer/vendor bid estimates for each vehicle replacement. Note that funds cannot be requested for fueling infrastructure for alternative-fueled buses. Verification and documentation of scrappage of the old bus must be provided for reimbursement of project costs; the old bus shall be scrapped or rendered inoperable and available for recycle by cutting a 3-inch hole in the engine block and, if applicable, disabling the chassis by cutting the vehicle's frame rails completely in half.**		
	Total Cost ($)	**Requested Funds ($)**
Bus	$ 129,812.00	$ 129,812.00
Shipping	$ 9,370.00	$ 9,370.00
Other - (please explain)		
Electric Vehicle charging infrastructure		
Alternative fueling infrastructure		
Labor (includes onboarding, signage, scrapping of old bus)[6]	$ 325.00	$ 325.00
Total Project Cost	$ 139,507.00	

Applicant: Anchorage School District **Bus ID: Bus # 123**

Please complete the table below. **The applicant must also enter the data into the EPA Diesel Emission Quantifier tool and attach the DEQ emissions results to this form.** (https://cfpub.epa.gov/quantifier/index.cfm?action=main.home) *Note: disregard the health benefits output.

Submit a separate Bus Data Form and DEQ output for each bus. For electronic applications, submit one excel worksheet per bus; paper applicants print as many copies of the form as necessary.

Bus Data for EPA Diesel Emission Calculator		
	Existing Bus	Replacement Bus
Bus ID #	Bus #123	NA
Bus Ownership (complete next page)	Anchorage School District	
VIN #	4DRBJABN33A956801	NA
Engine Serial Number	7.4HM2U5041930	NA
Bus Make	AMTRAN	
Bus Model	RE SB	
Bus Model Year	2003	2019
Bus Class/Type (Class A-D)	D	D
Gross Vehicle Weight Restriction	31800	31800
Fuel Type[1] (complete next page)	ULSD	ULSD
Average Fuel Efficiency (MPG)	5.3	6.78
Annual Fuel (gals)	1611	NA
Annual Miles Traveled	8541	NA
Annual Idling Hours	250	NA
Total Mileage	179,793	NA
Annual Fuel Reduction (gals)[2]	NA	352
Remaining Life (years)[3]	13	NA
Attrition year (please explain)[4]	2033	NA
The 6.78mpg for replacement was an average from our existing buses from 2017. Same style, make/model + DEF system. Annual miles travelled was taken from March 2018 to March 2019. Engine model year is 2002.		
Equipment Cost limited to cost of bus & shipping[5]	NA	$ 139,182.00
Labor Cost	NA	$ 325.00

1. This funding opportunity is strictly to replace/repower existing diesel school buses MY 2009 or older with at least three years of remaining life. New replacement buses may be diesel, alternate fueled (e.g., propane, CNG, hybrid), or all-electric.
2. Information to be provided by the manufacturer, reasonably extrapolated to the service use conditions for each bus. Example, long haul with intermittent stops vs. frequent urban stop and go conditions.
3. EPA's Quantifier uses remaining life of the existing vehicle to calculate lifetime emission reductions associated with a project. Actual remaining life depends on the age of the vehicle at the time of the project, as well as usage, maintenance, and climate. Remaining life is calculated by taking either the maximum life or the median life value and subtracting the current age of the vehicle based on model year. DEQ will use the maximum life for this calculation. For example, if the on-road vehicle replacement occurs in 2019, and the existing vehicle is a model year 2005, the remaining life would be 30 - (2019-2005) = 16 years. DEQ quantifies the median life of on-road vehicles as 19 years and the maximum life as 30 years.
4. Year in which bus would normally be retired/sold by the fleet owner if not for this funding opportunity.
5. EV charging infrastructure if applicable
6. Not to include administrative costs

Bus Ownership Information	
Both school district-owned buses and buses contracted to the school districts are eligible for repower/replacement. If the bus is contracted to the school district, please complete this section. Attach an explanation of the terms of the contract and what happens to the bus when the contract expires.	
Bus owner name	Anchorage School District
Bus owner address	3580 E. Tudor Road
Bus owner city/state/zip code	Anchorage , Alaska 99507
Contract expiration date	
Can the parties enter a legally binding agreement to ensure the new replacement bus will operate within the usage area described in this application?	Yes

Non-diesel Replacement Buses	
If requesting funding for alternative-fuel buses (compressed natural gas, hybrid-electric, liquid natural gas, or liquid propane gas) or all-electric buses, identify the fuel type and **attach information about fueling infrastructure and indicate if it is in place or provide installation information (e.g., timeline, location of infrastructure, funding source for infrastructure).**	
Fuel Type	

Bus Replacement Cost		
Provide project costs below. Use NA for any fields that are not applicable. Detailed cost estimates from selected o potential vendors are required for all individual expenditures. **Attach a copy of the manufacturer/vendor bid estimates for each vehicle replacement. Note that funds cannot be requested for fueling infrastructure for alternative-fueled buses. Verification and documentation of scrappage of the old bus must be provided for reimbursement of project costs; the old bus shall be scrapped or rendered inoperable and available for recycle by cutting a 3-inch hole in the engine block and, if applicable, disabling the chassis by cutting the vehicle's frame rails completely in half.**		
	Total Cost ($)	Requested Funds ($)
Bus	$ 129,812.00	$ 129,812.00
Shipping	$ 9,370.00	$ 9,370.00
Other - (please explain)		
Electric Vehicle charging infrastructure		
Alternative fueling infrastructure		
Labor (includes onboarding, signage, scrapping of old bus)[6]	$ 325.00	$ 325.00
Total Project Cost	$ 139,507.00	

$129,778.00 2018 cost plus
x .03 3% for new 2019 cost
$3893.34
+129,778.00
133,671.34 2019 Cost estimate
+ 9363.00 shipping
143,034.34 Total 2019 Cost estimate

Philp_Heather

From: Mike Lash <mlash@rwcgroup.com>
Sent: Tuesday, July 23, 2019 1:35 PM
To: Philp_Heather
Subject: RE: Shipping cost

Heather,
The current shipping cost for transporting RE school buses from Tulsa, OK to Anchorage, AK is $9363 per bus.

Thank you.

RWC GROUP
Run Right.
Mike Lash, General Manager - Alaska
7880 Sandlewood Place, Anchorage, AK 99507
Direct: 907-265-0225
Cell: 907-350-2325
Fax: 907-279-2189
mlash@rwcgroup.com

From: Philp_Heather [mailto:Philp_Heather@asdk12.org]
Sent: Tuesday, July 23, 2019 12:33 PM
To: Mike Lash <mlash@rwcgroup.com>
Subject: Shipping cost

Hello Mike,

Could I get that shipping cost from you for the VW?

Thank you,

Heather Philp
Anchorage School District
philp_heather@asdk12.org
907-742-1219

Pick battles big enough to matter, small enough to win.
Jonathan Kozol

Rec'd 7-30-18 WA+A Entry 8-1-18

RWC International Ltd
7880 Sandlewood Pl
Anchorage, AK 99507
T: (907) 279-9591 F: (907) 279-2189

VEHICLE SALES AGREEMENT / INVOICE

BUYER	ANCHORAGE SCHOOL DISTRICT			INVOICE NO.	32439A
	PURCHASING DEPARTMENT		PHONE (907) 742-8630	DATE	7/30/18
ADDRESS	4919 VAN BUREN STREET	CITY ANCHORAGE	STATE AK ZIP 99517-3137	ORDER NO.	P049082
SHIP TO	ANCHORAGE SCHOOL DISTRICT			REP	MIKE LASH
ADDRESS	3580 E TUDOR RD	CITY ANCHORAGE	STATE AK ZIP 99507-1218	ACCT. NO	12-PB12011
				DELIVERY DATE	7/27/18

STOCK NO.	YEAR	NEW	USED	COLOR	MAKE	MODEL	VIN	BODY TYPE	MILEAGE	GVWR
4 EA	2019	◉	○	YELLOW	IC BUS	RE SCHOOL BUS	SEE BELOW	84 PASSENGER	SEE BELOW	34,220

Title Brands/Comments (if applicable): ☐ NONE ☐ REBUILT ☐ JUNK ☐ SALVAGE/RECONSTRUCTED ☐ DESTROYED ☐ LOST

Warranty Info: ☑ NEW VEHICLE WITH MANUFACTURER STANDARD WARRANTY ☐ USED VEHICLE SOLD AS-IS WITH NO WARRANTY EXPRESSED OR IMPLIED

☐ OPTIONAL WARRANTY CONTRACT HAS BEEN PURCHASED Describe: NO EXT WARRANTY-CAN BE PURCHASED WITHIN 12 MONTHS OF DELIVERY DATE

Lienholder NONE
Address
City, ST ZIP

(A) USED VEHICLE TRADE-IN

YEAR MAKE MODEL
MILEAGE VIN
BALANCED OWED TO:
ADDRESS:
MISC:

(B) USED VEHICLE TRADE-IN

YEAR MAKE MODEL
EAGE VIN
ALANCED OWED TO:
ADDRESS:
MISC:

Gross trade-in allowance for (A)	$	
Less estimated balance owed (A)	$	
Gross trade-in allowance for (B)	$	
Less estimated balance owed (B)	$	
EST. NET ALLOWANCE ON TRADE-IN(S)	$	0.00 (carry over to line 6)

uyer acknowledges that the payoff and/or lien balance on the trade-in vehicle as described above only an estimated figure, subject to verification and confirmationfrom the lienholder as to the act dollar amount. In the event the payoff/lien balance exceeds the above-stated amount, such ddiitional amount shall, at the option of the Dealer, be added to the total cash price of the vehicle id shall be paid to the dealer on request or added to the amount being financed.

X N/A
SIGNATURE (DO NOT INITIAL)

1. BASE PRICE OF VEHICLE				SEE BELOW
2. DEALER ADDED OPTIONS:			Bus #	Asset Tag
STOCK #N431472, VIN 4DRBWTAR1KB431472, 2091 MILES			44 ✓	V10355 $ 129,778.00
STOCK #N431473, VIN 4DRBWTAR3KB431473, 2125 MILES			54 ✓	V10356 $ 129,778.00
STOCK #N431474, VIN 4DRBWTAR5KB431474, 2074 MILES			57 ✓	V10357 $ 129,778.00
STOCK #N431476, VIN 4DRBWTAR9KB431476, 2118 MILES			96	V10358 $ 129,778.00
3. BASE PRICE OF VEHICLE AND OPTIONS (1 + 2)				$ 519,112.00
4. SALES TAX [Calculated on the sum of Base Price of the Vehicle and Options (3) - Total Gross Trade-In Allowance]	BASIS	$ 519,112.00		$ -
	TAX RATE			
5. FEDERAL EXCISE TAX [Based on Base Price of the Vehicle and Options (3) - Body & Freight Exemption less Tire Credit]	EXEMPT AMT			EXEMPT
	TIRE CREDIT			
EXEMPTION REASON State/Local Gov't Sale	TAX RATE			
6. SERVICE CONTRACT				$ -
7. MAINTENANCE CONTRACT				$ -
8. SALES TAX (For Service Contract and/or Maintenance Contract)	TAX RATE			$ -
9. ESTIMATED Vehicle License, Title and Registration Fee				NOT INCL
10. DOCUMENT SERVICES FEE				$ -
11. OTHER:				
12. TOTAL CASH PRICE OF VEHICLE (3+4+5+6+7+8+9+10+11)				$ 519,112.00
13. DOWN PAYMENT (Not receipt of cash received)	(A) CASH			$ -
	(B) REBATE			
14. ESTIMATED Net Trade-In Allowance				$ -
15. UNPAID BALANCE OF CASH PRICE DUE ON DELIVERY (12 - 13 - 14)				$ 519,112.00
SETTLEMENT: NET 30 8/30/18				

NANCING CONDITION IF A RETAIL INSTALLMENT CONTRACT OR NOTE AND SECURITY AGREEMENT IS SIGNED IN CONJUNCTION WITH THIS BUYER'S ORDER OLLECTIVELY,THE "AGREEMENT"),THE AGREEMENT IS BINDING UPON EXECUTION, PROVIDED HOWEVER,THAT THE DEALER WILL HEREAFTER ASSESS THE BUYER'S EDITWORTHINESS AND IF THE DEALER DOES NOT HEREAFTER APPROVE FINANCING ON ACCOUNT OF THE BUYER'S CREDITWORTHINESS AND SUBSEQUENTLY ITIFIES BUYER OF SUCH DISAPPROVAL, THIS AGREEMENT IS VOID, EXCEPT AS PROVIDED IN PARAGRAPH 4 ON THE REVERSE SIDE HEREOF

YER AGREES TO ABIDE BY THE TERMS OF THE PO AND/OR CONTRACT ISSUED BY THE BUYER AND ACCEPTED BY DEALER.

Customer acknowledges receipt of above merchandise.

Buyer's Signature — Date: 7-31-18

X Dealer or Dealer's Authorized Representative

Co-Buyer's Signature — Date

Salesperson's Name: Mike Lash

Rev. 1/12

SECTION II
SPECIFICATIONS
TYPE D, 84-PASSENGER DIESEL REAR ENGINE SCHOOL BUS

The following specifications describe the minimum mandatory requirements for any Heavy Duty Type D, Class Rear Engine (RE) 84 Passenger School Buses that will meet the performance, safety, and standardization of the Anchorage School District Transportation Department. These specifications were designed with the guidance of the 2010 National Transportation Specifications & Procedures also referred to herein as the National Specifications. These school buses shall meet all the applicable Minimum Standards of Alaska School Buses, 2011 Revised Edition, also referred to as Alaska Minimum Standards, and Federal Motor Vehicle Safety Standards (FMVSS) for school buses. If a conflict in the specifications occurs, Alaska Minimum Standards and FMVSSS shall prevail. Below are the minimum mandatory specifications for standard 84 passenger school bus chassis and body which are intended to assure that all bids submitted for consideration will meet all the design, capacity and performance requirements identified by the District. Each unit shall be the same make and model, a NEW model in current production, utilized by other North American customers. Engineer prototypes or production prototypes will not be accepted. Models that are manufactured outside of North America will require proof of parts support-ability to be provided with the bid submission or within three (3) business days upon request, if not submitted with bid. Specification shall meet or exceed the following specifications.

BUS CHASSIS

A. FRAME

All bolted construction with grade 8 flanged head bolts and nuts or equivalent. The main frame shall be a continuous section from the front of the bus to aft of the rear axle. Dimensions shall not be less than 10" x 3" x ¼" with a minimum of **50,000** PSI yield strength. Frame rails shall not be notched, tapered, or cut out for clearance of engine, engine accessories, or step-well installation, except as provided or accepted by the chassis manufacturer.

B. FRONT AXLE

1. Front axle assembly shall have a minimum capacity of 13,200 pounds.
2. Front spring assembly shall have a minimum capacity 13,200 pounds.
3. Heavy duty direct acting double action shocks.
4. Parabolic tapered leaf springs.
5. Oil filled hubs with sight glass caps.

C. REAR AXLE

1. Rear axle shall be of a full-floating heavy-duty type with a minimum gross rating capacity of 23,000 pounds (Combination of front and rear axles shall meet a minimum of 36,200 GVWR).
2. Rear axle shall be equipped with a NO-SPIN differential. Electronic/air traction control (ABS) in lieu of the NO-SPIN differential is acceptable, as long as the traction controls is fully automatic. Driver interphase is not needed.
3. Rear axle to have AIR RIDE type suspension with heavy-duty shocks.
4. Axle ratio to be stated on bid form.
5. Maximum vehicle speed to be set at 65 MPH at governed RPM.

6. Rear end to be delivered with full synthetic rear end fluid.

D. WHEEL BASE

1. Wheel base 273 to 277-inches.

2. Bidder to state outside wheel radius dimension and outside bumper clearance radius on bid form.

E. BRAKES

1. Air brakes only will be accepted with drum type brakes, front and rear. These brake drums are to be outboard type drums. Rear service brake canisters shall be no less than thirty (30) square inch diaphragm chambers. Brake canisters on rear axle to be double-chambered type brake chambers connected to automatic slack adjusters. Parking brake side of double chambered canister to be thirty (30) square inch diaphragm chambers. Front axle brake canisters to be no less than twenty-four (24) square inches. Non-serviceable canisters are acceptable. S-cams to be used, no wedge or flat cam actuators allowed. Automatic slack adjusters.

2. Front brakes shall measure 16.5 in. x 6 inches, with premium friction block material, such as MA312.

3. Rear brakes to measure 16.5 in. x 8-inches minimum, with premium friction block material, such as MA312.

4. Parking brake system:

   a. Shall be manually operated.

   b. Shall be air applied to release.

   ~~c. Cummins engine brake.~~

5. Air brakes to have a dual reservoir system required by Code of Federal Regulations 49. Must meet all applicable FMVSS.

6. Air gauge to be two (2) needle type and colored to represent the two (2) systems.

7. Air system schematic and valve identification charts shall be supplied.

8. A warning device in driver's compartment of bus shall be audible to driver in case of brake malfunction or loss of air pressure.

9. Air brake system to have air dryer, Bendix AD- IP, and heated automatic reservoir drain valve, Bendix DV2-12 volt.

10. Anti-lock brake system (ABS) shall be full vehicle wheel control four channel ABS.

11. Cummins engine brake. Jake engine brake, if incorporated into the engine build from the factory. No exhaust brake.

F. ELECTRICAL SYSTEM

1. Alternator:

   a. Alternator preferred to be a AL9900SB series Bosch high output for school buses**,** the VI160/T/P/J series or the 4951 series Leece-Neville® for a twelve (12) volt system.

b. 200 ampere (minimum) rated delivering a minimum of 50% of rated charge at 600 RPM.

c. Mounting shall be heavy-duty four bolt pad mount.

d. Wiring shall be capable of handling a continuous draw equivalent to 25% above the maximum rated capacity of the alternator.

2. Battery:

a. Three (3) 12-volt storage batteries to be a group type 31 series, with a minimum of 2700 CCA combined. Batteries to be maintenance free type.

b. Batteries shall be mounted outside of engine compartment in a vented box secured to the left side skirt (starter side of the engine). Access doors hinges shall be stainless or brass and designed to be lubricated. Batteries shall be mounted on a tray attached to a sufficient rail with steel ball bearing rollers that allow batteries to be moved to a position fully outside the bus body and securely fastened down.

c. A quarter turn master disconnect switch shall be install in the positive cable. The master disconnect switch shall be accessible from the inside rear of the battery box within four (4) inches of the door opening, or in a separate closeable compartment in the vicinity of the battery box.

d. Battery cable shall have an amperage capacity exceeding the design load by at least 25% and be of premium grade and suited for cold climates.

e. Battery cables in the battery box shall be of sufficient length for the batteries and battery tray to slide out to the stops on the rails without interference or restrictions.

3. Starter: To be thermo protected or gear reduction type starter.

4. Wiring:

a. The electrical system shall be 12-volt and conform to current SAE standards. All wiring shall be rated 'Artic-Grade' and have an amperage capacity exceeding the design load by at least 25%.

b. The wiring shall be color and number coded and a wiring diagram shall be furnished with each bus.

c. Interior body wiring shall be routed down the left side of the bus, above the side windows, behind a completely removable cover. This cover shall be removable without loosening the side windows.

d. An electrical panel shall be located on the outside left hand side of the bus under the driver's window for ease of access to circuit breakers and solenoids.

e. Wires passing through metal shall be protected by rubber grommets.

f. Wiring not enclosed within the body shall be protected from chafing and exposure from elements such as road salt and mud by a protective armor such as plastic loom or equivalent. This wiring shall be securely fastened at intervals of not more than 18-inches.

g. An additional circuit protected power supply and negative terminal shall be located on the front header inside the bus. This terminal is to have power at all times and sufficient for 10 amps draw. This will be used for a camera system.

5. Circuit breakers:

Circuit breakers to be type III circuit breakers (remains open until unit is manually reset by pushing button) conforming to SAE recommended practice J 553. Exceptions shall be OEM multiplex wiring systems that require the use of a different circuit protection system.

6. Keys:

   All ignition keys for the buses are to be keyed alike with current District buses for fleet service.

G. ENGINE

1. Engine shall be a Cummins L-9 for school buses with an EXC warranty plan number 338468 10 year 150,000-mile warranty to include electronics. Non-Cummins brand items shall have the normal manufacturer's warranty, not including the transmission and drive train. Exception is normal wear items. This warranty shall start when the bus is placed in service not the time of delivery, inspection and acceptance at F.O.B. Final Destination.

   a. Engine shall be Alaska State certified with a minimum of 270 hp. Warranty with a minimum of 800 foot pounds of torque.

   b. Engine shall be in an inline configuration with wet-sleeve design.

   c. Engine to have integral electronic warning and a de-rating protection system.

   d. Diagnostic interface connector, 9-pin SAE J1587/1708/1939.Mounted in the dash and in the engine compartment.

   e. Pre-start heater system such as glow plugs or intake heater, no ether systems allowed.

   f. Fan clutch if air operated to be air released, hydraulically driven fans acceptable. Belt driven fans must be presented and accepted by the District before award.

   g. Access doors hinges shall be stainless, brass, or galvalume, and designed to be lubricated, or a (proven) rubber hinge design (non-lubricating) fastened to a metal bracket on each side of the flexible rubber. There shall be a grounding strap from the door to the body for all hinge designs.

2. Programmable RPM control for fast idle warm up.

3. Unit shall have a Racor fuel/water separator with drain. Water in fuel light is required.

4. Fuel lines are to be FMVSS 301 certified.

5. Heater hoses. Conditions pertaining to all heater hoses throughout each bus are listed below:

   a. All heater hoses not housed in the body are to be protected in armor sheathing such as plastic loom covering or equivalent.

   b. All heater hoses routed under the body shall be insulated in "formed foam hose and pipe insulation" and protected from sharp edges.

   c. All hoses routed under the body of the bus shall be securely fastened at intervals of not more than 18-inches.

   d. All hoses passing through metal shall be protected with rubber grommets, foam insulation used as protection is not acceptable.

   e. There shall be no plastic hose connections used as hose tees, hose splices, or in 90-degree connections. Brass or galvanized king nipples are acceptable. Polysmide (a glass filled nylon material from DuPont Engineering) is an acceptable material for hose connections.

f. Heater hose shall be Goodyear Hi-Miler or other premium rated hose that is proven in the industry. The heater hose shall have a rating of 20R3 for burst pressures, an EC rating for electrochemical resistance, and class D3 for high temperature resistance. Silicone hoses not acceptable. State provided hose on bidder sheet.

g. Heater hose shall be one inch (1") inside diameter throughout bus.

h. Hose clamps to be of a constant torque design for heating and cooling systems.

6. Engine exhaust system:

a. Engine exhaust system to incorporate an OEM after treatment device that is Alaska state certified.

b. Exhaust is to exit the rear of the bus ~~on the driver's side~~ under or through the rear bumper.

c. There shall be no turn down tips. Angle cut tips allowed.

d. Exhaust system shall include a temperature control device.

7. Engine to meet EPA certifications in place for Alaska at the time of Manufacturers Statement of Origin document creation.

H. ENGINE HEATERS

1. Engine shall be equipped with a minimum of 750 watts, 120-volt electric block heater.

a. A 120-volt plug with cover to be mounted in the front of the bus, flush with forward body panel. Plug shall not protrude beyond the front bumper.

2. Auxiliary heater:

a. Furnish a fully operational and fully warranted, high performance heavy-duty, new model school bus coolant heater for "C", and "D" buses. The school bus heater shall be the Webasto Scholastic Series Coolant Heater, Model DBW 2010 utilizing a minimum of one-inch (1") premium coolant lines throughout, and in accord with the following specifications:

i. Heater output to be a minimum of 45,000 BTU per unit.

ii. Diesel fired.

iii. Power consumption to be approximately 9.5 amp @ 12-volts (114w), including circulation pump.

iv. Coolant pump-to-pump at least twelve (12) gallons per minute through system. Wired to come on when the Wasbasto is turned on.

v. Safety features to include a minimum of two (2) safety over heat shut off switches. A roll over inertia shut off switch and an impact shut off switch are to be incorporated into the system.

vi. Auxiliary heater to set in a mounting tray, Webasto Model 923.326 or equivalent. Dimensions of this tray are 24" in width, 12" in depth, and 1-½"in height.

vii. Heater to be installed in a left hand compartment forward of the rear wheels.

viii. Ignition system to be electronic.

ix. This heater shall be FMVSS 301 certified.

x. Wabasto smartemp timer controller mounted in the exterior fuse panel below the driver's window.

xi. Furnish one service/operator manual per unit.

xii. Warranty coverage to be a minimum of two (2) years with 100% parts and labor. Warranty to start the day the bus is put in service.

xiii. Fuel lines to and /or from this heater are to comply with FMVSS 301 for school buses. Fuel for this heater is to be drawn from the top of the fuel tank, separately from the vehicle fuel system. Fuel line shall be securely mounted and protected with hose armor and grommets. Routing of fuel line under frame is not acceptable.

xiv. All hoses shall be protected and securely mounted.

xv. Exhaust to be routed away from under the bus body by exiting though a tail pipe outlet at the lower side of the body skirt. The tail pipe shall be firmly mounted to the bottom of the skirt and shall extend at least flush with the skirt, but protrude not more than ½". Exhaust pipe must terminate on the left side of the bus or the left corner area of the rear bumper.

xvi. Electrical supply is provided by wiring direct from the battery to allow heater operation with the master disconnect switch in the open position.

xvii. Exhaust shall not be routed under any emergency window or door exit.

xviii. Diagnostic test box. One (1) required, per this bid.

I. ENGINE GOVERNOR

Engine governor to be electronically controlled by the engine electronic control unit (ECU). ECU to monitor and correct engine functions and conditions. ECU to perform routine diagnostics and provide onboard readable engine codes without special tools. ECU to provide a communication link to service technician in the driver's area and in the engine compartment.

J. INSTRUMENTS AND INSTRUMENT PANEL

1. Chassis shall be equipped with all instruments and gauges specified in the National Specifications. All instruments to be in English and non-metric.

2. Engine tachometer required.

3. Operator's manual with gauge/switch identification and gauge/switch location chart provided with each bus.

4. Engine hour meter required.

5. A body disconnect switch (momentary style) located near the driver to turn off all the heaters at railroad crossing as an audio aid shall be provided.

K. STEERING SYSTEM

1. Power steering to be installed and approved by chassis manufacturer.

2. Tilt and telescoping steering wheel.

L. TIRES AND RIMS

1. Tubeless radial tires mounted on 8.25 X 22.5-inch diameter rims.

2. Steering tires to be hi-way type steer tires for school buses. High scrub application Goodyear Endurance RSA or equal, load range H, use specifications as an example. Tires to be micro-siped.

3. Rear tires and spare to be hi-way steer tire for school buses. High scrub application Goodyear G622 RSD or equal, load range H, use specifications as an example. Tires to be micro-siped.

4. One (1) spare tire to be a traction type tire identical to the rear axle tires provided. Tire to be micro-siped and loose mounted. American made tires are desired.

5. All wheels be hub piloted type 10-hole disc rims, with a minimum of four (4) hand holes and are to be black in color.

6. If any part of tire or rim on any axle when in the straight ahead position is to protrude from the body of the bus, the bidder must inform in writing that the protrusion is within all Federal, National, and State regulations/guidelines.

7. If any part of tire or rim on any axle when in the straight ahead position is to protrude from the body of the bus, the bidder must provide flairs or fenderettes to prevent mud, road salt, etc., from splashing onto bus body.

M. TRANSMISSION

1. Allison 3000 PTS World Transmission five (5) speed automatic with one overdrive gear. Calibrated to the engine provided.

2. A five (5) year, unlimited mileage, parts and service warranty to cover all maintenance with the exception of fluid and/or filter changes during normal service intervals. This warranty will start when the bus goes into service.

3. Push pad gear selector.

4. Electronic fluid level indicator.

5. Factory filled with TranSynd© transmission fluid.

N. FUEL TANKS

1. One hundred (100) gallon capacity (minimum) fuel tank mounted between the frame rails and between the front and rear axles.

   a. Draw shall be from the top of the tank.

   b. Draw for the auxiliary heater shall be separate from that of the engine.

   c. Access plate to sending unit and/or fuel pump to be made without having to remove tank. Plate to be insulated.

O. ACCESSORIES

1. Two (2) tow hooks front, and two (2) tow hooks rear, bolted on chassis frame. Functional for towing or pulling without damage to the bus.

2. The following manuals are required (one each) per bus or no charge to the District for online accessibility for a period of 10 years:

   a. Operating, identification and pre-trip inspection manuals.

b. Maintenance and inspection manuals, if not provided electronically.

c. Service manual with detailed repairs and diagnostics for body, chassis, engine, engine electronics, air brakes, ABS, transmission, and axles.

d. Custom parts manual, if not provided electronically.

3. Supply schematics for air brakes, electrical system, fuel system, ABS electrical, exhaust system, and engine electronics.

4. A fresh engine oil and engine oil filter change will be completed within the last one hundred (100) miles before delivery to the District or as recommended by the engine manufacturer. API service CJ-4 semi-synthetic 5W30 engine oil is to be used for refill. This oil and filter change is required if there are one thousand five hundred (1,500) miles or more registered on the odometer.

BUS BODY

A. BATTERY COMPARTMENT

The batteries shall be securely mounted on a slide out tray with rollers that is mounted in a closed, vented compartment mounted behind the rear tire in the body skirt, so that the batteries are accessible for convenient servicing from the outside. The battery compartment door shall be hinged at the front and be secured with a quality latch or other specifically designed fastener.

B. BODY TYPE

1. Body shall be a minimum of thirty-nine foot eleven (39'-11") type "D" school bus with rear engine and 84-passenger capacity, with minimum headroom of 77" at centerline of bus.

2. Color of bus to meet the National Specifications.

3. Attitude of the bus to be level, equal distance from road surface to front and rear frame rail ends and the bottom of left and right side skirts.

4. The skirt height shall be equal to or lower from the center of the front axle to the center of the rear axle. Behind the rear axle, the skirt may taper to the rear bumper height.

C. SEATS

1. Student seats to be 39" wide high back seats:

   a. Seats shall have a releasable latch for access under seat.

   b. Seat material to be fire block and meet school bus seat upholstery fire block test.

   c. Seat color to be grey. Single stitched on all seams.

   d. Seat frames to be seat belt ready. No seat belts.

2. Driver's seat to be air ride with reclining hi-back and have a safety yellow/orange lap and shoulder harness seat belt. The barrier located immediately behind the driver's seat is to be positioned and configured to allow full movement of the seat forward and aft, and to allow a minimum of 17° degrees of recline movement in the full aft position. Driver's seat to be cloth.

3. Modesty panel installed below the first barrier located before the first seat on the right and left side of the bus.

4. Each seat to be numbered with a (2" or 3") number. Numbers are to start with the seat behind the driver being number one (1) and then alternate between the left and right hand sides of the bus terminating at seat twenty-eight (28) in the rear of the bus. Numbers are to be on the interior side, over the windows of the bus.

5. All seats to meet FMVSS.

6. Seat spacing to be as spaced as far apart as manufactures' allow and still meet all regulations for school buses and to be arranged to meet the eighty-four (84) passenger requirement.

D. DOORS

1. Service door or entrance door to be split type, outward opening and air operated with a manual override valve. This valve to be labeled "Air Door Manual Release" with an arrow showing direction of release, and located near the door. All door operating mechanisms are to be inside the bus body. Controls for this door other than the air door manual release are to be easily accessible by the operator seated in the driver's seat.

2. Thermo-pane windows shall be installed in this door.

3. Door control shall be a two-position control. When overhead amber caution lights are on and the service door is opened by this control the overhead red lights and the stop-arms will activate automatically. No controls mounted in the steering wheel.

4. The service door shall have a protective device located outside the door at the front lower leading edge and mounted securely to the frame in such a way as to prevent damage to the door during curb or snow berm impact (skid plate).

E. EMERGENCY EXITS

1. Side emergency door installed according to National Specifications and FMVSS. This door shall be installed near mid-ship and on the left hand side of the bus, final location shall be determined after award of bid. Hinges are to be stainless or brass and designed to be lubricated. This door shall be equipped with a slide bar, cam operated lock. Slide bar shall have a minimum stroke of one (1) inch. This lock shall be equipped with a suitable electric plunger-type switch, connected to an audio alarm at the door and in the driver's compartment. Switch shall be enclosed in a metal case, and wires leading from the switch shall be concealed in bus body. Switch shall be installed so that plunger contacts farthest edge of slide bar in such a manner that any movement of slide bar will immediately close the circuit on switch and activate buzzer. A black arrow on the interior and exterior of the door showing the direction of door latch movement required to open door.

2. One (1) emergency window exit for the right and left sides (each side) of the bus. These emergency windows shall be hinged vertically and the hinge shall be located toward the front of the bus. A total of two (2) emergency window exits per bus. The location of these exits shall be determined after award of bid. Each emergency window shall have an audio alarm when opened; this alarm shall sound in the driver's compartment and at the activated window. Emergency window exits to be labeled inside and out above each window as emergency exit and meet FMVSS 217.

3. Two (2) centerline mounted roof exits. One (1) installed one-third back from front of bus and the other installed two-thirds back from front. Exits to have inside and outside release capability and to be Transpec Safety vents or equivalent (can be opened and used as a vent without audio warning). Audio warning when opened, this audio warning shall sound at the affected roof exit and in the driver's compartment.

4. Rear window exit over engine compartment to emit an audio alarm at the window and in the driver's compartment when opened.

5. All exits and doors will be operated during pre-trip inspections to test for function and audio alarms, these exits must be able to withstand continuous use. Use the heavier duty option if available.

6. All doors and emergency exits must meet the National Specifications and FMVSS.

F. FLOOR

1. Floor shall be of prime commercial quality zinc steel, and of at least fourteen (14) gauge.

2. Marine type Grade B-B or Plywood shall be installed over all metal floors. Plywood shall be a minimum of 5/8 inches thick.

3. Flooring to be three piece and shall be smooth under seats with no seams, ribbed in aisle. Stainless or aluminum strips shall be used to seam aisle with under seat flooring.

4. Floor covering to be light grey.

5. Entranceway to be Koroseal pebble tread with white nosing or equivalent.

6. Floors to meet the National Specifications.

7. An insulated plate in the floor for access to fuel tank pickup, fuel gauge rheostat, and vent.

8. Step well to have a hand rail on each side, in front of the steps, and on the modesty panel. The hand rail next to the heater must not be mounted directly in front of the air flow, so the handle is not hot to the touch. Handles must meet or pass all Federal and manufacturer's snag tests.

G. HEATERS

1. Heaters must meet the Alaska Minimum Standards. A minimum total of 200,000 BTU rating is required for the heating system.

   a. Front heaters to include defrosters, step-well and driver's area.

   b. Mid ship heater to sit under the seat forward of the side emergency door.

   c. A guard provided to prevent the denting of fan shrouds on the rear and mid ship heaters.

   d. Rear heater required.

   e. Heaters to be equipped with a filter.

2. All defrosters shall be of a design and capacity to ensure frost-free windows in driver's area at all times.

3. Front heater(s) ducts to provide optimum heat in the stairwell and keep service door frost-free.

4. Each heater motor shall be heavy-duty and individually controlled with separate control switches near driver's seat. Each switch shall have its own breaker.

5. Front heater ducts to provide optimum heating of the drivers' area, to include legs and feet.

6. Bidders shall itemize in the BID FORM (Attachment B) the number of heaters and defrosters proposed to be installed, the locations and BTU ratings of each heater or approved measure of heat recovery in the cabin.

H. IDENTIFICATION

1. Lettered on side belts: ANCHORAGE SCHOOL DISTRICT. Lettering located on both sides of bus in 6-inch high, 1" wide letter strokes.

    a. Front and rear header caps of bus shall have eight (8) inch black letters on a yellow reflective background that bear the words "SCHOOL BUS".

    b. There shall be a sign located below the rear window of the bus which reads: "STOP ON FLASHING RED". The word STOP shall be in letters no less than eight inches high. The rest of the lettering shall be in five-inch lettering. This sign shall be red letters on white reflective background.

2. Identification letters and decals to conform to the National Specifications.

3. Colors for bus:

    a. School bus body shall be painted National School Bus Yellow (NSBY).

    b. Exterior body trim shall be black; this shall include rub rails.

    c. The area around the front and rear amber/red flashing lights shall be black.

    d. Non-contrasting reflective material around each emergency exit, emergency door, rear emergency window, front and rear bumpers, down each corner of the rear of the bus, and horizontally just below the floor level rub rail except as otherwise stated in the 2010 National School Transportation Specifications and Procedures.

    e. Interior colors to be manufacturer's standard color for school buses.

    f. "DIESEL" printed in two (2) inch letters above the fuel door opening.

I. INSULATION

1. Body insulation to comply with the Alaska Minimum Standards.

2. Additional insulation installed in the bus panels and channels or manufacturers "Cold Weather Package".

3. Cold weather package to include additional insulation in driver's area.

4. Sound absorbing perforated headliner throughout the bus.

J. LAMPS AND SIGNALS

1. **Interior LED Lamps:**

    a. Standard LED dome lights shall be provided which will adequately illuminate bus body with the following additions:

        i. Last two (2) lights located on each side of roof panel in rear of the coach shall be switched separately from that of the interior dome lights with switch located near the driver's seat.

        ii. One (1) extra power dome light with fifteen (15) candlepower, shall be installed in the ceiling above the driver's seat and shall be separately switched.

        iii. Step-well light installed and to be auto-on when door is fully open.

        iv. No dome light shall be mounted to the interior ceiling above the service door entrance.

2. **Exterior Lighting:**

a. Turn signals:

   i. Turn signal lights mounted on front sides of bus, as specified in the National Specifications.

   ii. LED body side signals required. One signal on each side located behind the entrance door on the right and a comparable location on the left. This should be mounted in the beltline. A second light for each side shall be mounted just in front of the rear wheel well, approximately equal height to the top of the wheel well.

   iii. A distinctive, but not loud audio devise to indicate when the turn signals are activated.

   iv. Rear turn signal lights to be SoundOff Inc. 7" LED part number ECV7561TY or equivalent. The functions of this light shall be turn signal and traffic hazard flash only and shall be amber.

   v. A 7" light mounted just inside of the rear turn signals shall be SoundOff Inc. LED part number ECV7561STT or equivalent. This light shall be a two (2) combination red light with functions of tail light and stoplight only.

   vi. A 4-inch tail light stoplight combination lamp mounted below the two (2) 7-inch lights on each side of the bus shall be SoundOff LED part number ECVR42STT or equivalent. This light shall be flush mounted.

   vii. Stop, tail, and turn signal lights shall have a five (5) year warranty (SoundOff Inc. or equivalent).

   viii. Clearance and identification lights shall be LED SoundOff part number ATCVMLDPR for red and ATCVMLDPIY for amber.

b. Loading light to be installed to the top of or left of the entrance door and to operate automatically when door is opened. The light shall illuminate the area in front of the service door. This light to be LED SoundOff part number ATCVCLCBN or equivalent.

c. Alternating Flashing Signal lamps (overhead warning lamps).

   i. Red flashing lights, front and rear, to be SoundOff Inc. 7" LED part number E756IEB0R or equivalent.

   ii. Amber flashing lights, front and rear, to be SoundOff Inc. 7" LED part number E756IEB0A or equivalent.

   iii. Pilot light system shall be installed in a location near the arming switch where its operation shall be plainly visible to the driver. No 16 light monitoring is needed.

   Overhead LED lights must meet FMVSS 108 and have a 5-year warranty.

d. Two (2) back-up lights activated by reverse on the transmission. Back-up lights shall be LED and flush mounted.

e. License plate lamp located on the left rear of the bus. SoundOff LED part number ECVLPBLED or equivalent.

f. Strobe light to be centerline mounted on roof, six (6) feet away from rear of bus. The strobe light assembly lens shall be clear with 360 degrees of illumination. A manual switch and a pilot light to indicate when strobe is on mounted in driver area. Strobe light assembly shall be an ECCO brand, most current model with a clear lens.

g. All lighting must meet the FMVSS.

h. Two (2) lights, or one hi power light strategically placed, mounted in the engine compartment, on the top left and right sides, these lights are clear and are activated by the opening of the compartment door. A labeled warning light mounted in the driver's area shall activate when the engine door is opened.

i. Head light shall be halogen.

j. Bus shall be day time running light equipped.

k. With the engine compartment opened, tail and flashing (4-way) lights must be visible.

~~l. Installation of Zonar sensors at the factory.~~

K. MIRRORS

1. Outside rearview mirrors to be ROSCO ® Euro style 4-way electric remote-controlled heated mirror system for school buses.

2. Illuminated switch to activate the heated mirrors. Toggle switch and remote mirror controls mounted in a location accessible to the driver.

3. Student cross-over mirrors, if not integrated with rear view mirror to be ROSCO ® Mini Hawk-eye heated cross view mirror system for school buses.

4. Interior mirror is to be of a heavy-duty type 10" X 30" preferred, 8" (or 6") X 30" acceptable (largest available is required), with driver adjustment capability, with backing to which the glass is bonded, is to be ridged and non-flexing.

5. All mirrors and mountings to meet FMVSS standards.

L. STOP SIGNAL ARM

1. Stop signal arm control to be electric operated. Manual control is not acceptable.

2. Stop signal arm to be SMI 7000 series stop signal arm with the word "STOP" illuminated and flashing in light emitting diode (LED) lighting on both sides.

3. Stop signal arm to activate automatically when red flashing lights are activated.

4. A second SMI 7000 series stop signal arm shall be mounted at the left rear of the bus. This stop signal arm shall be electric operated and to have the word "STOP" illuminated in flashing LED lighting on the side facing the rear of the bus when in the out position. The front facing panel of this sign **shall not** have the word "STOP" nor shall it have lighting of any kind. The front facing panel of this sign shall be blank.

5. Stop signal arms shall not be located below any emergency window exit, or above any exhaust piping.

M. WINDSHIELD

1. Windshield shall be TINTED glass with a shaded strip at the top.

   Sun shield shall be approximately 6" X 30", easily adjustable by the driver, and must be capable of positioning directly below the interior mirror and have the capability to swivel completely above the interior mirror, so it does not obstruct the visibility of the interior mirror in any way.

N. WINDSHIELD WIPERS

Bus shall be equipped with two (2) intermittent, variable speed, electric driven heavy-duty windshield wipers, with artic blades.

O. WINDOWS

1. The windows to the left of driver shall be thermo-pane windows.

2. Student windows shall be split sash type standard school bus windows.

3. The windows in the service door shall be thermo-pane windows.

P. ACCESSORIES

1. Storage compartments:

   a. Two (2) outside storage compartments separate from that of the battery box, one (1) right one mounted forward of rear wheels and the one (1) left mounted behind the steering axle. Minimum size: 24" wide x 14" deep x 12" high. The compartment on the left side of the bus will house the Webasto auxiliary heater. Access doors hinges shall be stainless, brass or galvalume and designed to be lubricated.

   b. An additional lockable storage compartment to be a pass through type compartment. The minimum length of the compartment to be one hundred fourteen (114) inches. Compartment door hinges shall be stainless, brass, galvalume, or non-metallic to prevent corrosion and designed to be lubricated. Rubber hinges are exempt from lubrication.

2. Audio and/or visual alarm to activate in driver's area when access door to engine is opened.

3. Bus to be cleaned inside and out prior to delivery to the end user. All fluid levels shall be topped off prior to delivery. Bus shall be delivered with at least a ¼ tank of winter blend fuel, according to the fuel gauge.

4. Mud flaps, front and rear, to be rubber.

5. Halogen headlights.

6. Each bus to be undercoated with industrial rubberized undercoat to cover 100% of the underside of the body. Dust free seal between floor and bus body.

7. Reflective Markings. Non-contrasting colors on front, rear, and sides, as per National Specifications and FMVSS 217. Non-contrasting reflective markings shall be on the front and rear bumpers.

8. Back-up alarm shall be a12-volt smart alarm, 87 to 112 dB and installed behind the rear axle. The alarm shall comply with the published Backup Alarm Standards (SAE J-994B), providing a minimum of 87 to 112 dB, maintains sound at 5 dB above the ambient noise level. Alarm shall activate when transmission is shifted into reverse.

9. Two (2) defroster fans (approx. 6") mounted above the windshield, one (1) on each side of center-line of windshield or one (1) on each side of bus or any combination that will allow the defrosting of both windshields. Each fan shall be separately switched from the switch panel and have a two speed or variable speed capability. Fans shall not be in direct line with the mirror system or interfere in any way with the visibility to the mirrors.

10. One (1) Pair of single tire chains.

11. One (1) Pair of rubber tire chocks.

12. One (1) tire thumper.

13. Rub rails: A minimum of four (4)-four (4") inch wide rub rails to be installed on the bus. Rub rails to be painted black.

    a. One (1) below the window.

    b. One (1) at the level of the seat cushion.

    c. One (1) at the floor level.

    d. One (1) mounted at the bottom of the skirt.

14. Five (5) pound fire extinguisher, ABC rated. Mounting bracket for extinguisher storage shall be in the upright position.

15. No glass in header panel inside cabin above windshield is desired, this location is for the mounting of monitor cameras. A removable panel shall be at this location for access inside the header panel.

16. Body Fluid Kit to meet the National Specifications.

17. Service manuals for installed accessories.

18. First aid kit to meet the National Specifications.

19. Reflector triangle kit with mounting bracket.

    a. Mounting location of fire extinguisher, body fluid kit, first aid kit, and reflectors to be determined upon award of bid.

20. ONSPOT or INSTA-CHAIN automatic safety chains. Activated by a switch in the driver's compartment with a pilot light indicating when activated.

21. A receptacle for storage of a notebook binder approximate size 10"x 12"x3" wide, mounted in the driver's area.

22. Radio related items. The radio will be installed after the buses are delivered to the District. Below are items that are to be installed by the bus manufacturer during assembly. Radios will be installed by the District and require only two (2) wires, a hot and ground. The radios will be custom mounted in a location depending on the bus model.

    a. A public address (PA) system to be installed and switched to select either inside or outside PA from the driver's seating position.

        i. Four (4) Interior speakers for a PA. These speakers are to be two (2) on each side of the bus and staggered equally from the rear to the front, flush mounted.

        ii. An external speaker for a PA to be mounted under the front of the bus near the frame.

23. Bus shall be wired for a Zonar V-3 System. The V-3 unit shall be supplied and installed before delivery to the District and require a hot, ground and signal wire. The RFD tags location shall be given to the bidder for tag installation.

Q. INSPECTION

1. An inspection shall be performed at the place of manufacturer by a representative of the District. Successful bidder will be required to provide a pilot inspection prior to shipment from final stage manufacturer's plant for

the first couple buses build and completed. Successful bidders shall provide all travel related expenses for one district representative from Anchorage to Anchorage. This may include (coach) air fare, rental car, hotel, meals, and any other reasonable itemized expenses, at actual cost. This is to be scheduled by the dealer with the cooperation of the manufacturing plant upon arrival.

2. The inspection by the District shall be thorough, critical and will encompass a complete review of the specifications. Adequate time and technical personnel shall be made available to assist the District representative in these inspections.

3. A final inspection will be made upon delivery to the District. Failure to meet these minimum specifications, FMVSS, National Specifications or the Alaska Minimum Standards may result in non-acceptance of the buses, or may be taken into consideration as the district evaluates the best value in the award process.

~~4. Authorization for payment will not be made in increments. When five buses are delivered, invoiced, inspected, and approved by the district, payment shall be processed through normal channels, with a 5% hold back. This process shall continue in 5 bus groups until final delivery of all buses is complete.~~

4. A weight slip containing the bus VIN shall accompany each bus upon delivery.

R. TRAINING

1. Training is required for engine, engine after treatment, transmission service, drive train, ABS system, electrical system, steering & suspension, bus body maintenance, lift maintenance and operation, and preventive maintenance of the entire bus. Topics to cover and content at which times will be requested by the district personnel.

2. Approximately 24-hours of a combination of class room and hands on training is requested. This shall be approximately 12 hours around the time of delivery and approximately 12 hours prior to the 5-year mark when the warranties expire.

3. Attendees may include the maintenance technicians from the Anchorage School District and from Reliant.

4. The training may be held at a maintenance facility of the district or Reliant or at a dealer location. Factory authorized training is expected on the engine, transmission, brake system and areas requested by the district. General body maintenance and other areas may be covered with local trainers.

S. EXCEPTIONS

Any exception to these specifications must be specified in writing on the bid form and highlighted or bolded by the bidder, to call attention to the Anchorage School District Purchasing Department as outlined in the Instruction to the Bidders. Failure to meet the specified requirements may be cause for rejection of your bid, or may be used in the evaluation of best value to the district in awarding the bid.

T. SPECIAL NOTE FOR BIDDERS

1. Priority in-shop warranty repairs. Repairs are to be completed within three (3) working days from the time parts are available to the shop.

2. Bidders or their local service provider ("subcontractor") must be an authorized representative of the bus manufacturer they submit on the bid form and the bidders must stock repair parts for the buses submitted on the bid form. The successful bidder must purchase and maintain a reasonable stock of repair and replacement parts to service approximately 90% of the common failures and wear items on the buses to service this fleet, and a minimum quantity of items that can occasionally fail. Past history and manufacturer's recommendations may determine the current level of inventory, with adjustments being made as a history of failures and maintenance items are established for this fleet.

3. Warranty documentation for the bus components must be supplied with the delivery and as part of the delivery of the bus.

4. All warranties shall be activated when the buses are put into service. Contractor shall notify the dealer of the start of service date as it occurs, and dealer has the authority to verify any questionable dates. It is the dealer's responsibility to start the warranty service date with the manufacturers for the vehicle, engine, transmission, and other component warrantied items.

U. ADDITIONAL REQUIREMENTS

1. Student Monitor:

   a. Supply a Gatekeeper model 304 SD1 school bus video monitor system (student Monitor) per bus.

      i. Student monitor shall be Gate Keeper System. Model 304 SD1 for school bus use.

      ii. Three (3) color cameras.

         1) One (1) mounted in the front of the bus viewing the interior rear; this camera shall have a 4.3mm lens.

         2) One (1) camera mounted in the rear of the bus viewing the interior front, this camera shall have a 2.9mm lens.

         3) One (1) camera mounted over the driver viewing the step-well service door area. This camera shall have a 2.9mm lens.

         4) Cameras are to have infrared capability.

   b. Warranty:

      i. All cameras shall be warrantied for 5 years.

      ii. DVR and SD card shall be warrantied for 3 years.

      iii. All cabling and other components shall have a 1-year warranty.

END OF SECTION II

Kenai Peninsula Borough School District Cost Estimate Documentation

Four buses selected for replacement:

1. #117
2. #118
3. #121
4. #122

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School Bus Replacement Application Cover

ALASKA ENERGY AUTHO

Date of Application	11-Jun-19
Applicant/Agency Name	Kenai Peninsula Borough School District
Employer/Taxpayer ID (EIN/TIN)	92-0030923
Address	148 N Binkley St.
City/Zip	Soldotna 99669

RECEIVED
JUN 14 2019
10:00 AIDEA
AEA

Authorized Representative Name	Rachelle Goniotakis
Contact Title & Association	Transportation Supervisor
Phone	907-714-8834
Email	rgoniotakis@kpbsd.org

Alternative Authorized Representative Name	Dave Jones
Contact Title & Association	Assistant Superintendent
Phone	907-714-8858
Email	DJones2@kpbsd.org

Project Narrative

Please describe in detail the project, including the number of buses being replaced, bus ownership, timeline of events, and plans for scrappage of existing bus(es). Include information such as voluntary matching funds, timing of other funding sources, or in the case of alternative fueled vehicles, related infrastructure plans and funding. Use the next page or attach additional pages if necessary.

Kenai Peninsula School District is applying to replace 7 ULSD type C buses, years 1995 to 2000 with 2020 ULSD type D buses. Upon award to replace the buses Kenai Peninsula School District would solicit through a TIB which it would take approximately 75 days from the solicitation to the issuance of the PO. Once the ITB is complete the Kenai Peninsula School District would place the order with a approximate time of 5 months for delivery of new buses. Upon delivery of the new buses Kenai Peninsula School District would initiate the process of scrapping. The frame would be cut at the area around the bell housing and a hole would be punched in the side of the engine all fluids would be drained. Buddys towing will then tow the bus to Peninsula Scrap & Salvage to be crushed.

Milestone	Proposed Completion Date	Notes
Purchase order issued for new bus	August 15,2019	
Delivery of new bus	Febuary 1, 2020	
Existing bus scrappage with required documentation	Febuary 15, 2020	
Reimbursement request with required documentation	Febuary 25,2020	

School Bus Replacement Application Cover

ALASKA ENERGY AUTHO

Project Narrative - Continued

Application Check List

- [X] School Bus Application Cover
- [X] Bus Data Form for each bus
- [X] EPA DEQ emission results report used in the Bus Data Form for each bus

(For eample see http://www.akenergyauthority.org/Programs/vwsettlement)

- [X] Project Evaluation Form for each bus
- [X] Map of bus route including fleet yard location for each bus
- [X] Bus odometer photo

Application Acknowledgement

The undersigned certifies that they are the authorized agent of the above stated entity, and that all information and documentation submitted to the Alaska Energy Authority for an award of the VW Settlement Funds are truthful and correct, and that the applicant is in compliance with, and will continue to comply with, all applicable state and federal law, and that they can legally commit the entity to these obligations.

Signature of Authorized Representative	6/12/2019 Date
KEVIN B LYON Authorized Representative Name	DIRECTOR OF PLANNING & OPERATIONS Title

Kenai Peninsula Borough School District **Bus ID:** 117

Please complete the table below. **The applicant must also enter the data into the EPA Diesel Emission Quantifier tool and attach the DEQ emissions results to this form.**
(https://cfpub.epa.gov/quantifier/index.cfm?action=main.home)
Submit a separate Bus Data Form and DEQ output for each bus. For electronic applications, submit one excel worksheet per bus; paper applicants print as many copies of the form as necessary.

Bus Data for EPA Diesel Emission Calculator		
	Existing Bus	**Replacement Bus**
Bus ID #	117	NA
Bus Ownership (complete next page)		
VIN #	4UZ6CFAA0YCF99132	NA
Engine Serial Number	56601506	NA
Bus Make	Thomas	
Bus Model	1100S	
Bus Model Year	1999	2020
Bus Class/Type (Class 4-8)	C	D
Gross Vehicle Weight Restriction	29,320	36,220
Fuel Type[1] (complete next page)	ULSD	ULSD
Average Fuel Efficiency (MPG)	5.32	7
Annual Fuel (gals)	1638	NA
Annual Miles Traveled	11,471	NA
Annual Idling Hours	200	NA
Total Mileage	160276	NA
Annual Fuel Reduction (gals)[2]	NA	518
Remaining Life (years)[3]	9	NA
Attrition year (please explain)[4]	2029	NA
Equipment Cost (limited to cost of bus, tariffs & shipping)[5]	NA	138,458
Labor Cost[6]	NA	325

1. This funding opportunity is strictly to replace/repower existing diesel transit buses MY 2009 or older with at least three years of remaining life. New replacement buses may be diesel, alternate fueled (e.g., propane, CNG, hybrid), or all-electric.
2. Information to be provided by the manufacturer, reasonably extrapolated to the service use conditions for each bus. Example, long haul with intermittent stops vs. frequent urban stop and go conditions.
3. EPA's Quantifier uses remaining life of the existing vehicle to calculate lifetime emission reductions associated with a project. Actual remaining life depends on the age of the vehicle at the time of the project, as well as usage, maintenance, and climate. Remaining life is calculated by taking either the maximum life or the median life value and subtracting the current age of the vehicle based on model year. DEQ will use the maximum life for this calculation. For example, if the on-road vehicle replacement occurs in 2019, and the existing vehicle is a model year 2005, the remaining life would be 19 - (2019-2005) = 5 years. DEQ quantifies the median life of on-road vehicles as 19 years and the maximum life as 30 years.
4. Year in which bus would normally be retired/sold by the fleet owner if not for this funding opportunity.
5. Include cost of EV charging infrastructure if replacement bus is all-electric.
6. Labor includes onboarding, signage, and scrapping of old bus but not administrative costs.

Bus Ownership Information	
Both government and non-government -owned buses are eligible for repower/replacement. If the bus is contracted, please complete this section. Attach an explanation of the terms of the contract and what happens to the bus when the contract expires.	
Bus owner name	Kenai Peninsula Borough School District
Bus owner address	148 N Binklet St.
Bus owner city/state/zip code	Soldotna AK 99669
Contract expiration date	
Can the parties enter a legally binding agreement to ensure the new replacement bus will operate within the usage area described in this application?	

Yes

Non-diesel Replacement Buses	
If requesting funding for alternative-fuel buses (eg. compressed natural gas, hybrid-electric, liquid natural gas, or liquid propane gas) or all-electric buses, identify the fuel type and **attach information about fueling infrastructure and indicate if it is in place or provide installation information (e.g., timeline, location of infrastructure, funding source for infrastructure).**	
Fuel Type	

Bus Replacement Cost		
	Total Cost ($)	**Requested Funds ($)**
Bus	129,153.00	129,153.00
Shipping	9,305.00	9,305.00
Other - (please explain)		
Electric Vehicle charging infrastructure		
Alternative fueling infrastructure (other than electric)		
Labor (includes onboarding, signage, scrapping of old bus)	325.00	325.00
Total Project Cost	138,783.00	

Kenai Peninsula Borough School District Bus ID: 118

Please complete the table below. **The applicant must also enter the data into the EPA Diesel Emission Quantifier tool and attach the DEQ emissions results to this form.**
(https://cfpub.epa.gov/quantifier/index.cfm?action=main.home)
Submit a separate Bus Data Form and DEQ output for each bus. For electronic applications, submit one excel worksheet per bus; paper applicants print as many copies of the form as necessary.

Bus Data for EPA Diesel Emission Calculator		
	Existing Bus	**Replacement Bus**
Bus ID #	118	NA
Bus Ownership (complete next page)		
VIN #	4UZ6CFAA2YCF99133	NA
Engine Serial Number	56601522	NA
Bus Make	Thomas	
Bus Model	1100S	
Bus Model Year	1999	2020
Bus Class/Type (Class 4-8)	C	D
Gross Vehicle Weight Restriction	29,320	36,220
Fuel Type[1] (complete next page)	ULSD	ULSD
Average Fuel Efficiency (MPG)	5.32	7
Annual Fuel (gals)	1695	NA
Annual Miles Traveled	11,869	NA
Annual Idling Hours	200	NA
Total Mileage	160276	NA
Annual Fuel Reduction (gals)[2]	NA	536
Remaining Life (years)[3]	9	NA
Attrition year (please explain)[4]	2029	NA
Equipment Cost (limited to cost of bus, tariffs & shipping)[5]	NA	138,458
Labor Cost[6]	NA	325

1. This funding opportunity is strictly to replace/repower existing diesel transit buses MY 2009 or older with at least three years of remaining life. New replacement buses may be diesel, alternate fueled (e.g., propane, CNG, hybrid), or all-electric.
2. Information to be provided by the manufacturer, reasonably extrapolated to the service use conditions for each bus. Example, long haul with intermittent stops vs. frequent urban stop and go conditions.
3. EPA's Quantifier uses remaining life of the existing vehicle to calculate lifetime emission reductions associated with a project. Actual remaining life depends on the age of the vehicle at the time of the project, as well as usage, maintenance, and climate. Remaining life is calculated by taking either the maximum life or the median life value and subtracting the current age of the vehicle based on model year. DEQ will use the maximum life for this calculation. For example, if the on-road vehicle replacement occurs in 2019, and the existing vehicle is a model year 2005, the remaining life would be 19 - (2019-2005) = 5 years. DEQ quantifies the median life of on-road vehicles as 19 years and the maximum life as 30 years.
4. Year in which bus would normally be retired/sold by the fleet owner if not for this funding opportunity.
5. Include cost of EV charging infrastructure if replacement bus is all-electric.
6. Labor includes onboarding, signage, and scrapping of old bus but not administrative costs.

ALASKA ENERGY AUTHORITY

Bus Ownership Information	
Both government and non-government -owned buses are eligible for repower/replacement. If the bus is contracted, please complete this section. Attach an explanation of the terms of the contract and what happens to the bus when the contract expires.	
Bus owner name	Kenai Peninsula Borough School District
Bus owner address	148 N Binklet St.
Bus owner city/state/zip code	Soldotna AK 99669
Contract expiration date	
Can the parties enter a legally binding agreement to ensure the new replacement bus will operate within the usage area described in this application?	

Yes

Non-diesel Replacement Buses	
If requesting funding for alternative-fuel buses (eg. compressed natural gas, hybrid-electric, liquid natural gas, or liquid propane gas) or all-electric buses, identify the fuel type and **attach information about fueling infrastructure and indicate if it is in place or provide installation information (e.g., timeline, location of infrastructure, funding source for infrastructure).**	
Fuel Type	

Bus Replacement Cost		
	Total Cost ($)	**Requested Funds ($)**
Bus	129,153.00	129,153.00
Shipping	9,305.00	9,305.00
Other - (please explain)		
Electric Vehicle charging infrastructure		
Alternative fueling infrastructure (other than electric)		
Labor (includes onboarding, signage, scrapping of old bus)	325.00	325.00
Total Project Cost	138,783.00	

Kenai Peninsula Borough School District Bus ID: 121

Please complete the table below. **The applicant must also enter the data into the EPA Diesel Emission Quantifier tool and attach the DEQ emissions results to this form.**
(https://cfpub.epa.gov/quantifier/index.cfm?action=main.home)
Submit a separate Bus Data Form and DEQ output for each bus. For electronic applications, submit one excel worksheet per bus; paper applicants print as many copies of the form as necessary.

Bus Data for EPA Diesel Emission Calculator		
	Existing Bus	**Replacement Bus**
Bus ID #	121	NA
Bus Ownership (complete next page)		
VIN #	4UZAAXBV21CH78060	NA
Engine Serial Number	3007242	NA
Bus Make	Blue Bird	
Bus Model	FS65	
Bus Model Year	2000	2020
Bus Class/Type (Class 4-8)	C	D
Gross Vehicle Weight Restriction	29,320	36,220
Fuel Type[1] (complete next page)	ULSD	ULSD
Average Fuel Efficiency (MPG)	5.32	7
Annual Fuel (gals)	1,333	NA
Annual Miles Traveled	9,337	NA
Annual Idling Hours	175	NA
Total Mileage	146027	NA
Annual Fuel Reduction (gals)[2]	NA	422
Remaining Life (years)[3]	10	NA
Attrition year (please explain)[4]	2030	NA
Equipment Cost (limited to cost of bus, tariffs & shipping)[5]	NA	138,458
Labor Cost[6]	NA	325

1. This funding opportunity is strictly to replace/repower existing diesel transit buses MY 2009 or older with at least three years of remaining life. New replacement buses may be diesel, alternate fueled (e.g., propane, CNG, hybrid), or all-electric.
2. Information to be provided by the manufacturer, reasonably extrapolated to the service use conditions for each bus. Example, long haul with intermittent stops vs. frequent urban stop and go conditions.
3. EPA's Quantifier uses remaining life of the existing vehicle to calculate lifetime emission reductions associated with a project. Actual remaining life depends on the age of the vehicle at the time of the project, as well as usage, maintenance, and climate. Remaining life is calculated by taking either the maximum life or the median life value and subtracting the current age of the vehicle based on model year. DEQ will use the maximum life for this calculation. For example, if the on-road vehicle replacement occurs in 2019, and the existing vehicle is a model year 2005, the remaining life would be 19 - (2019-2005) = 5 years. DEQ quantifies the median life of on-road vehicles as 19 years and the maximum life as 30 years.
4. Year in which bus would normally be retired/sold by the fleet owner if not for this funding opportunity.
5. Include cost of EV charging infrastructure if replacement bus is all-electric.
6. Labor includes onboarding, signage, and scrapping of old bus but not administrative costs.

ALASKA ENERGY AUTHORITY

Bus Ownership Information	
Both government and non-government -owned buses are eligible for repower/replacement. If the bus is contracted, please complete this section. Attach an explanation of the terms of the contract and what happens to the bus when the contract expires.	
Bus owner name	Kenai Peninsula Borough School District
Bus owner address	148 N Binklet St.
Bus owner city/state/zip code	Soldotna AK 99669
Contract expiration date	
Can the parties enter a legally binding agreement to ensure the new replacement bus will operate within the usage area described in this application?	
Yes	

Non-diesel Replacement Buses	
If requesting funding for alternative-fuel buses (eg. compressed natural gas, hybrid-electric, liquid natural gas, or liquid propane gas) or all-electric buses, identify the fuel type and **attach information about fueling infrastructure and indicate if it is in place or provide installation information (e.g., timeline, location of infrastructure, funding source for infrastructure).**	
Fuel Type	

Bus Replacement Cost		
	Total Cost ($)	**Requested Funds ($)**
Bus	129,153.00	129,153.00
Shipping	9,305.00	9,305.00
Other - (please explain)		
Electric Vehicle charging infrastructure		
Alternative fueling infrastructure (other than electric)		
Labor (includes onboarding, signage, scrapping of old bus)	325.00	325.00
Total Project Cost	138,783.00	

Kenai Peninsula Borough School District **Bus ID:** 122

Please complete the table below. **The applicant must also enter the data into the EPA Diesel Emission Quantifier tool and attach the DEQ emissions results to this form.**
(https://cfpub.epa.gov/quantifier/index.cfm?action=main.home)
Submit a separate Bus Data Form and DEQ output for each bus. For electronic applications, submit one excel worksheet per bus; paper applicants print as many copies of the form as necessary.

Bus Data for EPA Diesel Emission Calculator		
	Existing Bus	**Replacement Bus**
Bus ID #	122	NA
Bus Ownership (complete next page)		
VIN #	4UZAAXBV61CH78059	NA
Engine Serial Number	46029898	NA
Bus Make	Blue Bird	
Bus Model	FS65	
Bus Model Year	2000	2020
Bus Class/Type (Class 4-8)	C	D
Gross Vehicle Weight Restriction	30,000	36,220
Fuel Type[1] (complete next page)	ULSD	ULSD
Average Fuel Efficiency (MPG)	5.32	7
Annual Fuel (gals)	2,274	NA
Annual Miles Traveled	15,920	NA
Annual Idling Hours	200	NA
Total Mileage	129741	NA
Annual Fuel Reduction (gals)[2]	NA	718
Remaining Life (years)[3]	10	NA
Attrition year (please explain)[4]	2030	NA
Equipment Cost (limited to cost of bus, tariffs & shipping)[5]	NA	138,458
Labor Cost[6]	NA	325

1. This funding opportunity is strictly to replace/repower existing diesel transit buses MY 2009 or older with at least three years of remaining life. New replacement buses may be diesel, alternate fueled (e.g., propane, CNG, hybrid), or all-electric.
2. Information to be provided by the manufacturer, reasonably extrapolated to the service use conditions for each bus. Example, long haul with intermittent stops vs. frequent urban stop and go conditions.
3. EPA's Quantifier uses remaining life of the existing vehicle to calculate lifetime emission reductions associated with a project. Actual remaining life depends on the age of the vehicle at the time of the project, as well as usage, maintenance, and climate. Remaining life is calculated by taking either the maximum life or the median life value and subtracting the current age of the vehicle based on model year. DEQ will use the maximum life for this calculation. For example, if the on-road vehicle replacement occurs in 2019, and the existing vehicle is a model year 2005, the remaining life would be 19 - (2019-2005) = 5 years. DEQ quantifies the median life of on-road vehicles as 19 years and the maximum life as 30 years.
4. Year in which bus would normally be retired/sold by the fleet owner if not for this funding opportunity.
5. Include cost of EV charging infrastructure if replacement bus is all-electric.
6. Labor includes onboarding, signage, and scrapping of old bus but not administrative costs.

ALASKA ENERGY AUTHORITY

Bus Ownership Information	
Both government and non-government -owned buses are eligible for repower/replacement. If the bus is contracted, please complete this section. Attach an explanation of the terms of the contract and what happens to the bus when the contract expires.	
Bus owner name	Kenai Peninsula Borough School District
Bus owner address	148 N Binklet St.
Bus owner city/state/zip code	Soldotna AK 99669
Contract expiration date	
Can the parties enter a legally binding agreement to ensure the new replacement bus will operate within the usage area described in this application?	
Yes	

Non-diesel Replacement Buses	
If requesting funding for alternative-fuel buses (eg. compressed natural gas, hybrid-electric, liquid natural gas, or liquid propane gas) or all-electric buses, identify the fuel type and **attach information about fueling infrastructure and indicate if it is in place or provide installation information (e.g., timeline, location of infrastructure, funding source for infrastructure).**	
Fuel Type	

Bus Replacement Cost		
	Total Cost ($)	**Requested Funds ($)**
Bus	129,153.00	129,153.00
Shipping	9,305.00	9,305.00
Other - (please explain)		
Electric Vehicle charging infrastructure		
Alternative fueling infrastructure (other than electric)		
Labor (includes onboarding, signage, scrapping of old bus)	325.00	325.00
Total Project Cost	138,783.00	

INTEGRATED RE S BUS

Sales Proposal For:

Kenai Peninsula Borough School District

Presented By:

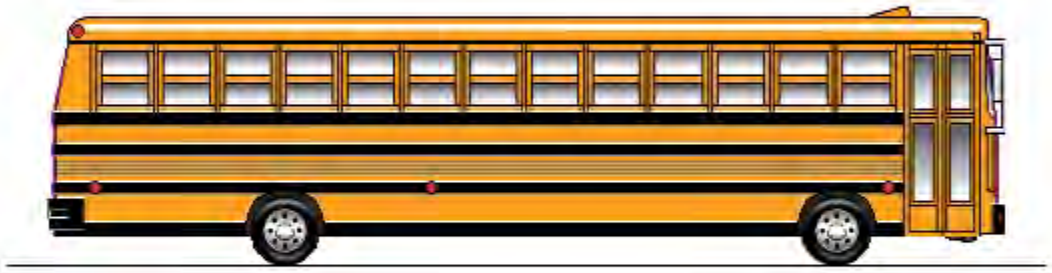
RWC INTERNATIONAL, LTD.

June 10, 2019

Prepared For:
Kenai Peninsula Borough School District
Rachelle Goniotakis
139 E. PARK AVE
SOLDOTNA, AK 99669-
(907)262 - 9361
Reference ID: 72 R-ED 114 LUG

Presented By:
RWC INTERNATIONAL, LTD.
Mike Lash
7880 SANDLEWOOD PLACE
ANCHORAGE AK 99507 -
(907)279-9591

Thank you for the opportunity to provide you with the following quotation on a new IC Corporation vehicle. I am sure the following detailed specification will meet your operational requirements, and I look forward to serving your business needs.



Model Profile
2020 INTEGRATED RE S BUS (PB305)

APPLICATION:	School Transportation
MISSION:	Requested GVWR: 36220. Calc. GVWR: 36220 Calc. Start / Grade Ability: 18.07% / 0.90% @ 55 MPH Calc. Geared Speed: 82.8 MPH
DIMENSION:	Wheelbase: 276.00, CA: N/A, Axle to Frame: 118.00
ENGINE, DIESEL:	{Cummins L9 270} EPA 2017, 270HP @ 2000 RPM, 800 lb-ft Torque @ 1300 RPM, 2200 RPM Governed Speed, 270 Peak HP (Max), for School Bus Only
TRANSMISSION, AUTOMATIC:	{Allison 3000 PTS} 5th Generation Controls, Close Ratio, 5-Speed with Overdrive, Less PTO Provision, Less Retarder, Includes Oil Level Sensor, with Direct Mount Cooler 7-Plate Design (Standard Capacity), with 80,000-lb GVW and GCW Max, School Bus
CLUTCH:	Omit Item (Clutch & Control)
AXLE, FRONT NON-DRIVING:	{Meritor MFS-14-122A} I-Beam Type, 14,000-lb Capacity
AXLE, REAR, SINGLE:	{Dana Spicer 23060SH R/O} Single Reduction, Pinion Up, 23,000-lb Capacity, 200 Wheel Ends Gear Ratio: 4.88
TIRE, FRONT:	(2) 11R22.5 Load Range H ECOPLUS HS3 (CONTINENTAL), 495 rev/mile, 75 MPH, All-Position
TIRE, REAR:	(5) 11R22.5 Load Range H HDW2 (CONTINENTAL), 495 rev/mile, 75 MPH, Drive
SUSPENSION, REAR, AIR, SINGLE:	{International IROS} 23,000-lb Capacity, 9.25" Ride Height, with Shock Absorbers
PAINT:	Cab schematic 100WC Location 1: 4421, School Bus Yellow (Std) Chassis schematic N/A

(0004AZS)
ATTACHMENTS: 0007SDP 0008TPL 0005PRJ 0004193 0004091 0004NDB 0002AST

Parameter	Value	UOM
Wingman Following Distance Alert	2, WINGMAN FOLLOWING DISTANCE ALERT CONFIGURATION #2	N/A
Max Accelerator Vehicle Speed	65	MPH
Road Speed Governor Upper Droop	0	MPH
Road Speed Governor Lower Droop	0	MPH
Max Engine Speed No Veh Speed Sensr	1700	RPM
Idle Speed Adjustment Enable	N, DISABLE FEATURE OR FUNCTION	N/A
Low Idle Speed	700	RPM
Idle Shutdown Enable	N, DISABLE FEATURE OR FUNCTION	N/A
ISD Time Before Shutdown	15.0	MIN
ISD Percent Engine Loading	100	%
ISD With PTO	N, DISABLE FEATURE OR FUNCTION	N/A
ISD Manual Override	N, DISABLE FEATURE OR FUNCTION	N/A
ISD With Parking Brake Set	N, DISABLE FEATURE OR FUNCTION	N/A
ISD Ambient Temperature Override	N, DISABLE FEATURE OR FUNCTION	N/A
ISD Cold Ambient Air Temperature	30	F
ISD Intermediate Ambient Air Temp	40	F
ISD Hot Ambient Air Temperature	81	F
ISD Manual Override Inhibit Zone En	N, DISABLE FEATURE OR FUNCTION	N/A
ISD Hot Ambient Automatic Override	N	N/A
ISD Engine Coolant Temp Threshold	30	F
Cruise Control Enable	Y, ENABLE FEATURE OR FUNCTION	N/A
CC Maximum Vehicle Speed	55	MPH
CC Save Set Speed	N, DISABLE FEATURE OR FUNCTION	N/A
CC Upper Droop	0.0	MPH
CC Lower Droop	0.0	MPH
CC Auto Resume	N, DISABLE FEATURE OR FUNCTION	N/A
Adaptive Cruise Control Recovery	0, KEY CYCLE REQUIRED	N/A
PTO Max Engine Speed	2200	RPM
PTO Max Vehicle Speed	5	MPH
PTO Service Brake Override	Y, ENABLE FEATURE OR FUNCTION	N/A
PTO Resume Switch Speed	925	RPM
PTO Set Switch Speed	850	RPM
PTO Ramp Rate	100	RPM/SEC
Engine Protection Shutdown	N, DISABLE FEATURE OR FUNCTION	N/A
Engine Protection Restart Inhibit	Y, ENABLE FEATURE OR FUNCTION	N/A
Engine Prot Coolant Level Shutdown	N, DISABLE FEATURE OR FUNCTION	N/A
Trip Information Vehicle Ovrspeed1	0	MPH
Trip Information Vehicle Ovrspeed2	0	MPH
Maintenance Monitor Enable	N	N/A
Maintenance Monitor Operating Mode	0, MAINTENANCE MONITOR AUTOMATIC MODE OF OPERATION	N/A
Maintenance Monitor Alert Percent	90	%
Maintenance Monitor Distance	15000	MILES
Maintenance Monitor Fuel	2000	GALLONS
Maintenance Monitor Time	500	HOURS
Maintenance Monitor Interval Factor	1.00	N/A
Master Password	000000	N/A
Adjustment Password	000000	N/A
Reset Password	000000	N/A

These Electronic Parameters have been successfully finalized

Code	Description
PB30500	Base Chassis, Model INTEGRATED RE S BUS with 276.00 Wheelbase, N/A CA, and 118.00 Axle to Frame.
1AGY	FRAME RAILS High Strength Low Alloy Steel (50,000 PSI Yield); 10.000" x 3.000" x 0.250" x 471.3" OAL; 276" WB
1LLE	BUMPER, FRONT Contoured, Steel, Severe Duty
1LNT	CROSSING GATE, FRONT Omit Item
2AST	AXLE, FRONT NON-DRIVING {Meritor MFS-14-122A} I-Beam Type, 14,000-lb Capacity
3ADD	SUSPENSION, FRONT, SPRING Parabolic Taper Leaf, Shackle Type, 14,000-lb Capacity, with Shock Absorbers
4091	BRAKE SYSTEM, AIR Dual System for Straight Truck Applications
4193	BRAKES, FRONT, AIR CAM 16.5" x 6", Includes 24 SqIn Long Stroke Brake Chambers
4722	DRAIN VALVE {Bendix DV-2} Automatic, with Heater, for Air Tank
4AZS	AIR BRAKE ABS {Bendix AntiLock Brake System} with Electronic Stability Program (4-Channel; 4 Sensor/4 Modulator) with Automatic Traction Control
4EBZ	AIR DRYER {Bendix AD-IP} with Heater, Mounted Center of Double Crossmember, Forward of Rear Axle
4EXU	BRAKE CHAMBERS, REAR AXLE {Bendix EverSure} 30/30 Spring Brake
4EXV	BRAKE CHAMBERS, FRONT AXLE {Bendix} 24 SqIn
4NDB	BRAKES, REAR, AIR CAM S-Cam; 16.5" x 7.0"; Includes 30/30 Sq.In. Long Stroke Brake Chamber and Spring Actuated Parking Brake
4SPA	AIR COMPRESSOR {Cummins} 18.7 CFM
4VBX	AIR TANK LOCATION (2) Mounted Between Frame Rails and Over Front Axle
4WEA	PARKING BRAKE INTERLOCK Parking Brake Cannot be Released until Ignition Switch is in the "ON" Position and the Service Brake Pedal is Applied, Use with air brake chassis only.
5710	STEERING COLUMN Tilting and Telescoping
5CAL	STEERING WHEEL 2-Spoke, 18" Dia., Black
5PRJ	STEERING GEAR {TRW (Ross) TAS65} Power
7BLR	EXHAUST SYSTEM Single, Horizontal Aftertreatment Device, Frame Mounted Outside Left Rail, Includes Single Horizontal Tail Pipe
7SDP	ENGINE COMPRESSION BRAKE {Jacobs} for Cummins ISL/L9 Engines; with Selector Switch and On/Off Switch
7WBG	TAIL PIPE (1) Horizontal, Long, Exits Left Side Under Bumper
8000	ELECTRICAL SYSTEM 12-Volt, Standard Equipment
8540	HORN, ELECTRIC (2) Trumpet Style
8614	BRAKE WARNING INDICATOR Light; for Engaged Rear Wheel Parking Brake
8GHV	ALTERNATOR {Delco Remy 28SI} Brush Type, 12 Volt 200 Amp. Capacity, Pad Mount
8NBX	BATTERY SYSTEM {JCI} Maintenance-Free, (3) 12-Volt 2850CCA Total, Top Threaded Stud
8TPL	COLLISION MITIGATION SYSTEM {Bendix Wingman Advanced} Adaptive Cruise Control with Collision Mitigation and Stationary Object Alert; Includes Front Antenna, Driver Display
8TUP	BATTERY BOX Steel, with Sliding Tray, 25.25" Wide, for Standard Batteries, 2-3 Battery Capacity, Mounted Right Side Behind Rear Axle Perpendicular to Frame Rail

Code	Description
8WCB	INDICATOR, LOW OIL PRESSURE / HIGH COOLANT TEMPERATURE / LOW COOLANT LEVEL Light and Audible Alarm; Electronic Controlled
8WNH	RUNNING LIGHT (2) Daytime
8WTK	STARTING MOTOR {Delco Remy 38MT Type 300} 12 Volt; less Thermal Over-Crank Protection
8XAH	CIRCUIT BREAKERS Manual-Reset (Main Panel) SAE Type III with Trip Indicators, Replaces All Fuses
8XBC	TURN SIGNAL FLASHER {Truck Lite #97232} Solid State 12 or 24-Volt; for LED or Incandescent Lamps, with Audible Signal
10020	CHASSIS PAINT Full Chassis
10060	PAINT SCHEMATIC, PT-1 Single Color, Design 100
10788	PAINT TYPE Urethane, One or Two Colors, Other than Imron or International.
10947	KEYS - ALL ALIKE Fleet, Ignition Only
10AAY	OVER THE AIR PROGRAMMING {Navistar} for Cummins Engines
10DAR	PROMOTIONAL PKG, DRIVER FIRST Driver First Bus
10DAS	PROMOTIONAL PKG, CORR RESIST Corrosion Resistant Bus
10WBA	KEYS - ALL ALIKE, ID Z-250
11001	CLUTCH Omit Item (Clutch & Control)
12703	ANTI-FREEZE Red, Extended Life Coolant; To -40 Degrees F/ -40 Degrees C, Freeze Protection
12849	BLOCK HEATER, ENGINE 120V/1000W, for Cummins ISB/B6.7/ISL/L9 Engines
12EMM	ENGINE, DIESEL {Cummins L9 270} EPA 2017, 270HP @ 2000 RPM, 800 lb-ft Torque @ 1300 RPM, 2200 RPM Governed Speed, 270 Peak HP (Max), for School Bus Only
12TJB	FAN DRIVE {Horton Modulator} Viscous Type, Two-Speed, with Mechanical Gear Drive 90 Degree Unit, Electronically Controlled
12UBP	RADIATOR SIDE MOUNTED; Aluminum, Over Under System, 1296 SqIn, 332 SqIn CAC
12UGN	THROTTLE, HAND CONTROL Electronic
12VBC	AIR CLEANER Single Element
12VGZ	FEDERAL EMISSIONS {Cummins L9} EPA, OBD and GHG Certified for Calendar Year 2019
12VVN	CRUISE CONTROL Electronic
12VWH	GOVERNOR Electronic Road Speed Type; for Electronic Engines and Bus Models; with 55 MPH Default
12WAE	HOSE CLAMPS, RADIATOR HOSES Constant Torque, for Engine Hoses 1.0" I.D. and Over
12WZE	EMISSION COMPLIANCE Federal, Does Not Comply with California Clean Air Idle Regulations
13AWN	TRANSMISSION, AUTOMATIC {Allison 3000 PTS} 5th Generation Controls, Close Ratio, 5-Speed with Overdrive, Less PTO Provision, Less Retarder, Includes Oil Level Sensor, with Direct Mount Cooler 7-Plate Design (Standard Capacity), with 80,000-lb GVW and GCW Max, School Bus
13WBL	TRANSMISSION SHIFT CONTROL {Allison} Push-Button Type; for Allison 3000 & 4000 Series Transmission
13WLP	TRANSMISSION OIL Synthetic; 29 thru 42 Pints
13WUM	ALLISON SPARE INPUT/OUTPUT for Pupil Transportation Series (PTS)
13WYU	SHIFT CONTROL PARAMETERS Allison 3000 or 4000 Series Transmissions, 5th Generation Controls, Performance Programming

Code	Description
14AHR	AXLE, REAR, SINGLE {Dana Spicer 23060SH R/O} Single Reduction, Pinion Up, 23,000-lb Capacity, 200 Wheel Ends . Gear Ratio: 4.88
14TBT	SUSPENSION, REAR, AIR, SINGLE {International IROS} 23,000-lb Capacity, 9.25" Ride Height, with Shock Absorbers
14WMN	AXLE, REAR, LUBE {EmGard FE-75W-90} Synthetic Oil; 1 thru 29.99 Pints
15LMN	FUEL/WATER SEPARATOR {Racor 400 Series,} 12 VDC Electric Heater, Includes Pre-Heater, with Primer Pump, Includes Water-in-Fuel Sensor
15SJX	FUEL TANK Steel, Rectangular, 105 US Gal (397L), Includes Protective Cage, Mounted Between Frame Rails and Ahead of Rear Axle
15WEA	DEF TANK 12 US Gal (45L) Capacity, Frame Mounted Outside Left Rail, Behind Rear Axle
16015	PLATFORM Standard Location
16HAA	GAUGE CLUSTER English with English Electronic Speedometer and with Tachometer for Air Brake Chassis
16HJC	GAUGE PACKAGE Includes Hourmeter and Oil Temperature Gauge (Automatic Transmission)
16HLJ	GAUGE, DEF FLUID LEVEL
26DUZ	WHEEL, SPARE, DISC {Accuride 51487} 22.5x8.25 Rims, Powder Coat Steel, 5-Hand Hole, 10-Stud, 285.75mm BC, Hub-Piloted
27DUY	WHEELS, FRONT {Accuride 51487} DISC; 22.5x8.25 Rims, Powder Coat Steel, 5-Hand Hole, 10-Stud, 285.75mm BC, Hub-Piloted, Flanged Nut, with Steel Hubs
28DUY	WHEELS, REAR {Accuride 51487} DUAL DISC; 22.5x8.25 Rims, Powder Coat Steel, 5-Hand Hole, 10-Stud, 285.75mm BC, Hub-Piloted, Flanged Nut, with Steel Hubs
29007	TIRE, SPARE Equal to Model Standard
29580	WHEEL SEALS, FRONT {International} Oil-Lubricated Wheel Bearings
47ACG	BODY, BUS for RE; 78" Headroom, 39'11" Body Length, 84 Passenger, 276" WB
47AMA	FASTENERS, EXTERIOR MOUNTED Stainless Steel Screws; for Fender and Body Exterior Rear View Mirrors, Bumper Mounted Crossing Gate and Body Mounted Stop Arm
47APN	HEADLINER, BODY for RE; Perforated Full Length with Sound Insulation Full Length
47APX	FASTENERS, HEADLINER Screws
47ARH	BOWS, ROOF 14 ga., One Piece Construction
47ARP	LIGHT BARS Plastic
47ARY	SKIRT, BODY for RE; 28", 16 ga.
47AUR	TIE DOWNS, BODY Grade 8 Bolts, Every Body Section
47AVD	SKID PLATE Right Front Step Well Guard
47AXC	RUB RAILS, BODY (4) for RE; Steel, All Body Lengths Includes Snow Rail
47AZJ	SIDE SHEET, BODY, EXTERIOR for RE, 16 ga., Smooth
47BAK	BUMPER, REAR Painted, 12" High, 3/16" Thick
47BAR	SUPPORTS, REAR BUMPER Bolted to Frame
47BAV	TOW HOOKS, FRONT (2) 1 Left, 1 Right
47BAW	TOW HOOK, LEFT REAR (01)

Code	Description
47BAX	TOW HOOK, RIGHT REAR (01)
47BBH	LINING, SIDE INTERIOR, LOWER Embossed Steel, Clear Coated
47BBN	HANDLE, ASSIST, OVER WINDSHLD Body Color
47BBW	LATCH, ACCESS DOOR Front, Lever Type
47BBZ	SEALER Extra; Sidewall to Floor, In Wheel Pocket Area, and Rear Wall to Floor
47BDA	FLOOR, COATING , Chemguard Metal Coating, Applied to Main Floor and Intermediate Sills
47BDB	BODY CERTIFICATION TAG Mylar Label for the State of Alaska
47BKK	LETTERS, SCHOOL BUS FRONT/REAR Decal; "SCHOOL BUS"; with 8" Black Reflective Letters, 3M Fluorescent Diamond Grade, Yellow On Front and Rear Cap
47BLE	STEP, FRONT ENTRANCE DOOR 25 3/4" Depth; 14ga Steel, Formed Treads, Naviflex Finish
47BLP	BODY TAG, METAL Omit
47DAA	CONTROL, ENTRANCE DOOR Electric Over Air, 2 Position Selector Switch Mounted left of Driver
47DBP	DOOR, ENTRANCE, FRONT Air, Outward Opening, with Split Pane Glass
47DCJ	DOOR, SIDE EMERGENCY, LEFT 25"; Installed Forward of Rear Wheel Pocket
47DCZ	HOLD BACK, LEFT SIDE Side Emergency Door, with Plastic Cover
47DDE	HANDLE, ASSIST, ENTRANCE DOOR Outside Entrance
47DDX	LATCH, EMERGENCY DOOR, LEFT One Point Slide Bar, Cam Operated, with One Inch Stroke
47DSC	COMPARTMENT, LUGG, PASS THRU (01) 114"
47EBM	HOLD DOWN, BATTERY For (2) Standard Size Batteries
47ECG	COMPARTMENT, TOOL, FWD RIGHT of Right Side Rear Wheels, Key Lock, 13"x 15"x 25 1/2"
47EHB	CARTON, SHIPPING for Spare Wheel and Tire, Inside Bus
47KBV	HANDLE, EXTERIOR, REAR Emergency Exit Window, Yellow
47LAB	NOISE REDUCTION, DRIVER FLOOR Insulation Covering Complete Driver Floor Area
47LAD	NOISE REDUCTION, ROOF BOW For RE; Insulation 1 1/2", All Body Lengths
47LAU	INSULATION, ROOF AND SIDES 1.50", All Models
47MAC	UNDERCOAT, FLOOR/STEPWLL/SIDES for Engine Noise Reduction
47MAP	LETTERS, SIGN, REAR Decal, "STOP", 8" Letters, Red, "ON FLASHING RED", 5" Mounted on Rear of Bus
47MBA	UNDERCOAT, BODY Fire Resistant, Water Based, TT-C-730 Spec
47MBT	DECAL, SEAT & WHEELCHAIR Decals; Numbering Centered Above Seat Cushion Light Bar, Left Side Numbered Odd & Right Side Numbered Even
47MJG	LETTERS, DOOR, LT Decals; "EMERGENCY DOOR", 2" Black Letters Inside and Outside
47MNE	ARROW, SIDE DOOR, LT OUTSIDE Decal; Black, Indicating Handle Direction
47MRK	STRIPING, BUMPER (3) Decal, Non-contrasting, Front and Rear
47MRT	STRIPING, E/E WINDOW, REAR Perimeter, Reflexite V82
47MSE	STRIPING, REAR END Reflexite 2" Yellow
47MSS	STRIPING, SEATLINE Reflexite V82, 2" Yellow

Code	Description
47MTB	STRIPING, PERIMETER, LEFT Side Emergency Door, Reflexite V82 Yellow Reflective
47MTY	WIRING DIAGRAM Schematic, Electrical
47MVA	LETTERS, HEADER Decal; "WATCH YOUR STEP", 1" Black, Above Windshield
47MVC	LETTERS, STEPWELL Decal, "WATCH YOUR STEP", 2.5" Black, Behind Door on Step Riser
47NAB	PAINT COLOR, RUB RAILS 0001 Canyon Black
47NGW	SEAL, RUB RAILS Top Edge, All Rails
47NJA	PAINT COLOR, BODY EXTERIOR 4421 School Bus Yellow
47NJM	PAINT FLASHER BACKGRD 0001 Canyon Black
47NKL	PAINT, RUB RAIL Flange to Flange
47NKM	PAINT COLOR, BODY INTERIOR 9384 Spring White
47NKZ	LETTERS, FUEL I.D. Decal; "DIESEL FUEL", 2" Black, Adjacent to Fuel Filler Door
47NLB	HANDLE, EXTERIOR, LEFT Emergency Door; Yellow
47NMB	OPERATING INSTR, LEFT Decal, Inside Side Emergency Door
47NMR	ARROW, SIDE DOOR, LT INSIDE Decal; Red Indicating Handle Direction
47NNA	LETTERS, E/E WINDOW, LEFT (01) Decal Set, "EMERGENCY EXIT", Black Inside and Outside
47NNY	LETTERS, E/E WINDOW, RIGHT (01) Decal Set, "EMERGENCY EXIT", Black, Inside and Outside
47NRN	STRIPING, E/E WINDOW, LEFT (01) Perimeter, Reflexite V82, 1" Yellow
47NRT	STRIPING, E/E WINDOW, RIGHT (01) Perimeter, Reflexite V82, 1" Yellow
47NTE	LOGO, ROOF LINE Decal; Wing and Shield, First Body Section, Above Driver Window and Entrance Door Over Driver Window and Entrance Door
47PLX	LETTERS, DEF, I.D. Decal; "DEF ONLY", 1" Black, on DEF Filler Door
47PMM	LOGOS EXTERIOR Engine Decal
47SAV	SUB FLOOR, PLYWOOD For RE; B-B Marine Grade, Less Sealed Edges, 5/8", 5 Ply, for All Body Lengths
47SLZ	POSITION DOOR, LEFT Side Emergency Door, Modified FWD Door Position Within Opening, with 25" Door, Located Forward of Rear Wheel Pocket
47SPE	ALPHA/NUMERIC DECAL GUIDE Quantity 051-60
48ACN	SEAT BELT, DRIVER, COLOR with Blaze Orange Seat Belt Webbing
48ALA	WINDOW, SIDE OFFSET, LT 18", Split Sash Type, with Modified Door Position
48ANW	WINDOW, DRIVER Storm
48APL	WINDOW, STOPS 12" Opening, Only with 78" Headroom
48APX	WINDOW, ENTRANCE DOOR, TOP Storm, Clear, Tempered
48APY	WINDOW, ENTRANCE DOOR, BOTTOM Storm, Clear, Tempered
48ASC	WINDOW, SASH (24) 27" Sections, 9"x 23" Opening
48BAG	WINDOW, E/E, LEFT (01) Vertical Hinge
48BJA	COLOR, WINDOW FRAME, PASS Passenger Window, Natural Aluminum Finish
48BKN	WINDOW, E/E, RIGHT (01) Vertical Hinge

Code	Description
48CCJ	WINDOW, PASSENGER, TINT Clear, Tempered Glass
48CUV	HAND RAIL, ENTRANCE DOOR, FWD 1.25" Diameter Stainless Steel; 30" Height
48CWX	WINDOW, REAR Emergency Exit, with Black Interior Frame, Glass Type to Match Passenger Windows
48DBN	SHIELD, COURTESY, AFT ENTR DR Padded, 30", Mounted Under Stanchion
48DCE	STANCHION, AFT ENTRANCE DOOR Stainless Steel, 30"
48GHC	HEATER, DRIVER 90,000 BTU, with Defroster and without Rear Heat Duct
48NAT	FITTINGS, AIR SEAT for Driver Seat
48PAC	WINDSHIELD 4 Flat Pieces, 73% Light, with Shaded Band
48PAV	WHEEL POCKET COVER Plastic, ABS
48PAY	AISLE POSITION Center, for balanced seating
48PEW	FLOOR COVERING, COLOR Gray #766
48PHN	UPHOLSTERY, PASS SEATS, TYPE Prevaill, 42 oz.; for (21-22) Seats
48PKC	HOSE CLAMPS, HEATER HOSE Constant Torque for Heater System
48PKR	FAN, DEFOG LEFT CENTER 6.50" Diameter, Black, Mounted Left of Center Post, 2-Speed Switch in Panel
48PKS	FAN, DEFOG RIGHT CENTER 6.50" Diameter, Black, Mounted Over Windshield, 15" Right of Centerline, 2-Speed Switch in Panel
48PLX	HEATER, DRIVER, ADDITIONAL For FE, RE, 14,000 BTU
48PMC	HEATER, PASS, LT MIDSHIP 1ST 50,000 BTU
48PMJ	HEATER, PASS, LT REAR 84,500 BTU
48PNR	HEATER HOSE INSULATION
48PNS	KICK GUARD, MIDSHIP, LT 1ST for 50,000 BTU Passenger Heater
48PNZ	HEATER, WATER PUMP {2 MPU 12} Self Priming, Metal Housing
48PPC	SWITCH, HTR FAN, REAR, LT with 84,500 BTU Rear Heater Only
48PPE	KICK GUARD, REAR, LT for 84,500 BTU Passenger Heater
48PPN	HEATER CUT OFF, VALVE Quarter Turn Operation
48PPS	ROOF VENT, FRONT Static
48PUP	FLOOR COVERING, TRIM Omit
48PUT	NUTS, BELT MOUNTING Standard Nuts For Seat Belt Mounting
48PVA	UPHOLSTERY, DRIVER SEAT, STYLE Plain, with Cloth Insert
48PVN	UPHOLSTERY, DRIVER SEAT, COLOR Drivers Seat, Gray
48PWD	UPHOLSTERY, PASS SEATS, COLOR Gray, for Seats, Barriers and Head Bumpers
48PWR	UPHOLSTERY, DRIVER SEAT, TYPE Prevail, 42 oz.
48PXP	UPHOLSTERY, BARRIER, TYPE (1-2) Prevaill, 42 oz.
48RAE	BARRIER, CRASH, AFT ENTRY DOOR 39", 1 Leg
48RAL	BARRIER, CRASH, AFT DRIVER 39", 1 Leg
48RBW	BARRIER, CRASH, RT, 1ST Position; 39", 1 Leg

Code	Description
48REP	PANEL, MODESTY, AFT OF DRIVER Mounted Under Barrier
48RET	PANEL, MODESTY, AFT ENTR DOOR Mounted Under Barrier
48RGR	HAND RAIL, ENTRANCE DOOR, AFT Stainless Steel, 4", Above Step
48RLX	CUSHION, SEAT 15" Depth
48RLZ	COMPARTMENT, HEATER for Webasto Scholastic Fuel Fired, Mounted Left Side Behind Front Wheel Pocket
48RRA	UPHOLSTERY, SEAT, STITCHING Single
48RYW	SEAT, DRIVER {National 2000} Air Suspension, High Back with Integral Headrest, Isolated, with 2 Position Front Cushion Adjustment, 6 to 17 Degree Seat Back Adjustment, Mechanical Lumbar Support, Includes Additional Back Padding
48SDS	SEAT,PASS,LT,39",2 LEG (09)
48SKM	SEAT,PASS,RT,39",2 LEG (11)
48SRA	SEAT,PASS,LT,39",4 LEG (01)
48TSA	SEAT,DAVENPORT,LEFT (01) 39"
48TSH	SEAT,DAVENPORT,RIGHT (01) 39"
48UAH	SEAT,FLIP,LEFT Automatic, (01) 39"
48UCP	ROOF HATCH, FRONT {Transpec 1975-028-121-03} with Outside Release, with English Decals
48UCR	ROOF HATCH, REAR {Transpec 1975-028-121-03} with Outside Release, with English Decals
48USV	SEAT BACK, PASSENGER High Back
48UTV	SEAT RELOCATION Driver Seat Centered with Steering Wheel
48UWW	FLOOR COVERING, TYPE Koroseal, One Piece, Vinyl, All Body Lengths, Dark Gray
48VVR	STEP TREADS {Koroseal} Pebble White Nosing Only, with Non-Metal Backing, used with Formed Treaded Steps
49062	BODY PLAN, APPROVED VARIATION Number 062
49ADR	HEADLIGHTS Halogen, Heavy Duty 5"x 7" Rectangular, with Turn Signal
49AMB	WIRE, FEED 4 Gauge, Chassis To Body
49AMC	TERMINAL STRIP Chassis
49AMD	SWITCH, DRIVER PANEL, TYPE Rocker
49AMT	CIRCUIT, PROTECTION Breakers, Manual Reset in Lieu of Fuses
49ANU	SOURCE, POWER 12 VDC, Mounted In Dash
49ARM	SWITCH, DOME LIGHT, REAR Separate, for Rear Row Dome Lights, Last Light on Each Side
49ASK	FLASHER SYSTEM (8) Warning Lights, Weldon 7000 8-Lamp, Sequential, Electronic Solid State Flasher
49ATV	LIGHT, INDIC, WARNING LIGHTS Red and Amber
49AUL	SWITCH, MASTER FLASHER Lighted Master Switch for Warning Lights, Not Available with Push-Pull Switch
49AUT	SWITCH, OVERRIDE for Flasher System, Operate Red Lights and Stop Sign
49AWE	SPEAKER, OUTSIDE Weatherproof Horn, Under Drivers Platform, Radio Accessory Corporation, Requires Amplifier
49AWT	SPEAKERS AND WIRING (4) Flush Mounted in Light Bar

Code	Description
49BDT	ALARM, BACKING {Ecco #SA-917-87} 112 db, Self Adjusting 5db Above Ambient Noise Level
49BLL	WIRING, VIDEO SYSTEM Power and Ground Connection Only; Connection in Flasher Plate Area with 20 Amp Fuse Protection
49BLM	WIRING, TWO WAY RADIO Power and Ground Connection Only; Connection in Flasher Plate Area with 20 Amp Fuse Protection
49BVD	SWITCH, BATTERY Shut-Off, 300A Weather Resistant, In Battery Compartment
49BYT	LIGHTS, STOP (2) {Sound Off} and Tail; 7" Round LED, Red
49BYZ	LIGHTS, DIRECTIONAL, REAR (2) {Sound Off} LED, 7" Round Amber LED
49BZG	LIGHTS, BACK UP (2) {Sound Off} LED, 7" Round Clear
49CKR	FUEL FILLER PIPE Low Profile Neck Cap and Vent Hosing, for Use with Right Side Fill for Between the Rail Fuel Tanks, for Below the Floor Fuel Fill
49CKX	RADIO, ENTERTAINMENT {Custom Radio} AM/FM Stereo/USB Input, Includes Antenna and Cable, with Public Address System, Mounted Overhead in Driver Area
49EAW	LIGHTS, MARKER, SIDE {Sound Off} Rectangular LED, Armored Type, Intermediate, Centered; Required for Units 30 Foot or Longer
49EAX	LIGHTS, DIRECTIONAL, SIDE (4) {Sound Off} Rectangular LED Armored, 2 Each Side First Section Aft Entrance Door & Forward Rear Wheel Pocket
49EGB	MIRROR, INSIDE 10" x 30", Clear
49EGM	MIRROR, CROSS VIEW, EXTERIOR Heated, Black, Rosco
49EHA	MIRROR, REAR VIEW, EXTERIOR Breakaway, Motorized Head, Heated, Black, Rosco
49ELD	STOP ARM, FRONT Electric, Composite Blade, 18" Octagon, Double Sided, 1/2" White Border, Hi Intensity Grade, LED Lights "STOP"
49ELJ	STOP ARM, LEFT REAR Electric, Composite Blade, 18" Octagon, Single Sided, 1/2" White Border, Hi Intensity Grade, LED Lights "STOP"
49ENK	VISOR, INTERIOR, LEFT FRONT 6" x 30", Transparent, For Left Windshield
49EUB	KIT, FIRST AID Metal; 24 Unit, Spec State
49EVL	SWITCH, NOISE SUPPRESSION Actuator Legend States, "NOISE SUPP ", for Separate Solenoid, with Red Switch in Panel
49EWM	LIGHT, STROBE ECCO 6550C, Low Profile, Double Flash, 4.9" High
49EYG	LIGHTS, DOME, DRIVER {Sound Off} (1) Rectangular LED, Mounted 32.94" Left of Center in Ceiling
49GAB	KIT, BODY FLUID Alaska
49GCH	LOCATION, FIRST AID KIT Right Side Front Bulkhead with Screws
49GDA	LATCH, DOOR BULKHEAD Spring Latch, for Bulkhead Mounted Safety Compartment or Destination Sign Access Doors
49GDC	DOOR, FRONT BULKHEAD For Access to Front Bulkhead
49GDD	DOOR, REAR BULKHEAD For Access to Rear Bulkhead
49GEH	SAFETY TRIANGLES Warning Reflectors, Mounted on Drivers Barrier Level with Top of a Modesty Shield
49GGE	FIRE EXTINGUISHER, DRIVER AREA 5 lb 2A-40BC Minimum with Flexible Hose and Metal Nozzle
49GHN	REFLECTORS, REAR (2) 3", Red, Adhesive Back

Code	Description
49GHR	REFLECTORS, SIDE, REAR (2) 3", Red, Adhesive Back
49GHV	REFLECTORS, SIDE, FRONT (2) 3", Amber; Adhesive Back, 1 Aft Drivers Window Left, 1 Aft Entrance Door Right
49GHX	REFLECTORS, SIDE, INTERMEDIATE (2) 3" Amber, 1 Each Side, Below The Third Rub Rail From the Top, Adhesive Back
49GKZ	FUEL FILLER DOOR with Non-Locking Latch
49GTR	WINDSHIELD WASHER Kit; 8 Quart Capacity, Bottle
49GTV	WINDSHIELD WIPERS (2) Bottom Mounted; Pantograph Type; Wet Arms, 28.5"
49GTY	SWITCH, WIPER CONTROL Single, to Control Both Wipers
49GUB	CUTTER, SEAT BELT {TIE TECH Safecut} for Cutting Seat Belts
49GUK	FENDERS, RUBBER, REAR (2)
49GUM	INSPECTION PLATE Fuel Sending Unit 8" x 8" Steel
49GUW	MOISTURE BARRIER, FLOOR Between Plywood and Steel; for AK Body
49GUX	MUD FLAPS, FRONT WHEELS (2) Rubber
49GUY	MUD FLAPS, REAR WHEELS (2) Anti-Spray and Anti-Sail; Behind Rear Wheels
49GWR	INSULATION, FUEL SENDER PLATE Metalized Foam with Adhesive Back
49GWX	HEATER, ENGINE COOLANT Fuel Fired, Webasto Scholastic, 45,000 BTU, with Exhaust Exit Out Left Side
49JAC	DEF FILLER DOOR with Non-Locking Latch
49JBP	LIGHTS, DOME {Sound Off} (07) LED, Rectangular Recessed Type, Mounted in Light Bar
49JBS	LIGHTS, CLUSTER {Sound Off} Oval, 4 Internal LEDs per Light; Amber Front and Red Rear
49JBU	LIGHT, ENTRY DOOR {Sound Off} LED; 4" Oval; Light Mounted in Skirt Behind Entrance Door, Wired To Step Light
49JBV	LIGHT, LICENSE PLATE {Sound Off} LED, with Mounting Gasket
49JBX	LIGHT, STEP {Sound Off} 4" Round LED, White, Wired to Ignition, Operated by Entrance Door
49JBY	LIGHTS, MARKER, FRONT, REAR {Sound Off} (4) Total, Slim-Line Armored LED, (2) Amber Front and (2) Red Rear
49MSW	TIMER, FUEL FIRED HEATER Digital, 7 Day, Programmable, for Webasto Fuel Fired Heater with SmarTemp Control, Mounted on the Electrical Panel
49NGH	LIGHTS, WARNING (8) {Sound Off} (4) 7" Round Red Flashing LED and (4) 7" Round Amber Flashing LED, 2 Front, 2 Rear Each Color
49UAB	STATE OF OPERATION Alaska
49ZNG	LIGHTS, STOP & TAIL ADDITIONAL (2) {Sound Off} 4" Round LED, Red, with Flange
50KRW	BODY PLAN, NON-SPECIAL NEEDS for RE; 39' 11" Body Length, 72 Passenger, 276" WB, DC0505A000
7382135429	(2) TIRE, FRONT 11R22.5 Load Range H ECOPLUS HS3 (CONTINENTAL), 495 rev/mile, 75 MPH, All-Position
7382135430	(5) TIRE, REAR 11R22.5 Load Range H HDW2 (CONTINENTAL), 495 rev/mile, 75 MPH, Drive
OBD002	MISCELLANEOUS FUEL FILL BUCKET REQUIRED TO MEET STATE OF ALASKA SPECS

Services Section:

Code	Description
40126	WARRANTY Standard for CE, RE, BE School Bus Models, Effective with Vehicles Built March 1, 2017 or Later, CTS-3304H
ICWD	AUTOMATIC TIRE CHAINS, Insta-Chain 6-Strand
RWC	TIRE CHAINS, 1 Set for Single Tire 11R22.5, Glacier PTCH2247SC
RWC	TIRE CHOCKS, 1 Set (2) P/N 18455
BSC	BSC WORK, Install Only Insta Chains; Re-wire Battery Disconnect Switch so that Webasto heater & Gatekeeper System operate when disconnect switch is OFF; Furnish & Install Winter Type Blades
RWC	MANUALS, OnCommand Parts & Service, Electronic Subscription, 10 Year
BSC	FUEL FILL BUCKET, Rubber fuel fill bucket flush with the outside skin on a plate that replaces standard fuel door

(US DOLLAR)

Description		Price
Net Sales Price:		$138,458.00
Freight	$9,305.00	
Note: Memo item(s) shown here are included in the above Net Sales Price.		

Price is quoted FOB Anchorage, AK and does not include fees for title and registration. Please allow 180 days for delivery. Price is valid for 30 days.

Thank you for the opportunity to provide this proposal. Please call me at (907) 265-0225 or email at mlash@rwcgroup.com with any questions.

Regards,

Mike Lash
General Manager, Alaska
RWC Group

Approved by Seller:

Official Title and Date

Authorized Signature

RWC INTERNATIONAL, LTD.
7880 SANDLEWOOD PLACE
ANCHORAGE AK 99507 -
(907)279-9591

This proposal is not binding upon the seller without Seller's Authorized Signature

Accepted by Purchaser:

Firm or Business Name

Authorized Signature and Date

Official Title and Date

The TOPS FET calculation is an estimate for reference purposes only. The seller or retailer is responsible for calculating and reporting/paying appropriate FET to the IRS.

The limited warranties applicable to the vehicles described herein are Navistar, Inc.'s standard printed warranties which are incorporated herein by reference and to which you have been provided a copy and hereby agree to their terms and conditions.

Monday, June 10, 2019

TRUCK PURCHASE AND DEPOSIT AGREEMENT

Rachelle Goniotakis
Kenai Peninsula Borough School District
139 E. PARK AVE
SOLDOTNA, AK 99669 USA

Proposal Number: 72 R-ED 114 LUG

CUSTOMER TRUCK AND EQUIPMENT PURCHASE ORDER AND DEPOSIT AGREEMENT
I hereby place a firm order for the chassis and/or body described on the attached proposal, which includes standard equipment set forth in current Original Equipment Manufacturer's (OEM) price lists unless otherwise specified herein, together with the equipment designated on the previous page(s); and I agree to pay the full purchase price shown in accordance with the terms and conditions contained in this Purchase Order. I understand this Purchase Order becomes binding only when signed by a person authorized to accept on behalf of RWC International, Ltd ("Distributor").

TRUCK PURCHASE DEPOSIT AGREEMENT
It is agreed and understood by the undersigned that this deposit will be held by Distributor, and will be applied toward the cash purchase price, cash down payment, or initial lease-purchase payments, whichever shall apply at time of delivery.

It is further agreed and understood that if the Customer cancels the above referenced Sales Order at any time after the chassis has: (1) reached a non-cancelable point at the factory, (2) been purchased by the Distributor from another distributor, or (3) has undergone Sales Order modifications at Distributor expense, that the Distributor shall reserve the right, at its discretion, to hold the deposit until the chassis is sold in the market or is otherwise satisfactorily disposed of; in which even the Distributor will be allowed to retain from the deposit whatever charges it may incur until the chassis is sold and damages it shall have suffered by reason of such cancellation; provided, in the event the charges incurred and damages suffered by Distributor exceed the deposit, Customer agrees to pay Distributor the amount of such excess, and in the event there is a balance after said charges and damages, the balance will be remitted to Customer within ten (10) days thereafter. If the Sales Order is cancelled at no loss or inconvenience to the Distributor, the deposit will be returned to Customer upon request.

The foregoing shall not be interpreted to give the Customer a right to cancel the aforesaid Purchase Order, but merely sets forth the rights to the use of the purchase deposit in the event the Purchase Order is cancelled with the consent of the Distributor.

THE PURCHASE ORDER AND DEPOSIT AGREEMENT INCLUDING THE LIMITATION OF WARRANTY IN PARAGRAPH 5 SHALL BE SUBJECT TO THE TERMS AND CONDITIONS CONTAINED IN THE NOTES BELOW.

Customer Signature of Approval: _____ DATE _____/_____/_____

Distributor's Acceptance. Subject to the conditions contained herein, this order for the above described chassis hereby accepted.

Accepted for RWC INTERNATIONAL, LTD. By: _____

This Order is given and accepted subject to the following:

CONDITIONS

1. Distributor shall not be responsible for any failure or delay in shipment or delivery due to causes beyond his control. Such failure or delay shall extend the time of performance by such time as may be necessary to enable Distributor to make delivery. If the delay shall extend Thirty days beyond the delivery date set forth in this agreement, Distributor may cancel this order and return to Customer any deposit made with Distributor, and Distributor shall be relieved of any further liability to Customer

2. If Customer fails to pay the balance due prior to delivery as set forth herein or breaches any other provision of this agreement, Distributor at his option may cancel this order and retain any deposit made by Customer as liquidated damages, or he may enforce the terms of this agreement. Customer agrees that the venue of any suit or action based on this agreement may be at the Distributor s option, be laid in the county in which Distributor s principal place of business is located, and that in the event of any such suit or action Customer will pay reasonable attorney s fees incurred by Distributor.

3. Buyer agrees to pay the amount of any tax imposed upon the transaction covered by this agreement.

4. If any material is furnished by Customer for use in the manufacture of the vehicle purchased herein, Customer agrees to indemnify and hold harmless the Distributor and manufacturer from any and all costs, claims and damages arising from any defect in such material.

5. Limitation of Warranty. It is expressly agreed that the Distributor makes no warranties, express or implied, including no warranties of MERCHANTABILITY OR FITNESS FOR PARTICULAR PURPOSE with regard to the equipment described above, except those warranties which are in writing and made part of this agreement and such warranties as may be granted by the manufacturer of the equipment covered by this agreement; and that in no event shall the Distributor be liable for incidental or consequential damages or commercial losses. Customer acknowledges that the has read, understood, and agreed to the contents and that the same is a part of the bargaining and negotiating of this agreement.

6. If the terms of payment herein provided are other than cash, this Purchase Order and the terms of payment shall be subject to the approval of the credit of the Customer by the Distributor. Distributor shall notify Customer upon approval of credit. If Customer does not pay according to the terms of payment, the unpaid balance shall bear interest at an annual percentage rate of eighteen percent (18%).

7. Any change to a factory ordered vehicle is subject to a change fee after three calendar days from date of original order. Fees are outlined in Navistar letter G-1873B and will be supplied to the purchasing customer upon request.

MNT ORDER #: _____

EQUIPMENT #: S.D 115

FACILITY: So Hi

BILL TO: KPBSD

KENAI PENINSULA BOROUGH
VEHICLE MAINTENANCE 262-1696

Quote

DATE IN: 7-9-19

DATE OUT: _____

NEXT SERVICE/INSPECTION DUE:

DATE: 9-5-19

MILES/HRS: 96757

RECORD OF MATERIAL USED

QUAN	PART #	DESCRIPTION	SALE AMT	
		TOTAL		

YEAR/MAKE/MODEL	LICENSE NO.	SPEEDOMETER/HRS
	XXT593	93757

CODE	HRS	EMPL.	REPAIR TASKS	LABOR CHARGE	
	4.5	5663	PREP BUS FOR DISPOSAL	325	00
			Deliver/Pick-Up Vehicles/Parts:		
			Service Call:		
			Travel Time:		

NOT RESPONSIBLE FOR LOSS OR DAMAGE TO CARS OR ARTICLES LEFT IN CARS IN CASE OF FIRE, THEFT OR ANY OTHER CAUSE BEYOND OUR CONTROL.

SIGNED: _____

TOTAL LABOR	325	00
TOTAL PARTS		
TOTAL AMOUNT	325	00

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Tok Transportation LLC Cost Estimate Documentation

One bus selected for replacement:

1. #8

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School Bus Replacement Application Cover

ALASKA ENERGY AUTHORITY

Date of Application	6/1/19
Applicant/Agency Name	Tok Transportation LLC
Employer/Taxpayer ID (EIN/TIN)	82-2636397
Address	1313 Alaska Hwy. PO Box 392
City/Zip	Tok, AK 99780

Authorized Representative Name	Gerald Blackard
Contact Title & Association	Fleet Manager / Owner
Phone	907-883-2520
Email	tokbusbarn@gmail.com

Alternative Authorized Representative Name	Sara Blackard
Contact Title & Association	Book keeper / Owner
Phone	907-883-2520
Email	tokbusbarn@gmail.com

Project Narrative
Please describe in detail the project, including the number of buses being replaced, bus ownership, timeline of events, and plans for scrappage of existing bus(es). Include information such as voluntary matching funds, timing of other funding sources, or in the case of alternative fueled vehicles, related infrastructure plans and funding. Use the next page or attach additional pages if necessary.
See Attatchment A

Milestone	Proposed Completion Date	Notes
Purchase order issued for new bus	May-20	
Delivery of new bus	Feb-21	
Existing bus scrappage with required documentation	Mar-21	
Reimbursement request with required documentation	Apr-21	

School Bus Replacement Application Cover

ALASKA ENERGY AUTHORITY

Project Narrative - Continued

Application Check List

- [x] School Bus Application Cover
- [x] Bus Data Form for each bus
- [x] EPA DEQ emission results report used in the Bus Data Form for each bus

(For eample see http://www.akenergyauthority.org/Programs/vwsettlement)

- [x] Project Evaluation Form for each bus
- [x] Map of bus route including fleet yard location for each bus
- [x] Bus odometer photo

Application Acknowledgement

The undersigned certifies that they are the authorized agent of the above stated entity, and that all information and documentation submitted to the Alaska Energy Authority for an award of the VW Settlement Funds are truthful and correct, and that the applicant is in compliance with, and will continue to comply with, all applicable state and federal law, and that they can legally commit the entity to these obligations.

Signature of Authorized Representative	6/8/19 Date
Gerald Blackard Authorized Representative Name	Owner Title

ALASKA ENERGY AUTHORITY

Applicant:___Tok Transportation LLC_ Bus ID: ____#8____

Please complete the table below. **The applicant must also enter the data into the EPA Diesel Emission Quantifier tool and attach the DEQ emissions results to this form.** (https://cfpub.epa.gov/quantifier/index.cfm?action=main.home) *Note: disregard the health benefits output.

Submit a separate Bus Data Form and DEQ output for each bus. For electronic applications, submit one excel worksheet per bus; paper applicants print as many copies of the form as necessary.

Bus Data for EPA Diesel Emission Calculator		
	Existing Bus	**Replacement Bus**
Bus ID #	#8	NA
Bus Ownership (complete next page)	Tok Transportation	
VIN #	4UZAAXDH77CW86438	NA
Engine Serial Number	924 917-00-566804	NA
Bus Make	Thomas	Lion Electric CO
Bus Model	Safety Liner C2	AA2_No_AC
Bus Model Year	2007	2020
Bus Class/Type (Class A-D)	C	C
Gross Vehicle Weight Restriction	29000	29000
Fuel Type[1] (complete next page)	Diesel	Elelctric
Average Fuel Efficiency (MPG)	7.66	
Annual Fuel (gals)	1091	NA
Annual Miles Traveled	8352	NA
Annual Idling Hours	172	NA
Total Mileage	130566	NA
Annual Fuel Reduction (gals)[2]	NA	1091
Remaining Life (years)[3]	18	NA
Attrition year (please explain)[4]	2025	NA
Our contract with Alaska Gateway School District states we cannot have more than one bus older than 18 years old and a fleet average life older than 12.3 years on the fleet. Our fleet currently has 7 School Busses.(see #3 below)		
Equipment Cost limited to cost of bus & shipping[5]	NA	405,774
Labor Cost	NA	1691

1. This funding opportunity is strictly to replace/repower existing diesel school buses MY 2009 or older with at least three years of remaining life. New replacement buses may be diesel, alternate fueled (e.g., propane, CNG, hybrid), or all-electric.
2. Information to be provided by the manufacturer, reasonably extrapolated to the service use conditions for each bus. Example, long haul with intermittent stops vs. frequent urban stop and go conditions.
3. EPA's Quantifier uses remaining life of the existing vehicle to calculate lifetime emission reductions associated with a project. Actual remaining life depends on the age of the vehicle at the time of the project, as well as usage, maintenance, and climate. Remaining life is calculated by taking either the maximum life or the median life value and subtracting the current age of the vehicle based on model year. DEQ will use the maximum life for this calculation. For example, if the on-road vehicle replacement occurs in 2019, and the existing vehicle is a model year 2005, the remaining life would be 30 - (2019-2005) = 16 years. DEQ
quantifies the median life of on-road vehicles as 19 years and the maximum life as 30 years.
4. Year in which bus would normally be retired/sold by the fleet owner if not for this funding opportunity.
5. EV charging infrastructure if applicable
6. Not to include administrative costs

ALASKA ENERGY AUTHORITY

Bus Ownership Information		
Both school district-owned buses and buses contracted to the school districts are eligible for repower/replacement. If the bus is contracted to the school district, please complete this section. Attach an explanation of the terms of the contract and what happens to the bus when the contract expires.		
Bus owner name	Tok Transportation LLC	
Bus owner address	1313 Alaska Hwy.	
Bus owner city/state/zip code	Tok, AK 99780	
Contract expiration date	Jun-22	
Can the parties enter a legally binding agreement to ensure the new replacement bus will operate within the usage area described in this application?		Yes

Non-diesel Replacement Buses	
If requesting funding for alternative-fuel buses (compressed natural gas, hybrid-electric, liquid natural gas, or liquid propane gas) or all-electric buses, identify the fuel type and **attach information about fueling infrastructure and indicate if it is in place or provide installation information (e.g., timeline, location of infrastructure, funding source for infrastructure).**	
Fuel Type	Electric

Bus Replacement Cost		
Provide project costs below. Use NA for any fields that are not applicable. Detailed cost estimates from selected or potential vendors are required for all individual expenditures. **Attach a copy of the manufacturer/vendor bid estimates for each vehicle replacement. Note that funds cannot be requested for fueling infrastructure for alternative-fueled buses. Verification and documentation of scrappage of the old bus must be provided for reimbursement of project costs; the old bus shall be scrapped or rendered inoperable and available for recycle by cutting a 3-inch hole in the engine block and, if applicable, disabling the chassis by cutting the vehicle's frame rails completely in half.**		
	Total Cost ($)	**Requested Funds ($)**
Bus	376774	376774
Shipping	23000	23000
Other - (please explain)		
Electric Vehicle charging infrastructure	6000	6000
Alternative fueling infrastructure	NA	
Labor (includes onboarding, signage, scrapping of old bus)[6]	1691	1691
Total Project Cost	407465	407465

TOK TRANSPORTATION LLC

CLIENT PROPOSITION

LION

THE LION ELECTRIC CO.

PROFILE / DESCRIPTION OF THE LION ELECTRIC CO.

The Lion Electric Co. is thankful for the opportunity to present our quote to Stretch Blackard and the Tok Transportaton LLC Team for one all-electric LionC school bus. We hope to see the LionC in operation in Alaska in the near future.

To provide some background, Lion is the first manufacturer that has dedicated its production to zero-emission fully-integrated vehicles. Furthermore, Lion has set standards for training, service and has the fastest delivery timeline of the industry. We have built a team that specializes in zero-emission vehicle deployments throughout the years that have skills and knowledge that are unparalleled.

In fact, in the last 3 years, Lion has commercialized over 200 electric school buses in North America and driven over 2 million miles with our vehicles using the same powertrain, motor and batteries. Needless to say that our real-life experience is unmatched.

The Lion vehicles components require very little maintenance and further minimize its total cost of ownership. Therefore, Lion's proven transportation electrification technology and expertise are always benefitting the end-user.

Lion is happy to provide additional information on our school bus and looks forward to providing specifications, a timeline of availability, warranty and pricing information. We hope that the information provided to date will successfully convince you that Lion can continue to bring quality products while growing Tok Transportation LLC's zero-emission vehicles fleet.

We look forward to working with you to implement your program.

Sincerely,

David Limoges
Business Development Specialist

OVERVIEW

Marc Bedard founded Lion in 2008 with the intention of revolutionizing the school bus industry. He quickly started his quest for business intelligence and met with the major players in student transportation to identify the main issues they were facing to better understand their daily operation and their overall business model. Based on the knowledge acquired, Marc started designing and building the LionC diesel bus; a much more innovative, safer, lighter, wider school bus that was easy to maintain and built with the end-users in mind.

This was just the beginning of Lion's continuous history of innovation. In fact, the Lion Team quickly realized that a lot of progress still needed to be made in the school bus industry, starting with the environmental side of it. They evaluated multiple options and concluded that an electric school bus was the cleanest, most cost-efficient bus that was environmentally advantageous for our community, our children and our overall quality of life. Lion then rapidly became the first manufacturer to dedicate its production to zero-emission fully-integrated vehicles, and built a brilliantly thought out school bus, not a retrofit, designed to be 100% electric. Lion became a pioneer in electrification when it decided to pursue the electric path when 100% of buses in North America were still powered with fossil fuels and no funding opportunities were available to school districts or OEMs. We were in 2012 and Lion decided to set the standard for electric buses in the market.

We wanted to prove that electrification of heavy-duty vehicles was possible and demonstrate that our society had a crying need for zero-emission solutions in the market. What was meant to happen, happened; Lion shocked the school bus market in 2015 with the commercialization of its high-quality, reliable, clean, electric school bus.

In 2018, Lion commercialized the LionM, a 26 feet low-floor transit bus that meets paratransit and public transportation requirements. The midi/minibus has a range of up to 150 miles per charge. It is specially adapted to its users and their everyday needs and requirements. Furthermore, Lion is broadening its vehicles offering by manufacturing its brand-new class 8 all-electric urban truck. Lion is also developing class 5 to 8 all-electric trucks with the same technology and knowledge acquired over the last 8 years.

ALL-ELECTRIC LIONC SPECIFICATION

Lion Electric Co. was established in 2008. The Lion Electric Co. USA Inc. was registered with the CA Secretary of State in 2018.

BASE SPECIFICATION	
GROSS VEHICLE WEIGHT RATING (GVWR)	33,000 LBS
SEAT ROWA	Up to 12 rows
PASSENGER CAPACITY	Up to 71 pass.
WHEELBASE	276 in.
LENGTH	473.33 in.
BODY WIDTH	102 in.
HEADROOM	78 in.
SINGLE SPEED ELECTRIC MOTOR	Up to 240 H.P. (230 kW)
REGENARATIVE BRAKING SYSTEM	Standard
BASE RANGE	100 miles
HIGH VOLTAGE BATTERIES	Lithium-Ion NMC
AC CHARGING	On-board charger - 19.2 kW
SOUND GENERATOR	Standard (0-20 MPH)
12 V BATTERIES	2 x 950 CCA
BRAKE SYSTEM	Hydraulic disc brakes

EXTERIOR LED LIGHTS	Standard
INTERIOR LED LIGHTS	Standard
ELECTRIC HORN	Standard
MIRRORS	Remote & heated
STOP ARM	LED stop arm - FMVSS
REFLECTIVE MARKINGS	PER specifications
SCHOOL BUS SIGNS	PER state specifications
FLOOR	Plywood / black flooring
HEATING	Fuel heating system
WINDOWS	Tinted
ROOF	White composite
BODY PANELS	Yellow composite
RUB AILS	Black steel
DRIVER SEAT	Grey cloth - with arm rest
PASSENGER SEATS	39 in. - grey - high black
TRI-KIT	Standard
FIRST AID KIT	Standard
FIRE EXTINGUISHER	Standard
CHILD CHECK MATE	Standard

CHARGING INFRASTRUCTURE

Lion does not manufacture electric chargers but can assist customers with identifying the right charging station for their needs; Lion can also connect customers with their respective utilities and act as Project Manager. Lion does recommend CS-100 chargers that are designed to use the entire AC ranges as defined in SAE J1772 to use a maximum charge power of 19.2 kW over 240 VAC. Lion's charging port can accept Level 2 (J1772) connector.

WARRANTY

The Lion warranty is amongst the best offered in the industry. See appendix A for warranty documents.

SERVICE

- Lion will provide a free training at HQ or Lion experience Center (Sacramento) // Travel at their expense
- Lion will support remotely Tok, Alaska and their service team
- Lion will provide support in a timely manner, but outside our regular response time of 48 - 72 hours (remote support)
- If a Lion tech is required to go onsite, Tok is responsible for the traveling fees and labor associated
- Warranty work will be covered

QUOTE

Customer Name // *Stretch Blackard*

Company Name // *Tok Transportation LLC*

Address// *1313 Alaska Hwy. PO Box 392*

City// *Tok* **State**// *Alaska*

Zip // *99780*

Phone // *907-505-9394*

Email // *adecker@luhsd.k12.ca.us*

Quote No.// *Tok_051319*

Date// *5/13/2019*

Quote prepared by:

Name // *Dave Limoges*

Company // *The Lion Electric Co.*

Phone // *438-889-1226*

Email // *david.limoges@thelionelectric.com*

	MODEL	RANGE	UNIT PRICE	QUANTITY	TOTAL
LIONC	AA2_No_AC	100 mi.	$370,600.00	1	$370,600.00
CAPACITY/PASS	71 passengers				
OPTIONS	Sub-total (see page 7)		$6,174.00	1	$6,174.00
TRANSPORTATION FEE			$23,000.00	1	$23,000.00
TOTAL				**1**	**$399,774.00**

** Note: price is subject to change upon final P.O.*

*** Blue wheels & bumpers included*

REQUESTED DELIVERY DATE:

THE LION ELECTRIC CO.

Customer Signature Date

OPTIONS

BODY	QUANTITY	PRICE
BUMPERS - BLUE	1	STD
WHEELS - BLUE	1	STD
FOG LIGHTS	1	$ 200.00
PA SYSTEM	1	$350.00
PLYWOOD - 3/4” - MARINE	1	$800.00
PRE-WIRE - CAMERA TRACE / PULL LINES ONLY - AT REQUESTED LOCATION	1	$150.00
ROOF HATCH	1	$490.00
WINTER COVER	1	$105.00
HANDRAIL - RH	1	$79.00
THERMOS PASS WINDOWS	20	$4,000.00
OPTIONS TOTAL	**$6,174.00**	

The Lion Electric Co. would like to thank you for giving us the opportunity to work with you on transitioning your fleet to electric and look forward to working with you to provide a healthy breathing environment to your company employees and the Alaska community throughout this pilot program.

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APPENDIX

THE LION ELECTRIC CO.

The Lion Electric Co.
Appendix 1 - Warranty Coverage Chart

CATEGORY		AREA		ITEM	BASIC WARRANTY COVERAGE (whichever occurs first)		LABOR COVERED	REQUIREMENTS					Extended warranty excluded
					Duration - months	Mileage		Preauthorization	Photo	Diagnostic	Part return	Keep part 3 months	
1,	ELECTRICAL	1,	Glass and doors	Door opening system	12	20 000	✓			✓		✓	
1.	ELECTRICAL	2.	Exhaust and urea system	Dosing pump ;	12	20 000	✓	Contact Cummins directly or an authorized service center					
1.	ELECTRICAL	2.	Exhaust and urea system	Dosing pump harness	12	20 000	✓	✓	✓	✓			
1.	ELECTRICAL	2.	Exhaust and urea system	Heater hose	12	20 000	✓		✓	✓	✓		
1.	ELECTRICAL	2.	Exhaust and urea system	Urea injector	60	100 000	✓	Contact Cummins directly or an authorized service center					
1.	ELECTRICAL	2.	Exhaust and urea system	Urea level sensor	12	20 000	✓	✓		✓	✓		
1.	ELECTRICAL	2.	Exhaust and urea system	Urea temperature sensor	12	20 000	✓	Contact Cummins directly or an authorized service center					
1,	ELECTRICAL	3,	Interior electrical system	Switch	12	20 000	✓		✓	✓		✓	
1,	ELECTRICAL	3,	Interior electrical system	Radio and speakers	12	20 000	✓			✓		✓	PA excl.
1,	ELECTRICAL	3,	Interior electrical system	Defroster fan	12	20 000	✓			✓		✓	
1.	ELECTRICAL	3,	Interior electrical system	Main heater, blower motor and resistance	12	20 000	✓	✓		✓		✓	
1,	ELECTRICAL	3,	Interior electrical system	Cluster and gages	12	20 000	✓	✓	✓	✓	✓		
1,	ELECTRICAL	3,	Interior electrical system	Master controller - PARKER	12	20 000	✓	✓		✓	✓		
1,	ELECTRICAL	3,	Interior electrical system	DC-DC converter	12	20 000	1 year	✓		✓	✓		
1,	ELECTRICAL	3,	Interior electrical system	VPIM	60	100 000	1 year	✓		✓	✓		
1,	ELECTRICAL	3,	Interior electrical system	Interior LED lights	36		1 year				✓		
1,	ELECTRICAL	3,	Interior electrical system	Interior incandescent lights	12	20 000	✓					✓	
1,	ELECTRICAL	3,	Interior electrical system	Child Check-mate	12	20 000	✓		✓	✓		✓	
1,	ELECTRICAL	3,	Interior electrical system	Acceleration pedal	12	100 000	✓	✓		✓	✓		
1,	ELECTRICAL	3,	Interior electrical system	Wiring and connectors	12	20 000	✓		✓	✓			
1,	ELECTRICAL	4,	Exterior electrical system	Exterior LED lights	36		1 year				✓		
1,	ELECTRICAL	4,	Exterior electrical system	Back up alarm	12	20 000	✓			✓		✓	
1,	ELECTRICAL	4,	Exterior electrical system	Exterior incandescent lights	12	20 000	✓					✓	
1,	ELECTRICAL	4,	Exterior electrical system	Horn	12		✓			✓		✓	
1,	ELECTRICAL	4,	Exterior electrical system	PDC (power distribution center, fuse box)	12	20 000	✓	✓		✓		✓	
1,	ELECTRICAL	4,	Exterior electrical system	MPDM	12	20 000	✓	✓		✓	✓		
1,	ELECTRICAL	4,	Exterior electrical system	Relay, timers and solenoids	12	20 000	✓		✓	✓		✓	
1,	ELECTRICAL	4,	Exterior electrical system	Wiring and connectors	12	20 000	✓		✓	✓			
1,	ELECTRICAL	4,	Exterior electrical system	Wiper system and wiper motor	12	20 000	✓				✓		
1,	ELECTRICAL	4,	Exterior electrical system	Windshield washer pump	12	20 000	✓			✓		✓	
1.	ELECTRICAL	4,	Exterior electrical system	Fuel tank level sensor	12	40 000	✓			✓		✓	
1.	ELECTRICAL	4,	Exterior electrical system	Leece Neville starter	12	100 000	✓			✓	✓		
1.	ELECTRICAL	4,	Exterior electrical system	Denso starter	60	100 000	✓	Contact Cummins directly or an authorized service center					
1.	ELECTRICAL	4,	Exterior electrical system	Leece Neville alternator	12	20 000	✓	✓		✓		✓	
1,	ELECTRICAL	4,	Exterior electrical system	Stop arm and cross gate	12	20 000	✓			✓		✓	
2,	BODY	1,	Glass and doors	Water leaks	12	20 000	✓		✓	✓			✓
2,	BODY	1,	Glass and doors	Thermos : Fogging	12	20 000	✓		✓				
2,	BODY	1,	Glass and doors	Door adjustment	1		✓		✓	✓			✓
2,	BODY	2,	Interior body	Seat belt mechanism	12	20 000	✓					✓	

The Lion Electric Co.
Appendix 1 - Warranty Coverage Chart

CATEGORY		AREA		ITEM	BASIC WARRANTY COVERAGE (whichever occurs first)		LABOR COVERED	REQUIREMENTS					Extended warranty excluded
					Duration - months	Mileage		Preauthorization	Photo	Diagnostic	Part return	Keep part 3 months	
2,	BODY	2,	Interior body	Sun visor	12	20 000	✓		✓			✓	
2,	BODY	2,	Interior body	Handles, interior compartment	12	20 000	✓					✓	
2,	BODY	2,	Interior body	Interior mirror	12	20 000	✓		✓			✓	
2,	BODY	2,	Interior body	Driver seat mechanism	12	100 000	✓		✓			✓	
2,	BODY	2,	Interior body	Harness cover	12	20 000	✓		✓				
2,	BODY	2,	Interior body	Stairs	12	20 000	✓		✓				
2,	BODY	2,	Interior body	Interior trims	12	20 000	✓		✓			✓	
2,	BODY	3,	Exterior body	Decals	3	5 000	✓		✓				✓
2,	BODY	3,	Exterior body	Hood support and mechanism	12	20 000	✓		✓			✓	
2,	BODY	3,	Exterior body	Water infiltration	12	20 000	✓		✓	✓			✓
2,	BODY	3,	Exterior body	Mirrors	12	20 000	✓		✓			✓	
2,	BODY	3,	Exterior body	Windshield washer tank	12	20 000	✓		✓			✓	
2,	BODY	3,	Exterior body	Body skirt, wheel well, luggage compartment, battery tray	12	20 000	✓	✓	✓			✓	
2,	BODY	3,	Exterior body	Handle exterior opening	12	20 000	✓					✓	
2,	BODY	3,	Exterior body	Fiberglass exterior finish	24	40 000	1 year	✓	✓				
2,	BODY	3,	Exterior body	Wiper arms, pivots and double lever	12	20 000	✓	✓		✓		✓	
2,	BODY	3,	Exterior body	Adjustment	1		✓		✓	✓			✓
2,	BODY	3,	Exterior body	Exterior trims (bow caps, head light trim, right front triangle window cover)	12	20 000	✓	✓	✓			✓	
3,	COOLING	1,	Cooling system , heating and air conditioning	Radiator	12	20 000	✓	✓	✓			✓	
3,	COOLING	1,	Cooling system , heating and air conditioning	Fan (eLion)	12	60 000	✓	✓	✓			✓	
3,	COOLING	1,	Cooling system , heating and air conditioning	Coolant hoses	12	20 000	✓		✓			✓	
3,	COOLING	1,	Cooling system , heating and air conditioning	Leak and clamps	1		✓		✓				✓
3,	COOLING	1,	Cooling system , heating and air conditioning	Water pump	12	20 000	✓			✓		✓	
3,	COOLING	1,	Cooling system , heating and air conditioning	Surge tank	12		✓	✓	✓			✓	
3,	COOLING	1,	Cooling system , heating and air conditioning	Heater, blower motor and resistance	12	20 000	✓	✓		✓		✓	
3,	COOLING	1,	Cooling system , heating and air conditioning	Air conditioning (leak)	12	20 000	✓	✓	✓	✓			✓
3,	COOLING	1,	Cooling system , heating and air conditioning	Air conditioning (components)	24	40 000	✓	Contact American Cooling Tech directly or an authorized service center					
3,	COOLING	1,	Cooling system , heating and air conditioning	Electric variable water pump (EMP)	24	40 000	1 year		✓	✓		✓	
4,	BRAKES	1,	Brakes	Brake hoses	3	5 000	✓		✓			✓	✓
4,	BRAKES	1,	Brakes	ABS module	36	300 000	✓	✓		✓		✓	
4,	BRAKES	1,	Brakes	ABS sensor rear	36	235 000	✓			✓		✓	
4,	BRAKES	1,	Brakes	ABS sensor front	36	235 000	✓			✓		✓	
4,	BRAKES	1,	Brakes	hydraulic brake booster	12	30 000	✓	✓		✓	✓		
4,	BRAKES	1,	Brakes	Pneumatic components	12	20 000							
5.	CHASSIS	1	Exhaust and urea system	Urea tank	12	20 000	✓	✓	✓			✓	
5.	CHASSIS	1	Exhaust and urea system	Exhaust support	12	20 000	✓		✓				✓
5.	CHASSIS	1	Exhaust and urea system	Exhaust pipes	12	20 000	✓	✓	✓			✓	✓
5.	CHASSIS	1	Exhaust and urea system	Exhaust clamp	3	5 000	✓		✓				✓
5.	CHASSIS	1	Exhaust and urea system	After-treatment catalysis	60	100 000	✓	Contact Cummins directly or an authorized service center					

The Lion Electric Co.

Appendix 1 - Warranty Coverage Chart

CATEGORY		AREA		ITEM	BASIC WARRANTY COVERAGE (whichever occurs first)		LABOR COVERED	REQUIREMENTS					Extended warranty excluded
					Duration - months	Mileage		Preauthorization	Photo	Diagnostic	Part return	Keep part 3 months	
5,	CHASSIS	2	Suspension and steering	Bushing	3	5 000	✓		✓				✓
5,	CHASSIS	2	Suspension and steering	Front suspension	12	100 000	✓	✓	✓				
5,	CHASSIS	2	Suspension and steering	Rear suspension	12	100 000	✓	✓	✓				
5,	CHASSIS	2	Suspension and steering	Front axel	24	40 000	✓	✓					
5,	CHASSIS	2	Suspension and steering	Shocks	3	5 000	✓	✓				✓	✓
5,	CHASSIS	2	Suspension and steering	Levelling valve and rod	3	5 000	✓						
5,	CHASSIS	2	Suspension and steering	Power steering pump	12	20 000	✓	✓	✓			✓	
5,	CHASSIS	2	Suspension and steering	Hydraulic pump (eLion)	12	20 000		✓		✓	✓		
5,	CHASSIS	2	Suspension and steering	Steering box	12	20 000	✓	✓	✓			✓	
5.	CHASSIS	3	Powertrain	Engine	60	100 000	✓	Contact Cummins directly or an authorized service center					
5.	CHASSIS	3	Powertrain	Transmission	60	100 000	✓	Contact Allisson directly or an authorized service center					
5,	CHASSIS	3	Powertrain	Electric motor	60	100 000	✓	✓	✓	✓	✓		
5,	CHASSIS	3	Powertrain	Drive/Controller	60	100 000	✓	✓	✓	✓	✓		
5,	CHASSIS	3	Powertrain	Vehicle management module	60	100 000	✓	✓	✓	✓	✓		
5,	CHASSIS	3	Powertrain	Charger/Inverter	12	20 000	✓	✓	✓	✓	✓		
5,	CHASSIS	3	Powertrain	Battery module	96	119 300	✓	✓	✓	✓	✓		
5,	CHASSIS	3	Powertrain	Battery pack	12	20 000	✓	✓	✓			✓	
5,	CHASSIS	3	Powertrain	Drive shaft	12	20 000	✓	✓	✓			✓	
5,	CHASSIS	3	Powertrain	Rear axle	24	40 000	✓	✓		✓			
5,	CHASSIS	4	Chassis	Chassis structure	24	40 000	✓	✓	✓				
5.	CHASSIS	4	Chassis	Fuel tank	12	20 000	✓	✓	✓			✓	
5,	CHASSIS	4	Chassis	Outrigger (chassis support)	12	40 000	✓	✓	✓				✓
5,	CHASSIS	4	Chassis	Frame insulator	12	20 000	✓		✓				✓

Tok Automotive Repair
1313.5 Alaska Hwy
Tok, AK. 99780
Phone: 907-883-3627 Fax: 000- -

INVOICE
55

INVOICE Estimate

Date: 05/06/2019

Tok Transportation - Gerald Blackard
PO BOX 392
Tok, AK 99780
Home 907-505-9394

2006 thomas - freightliner - 4cylinder MB
Lic # :
VIN # : 4UZAAXDH7 **7CW86438**

Odometer In : 1

Part Description / *Number*	Qty	Sale	Ext	Labor Description	Ext
Shop Supplies			41.25	Customer request scrap bus / remove engine and transmission separate transmission from engine and cut 3 inch hole in engine, block . frame is to be cut on driver and passenger sides behind the front axle spring mounts. Remove engine and transmission (cut 3 inch hole in engine block and cut frame in half for salvage). VEHICLE TO BE TAKEN OUT OF SERVICE PERMANENTLY . customer is to haul off scrap after work is performed.	1,650.00

Org. Estimate 1,691.25 Revisions 0.00 Current Estimate 1,691.25

Labor:	1,650.00
Parts:	41.25
SubTotal:	1,691.25
Tax:	0.00
Total:	1,691.25
Bal Due:	$1,691.25

[Payments -]
Vehicle Received: 5/6/2019

Customer Number : 63

I hereby authorize the above repair work to be done along with the necessary material and hereby grant you and/or your employees permission to operate the car or truck herein described on street, highways or elsewhere for the purpose to testing and/or inspection. An express mechanic's lien is hereby acknowledged on above car or truck to secure the amount of repairs thereto. Warranty on parts and labor is one years or 12,000 miles whichever comes first. Warranty work has to be performed in our shop & cannot exceed the original cost of repair.

Signature _____ Date _____

Our Email Address: ***tokautomotiverepair@aptalaska.ne***

WOLF
SOLAR ELECTRIC, LLC

Estimate

Date	Estimate #
5/31/2019	10368

Name / Address	Ship To
Tok Transportation LLC PO Box 392 Tok, AK 99780	Tok Transportation LLC PO Box 392 Tok, AK 99780

Item	Description	Qty	Each	Total
Assembly	12 KW Solar PV System Consisting of (40) SolarWorld US-made modules mounted on (4) adjustable pole mounts. Includes 8" steel piping installed, Fronius USA 12.5 KW Inverter, trenching to building, and connection into premises service equipment. Customer to provide level gravel pad to install steel poles.	1	57,600.00	57,600.00
			Total	$57,600.00

Estimates are valid for 30 days. Please remit payments to PO Box 612, Tok, AK 99780.
Thanks!

Signature _____