

Public Body Procurement Workgroup

Report of the Public Body Procurement Workgroup on the Appropriateness of Requiring State Agencies to Use a Total Cost of Ownership (TCO) Calculator Prior to Purchasing or Leasing Medium-Duty or Heavy-Duty Vehicles

Pursuant to Clause 3 of Chapter 789 of the
Acts of Assembly of 2022 [SB 575]

November 2022

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I. Introduction

The third enactment of Chapter 789 of the Acts of Assembly of 2022 (SB 575), patroned by Senator T. Montgomery “Monty” Mason, directed the Department of General Services' (DGS') Public Body Procurement Workgroup (Workgroup) to evaluate the appropriateness of requiring all agencies of the Commonwealth to use a total cost of ownership (TCO) calculator prior to purchasing or leasing any medium-duty or heavy-duty vehicles to assess and compare the total cost to purchase, own, lease, and operate medium-duty or heavy-duty internal combustion-engine vehicles (ICEVs) versus comparable electric vehicles (EVs). The legislation directed the Workgroup, in conducting its evaluation, to consult with relevant stakeholders, including at least one medium-duty or heavy-duty vehicle technology provider with experience in real-world deployments, and consider:

- (a) the current commercial market for medium-duty and heavy-duty EVs;
- (b) the unique characteristics of medium-duty and heavy-duty vehicles, including charging infrastructure and operational duty cycles;
- (c) the potential volume of medium-duty and heavy-duty vehicles purchased by DGS and agencies of the Commonwealth;
- (d) the availability of public TCO calculators for medium-duty and heavy-duty vehicles and their suitability for use by DGS and agencies of the Commonwealth; and
- (e) any other information it determines relevant to its evaluation.

The legislation set a deadline of December 1, 2022 for the Workgroup to submit a report with its findings and any recommendations to the Chairmen of the House Committee on General Laws and the Senate Committee on General Laws and Technology.

In response to this legislation, stakeholders were identified, and four Workgroup meetings were held at which SB 575 was discussed. This report summarizes the information presented to the Workgroup by stakeholders and subject matter experts, the Workgroup's findings on each of the items that it was asked to consider, and the Workgroup's final recommendation regarding the appropriateness of requiring all agencies of the Commonwealth to use a TCO calculator prior to purchasing or leasing any medium-duty or heavy-duty vehicles to assess and compare the total cost to purchase, own, lease, and operate medium-duty or heavy-duty ICEVs versus comparable EVs.

II. Background

Overview of Public Body Procurement Workgroup Authority and Duties

Item 85 of the 2022 Appropriations Act directs DGS to lead, provide administrative support to, and convene an annual public body procurement workgroup to review and study proposed changes to the Code of Virginia in the areas of non-technology goods and services, technology

goods and services, construction, transportation, and professional services procurements. The Appropriations Act language specifies that that Workgroup's membership shall be composed of the following individuals or their designees:

- Director of the Department of Small Business and Supplier Diversity;
- Director of the Department of General Services;
- Chief Information Officer of the Virginia Information Technologies Agency;
- Commissioner of the Virginia Department of Transportation;
- Director of the Department of Planning and Budget;
- President of the Virginia Association of State Colleges and University Purchasing Professionals; and
- President of the Virginia Association of Governmental Procurement.

Additionally, the Appropriations Act language requires that a representative from each of the following provide technical assistance to the Workgroup:

- Office of the Attorney General's Government Operations and Transactions Division;
- Staff of the House Appropriations Committee;
- Staff of the Senate Committee on Finance and Appropriations; and
- Divisions of Legislative Services.

The Appropriations Act language outlines two avenues by which bills may be referred to the Workgroup for study. First, the Chairs of the House Committees on Rules, General Laws, and Appropriations, as well as the Senate Committees on Rules, General Laws and Technology, and Finance and Appropriations, can refer legislation by letter to the Workgroup for study. Second, the Chairs of the House Committees on Rules and Appropriations, as well as the Senate Committees on Rules and Finance and Appropriations, can request that the Workgroup review procurement-related proposals in advance of an upcoming legislative session to assist in obtaining a better understanding of the legislation's potential impacts. Additionally, bills may also be referred to the Workgroup for study by the General Assembly, which can pass a bill that includes an enactment clause directing the Workgroup to study a particular topic. This is the avenue by which the Workgroup was asked to study portions of SB 575.

Overview of SB 575

SB 575 declares that it is the policy of the Commonwealth to encourage and promote the use of cost-effective vehicles by considering the total cost of ownership by agencies of the Commonwealth. SB 575 addresses light-duty vehicles in its first enactment, and medium-duty and heavy-duty vehicles in its third enactment.

a. Light-Duty Vehicles

The first enactment of SB 575 requires DGS to identify, by October 1, 2022, a publicly available TCO calculator for use by state agencies, local public bodies, and transit agencies to assess and compare the total cost to purchase, own, lease, and operate light-duty ICEVs versus comparable EVs and requires all state agencies, beginning January 1, 2023, to utilize such

calculator prior to purchasing or leasing any light-duty vehicles. The bill defines “light-duty vehicle” to mean “a motor vehicle with a gross vehicle weight of 14,000 pounds or less.” The bill requires state agencies to purchase or lease an EV unless the calculator clearly indicates that purchasing or leasing an ICEV has a lower cost of ownership.

The bill requires that the calculator account for, at a minimum:

- (1) the vehicle’s make, model, and age;
- (2) the average miles traveled per year for similarly used vehicles;
- (3) the expected life expectancy of the vehicle and average annual depreciation;
- (4) the upfront and annual costs of purchasing such vehicle and all other costs of vehicle ownership or lease; and
- (5) all costs the agency must incur to add chargers or other fueling facilities to support such vehicles.

The bill requires DGS to update the calculator at least annually to account for updates in information, including information on the latest light-duty vehicle models available.

The bill exempts state agencies that are purchasing or leasing emergency vehicles, as defined in Va. Code § 46.2-920, as well as vehicles to be used in law-enforcement, incident response, or other emergency response activities, from the requirement to use the TCO calculator and purchase an EV if an EV will have a lower cost of ownership than a comparable ICEV. The bill permits DGS to authorize additional exemptions upon a finding by DGS that an EV is not a practicable alternative to an ICEV for a particular use or for some other compelling reason. The bill requires DGS to develop a guidance document regarding the procedure for requesting such an exemption and the criteria that will be used in evaluating the exemption request.

The bill requires DGS, beginning January 1, 2026 and every three years thereafter, to submit to the Governor and the General Assembly a report summarizing DGS’ vehicle procurements and the vehicle procurements of other state agencies. It requires the report to, at a minimum, include a compilation of types of vehicles by size, fuel sources, and the total estimated cost savings and avoided emissions attributable to purchasing or leasing of EVs instead of ICEVs.

b. Medium-Duty and Heavy-Duty Vehicles

For medium-duty and heavy-duty vehicles (defined as “motor vehicles with a gross weight greater than 14,000 pounds”), however, the General Assembly directed the Workgroup to evaluate the *appropriateness* of requiring state agencies to use a TCO calculator prior to purchasing or leasing such vehicles to assess and compare the total cost to purchase, own, lease, and operate medium-duty or heavy-duty ICEVs versus comparable EVs. In conducting such evaluation, it directed the Workgroup to consult with relevant stakeholders, including at least one medium-duty or heavy-duty vehicle technology provider with experience in real-world deployments, and consider (a) the current commercial market for medium-duty and heavy-duty electric vehicles; (b) the unique characteristics of medium-duty and heavy-duty vehicles, including charging infrastructure and operational duty cycles; (c) the potential volume of medium-duty and heavy-duty vehicles purchased by DGS and agencies of the Commonwealth;

(d) the availability of public TCO calculators for medium-duty and heavy-duty vehicles and their suitability for use by DGS and agencies of the Commonwealth; and (e) any other information it determines relevant to its evaluation. The bill requires the Workgroup to report its findings and any recommendations to the Chairmen of the House Committee on General Laws and the Senate Committee on General Laws and Technology on or before December 1, 2022.

Study Participants/Stakeholders

The Workgroup's Appropriations Act language directs it to hear from stakeholders identified by the patron of referred legislation and other interested individuals. As such, the Workgroup's staff contacted Senator Mason, the patron of SB 575, and the Chairs of each of the committees and subcommittees through which SB 575 passed during the 2022 Regular Session of the General Assembly (Senator Barker, Chair of the Senate Committee on General Laws and Technology; Delegate Fowler, Chair of Subcommittee #1 of the House Committee on General Laws; and Delegate Leftwich, Chair of the House Committee on General Laws) to solicit the names of stakeholders whom they would like to be included the Workgroup's review of SB 575. The Workgroup's staff compiled the names of the stakeholders identified by Senator Mason and the committee and subcommittee Chairs into a stakeholder email distribution list, which it used to communicate information about the Workgroup's study of SB 575 and opportunities for public comment to the stakeholders. The Workgroup's staff also added any interested individual to the stakeholder email distribution list upon request of such individual.

The stakeholder email distribution list was composed of the following individuals:

- The Honorable T. Montgomery "Monty" Mason – Senate of Virginia
- Baxter Carter – Chief of Staff to Senator Monty Mason
- Alleyn Harned – Executive Director of Virginia Clean Cities
- Christopher R. Nolan – Executive Vice-President of McGuire Woods Consulting LLC
- Subbu Arumugam – Senior Product Manager, Electric Vehicles - Volvo North America
- Spencer Burget – Atlas Public Policy
- Anne Gambardella – Virginia Autodealers Association
- Cher Taylor – Electrification Coalition
- Chris Bast – Electrification Coalition
- Anne Blair – Electrification Coalition
- Lena Lewis – Virginia Chapter of the Nature Conservancy
- Steve Koerner – Advanced Energy Economy; charging company AMPLY
- Kara Alley – Government Affairs Specialist at Spotts Fain Consulting
- James S. Turpin – David Bailey Associates

III. Workgroup Meetings on SB 575

The Workgroup held four meetings at which it discussed SB 575. At its July 14, 2022 meeting, the Workgroup's staff presented a draft Work Plan for the organization of the Workgroup's study of SB 575. Additionally, Baxter Carter, Chief of Staff to Senator Mason, the

patron of SB 575, provided remarks to the Workgroup on behalf of Senator Mason. He shared that SB 575 was drafted with the goal of being a cost saving measure for the state and emphasized that he anticipates the bill will have positive benefits for year to come. He explained that during discussion of the bill during Session his office was made aware early on that there may be some challenges with including medium-duty and heavy-duty vehicles within the scope of the bill. He shared that as the bill moved through the legislative process, concerns mounted about the availability of TCO calculators for medium-duty and heavy-duty vehicles, the effectiveness of any such calculators that may exist, and whether truck manufacturers are ready to be included in the process. It was for these reasons, he explained, that medium-duty and heavy-duty vehicles were carved out of the bill and that the third enactment clause was added to the bill directing the Workgroup to study these issues. He concluded his remarks by thanking the Workgroup for its efforts and expressing his confidence that the Workgroup will consider the issues thoroughly and produce quality recommendations. At this meeting the Workgroup also received public comment on SB 575. Steven Koerner, Vice President of Policy for AMPLY Power, was the only stakeholder who provided public comment. His comments concerned the benefits of managed charging of fleets, and how those benefits can tip the balance in terms of comparing the total cost of ownership of ICEVs versus EVs. He noted that TCO calculators often do not take into account opportunities for managed charging of fleets.

The Workgroup reserved the entirety of its second meeting on SB 575, held on July 28, 2022, to receiving public comment from stakeholders. Three stakeholders spoke to the Workgroup concerning SB 575. The first stakeholder to comment was Cher Griffith Taylor, Senior Electric Vehicle Specialist with the Electrification Coalition (EC). Her comments highlighted the benefits of undertaking TCO calculations and described the EC's TCO calculator – the Dashboard for Rapid Vehicle Electrification, or the “DRVE Tool.” The second stakeholder to comment was Lena Lewis, Energy and Climate Policy Advisor for the Virginia Chapter of the Nature Conservancy. Ms. Lewis shared that she believes that it is appropriate to require state agencies to use a TCO calculator to assess and compare the total cost to purchase, own, lease, and operate medium-duty and heavy-duty ICEVs versus comparable EVs prior to purchasing or leasing any medium-duty or heavy-duty vehicle and recommended that state agencies use the EC's DRVE Tool. The final stakeholder to comment was Chris Nolan with McGuire Woods Consulting, who spoke on behalf of Volvo Trucks of North America. Mr. Nolan challenged the Workgroup to consider whether the TCO calculators that are currently available are capable of providing a true apples-to-apples comparison of the total cost to purchase, own, lease, and operate a medium-duty or heavy-duty ICEV versus a medium-duty or heavy-duty EV.

At its third meeting on SB 575, held on August 11, 2022, the Workgroup heard three presentations. The first presentation was from Michael Bisogno, the Assistant Director of DGS. He spoke about DGS and its Office of Fleet Management Services (OFMS), and their role in the purchase and use of Commonwealth-owned motor vehicles. Mr. Bisogno explained that due to the unique nature of medium-duty and heavy-duty vehicles, including their usage, specifications, and lifecycles, the development of vehicle specifications and purchasing responsibility for such vehicles lies with the purchasing agency as opposed to OFMS. As such, DGS essentially has no role in the procurement of medium-duty and heavy-duty vehicles.

The second presentation was from Robert Prezioso, State Maintenance Engineer with the Virginia Department of Transportation (VDOT). Speaking to the Workgroup about VDOT's fleet of medium-duty and heavy-duty vehicles, he noted that overall VDOT has a large fleet of medium-duty and heavy-duty equipment, but incident response demands and unique accessory needs eliminate all but a few of such vehicles from reasonable consideration for electrification. He emphasized that the provisions of SB 575 that require state agencies to use a TCO calculator for light-duty vehicles provide an exemption for vehicles used in incident response and other emergency response activities. He expressed VDOT's desire that a similar exemption be extended to any potential requirement that state agencies use a TCO calculator for medium-duty and heavy-duty vehicles.

The final presentation was from Grant Sparks, the Acting Chief of Public Transportation for the Virginia Department of Rail and Public Transportation (DRPT). He spoke to the Workgroup regarding DRPT's mission and the impact that a requirement to use a TCO calculator to assess and compare the total cost to purchase, own, lease, and operate medium-duty or heavy-duty ICEVs versus comparable EVs. Mr. Sparks explained that through the Infrastructure Investment and Jobs Act (IIJA), the Federal Transit Administration (FTA) is providing over \$ 1.1 billion per year to transit agencies nationwide for the purchase of low or no emission transit vehicles. In order to apply for these funds, agencies must submit a "transition plan" to FTA. He expressed that this is essentially a cost-benefit analysis and considers the capital and operating costs of the EVs (in coordination with utility providers), infrastructure capacity and installation, and a number of other criteria. He noted that DRPT staff are working very closely with their transit agencies to develop these transition plans, and as a result DRPT believes that the use of a state-approved calculator tool is unnecessary and duplicative of the work that DRPT is currently doing with their agencies.

After hearing the three presentations, the Workgroup considered and discussed all of the public comment, written comments, presentations, and other information it had received thus far on SB 575 and began developing its findings and recommendations. After agreeing upon preliminary language for its final recommendation, the Workgroup provided an additional opportunity for public comment.

The first stakeholder to comment was Chris Bast, the Director of EV Infrastructure and Investments for the EC. He provided additional information to the Workgroup concerning the EC's TCO calculator, the DRVE Tool. He stressed that users are able to input essentially anything they wish into the calculator to ensure that they are getting an appropriate calculation. He explained that the DRVE Tool has the formulas and algorithms that will do the calculations for the user, but the user must define the variables. He emphasized that the current major limitation with the DRVE Tool in the context of medium-duty and heavy-duty vehicles is that there are simply not enough models of medium-duty and heavy-duty EVs available. He noted, however, that the EC continuously updates the DRVE Tool to include new models as they become available.

The final stakeholder to comment was Mr. Nolan with McGuire Woods Consulting, who spoke to the Workgroup again on behalf of Volvo Trucks of North America. He emphasized that the fact that a TCO calculator *can* include certain variables does not solve the issue of *which*

variables *should* be included in order for a user to obtain an accurate total cost of ownership comparison between a medium-duty or heavy-duty ICEV versus a medium-duty or heavy-duty EV. Referring to the unique nature of medium-duty and heavy-duty vehicles, as opposed to light-duty vehicles, he emphasized the complex and situation-specific factors that are at play when determining the cost of purchasing and operating a medium-duty or heavy-duty EV. He stressed the importance of ensuring that such factors are accounted for in a TCO calculator for medium-duty and heavy-duty vehicles in order for users to obtain an accurate comparison.

Finally, at its fourth meeting on SB 575, held on September 19, 2022, the Workgroup voted to approve the language of the final recommendation that it had developed at its previous meeting by a vote of 5-0-1.¹

See Appendices B, C, D, and E for the meeting materials, including meeting minutes, for each of the four meetings.

IV. Summary of Information Presented to the Workgroup

As mentioned above, the third enactment clause of SB 575 directed the Workgroup to evaluate the appropriateness of requiring all agencies of the Commonwealth to use a TCO calculator prior to purchasing or leasing any medium-duty or heavy-duty vehicles to assess and compare the total cost to purchase, own, lease, and operate medium-duty or heavy-duty ICEVs versus comparable EVs.

The bill directed the Workgroup to (i) consult with relevant stakeholders, including at least one medium-duty or heavy-duty vehicle technology provider with experience in real-world deployments, and (ii) consider (a) the current commercial market for medium-duty and heavy-duty electric vehicles; (b) the unique characteristics of medium-duty and heavy-duty vehicles, including charging infrastructure and operational duty cycles; (c) the potential volume of medium-duty and heavy-duty vehicles purchased by DGS and agencies of the Commonwealth; (d) the availability of public TCO calculators for medium-duty and heavy-duty vehicles and their suitability for use by DGS and agencies of the Commonwealth; and (e) any other information it determines relevant to its evaluation.

Below is a summary of the testimony and written comments that the Workgroup received pertaining to each of these six tasks.

TASK #1: Consult with relevant stakeholders, including at least one medium-duty or heavy-duty vehicle technology provider with experience in real-world deployments.

The Workgroup heard from Chris Nolan, with McGuire Woods Consulting, who represents Volvo Trucks of North America. He shared that Volvo produces both medium-duty and heavy-duty trucks and began producing a heavy-duty EV product in 2021.

¹ Yes: Mr. McHugh, Ms. Pride, Mr. James, Ms. Gill, and Mr. Heslinga. Abstain: Mr. Saunders.

TASK #2: Consider the current commercial market for medium-duty and heavy-duty electric vehicles.

Mr. Nolan shared with the Workgroup that over 15 million light-duty vehicles were sold in 2021, and that over 400,000 of them were EVs. For heavy-duty trucks, however, he noted that DMV data shows that 221,000 Class 8 heavy-duty trucks were sold in 2021, but less than one hundred of them were EVs. He shared that Volvo sells both ICEVs and EVs and began selling a heavy-duty EV product in 2021. He noted that Volvo believes that EVs are going to make up more of the medium-duty and heavy-duty vehicle market as time goes on, and as a company their goal is for 30 percent of their sales to be EVs by 2030.

TASK #3: Consider the unique characteristics of medium-duty and heavy-duty vehicles, including charging infrastructure and operational duty cycles.

Mr. Nolan described several unique characteristics of medium-duty and heavy-duty vehicles that would need to be accounted for in a TCO calculator for medium-duty and heavy-duty vehicles in order for the calculator to provide an accurate comparison between the total cost to purchase, own, lease, and operate at medium-duty or heavy-duty ICEV versus a comparably EV. As a preliminary matter, he emphasized that the factors that a purchaser considers when deciding whether to buy a light-duty ICEV or EV are significantly different from the factors that a purchaser considers when deciding whether to buy a diesel or electric medium-duty or heavy-duty vehicle. He explained that the purchasing decision for medium-duty and heavy-duty vehicles is largely dictated by the vehicle's intended use, and that when a state agency purchases a medium-duty or heavy-duty vehicle such vehicle is often configured for a very specific use. He also mentioned that state agencies likely do not purchase large numbers of medium-duty and heavy-duty vehicles at one time as they do with light-duty vehicles. As such, the smaller size of the procurements of medium-duty and heavy-duty vehicles likely affects the price that the state pays for the vehicles.

Mr. Nolan then discussed charging infrastructure. He stressed that there is a significant difference in the charging infrastructure that is needed for light duty-vehicles compared to the charging infrastructure that is needed for medium-duty and heavy-duty vehicles. He explained that it is relatively easy to set up charging infrastructure to charge a light-duty vehicle overnight. With medium-duty and heavy-duty vehicles, however, he stated that it is important to have charging infrastructure that supports rapid charging. He noted that the cost of installing such infrastructure can start at \$25,000, and the state may end up needing to work with the power company to ensure that the grid can support such infrastructure. He emphasized that this distinction between the charging infrastructure for light-duty EVs versus medium-duty and heavy-duty EVs is a key difference between light-duty EVs and medium-duty and heavy-duty EVs. He questioned the extent to which TCO calculators for medium-duty and heavy-duty vehicles can accurately account for such costs, especially given how such costs can vary significantly depending upon the unique set of circumstances at hand in each scenario for which the TCO calculator is used.

Next, Mr. Nolan discussed EV maintenance plans. He explained that in the market for heavy-duty EVs, it is common for manufacturers to offer maintenance plans under which the

manufacturer takes on more responsibility for the maintenance of the vehicle. He shared that manufacturers provide this option in an effort to make heavy-duty EVs more cost competitive with ICEVs. He emphasized that maintenance plans are a key selling-point for heavy-duty EVs but noted that there is an up-front cost for them. He questioned whether this cost is accounted for in TCO calculators for medium-duty and heavy-duty vehicles.

Mr. Nolan then mentioned the 12 percent federal excise tax on Class 8 heavy-duty vehicles. He noted that he believes that the state is subject to this tax and stressed the importance of ensuring that such tax is accounted for in a TCO calculator for heavy-duty vehicles. He explained that heavy-duty EVs are on average two and one-half times more expensive than their diesel equivalents, and, as such, this tax would significantly affect the cost comparison between purchasing a diesel and an electric heavy-duty vehicle. He emphasized that this added cost must be captured by a TCO calculator in order to obtain a true apples-to-apples comparison between diesel and electric heavy-duty vehicles.

Another difference between light-duty and medium-duty and heavy-duty vehicles that Mr. Nolan discussed is the requirement to use diesel exhaust fluid when filling up Class 7 and Class 8 trucks to cut down on emissions. He emphasized that this cost must also be included in a TCO calculator for medium-duty and heavy-duty vehicles in order for the calculator to provide a true cost comparison between medium-duty and heavy-duty ICEVs versus EVs.

Finally, Mr. Nolan mentioned that insurance costs are higher for electric vehicles. He emphasized that this cost also needs to be accounted for in a TCO calculator for medium-duty and heavy-duty vehicles.

Robert Prezioso, State Maintenance Engineer with the Virginia Department of Transportation (VDOT), provided the Workgroup with insight as to the unique needs that VDOT has for the majority of its medium-duty and heavy-duty vehicles. He shared that VDOT has nearly 2,600 medium-duty and heavy-duty vehicles, and all but approximately 150 of such vehicles are part of VDOT's immediate incident response plan. He explained that in addition to VDOT's responsibilities to build, maintain, and operate highways, VDOT fulfills a critical role of highway incident response. This includes responses to vehicle crashes, thunderstorms, tropical weather events, winter weather events, etc. He emphasized that these events could occur at any time of the day or night, and that some of these events require vehicles to be in use for 24 hours per day in back-to-back 12-hour shifts. He noted that this unique need for readiness and long-term performance is not conducive to the recharging needs of an electric vehicle. Additionally, he explained that of the 150 medium-duty and heavy-duty vehicles that are not part of VDOT's immediate incident response plan, many have unique uses that require accessories that would make EV power inefficient. Examples he gave included line striping trucks, asphalt distributor tankers, drills, ditchers, and roadway sweepers. It is unlikely that these unique needs would be accounted for in a total cost of ownership calculator for medium-duty and heavy-duty vehicles.

TASK #4: Consider the potential volume of medium-duty and heavy-duty vehicles purchased by DGS and other state agencies.

The Workgroup's staff conducted an email survey of state agencies' current inventories of medium-duty and heavy-duty vehicles. The results of the survey were presented to the Workgroup by Ms. Gill. The survey showed that state agencies currently have a total of approximately 3,325 medium-duty and heavy-duty vehicles. The majority of such vehicles, 2,595, are owned by VDOT. See Appendix D for an Excel spreadsheet illustrating the results of the survey).

As discussed above, Mr. Prezioso with VDOT shared with the Workgroup that all but approximately 150 of VDOT's 2,595 medium-duty and heavy-duty vehicles are assigned to VDOT's immediate incident response plan and VDOT's unique readiness and long-term performance needs for such vehicles makes them not conducive to the recharging needs of an electric vehicle. Additionally, as discussed above, of the 150 medium-duty and heavy-duty vehicles that are not part of VDOT's immediate incident response plan, many have unique uses that require accessories that would make EV power inefficient. He then noted that the remainder of the 150 non-incident response vehicles consists of approximately 20 Class 7 buses that VDOT uses to transport Department of Corrections (DOC) inmate road crews to and from work sites. He stressed that VDOT would need to consult with DOC to evaluate the risks associated with incorporating EV power into VDOT's Class 7 bus category. Mr. Prezioso noted that overall, although VDOT has a large fleet of medium-duty and heavy-duty equipment, incident response demands, and unique accessory needs eliminate all but a few of their vehicles from reasonable consideration for electrification. He emphasized that the provisions of SB 575 that require state agencies to use a TCO calculator for light-duty vehicles provide an exemption for vehicles used in incident response and other emergency response activities. He expressed VDOT's desire that a similar exemption be extended to any requirement that state agencies use a TCO calculator for medium-duty and heavy-duty vehicles.

TASK #5: Consider the availability of public total cost of ownership (TCO) calculators for medium-duty and heavy-duty vehicles and their suitability for use by DGS and other state agencies.

Cher Griffith Taylor, Senior Electric Vehicle Specialist, and Chris Bast, Director of Electric Vehicle Infrastructure and Investments, with the Electrification Coalition (EC) spoke to the Workgroup about the EC's TCO calculator – the Dashboard for Rapid Vehicle Electrification, or the “DRVE Tool.” Ms. Taylor explained that the DRVE tool is publicly available for no cost, is highly customizable, and supports comparisons between ICEVs and EVs for light-duty, medium-duty, and heavy-duty vehicles. She stressed that the DRVE Tool was developed with public fleets in mind. She explained that the DRVE Tool works by mapping an ICEV to a user-defined EV, and by then providing a comprehensive TCO analysis that compares both vehicles' retail price, operation costs (primarily, fuel price versus electricity rates), depreciation, applicable taxes, fees, typical maintenance costs, and a variety of other factors over the service life of the vehicle. She highlighted that the DRVE tool is also capable of including in its analysis such factors as cash purchases, the terms of a lease agreement, state or local rebates or incentives, and the cost of EV charging infrastructure. She explained that the DRVE Tool automatically pulls

retail prices and technical specifications on both ICEVs and EVs from federal open-source databases, including databases from the Department of Energy and the National Highway Traffic Safety Administration. She noted that the results of the TCO analysis are expressed in nominal costs per mile, which is a uniform basis of measurement and comparison that makes it easy for fleet managers to compare vehicles with different characteristics.

Mr. Bast stressed that users are able to input essentially anything they wish into the calculator to ensure that they are obtaining an appropriate calculation. He explained that the DRVE Tool has the formulas and algorithms that will do the calculations for the user, but the user must define the variables. Mr. Bast mentioned that one current limitation of the DRVE Tool in the context of medium-duty and heavy-duty vehicles is that there are simply not enough models of medium-duty and heavy-duty EVs available. Both Mr. Bast and Ms. Taylor noted that as the market for medium-duty and heavy-duty vehicles grows, the EC will continually incorporate new models into the DRVE Tool.

Ms. Taylor shared with the Workgroup that other TCO calculators also exist. She specifically cited the Department of Energy's AFLEET Tool and the Environmental Defense Fund's Fleet Electrification Center.

Lena Lewis, Energy and Climate Policy Advisor for the Virginia Chapter of the Nature Conservancy, recommended to the Workgroup that the Commonwealth use the EC's DRVE Tool for comparing the total cost of ownership between medium-duty and heavy-duty ICEVs and EVs. She stated that the DRVE Tool stood out in her research of publicly available TCO calculators for medium-duty and heavy-duty vehicles as being up to the job and user friendly.

TASK #6: Consider the appropriateness of requiring DGS and all state agencies to use a TCO calculator to assess and compare the total cost to purchase, own, lease, and operate medium-duty and heavy-duty internal combustion-engine vehicles versus comparable electric vehicles prior to purchasing or leasing any medium-duty or heavy-duty vehicle.

Ms. Taylor with the EC commented to the Workgroup that TCO calculations support fleet managers' needs to consider the all-inclusive cost of vehicles, from their purchase price to vehicle maintenance and operation. She stated that EVs are superior to ICEVs in terms of efficiency and operational costs because electricity is domestically produced and relatively stable and low in price compared to oil, which is a price-volatile, global commodity, and because EVs have far fewer moving parts. She noted that these operational savings extend over the life of the vehicle but do not always offset the high upfront cost of EVs, which often imposes a barrier to adoption. As such, she stressed that a TCO analysis is highly recommended prior to vehicle procurement because it can clearly highlight the total cost differences. Additionally, she stressed that it is critical for fleets to use TCO calculators for medium-duty and heavy-duty vehicles because these assets typically have 10-year or longer retirement ages. As a result, a decision to add ICEV assets into these vehicle classes will lock the fleet into potential unpredictable future fuel procurement cycles.

Ms. Lewis with the Virginia Chapter of the Nature Conservancy told the Workgroup that she does not expect that a TCO analysis will result in the procurement of electric medium-duty and

heavy-duty vehicles very often in the first couple of years because the economics still typically favor conventional vehicles, but she noted that it would be helpful for state agencies to begin using TCO calculators for medium-duty and heavy-duty vehicles now because doing so would help state agencies begin to get accustomed to using them, would provide software designers with opportunities for feedback, and would allow state agencies to immediately recognize the financial trend as it starts to shift in favor of electric medium-duty and heavy-duty vehicles. She stressed that it would make financial sense for DGS to be ready to seize the moment as soon as the economics shift favorably towards electric medium-duty and heavy-duty vehicles and not years afterwards.

Mr. Nolan with McGuire Woods Consulting, speaking on behalf of Volvo Trucks of North America, shared that Volvo believes that there are significant differences between the nature of light-duty vehicles compared to medium-duty and heavy-duty vehicles, and those differences make it more difficult for a buyer to obtain a true total cost of ownership comparison between ICEVs and EVs when using a TCO calculator for medium-duty and heavy-duty vehicles. As discussed in more detail under “Task #3” above, Mr. Nolan stressed, as a preliminary matter, that the factors that a buyer considers when deciding whether to purchase a light-duty ICEV or EV are significantly different from the factors that a purchaser considers when deciding whether to buy a diesel or electric medium-duty or heavy-duty vehicle. He noted that the purchasing decision for medium-duty and heavy-duty vehicles is largely dictated by the vehicle’s intended use, and that when a state agency purchases a medium-duty or heavy-duty vehicle such vehicle is often configured for a very specific use. He also noted that state agencies likely do not purchase large numbers of medium-duty and heavy-duty vehicles at one time as they do with light-duty vehicles, and the smaller size of the procurements of such vehicles likely affects the price that the state pays for them.

Additional factors mentioned by Mr. Nolan that are unique to medium-duty and heavy-duty vehicles and may not be reflected in TCO calculators for medium-duty and heavy-duty vehicles (resulting in such calculators not providing a true and accurate total cost of ownership comparison) included the following: (i) the need for rapid charging infrastructure, which can be very costly (with such costs being highly dependent upon the particular scenario for which the TCO calculator is being used) and that may require the state to work with the power company to ensure that the grid can support such infrastructure; (ii) the costs for EV maintenance plans, which make heavy-duty EVs more cost-competitive with ICEVs but which carry up-front costs for state agencies; (iii) the 12 percent federal excise tax on Class 8 heavy-duty vehicles, which significantly affects the cost comparison between the purchase price for an ICEV versus an EV given that EVs are on average two and one-half times more expensive than their diesel equivalents; (iv) the costs for using diesel exhaust fluid when filling up Class 7 and Class 8 trucks, which is required for cutting down on emissions; and (v) insurance costs, which are higher for EVs.

Addressing the argument that the publicly available TCOs are able to provide accurate total cost of ownership calculations between medium-duty and heavy-duty ICEVs versus EVs because users are able to define the variables that the calculator will base the calculations upon, Mr. Nolan stressed that the fact that a TCO calculator *can* include certain variables does not solve the issue of *which* variables *should* be included in order for a user to obtain an accurate total cost of

ownership comparison. He questioned what guidance state employees would be given as to what information they need to input into the user-defined fields of the TCO calculator in order for them to obtain a truly accurate total cost of ownership comparison. Referring again to the unique nature of medium-duty and heavy-duty vehicles, as opposed to light-duty vehicles, he stressed the complex and scenario-specific factors that are at play when determining the cost of purchasing and operating a medium-duty or heavy-duty EV – e.g., existing infrastructure, location (urban versus rural), whether the existing power line coming into the facility is sufficient to support the type of rapid charging needed for medium-duty and heavy-duty EVs, etc. He strongly emphasized the importance of ensuring that such factors are accounted for in a TCO calculator for medium-duty and heavy-duty vehicles in order for users to obtain an accurate comparison.

Finally, Mr. Nolan stressed that in order to provide an accurate total cost of ownership calculation, the publicly available TCO calculators for medium-duty and heavy-duty vehicles must accurately reflect all available ICEV and EV product lines and prices. He highlighted the difference between obtaining such data from pre-set inputs that are taken directly from publicly available data versus the buyer calling the dealer directly to obtain such data based on the configuration that the buyer intends for the use of the vehicle. He concluded by noting that when SB 575 was introduced during the 2022 Session, Volvo looked at the EC's DRVE Tool and noticed that the DRVE Tool's drop-down box for selecting a medium-duty or heavy-duty EV did not include a Volvo product even though a Volvo product was for available for sale at the time.

Lastly, Michael E. Duffy, Transportation Operations and Fleet Manager with the University of Virginia, provided written comments to the Workgroup in which he expressed concern about requiring state agencies to use a total cost of ownership calculator to compare medium-duty and heavy-duty ICEVs and EVs. He indicated unease with what he sees as the “one-size-fits-all” metrics used by TCO calculators and stressed that each fleet is unique in the service it performs and in the environment in which it operates.

V. Workgroup Findings and Recommendations

Members of the Workgroup expressed concern about the practicality of implementing a requirement that state agencies use a TCO calculator to assess and compare the total cost to purchase, own, lease, and operate medium-duty and heavy-duty ICEVs versus comparable EVs prior to purchasing or leasing any medium-duty or heavy-duty vehicle at this time. Several members emphasized that the market for medium-duty and heavy-duty EVs is still very nascent and there are very few medium-duty and heavy-duty EVs available for purchase at this time, making a requirement to use a TCO calculator for such vehicles premature. Mr. Prezioso commented that there does not seem to be many medium-duty and heavy-duty EVs available on the market currently, especially on a large scale. He shared that he knows that manufacturers are making some change over to produce EVs, but they seem to be heavily focused on meeting the current significant demand for IVECs before they start producing EVs. Relatedly, Mr. McHugh referred to comments made by Mr. Nolan in which he stated that Volvo will not be producing a significant number of medium-duty and heavy-duty EVs until 2030.

Additionally, several members expressed concern about whether the publicly available TCO calculators for medium-duty and heavy-duty vehicles are able to accurately and comprehensively capture all of the costs and other considerations that are associated with the decision to purchase and operate medium-duty and heavy-duty EVs over the course of their lifetime. Emphasizing the specialized nature of medium-duty and heavy-duty vehicles, Mr. McHugh stressed the importance of accurately capturing the costs of building out the infrastructure needed for such vehicles, as well as any potential grid upgrades that would be needed to support such infrastructure. He noted that such costs fall on the procuring agency and can be significant. He also emphasized that such costs could vary significantly depending upon whether the agency is located in an urban area or a more rural area. Ms. Innocenti expressed concern about whether the TCO calculators for medium-duty and heavy-duty vehicles capture such factors as (i) the ability of state agencies' existing fleet maintenance facilities to support medium-duty and heavy-duty EVs and their infrastructure, (ii) training that will be needed for technicians in such facilities in order for them to be able to maintain and repair medium-duty and heavy-duty EVs, (iii) the availability of repair parts for medium-duty and heavy-duty EVs, and (v) the cost and market for batteries for medium-duty and heavy-duty EVs.

Ms. Gill stated that she does not believe that it is appropriate at this time to require state agencies to use a TCO calculator for medium-duty and heavy-duty vehicles, but she believes that it is potentially the right time for agencies to begin researching and investigating their long-term use. Several members agreed with her statement. Referring to the spreadsheet prepared by the Workgroup's staff showing the results of the email survey of state agencies' current inventories of medium-duty and heavy-duty vehicles are subtracted from the total (which showed that after VDOT's incident and emergency response vehicles – because VDOT indicated that they intend to request be exempted from any requirement to use a TCO calculator for medium-duty and heavy-duty vehicles, similar to their current exemption from the requirement to use a TCO calculator for light-duty vehicles – only 730 medium-duty and heavy-duty vehicles remain), Mr. Saunders noted that the number of medium-duty and heavy-duty vehicles that would be impacted by a requirement to use a TCO calculator for medium-duty and heavy-duty vehicles is relatively small compared to the much larger number of light-duty vehicles that will be impacted by recently enacted requirement to use a TCO calculator for light-duty vehicles. He suggested that if the requirement to use a TCO calculator for light-duty vehicles turns out to be beneficial, and the market for medium-duty and heavy-duty EVs grows over time, then perhaps there may be a time in the future when it will be appropriate to implement a requirement to use a TCO calculator for medium-duty and heavy-duty vehicles.

Based upon a suggestion made by Mr. Prezioso, Ms. Gill asked the Workgroup members for their thoughts on including in their recommendation a recommendation that the state agencies that procure the largest number of medium-duty and heavy-duty vehicles, namely VDOT and DRPT, consider what factors should be included in a TCO calculator for medium-duty and heavy-duty vehicles. She asked Mr. Prezioso whether VDOT would be open to that as part of the recommendation, and he indicated that they would be because they are likely going to begin investigating such factors on their own regardless.

At its fifth meeting on September 19, 2022, the Workgroup voted to approve the following final recommendation on SB 575 by a vote of 5-0-1²:

The Workgroup finds that it is not appropriate at this time to require DGS and all other state agencies to use a TCO calculator for medium-duty and heavy-duty vehicles, but the Workgroup recommends that the General Assembly consider directing VDOT, DRPT, and other state agencies to (i) investigate and determine the appropriate factors that need to be included in a TCO calculator for medium-duty and heavy-duty vehicles and (ii) determine when it may be appropriate to implement a requirement that state agencies use a TCO calculator for medium-duty and heavy-duty vehicles.

VI. Conclusion

The Workgroup would like to thank the stakeholders and interested parties who participated in its study of SB 575 for their participation, as well as thank the subject matter experts from DGS, VDOT, and DRPT who provided presentations and technical expertise to the Workgroup for their assistance.

² Yes: Mr. McHugh, Ms. Pride, Mr. James, Ms. Gill, and Mr. Heslinga. Abstain: Mr. Saunders.

Appendix A: Text of Chapter 789 of the Acts of Assembly of 2022 [SB 575]

This appendix contains the text of Chapter 789 of the Acts of Assembly of 2022 [SB 575]. The third enactment of the bill contains the Workgroup's study mandate.

VIRGINIA ACTS OF ASSEMBLY -- 2022 RECONVENED SESSION

CHAPTER 789

An Act to amend the Code of Virginia by adding a section numbered 2.2-1176.2, relating to Department of General Services; fleet managers to use total cost of ownership calculations; report.

[S 575]

Approved May 27, 2022

Be it enacted by the General Assembly of Virginia:

1. That the Code of Virginia is amended by adding a section numbered 2.2-1176.2 as follows:

§ 2.2-1176.2. Declaration of policy supporting cost-effective vehicle purchase and lease; total cost of ownership calculator; report.

A. It is the policy of the Commonwealth to encourage and promote the use of cost-effective vehicles by considering the total cost of ownership by agencies of the Commonwealth.

B. By October 1, 2022, the Department shall identify a publicly available total cost of ownership calculator that will be used to assess and compare the total cost to purchase, own, lease, and operate light-duty internal combustion-engine vehicles (ICEVs) versus comparable electric vehicles (EVs). Beginning on January 1, 2023, the Department and all agencies of the Commonwealth shall utilize the calculator prior to purchasing or leasing any light-duty vehicles and shall purchase or lease an EV unless the calculator clearly indicates that purchasing or leasing an ICEV has a lower cost of ownership.

1. The calculator shall, at a minimum, account for the vehicle's make, model, and age; the average miles traveled per year for similarly used vehicles; the expected life expectancy of the vehicle and average annual depreciation; the upfront and annual costs of purchasing such vehicle and all other costs of vehicle ownership or lease; and all costs the agency must incur to add chargers or other fueling facilities to support such vehicles. The calculator shall be updated at least annually to account for updates in information, including information on the latest light-duty vehicle models available.

2. The Department shall make the calculator available to all state and local public bodies and transit agencies. The Department shall also provide technical assistance to such public bodies utilizing the calculator upon request.

For purposes of this subsection, "light-duty vehicle" means a motor vehicle with a gross vehicle weight of 14,000 pounds or less.

C. Beginning January 1, 2026, and every three years thereafter, the Department shall submit to the Governor and the General Assembly a report summarizing the Department's vehicle procurements and the vehicle procurements of other agencies of the Commonwealth. The report shall, at a minimum, include a compilation of types of vehicles by size, fuel sources, and the total estimated cost savings and avoided emissions attributable to purchasing or leasing of EVs instead of ICEVs.

D. Emergency vehicles, as defined in § 46.2-920, and any vehicles used by an agency of the Commonwealth in law-enforcement, incident response, or other emergency response activities shall be exempt from the requirements of this section. The Department may authorize other exemptions from the requirements of this section upon finding that an EV is not a practicable alternative to an ICEV for a particular use, or for some other compelling reason.

E. The Department shall develop guidance documents regarding the procedure for requesting exemptions from the requirements of this section and the criteria for evaluating such exemption requests. Before adopting or revising such guidance documents, the Department shall publish the document on its website and provide a 30-day period for public review and comment.

F. The Department may issue any directives or guidance documents or promulgate any regulations as may be necessary to implement the requirements of this section.

2. That the initial report required pursuant to subsection C of § 2.2-1176.2 of the Code of Virginia, as created by this act, shall be due January 1, 2026.

3. That the Department of General Services (the Department) Public Body Procurement Workgroup (the Workgroup) shall evaluate the appropriateness of requiring the Department and all agencies of the Commonwealth to use a total cost of ownership (TCO) calculator to, prior to purchasing or leasing any medium-duty or heavy-duty vehicle, assess and compare the total cost to purchase, own, lease, and operate medium-duty or heavy-duty internal combustion-engine vehicles versus comparable electric vehicles. In conducting its evaluation, the Workgroup shall consult with relevant stakeholders, including at least one medium-duty or heavy-duty vehicle technology provider with experience in real-world deployments, to consider (i) the current commercial market for medium-duty and heavy-duty electric vehicles; (ii) the unique characteristics of medium-duty and heavy-duty vehicles, including charging infrastructure and operational duty cycles; (iii) the potential volume of medium-duty and heavy-duty vehicles purchased by the Department and

agencies of the Commonwealth; (iv) the availability of public TCO calculators for medium-duty and heavy-duty vehicles and their suitability for use by the Department and agencies of the Commonwealth; and (v) any other information it determines relevant to its evaluation.

The Department shall report the Workgroup's findings and any recommendations to the Chairmen of the House Committee on General Laws and the Senate Committee on General Laws and Technology on or before December 1, 2022.

For purposes of this enactment, "medium-duty and heavy-duty vehicle" means a motor vehicle with a gross weight greater than 14,000 pounds.

Appendix B: July 14, 2022 Meeting Materials

This appendix contains the meeting materials from the July 14, 2022 Workgroup meeting.

1. Agenda
2. Public Body Procurement Workgroup 2022 Proposed Work Plan
3. Appropriations Act Language Establishing the Public Body Procurement Workgroup
4. Written Public Comments
 - a. Memo from Alleyn Harned, Executive Director of Virginia Clean Cities at James Madison University
 - b. DRVE Tool Fact Sheet from the Electrification Coalition
 - c. White Paper from Amply Power
5. Approved Meeting Minutes

Public Body Procurement Workgroup

<http://dgs.virginia.gov/dgs/directors-office/procurement-workgroup/>

Meeting # 1

Thursday, July 14, 2022, 9:30 a.m.

Conference Rooms C, D, and E

James Monroe Building

101 N 14th St, Richmond, Virginia 23219

AGENDA

I. Call to Order; Remarks by Department of General Services

Joe Damico, Director

Department of General Services

Sandra Gill, Deputy Director

Department of General Services

II. Overview of Workgroup Authority and Duties

Jessica Budd, Staff

Department of General Services

III. Introduction of Workgroup Members, Representatives, and Staff

IV. Review of Proposed Work Plan

Jessica Budd, Staff

Department of General Services

V. Presentation on SB 550

The Honorable John J. Bell, Patron

Senate of Virginia

VI. Presentation on SB 575

Baxter Carter, Chief of Staff to The Honorable T. Montgomery

"Monty" Mason, Patron

Senate of Virginia

VII. Discussion

VIII. Public Comment

IX. Adjournment

Members

Department of General Services
Virginia Information Technologies Agency
Department of Planning and Budget
Virginia Association of State Colleges and
University Purchasing Professionals

Department of Small Business and Supplier Diversity
Virginia Department of Transportation
Virginia Association of Government Purchasing

Representatives

Office of the Attorney General
Senate Finance Committee

House Appropriations Committee
Division of Legislative Services

Staff

Jessica Budd, Legal Policy Analyst, DGS
Jessica Hendrickson, Director of Policy and Legislative Affairs, DGS

Public Body Procurement Workgroup

<http://dgs.virginia.gov/dgs/directors-office/procurement-workgroup/>

2022 PROPOSED WORK PLAN

Meeting #1 – July 14, 2022

1. Overview of Workgroup Authority and Duties
2. Introduction of Workgroup Members, Representatives, and Staff
3. Review of Proposed Work Plan

During the 2022 Regular Session, the General Assembly passed two bills that direct the Public Body Procurement Workgroup to conduct studies.

- SB 550 (Chapter 727 of the 2022 Acts of Assembly) was patroned by Senator Bell and requires certain payment clauses to be included in public and private contracts. The second enactment clause of the bill directs the Workgroup to review whether the issue of nonpayment between general contractors and subcontractors necessitates legislative corrective action and report its findings and any legislative recommendations to the General Assembly on or before December 1, 2022.
- SB 575 (Chapter 789 of the 2022 Acts of Assembly) was patroned by Senator Mason and requires all agencies of the Commonwealth to (i) utilize a total cost of ownership (TCO) calculator to assess and compare the total cost to purchase, own, lease, and operate light-duty internal combustion-engine vehicles (ICEVs) versus comparable electric vehicles (EVs) prior to purchasing or leasing any light-duty vehicles and (ii) purchase or lease an EV unless the calculator clearly indicates that purchasing or leasing an ICEV has a lower cost of ownership. The third enactment clause of the bill directs the Workgroup to evaluate the appropriateness of requiring all agencies of the Commonwealth to use the TCO calculator prior to purchasing or leasing any medium-duty or heavy-duty vehicles. The bill directs the Workgroup to consult with relevant stakeholders, including at least one medium-duty or heavy-duty vehicle technology provider with experience in real-world deployments, and consider (a) the current commercial market for medium-duty and heavy-duty electric vehicles; (b) the unique characteristics of medium-duty and heavy-duty vehicles, including charging infrastructure and operational duty cycles; (c) the potential volume of medium-duty and heavy-duty vehicles purchased by DGS and agencies of the Commonwealth; (d) the availability of public TCO calculators for medium-duty and heavy-duty vehicles and their suitability for use by DGS and agencies of the Commonwealth; and (e) any other information it determines relevant to its evaluation. The bill requires the Workgroup to report its findings and any recommendations to the Chairmen of the House Committee on General Laws and the Senate Committee on General Laws and Technology on or before December 1, 2022.

4. Presentation on SB 550
 - The Honorable John J. Bell, Senate of Virginia, Patron
5. Presentation on SB 575
 - Baxter Carter, Chief of Staff to The Honorable T. Montgomery "Monty" Mason, Senate of Virginia, Patron

Meeting #2 – July 28, 2022 (Tentative)

1. Receive Public Comment from Stakeholders on SB 550.
2. Receive Public Comment from Stakeholders on SB 575.

Meeting #3 – August 11, 2022 (Tentative)

1. Consideration of the presentations, testimony, and written comments and other information previously received by the Workgroup on SB 550.
2. Development of findings and recommendations on SB 550.
3. Consideration of the presentations, testimony, and written comments and other information previously received by the Workgroup on SB 575.
4. Development of findings and recommendations on SB 575.

Meeting #4 – August 30, 2022 (Tentative)

1. Finalize the Workgroup's findings and recommendations on SB 550. Staff provide overview of final report.
2. Finalize the Workgroup's findings and recommendations on SB 575. Staff provide overview of final report.

December 1, 2021

1. Report on the Workgroup's findings and recommendations on SB 550 due to the General Assembly.
2. Report on the Workgroup's findings and recommendations on SB 575 due to the Chairmen of the House Committee on General Laws and the Senate Committee on General Laws and Technology.

VIRGINIA STATE BUDGET

2022 Special Session I

Budget Bill - HB30 (Chapter 2)

Bill Order » Office of Administration » Item 85

Department of General Services

Item 85	First Year - FY2023	Second Year - FY2024
Administrative and Support Services (79900)	\$6,124,171	\$6,148,833
General Management and Direction (79901)	\$3,690,527	\$3,690,527
Information Technology Services (79902)	\$2,433,644	\$2,458,306
Fund Sources:		
General	\$6,000,865	\$6,000,865
Enterprise	\$123,306	\$147,968

Authority: Title 2.2, Chapter 11 and Chapter 24, Article 1, Code of Virginia.

A.1. The Department shall lead, provide administrative support to, and convene an annual public body procurement workgroup to review and study proposed changes to the Code of Virginia in areas of non-technology goods and services, technology goods and services, construction, transportation, and professional services procurements. The workgroup shall consist of the Director of the Department of Small Business and Supplier Diversity, Director of the Department of General Services, the Chief Information Officer of Virginia Information Technology Agency, Commissioner of the Virginia Department of Transportation, Director of the Department of Planning and Budget, the President of the Virginia Association of State Colleges and University Purchasing Professionals (VASCUPP), the President of the Virginia Association of Governmental Purchasing or their designees; a representative from the Office of the Attorney General Government Operations and Transactions Division, a staff member of the Virginia House Appropriations Committee, Senate Finance and Appropriations Committee, and Division of Legislative Services.

2. The workgroup is charged with hearing legislation referred by letter from the Chairs of the House Rules, General Laws, and Appropriations Committees, and Chairs of the Senate Rules, General Laws and Technology, and Finance and Appropriations Committees. The workgroup will hear from stakeholders identified by the patron of the referred legislation and other interested individuals to discuss the legislation's impacts to: 1) small businesses to include women and minorities; 2) the Commonwealth's budget; and 3) the Commonwealth's procurement processes. Such meetings will be open to the public. In addition, the Chairs of the House Rules and House Appropriations Committees and Chairs of Senate Rules and Senate Finance and Appropriations Committees may request the workgroup review procurement related proposals in advance of upcoming legislative sessions to better understand potential impacts prior to the start of the annual General Assembly Session.

B. The Department of General Services, in collaboration with the Virginia Information Technologies Agency, shall inventory state agency call center contractual staffing solutions currently in place, and make recommendations on the benefit of developing a statewide standing call center staffing augmentation contract. The agencies shall report findings and recommendations to the Chairs of the House Appropriations and Senate Finance and Appropriations Committees by December 31, 2022.

Memorandum

From: Alleyn Harned, Virginia Clean Cities at James Madison University

To: Joe Damico, DGS; and Beth Cooley DGS

Date: June 7, 2022

RE: S 575, Chapter 789: Cost of Ownership Calculators

This memo serves as an informational note for use if it is helpful in preparation of the DGS October 1, 2022 report regarding publicly available cost of ownership calculators to assess and compare the total cost to purchase, own, lease, and operate light duty internal combustion engine vehicles compared to other technologies like electric vehicles. Because these vehicles are required to be used by regulated fleets, numerous public sources are available including tested and frequently updated material from federal national laboratories.

We recommend using the Argonne National Laboratory's (ANL) Alternative Fuel Life-Cycle Environmental and Economic Transportation (AFLEET) for the total cost of ownership calculations, specifically the Total Cost of Ownership Calculator. AFLEET is a national go-to tool and has been included in the Bipartisan Infrastructure Law to estimate the emissions of electric vehicle (EV) charging infrastructure projects.

Tool currently in use with fleets in VA:

AFLEET Tool (<https://afleet.es.anl.gov/>). Cost: Free. Updates: Frequent. Online and Excel versions.

ANL's AFLEET Tool will calculate and compare the environmental and economic costs and benefits of alternative fuel vehicles (AFVs) and internal combustion engine vehicles (ICEVs). Users can estimate petroleum use, greenhouse gas (GHG) emissions, air pollutant emissions, and total cost of ownership for light- and heavy-duty vehicles using detailed spreadsheet or online inputs. Based on the highlighted criteria in the legislation, the Total Cost of Ownership (TCO) Calculator would be a good fit for estimating costs of a vehicle and can be used to compare light-duty or heavy-duty ICEVs and EVs.

The TCO Calculator evaluates the net present value of operating and fixed costs over the years of planned ownership of a new vehicle, as well as lifetime petroleum use, GHGs, and air pollutant emissions. The TCO calculations includes the operating and fixed costs on an annual basis for every year of planned ownership of a new vehicle and infrastructure purchase. This calculator has more detailed cost calculations as compared to the Simple Payback Calculator, another calculator in AFLEET. The Simple Payback Calculator examines acquisition and annual operating costs to calculate a simple payback for purchasing either a new on-road or new offroad AFV as compared to its conventional counterpart, but the TCO Calculator provides additional cost graphs as compared to the Payback Calculator. In addition, the TCO Calculator includes the costs of financing a loan, depreciation, insurance, license, and registration, as well as the operating and acquisition costs. Using assumptions of inflation for various costs and a discount

rate, the tool calculates the net present value of a vehicle purchase. For more information, please see the User Guide for AFLEET Tool 2020 (<https://greet.es.anl.gov/publication-afleet-tool-2020-user-guide>). Information about the TCO Calculator begins on PDF page 32.

The tool allows input for annual miles, and calculates vehicles over time so addresses the age. Purchase and lease values can be entered into the tool and comparisons can be run quickly. Outputs include information on operation maintenance.

Other Calculators:

The Alternative Fuels Data Center (AFDC) Vehicle Cost Calculator (<https://afdc.energy.gov/calc/>) is also a great tool for calculating TCO.

This tool uses basic information about driving habits to calculate total cost of ownership and emissions for makes and models of most vehicles and can be used to compare up to 8 light-duty vehicles at a time, including ICEVs and EVs. The Vehicle Cost Calculator does not have the capability to calculate TCO for medium- or heavy-duty vehicles.

Fuel Economy Calculator from EPA/DOE:

Fueleconomy.gov's Fuel Savings Calculator

(<https://www.fueleconomy.gov/feg/savemoney.jsp>) primary function is estimating fuel costs, but purchase or lease costs can be manually inputted to compare costs between two vehicles. This calculator is also limited to light-duty vehicles only. This includes vehicle make model and year specifics for all ICE and EVs sold for consumers in the United States and is updated constantly with each model year.

For an overview of other tools and calculators, you may be interested in reviewing the AFDC and Related Technology Integration Tools brochure (<https://afdc.energy.gov/files/u/publication/tools.pdf>), which briefly describes the tools available from the AFDC and Fueleconomy.gov covering vehicles and emissions, fueling and stations, and informational resources.

Additional resources and “widgets” for websites (<https://afdc.energy.gov/widgets/>) are all available for use on the AFDC – the “widget” version provides the HTML code so other agencies and website managers can copy the tools directly to their website instead of needing to link to the AFDC website.

TCO calculations can adjust with access to state and federal incentive programs – we can maintain and support whatever information is necessary for DGS to convey information of incentives to interested fleets or we can work directly with those fleets if that is of interest.

Virginia Clean Cities is committed to assist here and will put extra hours of capacity and travel too assist into our existing federal funded Virginia green fleet work plans. We are state employees at James Madison University serving on several state and federal contracts to track and resolve solutions as needed by agencies. If DGS could use any assistance we are eager to support your work.

We have also connected with national laboratories – if there are tools that are not accessible from this memo or if there is additional functionality you would desire, we have a partnership with U.S. Department of Energy “Tiger Teams Technical Assistance” that can help further overcome obstacles to deploying alternative fuels and advanced vehicles and make informed choices to reduce fuel consumption.

Thank you.



About the DRVE Tool

The DRVE Tool brings powerful, turnkey fleet analytics to organizations and fleets in need of quickly assessing where electrification is best matched in their light-, medium-, and heavy-duty fleet operation. By design, the tool is built to work with a wide variety of fleet data, allowing users to run the analysis tool locally on their computer, producing a detailed report and recommendations, often under an hour.

The tool is built to also offer a variety of customization, allowing users to develop various financing, charging, and usage scenarios to identify various options. In this way, the DRVE Tool can reduce the time and resources often required for conducting fleet assessment, providing powerful analytics to all users, with analysis resources across all light-, medium-, and heavy-duty vehicle options.



Photo via City of Des Moines, IA

Download the Tool for Free

For further information or help using the DRVE tool for electrifying your fleet, tool download, user guide, and sample data please visit:

www.electrificationcoalition.org/press-release-drive/



Screenshot of the DRVE Tool Website

Using the DRVE Tool at a Glance

- Import Fleet Data:** Select the file containing your data by pressing the “Open File” button. Then, select the sheet where your inventory data resides and select the following: VIN, Annual VMT, and Vehicle Service Life. Please ensure field names appear in the first row of your worksheet.
- Map Vehicles:** This tool maps your fleet vehicles to open-sourced, federal database of vehicles. If a match is not found, a default vehicle will be used based on vehicle class. You also have the ability to provide a custom mapping for each vehicle by selecting a different vehicle or adjusting the vehicle settings. This mapping can be used in later analysis as well.
- Set Options:** You can change or add different settings to your fleet analysis. These include ‘Analysis Settings’, ‘Market Conditions’, ‘Charging Strategy’, and ‘Procurement Strategy’.
- Run Analysis:** This may take several minutes.
- View Results:** Once you finish running the analysis, you can view and download the results into a customized print-ready report.

About the Electrification Coalition

The Electrification Coalition is a nonpartisan, not-for-profit group of business leaders committed to promoting policies and actions that facilitate the deployment of electric vehicles on a mass scale in order to combat the economic, public health, and national security dangers caused by America’s dependence on oil. For more information, visit www.electrificationcoalition.org.

MAY 2020



Unlocking the Cost-Saving Potential of Electric Fuel

An AMPLY Power White Paper

Executive Summary

Cities, municipalities, and private companies around the United States are transitioning fleets with internal combustion engines (ICE) to fleets powered by electric batteries, leveraging new technologies and business models to operate cleaner fleets at lower operating costs.

This AMPLY white paper simplifies complex electricity rate structures given fleet vehicle requirements by comparing the cost to “fuel” different vehicle fleets in the Top 25 U.S. Metropolitan areas.

This updated report, authored by AMPLY Power, attempts to distill and simplify the interaction of complex electricity rate structures with fleet vehicle requirement by providing a comparative assessment of how electricity rate structures in the Top 25 U.S. Metropolitan areas impact the cost to “fuel” different vehicle fleets.

In over 84% of the Top 25 Metropolitan areas based on population in the United States, it is cheaper to re-fuel electric trucks, buses, and passenger vehicles with electricity than fossil fuels.

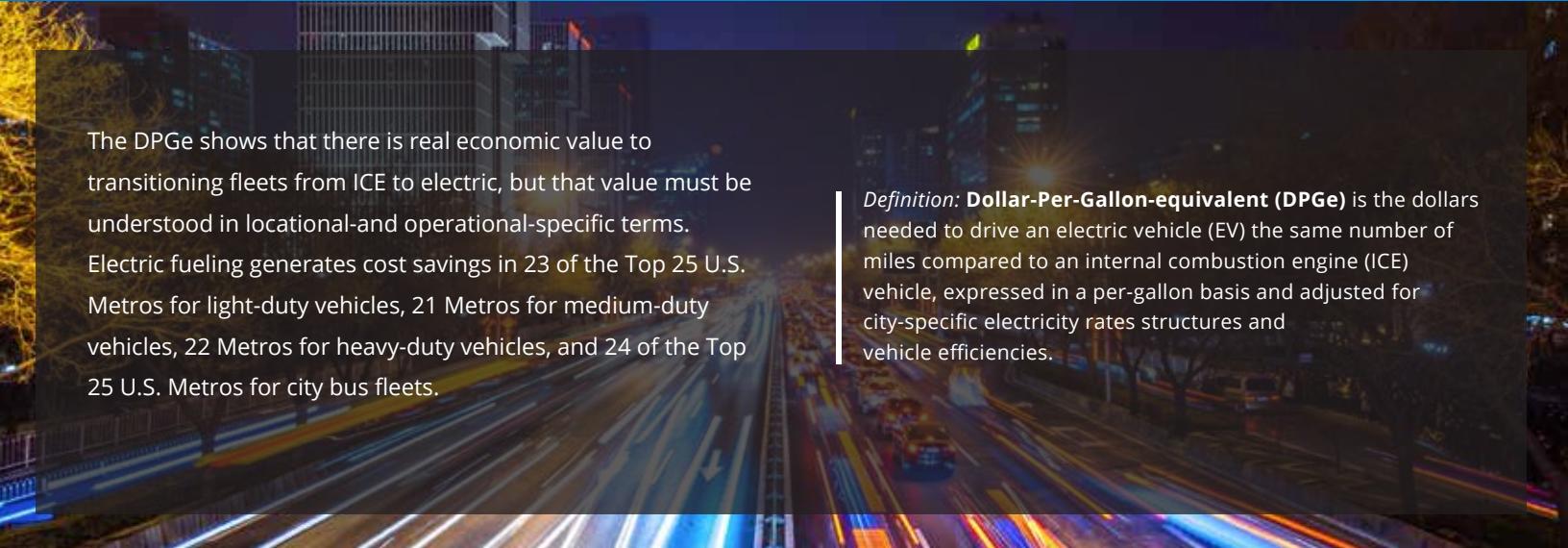
We introduced the Dollar-per Gallon-equivalent (DPGe)—a comparison of mile-for-mile gasoline/diesel fueling costs versus mile-for-mile electric fueling costs across each metropolitan area—in our 2019 White paper, and are excited to apply this metric to more vehicles to demonstrate the potential of AMPLY’s optimal management strategy.

We have added delivery vans (medium-duty) and Class 8 Trucks (heavy-duty) fleets to our analysis in addition to updating the DPGe for light-duty and city bus fleets.

In this white paper, we outline the methodology and logic for calculating the DPGe, present the results and insights gleaned from DPGe for the Top 25 U.S. Metros, and issue a nationwide call-to-arms to industry, regulators, fleet operators, and energy providers to work together to unleash the profound financial and societal benefits that fleet electrification can bring to the United States.

AMPLY Power has developed the **Dollar per Gallon-equivalent (DPGe) metric**.

The Dollar per Gallon-equivalent is a direct, apples-to-apples comparison that allows us to assess the electric dollar per gallon-equivalent of gasoline (or diesel) for specific cities, incorporating regional-specific electricity rate structures, fleet-specific charging strategies, and vehicle class efficiencies into a single, comprehensible metric that can be used to assess, plan, and budget for a fleet transition.



The DPGe shows that there is real economic value to transitioning fleets from ICE to electric, but that value must be understood in locational-and operational-specific terms. Electric fueling generates cost savings in 23 of the Top 25 U.S. Metros for light-duty vehicles, 21 Metros for medium-duty vehicles, 22 Metros for heavy-duty vehicles, and 24 of the Top 25 U.S. Metros for city bus fleets.

Definition: **Dollar-Per-Gallon-equivalent (DPGe)** is the dollars needed to drive an electric vehicle (EV) the same number of miles compared to an internal combustion engine (ICE) vehicle, expressed in a per-gallon basis and adjusted for city-specific electricity rates structures and vehicle efficiencies.

A Targeted or Managed Charging Strategy is Cost-Critical in Most Metros

Take, for example, New York. In New York, it would be illogical and quite costly to transition a medium-duty fleet to electric vehicles without a targeted management strategy—with the DPGe (and annual fuel cost) almost three times as expensive as gasoline if unmanaged. However, with a targeted management strategy, the decision is almost a no-brainer the other way: **A fleet transition would yield almost over 30% savings on fuel.**

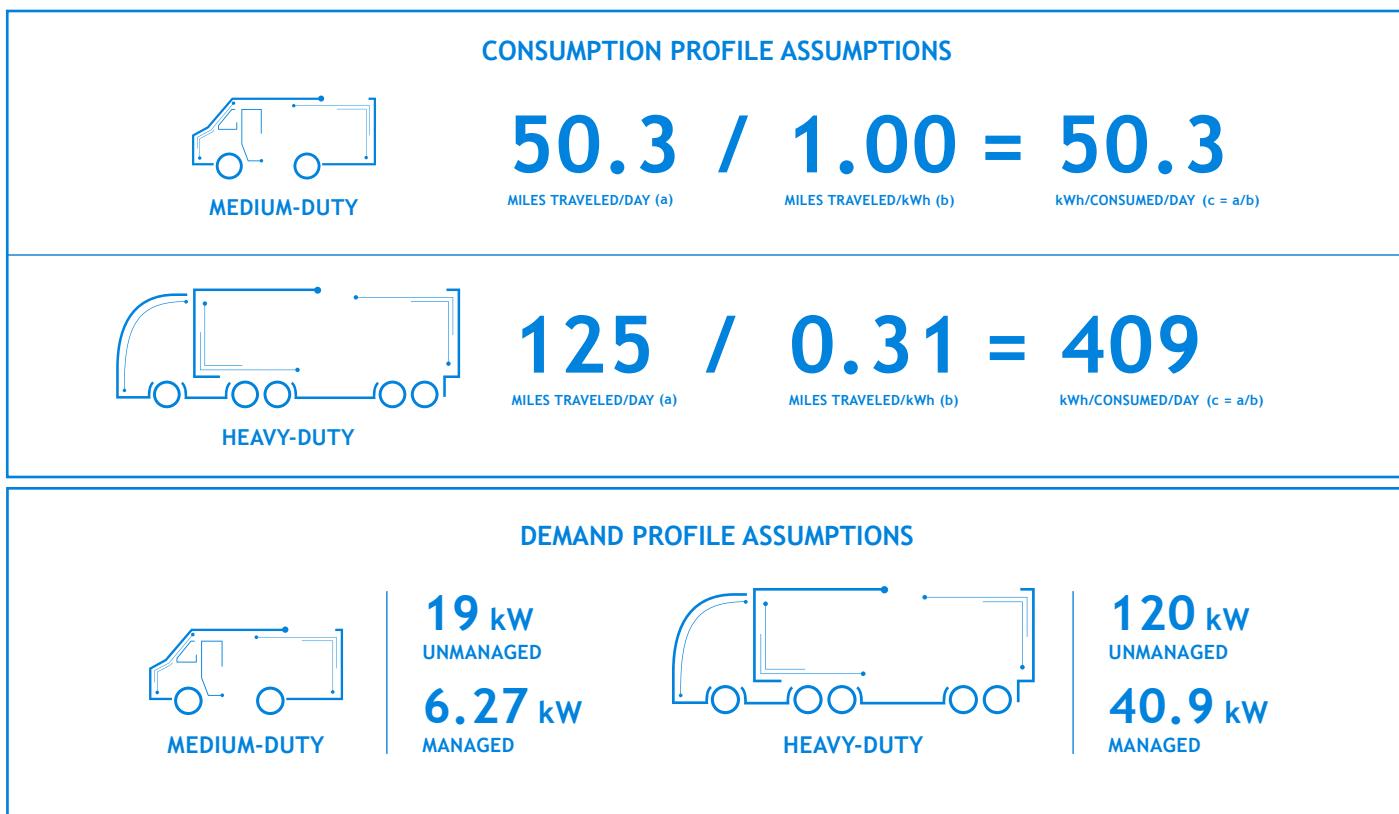
Where a city's DPGe is not meaningfully lower than that city's equivalent gasoline or diesel price, transitions may be stalled, or absent altogether. Careful rate design, incentives, or other mechanisms must be utilized to encourage this paradigm shift to electric fleets. Well-designed state and local policies, incentives, and rate structures can ensure predictable electric fuel prices that are lower than fossil fuel, will encourage targeted clean economic development, and can be used as a tool by grid operators to optimize and manage their networks.

The environmental benefits of these efforts can parallel or exceed the economic benefits, where each fleet transition will substantially reduce carbon emissions into the atmosphere. For each 15-vehicle fleet that transitions to electrification, hundreds of thousands of kilograms CO₂ -equivalent is saved. But realizing these economic and environmental benefits requires the cooperation of fleet operators, industry, utilities, and regulators alike.

2020 Spotlight: Medium-Duty and Heavy-Duty Fleets

In addition to updating the light-duty and city bus fleet comparisons, AMPLY extended the analysis to include medium-duty and heavy-duty fleets. These larger vehicles, encompassing delivery vans and Class 8 trucks, highlights the potential AMPLY's optimal management strategy and electrification have to unlock all parts of the vehicular market.

We applied the same model as from our first Whitepaper with added new assumptions associated with medium-duty and heavy-duty fleets. Using the FHA's metric for annual miles-traveled per vehicle type^[1] and then applying an electric vehicle "efficiency factor", we are able to find the kWh consumed per vehicle type on a daily basis. Then to calculate charging cost, we compare "unmanaged charging" from solely on-peak periods to "managed charging" from solely off-peak periods. To better understand demand charges, we assume that medium-duty fleet vehicles incur a 19 kW demand and that heavy-duty fleet vehicles incur a 120 kW demand spike.^[2] AMPLY's project experience suggests that a targeted strategy can reduce that demand by about 67% for medium-duty and heavy-duty fleets.^[3]



The results for medium-duty and heavy-duty fleets demonstrate the profound power of electrification and optimal management strategies. AMPLY found in 21 of the Top 25 U.S. Metros for medium-duty and in 22 of the Top 25 U.S. Metros for heavy-duty that fueling these fleets with electricity generates significant cost savings.³ Removing these cities that did not experience savings, electric fuel is on average 41% cheaper than gasoline for medium-duty vehicles and 47% cheaper than diesel for heavy-duty vehicles.

[1] U.S. DOT, Federal Highway Administration, Table VM-1.

[2] AMPLY recognizes that this figure lacks a publicly-referenceable citation, in large part because EV fleets—and optimizing them—are nascent. However, based on the AMPLY team's experience working with its partners to optimize their fleets, AMPLY uses the 67% metric here as a conservative approximation for demand reduction capabilities with optimization.

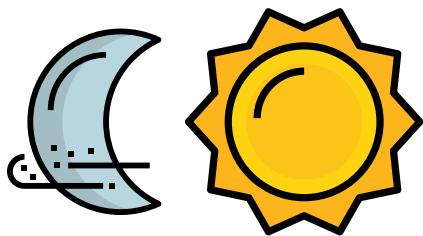
[3] The exact amount for each fleet will inherently depend on the size, operating requirements, vehicles, and driving profile of those fleets.

A Primer on Electricity Rate Structures in the U.S.

The complexity of electricity rate structures coupled with confusing or conflicting metrics is a fundamental impediment to a global transition to electric vehicle (EV) fleets. Unlike gasoline or diesel fuel prices (all-too-well-understood in the U.S. as a fixed number of dollars per volumetric gallon), electricity prices can vary significantly on a volumetric (measured in kWh) basis.

The 3 Basic Components of an Electricity Bill

- **Energy Charges:** In \$/kWh, these are simply how many electrons you consume. Much like gasoline, this charge is purely volumetric (e.g., to fill a 100 kWh battery you would need 100 kWh); however, as compared to gasoline, the volumetric price per kWh in most cities will vary depending on the time of day or day of week that you charge the battery ("time of use" energy pricing). In some cities, "on peak" energy charges (e.g., charging in the middle of the afternoon) can be nearly six times as costly as "off peak" energy charges (e.g., charging at 2AM). Imagine paying \$3.00/gallon of gasoline in the evening but \$12/gallon in the daytime, and in most U.S. Metros, this is only part of the equation!
- **Demand Charges:** Demand charges (in \$/kW) refer to the instantaneous rate at which you charge the vehicle, and for the majority of the Top 25 Metros, are typically calculated using the single highest 15- or 30-minute "spike" registered in a month. The demand charge is much more a derivative of the charging infrastructure than it is the vehicle: DC Fast Charging infrastructure can charge vehicles at rates above 50 kW whereas Level 2 Chargers typically max out around 10 kW—or, in other words, a DC Fast Charger can get a lot more energy into your vehicle in a much quicker timeframe. A 15-minute charge with a 50 kW DC Fast Charger on a \$30/kW demand charge tariff would cost \$1,500; but, it's critical to understand that this once-per month cost can (and should) be amortized over the course of all other charges in that month. Much like energy charges, demand charges in the Top 25 Metros typically also have on and off-peak rates, thus, designing a fueling strategy to limit demand both overall and during on-peak periods is critical.
- **Fixed Charges:** Fixed charges (in \$/month) simply refer to the regulator-approved fixed components of any electricity bill. For the most part, these charges are not impacted by charging strategies and should be amortized across all consumption over the course of the month.



Imagine paying **\$3.00/gallon** for gasoline at night but **\$12/gallon** in the late afternoon, but only during weekdays. In most U.S. metros, this is only part of the challenge!

EV Specific Rates: In California and Colorado, some utilities have proposed specific rates to encourage fleet transitions to electric vehicles. These rates contain little to no demand charges but relatively higher energy charges. In general, these will be in place for five years before returning to more conventional rate structures with a reintroduction of demand charges. An optimal fuel management strategy is vital for navigating these changing rate structures and to take advantage of these opportunities.

Understanding DPGe from Atlanta to San Francisco

Rates structures in the Top 25 Metros are best understood by comparing two cities with drastically different rate design—Atlanta and San Francisco:



ATLANTA, GA

For the most part, Atlanta's pricing structure minimally provides an optimization incentive. At about \$0.06/kWh for energy year-round, and with non-TOU demand charges, vehicle charging is more or less agnostic to exactly when or the rate at which it charges. We found Atlanta's DPGe for city bus fleet vehicles to be \$1.54.

SAN FRANCISCO, CA

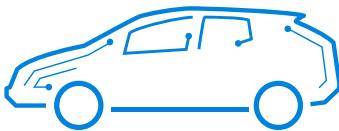
San Francisco, conversely, has extreme time-variable rates. Under San Francisco's new proposed commercial EV tariff, charging during peak times costs over \$0.30/kWh for energy whereas charging during off-peak times costs under \$0.09/kWh, plus monthly subscription charges. Given the complex structure and multiple optimization avenues to save on energy and demand, San Francisco's DPGe ranges between \$0.72 and \$2.47, or in other words, a range that can be two-thirds more expensive or twice as cost-effective as Atlanta depending on how charging the fleet is managed!

*Californian IOU utilities are proposing or implementing 5-year demand charge holidays that will reduce DPGe costs and incentivize short-term electric fleet adoption.



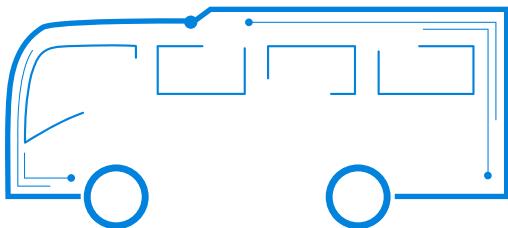
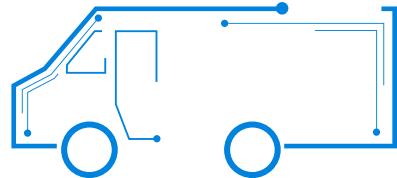
Insights

The results of the DPGe calculation across the Top 25 U.S. Metros yield significant findings:



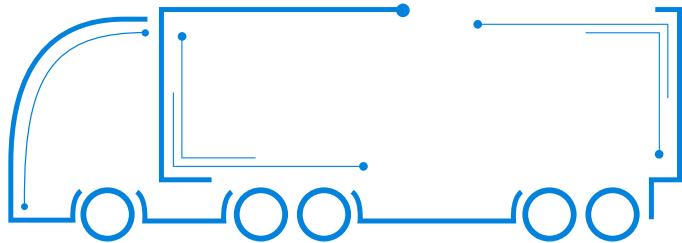
Light-duty fleets: With our updated assessment, we found that well-managed light-duty EV fleets can see a lower fuel cost than their ICE fleet counterparts in **23 of the Top 25 U.S. Metros**. In those 23 Metros, it is **47% cheaper than gasoline** to fuel light-duty vehicles with electricity.

Medium-duty fleets: The DPGe study indicates that with a fueling management strategy, fueling light-duty vehicles with electricity is cheaper than fueling using gasoline in **21 of the Top 25 U.S. Metros**. Removing the four cities that did not experience cost-savings, electric fuel is, on average across these cities, **41% cheaper than gasoline** for medium-duty vehicles.



City bus fleets: In **24 of the Top 25 U.S. Metros** we found that switching from diesel to electricity generates cost savings. We see on average larger savings than last year with electric fueling being **64% cheaper than diesel** in those 24 Metros.

Heavy-duty fleets: Fueling heavy-duty vehicle fleets with electricity in **22 of the Top 25 U.S. Metros** provides significant costs savings with a managed charging strategy. On average, it is **47% cheaper than diesel** to fuel heavy-duty fleets in these 22 Metros.



The AMPLY DPGe Navigator (<http://www.amplypower.com/comparison-map/>)

Where in the highest-variable Metros **a managed charging strategy can reduce fuel costs by as much as 85%**, fleet operators must truly understand the dynamics of both their city's electricity structure and their fleet requirements. Detailed studies, analyses, route planning, and assessments must be completed to realize these savings—but this hard work and thorough diligence will generate very meaningful value to stakeholders, and will flip the discussion of a fleet transition from **"a costly sustainability action"** to **"a must-have cost reduction measure."**

City-Specific Rates. These statistics are astounding; they highlight both the incredible efficiencies of an electric vehicle versus its ICE counterpart, and the hypercritical value of fleet management and optimization. The DPGe for each of the Top 25 U.S. Metros are listed below in **Table 1, Table 2, Table 3, Table 4**.

DPGe versus DPG for the Top 25 U.S. Metros - Medium-Duty Fleets

TABLE 1. MEDIUM-DUTY FLEETS

METROS	\$/GASOLINE			DIFFERENCE		PERCENTAGES	
TOP 25 METROS IN ORDER OF GREATEST DPGe GAINS	UNMANAGED ELECTRIC	MANAGED ELECTRIC	ICE GASOLINE	COMPARED TO UNMANAGED	COMPARED TO MANAGED	CHANGE UNMANAGED	CHANGE MANAGED
1 *Los Angeles-Long Beach-Anaheim	\$3.08	\$1.22	\$3.57	\$0.49	\$2.35	14%	66%
2 *Riverside-San Bernardino-Ontario	\$3.08	\$1.22	\$3.50	\$0.42	\$2.28	12%	65%
3 *Denver-Aurora-Lakewood	\$2.68	\$0.86	\$2.34	-\$0.35	\$1.47	-15%	63%
4 Seattle-Tacoma-Bellevue	\$1.92	\$1.32	\$3.21	\$1.29	\$1.89	40%	59%
5 Portland-Vancouver-Hillsboro	\$2.72	\$1.30	\$3.08	-\$0.36	\$1.78	12%	58%
6 Tampa-St. Petersburg-Clearwater	\$3.06	\$1.07	\$2.38	-\$0.68	\$1.31	-28%	55%
7 San Diego-Carlsbad	\$5.32	\$1.82	\$3.55	-\$1.77	\$1.73	-50%	49%
8 *San Francisco-Oakland-Hayward	\$5.97	\$2.04	\$3.56	-\$2.41	\$1.52	-68%	43%
9 Baltimore-Columbia-Towson	\$2.67	\$1.44	\$2.42	-\$0.25	\$0.98	-11%	41%
10 Philadelphia-Camden-Wilmington	\$2.92	\$1.55	\$2.51	-\$0.41	\$0.96	-16%	38%
11 Chicago-Naperville-Elgin	\$2.90	\$1.74	\$2.68	-\$0.22	\$0.94	-8%	35%
12 Houston-The Woodlands-Sugar Land	\$3.06	\$1.50	\$2.15	-\$0.91	\$0.65	-42%	30%
13 Orlando-Kissimmee-Sanford	\$3.28	\$1.66	\$2.37	-\$0.92	\$0.71	-39%	30%
14 Miami-Fort Lauderdale-West Palm Beach	\$4.11	\$1.88	\$2.48	-\$1.64	\$0.60	-66%	24%
15 New York-Newark-Jersey City	\$8.01	\$2.11	\$2.61	-\$5.39	\$0.51	-207%	19%
16 Phoenix-Mesa-Scottsdale	\$5.59	\$2.43	\$2.98	-\$2.61	\$0.55	-87%	19%
17 Charlotte-Concord-Gastonia	\$2.56	\$1.94	\$2.29	-\$0.27	\$0.35	-12%	15%
18 Washington-Arlington-Alexandria	\$3.51	\$2.22	\$2.42	-\$1.09	\$0.21	-45%	9%
19 St. Louis	\$2.65	\$2.14	\$2.27	-\$0.38	\$0.13	-17%	6%
20 Minneapolis-St. Paul-Bloomington	\$4.27	\$2.23	\$2.32	-\$1.95	\$0.09	-84%	4%
21 Dallas-Fort Worth-Arlington	\$5.19	\$2.13	\$2.16	-\$3.03	\$0.03	-140%	1%
22 San Antonio-New Braunfels	\$4.71	\$2.18	\$2.06	-\$2.65	-\$0.12	-128%	-6%
23 Atlanta-Sandy Springs-Roswell	\$2.66	\$2.66	\$2.31	-\$0.35	-\$0.35	-15%	-15%
24 Boston-Cambridge-Newton	\$7.34	\$3.95	\$2.52	-\$4.82	-\$1.43	-191%	-57%
25 Detroit-Warren-Dearborn	\$9.07	\$4.70	\$2.61	-\$6.46	-\$2.09	-247%	-80%

*Utilities with proposed special EV charging rates

City-Specific Rates. These statistics are astounding; they highlight both the incredible efficiencies of an electric vehicle versus its ICE counterpart, and the hypercritical value of fleet management and optimization. The DPGe for each of the Top 25 U.S. Metros are listed in Table 1, Table 2, Table 3, Table 4.

NOTE: Gasoline (light- and medium-duty) and diesel (heavy-duty and city buses) prices effective as of 02/23/2020. Source: AAA (<https://gasprices.aaa.com>)

NOTE: For all the Metros, managed charging unlocks larger savings. AMPLY handles all aspects of charging operations on behalf of fleet owners, and AMPLY's managed charging systems are optimized for the lowest electricity costs through navigating demand charges and different tariff rates.

DPGe versus DPG for the Top 25 U.S. Metros - Heavy-Duty Fleets

TABLE 2. HEAVY-DUTY FLEETS

METROS	\$/DIESEL			DIFFERENCE		PERCENTAGES	
TOP 25 METROS IN ORDER OF GREATEST DPGe GAINS	UNMANAGED ELECTRIC	MANAGED ELECTRIC	ICE DIESEL	COMPARED TO UNMANAGED	COMPARED TO MANAGED	CHANGE UNMANAGED	CHANGE MANAGED
1 *Denver-Aurora-Lakewood	\$2.39	\$0.74	\$2.64	\$0.25	\$1.90	9%	72%
2 *Portland-Vancouver-Hillsboro	\$1.99	\$0.95	\$3.23	\$1.24	\$2.27	38%	70%
3 *Los Angeles-Long Beach-Anaheim	\$3.38	\$1.21	\$3.90	\$0.52	\$2.69	13%	69%
4 *Riverside-San Bernardino-Ontario	\$3.38	\$1.21	\$3.83	\$0.45	\$2.62	12%	68%
5 Tampa-St. Petersburg-Clearwater	\$2.48	\$1.02	\$2.73	\$0.25	\$1.71	9%	63%
6 Seattle-Tacoma-Bellevue	\$1.77	\$1.38	\$3.40	\$1.62	\$2.01	48%	59%
7 Baltimore-Columbia-Towson	\$2.24	\$1.33	\$2.76	\$0.52	\$1.43	19%	52%
8 Philadelphia-Camden-Wilmington	\$2.33	\$1.45	\$2.96	\$0.63	\$1.52	21%	51%
9 *San Francisco-Oakland-Hayward	\$6.32	\$2.05	\$3.92	-\$2.40	\$1.87	-61%	48%
10 Miami-Fort Lauderdale-W Palm Beach	\$3.05	\$1.56	\$2.88	-\$0.17	\$1.31	-6%	46%
11 Orlando-Kissimmee-Sanford	\$2.53	\$1.48	\$2.70	\$0.17	\$1.23	6%	45%
12 San Diego-Carlsbad	\$6.22	\$2.13	\$3.84	-\$2.38	\$1.71	-62%	45%
13 Chicago-Naperville-Elgin	\$2.37	\$1.61	\$2.88	\$0.52	\$1.27	18%	44%
14 Houston-The Woodlands-Sugar Land	\$2.51	\$1.49	\$2.58	\$0.07	\$1.09	3%	42%
15 New York-Newark-Jersey City	\$5.71	\$1.88	\$3.17	-\$2.45	\$1.29	-80%	41%
16 Phoenix-Mesa-Scottsdale	\$3.96	\$1.91	\$3.02	-\$0.94	\$1.11	-31%	37%
17 Minneapolis-St. Paul-Bloomington	\$3.38	\$2.05	\$2.87	-\$0.51	\$0.81	-18%	28%
18 Dallas-Fort Worth-Arlington	\$3.93	\$1.95	\$2.55	-\$1.38	\$0.60	-54%	24%
19 Charlotte-Concord-Gastonia	\$2.48	\$2.08	\$2.71	\$0.23	\$0.63	8%	23%
20 San Antonio-New Braunfels	\$3.67	\$1.94	\$2.52	-\$1.15	\$0.58	-46%	23%
21 Washington-Arlington-Alexandria	\$3.06	\$2.22	\$2.87	-\$0.19	\$0.65	-7%	23%
22 St. Louis	\$2.61	\$2.28	\$2.60	-\$0.01	\$0.32	-1%	12%
23 Atlanta-Sandy Springs-Roswell	\$3.08	\$3.08	\$2.88	-\$0.20	-\$0.20	-7%	-7%
24 Boston-Cambridge-Newton	\$5.70	\$3.50	\$3.01	-\$2.69	-\$0.49	-89%	-16%
25 Detroit-Warren-Dearborn	\$7.18	\$4.35	\$2.97	-\$4.21	-\$1.37	-141%	-46%

*Utilities with proposed special EV charging rates

City-Specific Rates. These statistics are astounding; they highlight both the incredible efficiencies of an electric vehicle versus its ICE counterpart, and the hypercritical value of fleet management and optimization. The DPGe for each of the Top 25 U.S. Metros are listed in Table 1, Table 2, Table 3, Table 4.

NOTE: Gasoline (medium-duty vehicles) and diesel (heavy-duty) prices effective as of 02/23/2020. Source: AAA <https://gas prices.aaa.com>

DPGe versus DPG for the Top 25 U.S. Metros - Light-Duty Fleets

TABLE 3. LIGHT-DUTY FLEETS

METROS	\$/GASOLINE			DIFFERENCE		PERCENTAGES	
TOP 25 METROS IN ORDER OF GREATEST DPGe GAINS	UNMANAGED ELECTRIC	MANAGED ELECTRIC	ICE GASOLINE	COMPARED TO UNMANAGED	COMPARED TO MANAGED	CHANGE UNMANAGED	CHANGE MANAGED
1 * Los Angeles-Long Beach-Anaheim	\$1.55	\$0.70	\$3.57	\$2.02	\$2.87	57%	80%
2 * Riverside-San Bernardino-Ontario	\$1.55	\$0.70	\$3.50	\$1.95	\$2.80	56%	80%
3 San Diego-Carlsbad	\$2.42	\$0.83	\$3.55	\$1.13	\$2.73	32%	77%
4 Seattle-Tacoma-Bellevue	\$1.01	\$0.85	\$3.21	\$2.20	\$2.36	68%	74%
5 * Denver-Aurora-Lakewood	\$1.45	\$0.79	\$2.34	\$0.88	\$1.54	38%	66%
6 Portland-Vancouver-Hillsboro	\$1.75	\$1.05	\$3.08	\$1.32	\$2.02	43%	66%
7 Tampa-St. Petersburg-Clearwater	\$1.73	\$0.83	\$2.38	\$0.66	\$1.55	28%	65%
8 * San Francisco-Oakland-Hayward	\$2.97	\$1.30	\$3.56	\$0.59	\$2.27	17%	64%
9 Houston-The Woodlands-Sugar Land	\$1.75	\$0.98	\$2.15	\$0.40	\$1.17	19%	55%
10 Baltimore-Columbia-Towson	\$1.50	\$1.13	\$2.42	\$0.91	\$1.29	38%	53%
11 Chicago-Naperville-Elgin	\$1.66	\$1.35	\$2.68	\$1.02	\$1.34	38%	50%
12 Charlotte-Concord-Gastonia	\$1.32	\$1.15	\$2.29	\$0.97	\$1.14	42%	50%
13 Philadelphia-Camden-Wilmington	\$1.65	\$1.28	\$2.51	\$0.86	\$1.23	34%	49%
14 Atlanta-Sandy Springs-Roswell	\$1.22	\$1.22	\$2.31	\$1.08	\$1.08	47%	47%
15 St. Louis	\$1.38	\$1.24	\$2.27	\$0.89	\$1.03	39%	45%
16 Orlando-Kissimmee-Sanford	\$1.89	\$1.45	\$2.37	\$0.47	\$0.92	20%	39%
17 Washington-Arlington-Alexandria	\$1.91	\$1.56	\$2.42	\$0.51	\$0.86	21%	36%
18 New York-Newark-Jersey City	\$4.77	\$1.76	\$2.61	-\$2.15	\$0.85	-83%	33%
19 Miami-Fort Lauderdale-West Palm Beach	\$2.42	\$1.79	\$2.48	\$0.06	\$0.68	2%	28%
20 Minneapolis-St. Paul-Bloomington	\$2.43	\$1.87	\$2.32	-\$0.11	\$0.45	-5%	19%
21 Phoenix-Mesa-Scottsdale	\$3.34	\$2.48	\$2.98	-\$0.36	\$0.51	-12%	17%
22 Dallas-Fort Worth-Arlington	\$3.00	\$1.80	\$2.16	-\$0.84	\$0.36	-39%	17%
23 San Antonio-New Braunfels	\$2.69	\$1.96	\$2.06	-\$0.62	\$0.10	-30%	5%
24 Boston-Cambridge-Newton	\$4.27	\$3.34	\$2.52	-\$1.75	-\$0.82	-70%	-33%
25 Detroit-Warren-Dearborn	\$5.14	\$3.94	\$2.46	-\$2.68	-\$1.48	-109%	-60%

*Utilities with proposed special EV charging rates

NOTE: Gasoline (light- and medium-duty) and diesel (heavy-duty and city buses) prices effective as of 02/23/2020. Source: AAA (<https://gasprices.aaa.com>)

NOTE: For all the Metros, managed charging unlocks larger savings. AMPLY handles all aspects of charging operations on behalf of fleet owners, and AMPLY's managed charging systems are optimized for the lowest electricity costs through navigating demand charges and different tariff rates.

DPGe versus DPG for the Top 25 U.S. Metros - City Bus Fleets

TABLE 4. CITY BUS FLEETS

METROS	\$/DIESEL			DIFFERENCE		PERCENTAGES	
TOP 25 METROS IN ORDER OF GREATEST DPGe GAINS	UNMANAGED ELECTRIC	MANAGED ELECTRIC	ICE DIESEL	COMPARED TO UNMANAGED	COMPARED TO MANAGED	CHANGE UNMANAGED	CHANGE MANAGED
1 * Los Angeles-Long Beach-Anaheim	\$1.69	\$0.61	\$3.90	\$2.21	\$3.29	57%	84%
2 * Riverside-San Bernardino-Ontario	\$1.69	\$0.61	\$3.83	\$2.14	\$3.22	56%	84%
3 Portland-Vancouver-Hillsboro	\$1.02	\$0.57	\$3.23	\$2.21	\$2.66	69%	82%
4 * Denver-Aurora-Lakewood	\$1.20	\$0.54	\$2.64	\$1.44	\$2.10	54%	80%
5 Seattle-Tacoma-Bellevue	\$0.89	\$0.80	\$3.40	\$2.51	\$2.60	74%	76%
6 Tampa-St. Petersburg-Clearwater	\$1.25	\$0.65	\$2.73	\$1.48	\$2.08	54%	76%
7 San Diego-Carlsbad	\$3.10	\$1.06	\$3.84	\$0.74	\$2.78	19%	72%
8 * San Francisco-Oakland-Hayward	\$3.16	\$1.14	\$3.92	\$0.76	\$1.90	19%	71%
9 Baltimore-Columbia-Towson	\$1.13	\$0.86	\$2.76	\$1.63	\$1.73	59%	69%
10 Houston-The Woodlands-Sugar Land	\$1.27	\$0.85	\$2.58	\$1.31	\$1.99	51%	67%
11 Philadelphia-Camden-Wilmington	\$1.18	\$0.97	\$2.96	\$1.79	\$1.86	60%	67%
12 Chicago-Naperville-Elgin	\$1.20	\$1.02	\$2.88	\$1.69	\$1.66	59%	65%
13 Orlando-Kissimmee-Sanford	\$1.28	\$1.04	\$2.70	\$1.42	\$1.66	53%	62%
14 New York-Newark-Jersey City	\$2.90	\$1.26	\$3.17	\$0.27	\$1.90	9%	60%
15 Miami-Fort Lauderdale-W. Palm Beach	\$1.54	\$1.18	\$2.88	\$1.33	\$1.69	46%	59%
16 Charlotte-Concord-Gastonia	\$1.24	\$1.15	\$2.71	\$1.46	\$1.56	54%	57%
17 Washington-Arlington-Alexandria	\$1.54	\$1.35	\$2.87	\$1.33	\$1.52	46%	53%
18 St. Louis	\$1.31	\$1.23	\$2.60	\$1.29	\$1.36	50%	52%
19 Minneapolis-St. Paul-Bloomington	\$1.71	\$1.40	\$2.87	\$1.16	\$1.46	40%	51%
20 Phoenix-Mesa-Scottsdale	\$2.01	\$1.54	\$3.02	\$1.01	\$1.48	33%	49%
21 Dallas-Fort Worth-Arlington	\$1.99	\$1.33	\$2.55	\$0.56	\$1.21	22%	48%
22 Atlanta-Sandy Springs-Roswell	\$1.54	\$1.54	\$2.88	\$1.34	\$1.34	47%	47%
23 San Antonio-New Braunfels	\$1.85	\$1.40	\$2.52	\$0.66	\$1.12	26%	44%
24 Boston-Cambridge-Newton	\$2.89	\$2.38	\$3.01	\$0.13	\$0.63	4%	21%
25 Detroit-Warren-Dearborn	\$3.63	\$2.98	\$2.97	-\$0.65	-\$0.00	-22%	-0%

*Utilities with proposed special EV charging rates

NOTE: Gasoline (light- and medium-duty) and diesel (heavy-duty and city buses) prices effective as of 02/23/2020. Source: AAA (<https://gasprices.aaa.com>)

NOTE: For all the Metros, managed charging unlocks larger savings. AMPLY handles all aspects of charging operations on behalf of fleet owners, and AMPLY's managed charging systems are optimized for the lowest electricity costs through navigating demand charges and different tariff rates.

Detailed Methodology

AMPLY's analysis seeks to simplify complex energy rate structures and electric vehicle efficiency metrics into a single, comprehensible figure that consumers understand and use daily—the price per gallon of gasoline. To that end, we have developed the city-specific Dollar per Gallon-equivalent (DPGe) and calculated the DPGe for the Top 25 U.S. Metro Areas. DPGe is the dollars needed to drive an electric vehicle the same number of miles compared an ICE vehicle, expressed in a per-gallon basis. Because cities' electricity rate structures can be complex, and vehicle fleet requirements can vary far and wide, we have provided a range for this figure between an unmanaged charging scenario (without having, or with a suboptimal, charging strategy) and an automated or other well-managed charging scenario (using an optimized charging strategy). Fleet operators should view these figures as a range of potential costs; depending on the fleet's operating demands, these costs are likely to vary between the high and low case. The DPGe calculation methodology is described below.

TABLE 5. kWh CONSUMED/DAY CALCULATION

	43.5	/	2.2	=	19.8	
	50.3	/	1.00	=	50.3	
	125	/	0.31	=	409	
	93.3	/	0.4	=	233.2	

Calculating the Annual Cost of Electricity

Rate & Rate Structure. For each city, we used the standard utility electric rate based on a 500 kW commercial load profile—typically the “general commercial” rate structure, or where specific EV rates are available, the EV rate applicable to a 500 kW commercial load. We applied EV rates in the Los Angeles, San Francisco, Riverside, San Diego, and Denver metro assessments as utilities there have proposed five-year commercial EV rates to encourage EV adoption. In regulated or quasi-regulated markets, we assume that the energy is bought through the local utility at the applicable rate—we do not assume any reduction in energy cost vis-à-vis third-party or community choice aggregators (CCAs, as in California). For fully deregulated markets, we assume a standard non time-of-use energy rate at publicly-available rates at the time of this writing.

Accordingly, the DPGe presented for each city should be contextualized, and in some cases, may substantially underestimate the value to be had by transitioning a fleet. If a fleet's load is able to be served by a different rate class or by third-party energy providers (via a CCA, energy retailer, or renewable power purchase agreement (PPA)), the actual DPGe seen by that fleet may be significantly lower.

Calculating Vehicle Consumption Profile. To calculate each vehicle's consumption profile, we leverage the FHA's metric for annual miles-traveled by vehicle type^[1], with which we are able to calculate daily miles traveled. By applying an electric vehicle “efficiency factor,” or kWh consumed per each mile driven, we are able to calculate the kWh consumed per vehicle type per day. The assumptions and calculations are ([shown above in Table 5](#)).

Calculating Vehicle Charging Cost. The core to AMPLY's analysis is in calculating the low-to-high range of annual electric utility costs to charge each vehicle given a vehicle's consumption profile ([shown above in Table 5](#)). In other words, we need to understand and plan for “how” and “when” each vehicle will charge. To calculate energy costs, we calculate the two extreme cases for the year: (1) “unmanaged charging” assumes all vehicles charge in the on-peak period only and (2) “managed charging” assumes all vehicles charge in the off-peak period only, where the “on-” and “off-peak” periods in this analysis use the period with the lowest and highest price of energy for each electric utility, respectively (though typically daytime versus evening).

Detailed Methodology-continued

Getting from Annual Cost of Electricity to Dollars per Gallon-equivalent (DPGe)

For calculating the demand cost, AMPLY leverages its experience with fleet optimization to make assumptions on demand profiles

TABLE 6. DEMAND PROFILE ASSUMPTIONS

	LIGHT-DUTY	MEDIUM-DUTY	HEAVY-DUTY	CITY BUS
UNMANAGED DEMAND	10 kW	19 kW	120 kW	70 kW
MANAGED DEMAND	7 kW	6.27 kW	40.9 kW	49 kW

For “sub-optimal” charging, we assume that light duty fleet vehicles incur a 10 kW demand spike vis-à-vis a one-to-one ratio to a L2 charger and that City Buses incur a 70 kW demand spike vis-à-vis minimal charging overlap using high-powered DC-Fast chargers. Under the same framework, we assume that medium-duty fleet vehicles incur a 19 kW demand and that heavy-duty fleet vehicles incur a 120 kW demand spike. AMPLY’s project experience suggests that a targeted strategy can reduce that demand by about 30% for light-duty and city bus fleets, and by about 67% for medium- and heavy-duty fleets. These assumptions are provided above in **Table 6**.^[2] As with energy, we further calculate the extreme cases as (1) charging all vehicles in the on-peak period only and (2) charging all vehicles in the off-peak period only.

And finally, for the sake of completeness, we sum all electricity bill charges—energy, demand, and fixed—attributed to that vehicle over the course of the year.

To calculate the Dollars per Gallon-equivalent (DPGe), we first calculate the average cost per kWh of energy—which is simply the Annual Cost of Electricity divided by the total kWh consumed per vehicle in that year. Next, for each vehicle class, we calculate the cost of an “electric gallon” of fuel, or in other words, the cost of filling an “electric tank” to the same energy content as one gallon of gasoline or diesel. We do this by multiplying the cost per kWh times the energy content (in kWh) in a gallon of gasoline – the EPA states that each gallon of gasoline has the equivalent energy content as 33.7 kWh and each gallon of diesel has the equivalent energy content as 37.95 kWh.^[3] It is worth noting at this point a stark comparison: in each of the Top 25 U.S. Metros, the cost of 33.7 kWh (or 37.95 kWh) was exceptionally higher than that same energy equivalent (one gallon) in gasoline or diesel.

*The calculation does not include the cost of vehicle acquisition.

To reach our final calculation for DPGe, we multiply the cost of an electric gallon times a “vehicle efficiency factor”—or the MPG of an ICE vehicle divided by the MPGe of an electric vehicle. For ICE vehicle classes, we use the U.S. Department of Energy (DOE)’s MPG figure^[4]. For MPGe, instead of relying on manufacturer-provided MPGe estimates based on ideal driving conditions, we use more conservative figures actually seen in the field by AMPLY partners and clients, which take into account less-than-ideal driving (e.g., a bus starts and stops every few blocks on a route). Our MPGe figure is calculated as the kWh energy content of a gallon of gasoline (or diesel) times the miles traveled per kWh, with the latter coming from clients and partners^[5].

Though well-intentioned and appropriately recognizing the significant difference in the efficiency of an electric vehicle over an ICE vehicle, we believe the auto manufacturer-provided MPGe figure paints only a partial and misleading picture. MPGe provides no insights whatsoever into the regional-specific cost side of the equation, and is therefore of minimal (if any) value to a fleet operator assessing whether he or she should transition a fleet to electric vehicles, which cities they should pursue fleet transitions, and how to budget for that transition.

Detailed Methodology-continued

Getting from Annual Cost of Electricity to Dollars per Gallon-equivalent (DPGe)

[1] U.S. DOT, Federal Highway Administration. Table VM-1

[2] AMPLY recognizes that this figure lacks a publicly-referenceable citation, in large part because EV fleets—and optimizing them—are nascent. However, based on the AMPLY team's experience working with its partners to optimize their fleets, AMPLY uses the 30% and 67% metric here as a conservative approximation for demand reduction capabilities with optimization. The exact amount for each fleet will inherently depend on the size, operating requirements, vehicles, and driving profile of those fleets. See the table on page 9.

[3] Alternative Fuels Data Center – Fuel Properties Comparison. https://afdc.energy.gov/fuels/fuel_comparison_chart.pdf.

[4] Alternative Fuels Data Center, Average Fuel Economy of Major Vehicle Categories. <https://afdc.energy.gov/data/10310>.

[5] AMPLY uses 2.2 miles traveled per kWh for light-duty Fleet Vehicles and 0.4 miles traveled per kWh for City Bus fleets. This translates to an MPGe of 74.14 MPGe for light-duty Fleet Vehicles and 15.18 MPGe for City Bus fleets.

COVID-19 Developments

We would be remiss not to address the ongoing COVID-19 pandemic and its impact on fuel costs. In these strange times, we commend the fleet operators moving essential workers and supplying essential goods around the country.

Through various processes, the U.S. has sought to decrease reliance on foreign fuel resources. This current fall in price demonstrates how domestic gasoline and diesel prices are still dependent on international exporters. The fall in price may also push out domestic producers who cannot operate at such low margins which in the long run could increase gasoline and diesel costs.

While electricity costs are also volatile, AMPLY navigates this uncertainty with a wealth of experience and expertise on behalf of the fleet customer. Using gasoline and diesel prices from March 23rd, 2020, AMPLY models that its optimal charging management strategy savings generates cost-savings for light-duty fleets in 22 out of 25, for medium-duty fleets in 18 out of 25, for heavy-duty fleets in 22 out of 25, and for city bus fleets in 24 out of the 25 Top U.S. Metros. COVID-19 is also demonstrating the possible environmental and social results of a zero-carbon-emission future. As more metros encourage EV adoption, communities could enjoy cleaner air on a more consistent basis.

Conclusion

The Future of Electric Fleets

The future of electric vehicle fleets is bright: with new EV models seemingly being announced by the month, battery costs decreasing, and cities and utilities investing in and incenting EV fleets, there are very real reasons for operators to consider and invest in fleet electrification. Managing an EV fleet is complex, as shown by the exceptional variation in the DPGe across cities; but with complexity, comes value.

Optimal management strategies liberate fleet operators from the unpredictability of fuel prices and fuel-related operating cost spikes driven by global developments. With EV fleets under a sophisticated management strategy, there are tangible ways to take control and drive down your operating costs, increase revenues, and push your organization into the next era of clean transportation.

The societal and economic impacts of our collective efforts can be astonishing - for each 15-vehicle fleet that we transition, we eliminate a substantial amount of carbon dioxide from the atmosphere:



We cannot reach this era without the dedication, foresight, and cooperation of fleet operators, the industry, utilities, and regulators alike. Accordingly, AMPLY Power expands our global call-to-arms from light-duty and city bus fleets to medium-duty and heavy-duty fleets

To fleet operators: we challenge you to embrace this complexity, to commit to an EV fleet transition plan, and to push your peers to find the real economic value in EV fleets that can and should be realized by their organizations.

To utilities and regulators: we challenge you to embrace the incredible financial, economic, and environmental opportunity for fleet electrification, and to carefully craft your policies and rates in a way that can be used as a tool to bring down costs and induce even greater social and environmental benefits to society. We invite you to look to utilities in California such as PG&E, SCE, and SDGE, and to Colorado with Xcel Energy, and observe their implementation of EV-specific rates.

To the industry—AMPLY's peers: we challenge you not only to sell hardware to support your bottom line, but rather to design your businesses to generate real, intentional, and sustainable value to your clients, to our energy system, and to society. Working with other stakeholders, we as an industry are the critical link that can unlock a profoundly cost-effective and global transition toward zero emission transportation.

Unlocking the Cost-Saving Potential of Electric Fuel

MAY 2020

An AMPLY Power White Paper

AMPLY
FLEET CHARGING SIMPLIFIED

About AMPLY Power

FLEET CHARGING, SIMPLIFIED. AMPLY Power provides **Charging-as-a-Service** to de-risk and accelerate the adoption of electric buses, trucks, and passenger vehicles by public and private fleets through its simple price-per-mile-driven model. AMPLY provides a fully managed charging solution that enables municipal and commercial fleets to deploy electric vehicles confidently and without hassles. AMPLY handles all aspects of charging operations on behalf of fleet owners, and AMPLY's charging systems are optimized for the lowest electricity costs.

For more please visit www.amplypower.com and follow @AMPLYPower on Twitter and LinkedIn.

Meeting Minutes

Public Body Procurement Workgroup

Meeting # 1

**Thursday, July 14, 2022, 9:30 a.m.
Conference Rooms C, D, and E
James Monroe Building
101 N 14th St, Richmond, Virginia 23219**

<http://dgs.virginia.gov/dgs/directors-office/procurement-workgroup/>

The Public Body Procurement Workgroup (the Workgroup) met in-person in Conference Rooms C, D, and E in the James Monroe Building in Richmond, Virginia, with Sandra Gill, Deputy Director of the Department of General Services, presiding. The meeting began with remarks from Joe Damico, Director of the Department of General Services, followed by presentations, discussion, and public comment. Materials presented at the meeting are available through the [Workgroup's website](#).

Workgroup members and representatives present at the meeting included Sandra Gill (Department of General Services), Vernice Love (Department of Small Business and Supplier Diversity), Dan Wolf (Virginia Information Technologies Agency), Lisa Pride (Virginia Department of Transportation), Jason Saunders (Department of Planning and Budget), Patricia Innocenti (Virginia Association of Governmental Purchasing), John McHugh (Virginia Association of State Colleges and University Purchasing Professionals), Leslie Haley (Office of the Attorney General), Andrea Peeks (House Appropriations Committee), Mike Tweedy (Senate Finance and Appropriations Committee), and Joanne Frye (Division of Legislative Services).

I. Call to Order; Remarks by Department of General Services

Joe Damico. Director
Department of General Services

Sandra Gill, Deputy Director
Department of General Services

II. Overview of Workgroup Authority and Duties

Jessica Budd, Staff
Department of General Services

Jessica Budd, staff to the Workgroup, provided an overview of the language in the Appropriations Act that establishes the Workgroup, its authority and duties, and its membership. She explained that the Appropriations Act language directs the Department of General Services to lead, provide administrative support to, and convene an annual public body procurement work group to study and review proposed changes to the Code of Virginia in the areas of non-technology goods and services, technology goods and services, construction, transportation, and professional services procurements. She described the three avenues through which bills or potential legislation may be referred to the Workgroup for study, explained that the Appropriations Act language directs the Workgroup to hear from stakeholders identified by the patron of the referred legislation and other interested parties, and described the factors the that Appropriations Act language directs the Workgroup to consider when studying referred legislation. Finally, Ms. Budd explained that the Appropriations Act language establishes the membership of the Workgroup and she listed the Workgroup members.

III. [Introduction of Workgroup Members, Representatives, and Staff](#)

IV. [Review of Proposed Work Plan](#)

Jessica Budd, Staff
Department of General Services

Ms. Budd provided an overview of the Workgroup's proposed work plan for the year. She explained that four total meeting are planned for the year, and stated that plan for the first meeting is to begin diving into the two bills that the Workgroup has been directed to study this year by the 2022 Regular Session of the General Assembly.

Ms. Budd gave a brief overview of the first bill, SB 550 from Senator Bell, and explained that the second enactment clause of the bill directs the Workgroup to review whether the issue of nonpayment between general contractors and subcontractors necessitates legislative corrective action and report its findings and any legislative recommendations to the General Assembly on or before December 1, 2022. She noted that Senator Bell would be appearing before the Workgroup shortly to provide more information on SB 550 and his hopes for the Workgroup's study of the bill.

Ms. Budd then gave a brief overview of the second bill, SB 575 from Senator Mason, and explained that the third enactment clause of the bill directs the Workgroup to evaluate the appropriateness of requiring all agencies of the Commonwealth to use a total cost of ownership (TCO) calculator prior to purchasing or leasing any medium-duty or heavy-duty vehicles. She stated that the bill directs the Workgroup to consult with relevant stakeholders, including at least one medium-duty or heavy-duty vehicle technology provider with experience in real-world deployments, and consider (a) the current commercial market for medium-duty and heavy-duty electric vehicles; (b) the unique characteristics of medium-duty and heavy-duty vehicles, including charging infrastructure and operational duty cycles; (c) the potential volume of medium-duty and heavy-duty vehicles purchased by DGS and agencies of the Commonwealth; (d)

the availability of public TCO calculators for medium-duty and heavy-duty vehicles and their suitability for use by DGS and agencies of the Commonwealth; and (e) any other information it determines relevant to its evaluation. She noted that the bill requires the Workgroup to report its findings and any recommendations to the Chairmen of the House Committee on General Laws and the Senate Committee on General Laws and Technology on or before December 1, 2022. She shared that Senator Mason's Chief of Staff, Baxter Carter, would also be appearing before the Workgroup momentarily to share some remarks about SB 575 on Senator Mason's behalf.

Ms. Budd then provided the tentative meeting dates for the next three Workgroup meetings and shared the anticipated work plans for each meeting. She noted that the second meeting will be dedicated to receiving public comment and presentations from stakeholders and other interested parties on both bill. At the third meeting, the plan is for the Workgroup to consider and discuss all of the presentations, testimony, and written comments and other information that it has received up to that point and begin developing its findings and recommendations on both bills. Finally, at the fourth meeting the plan is for the Workgroup to finalize its findings and recommendations and for staff to provide an overview of the final report for each bill. Ms. Budd concluded by reiterating that the final reports for both bills are due to the General Assembly on December 1, 2022.

V. Presentation on SB 550

***The Honorable John J. Bell, Patron
Senate of Virginia***

Senator Bell began his remarks on SB 550 by thanking the Administration, the members of the General Assembly, and all of the stakeholders who have been involved with SB 550. He stated that what he and the stakeholders who support SB 550 are trying to do is simple – ensure that subcontractors who do quality work get paid for their work – and that the bill is crafted from laws that have been in existence for thirty or forty years in surrounding states. He acknowledged, however, that the bill was tweaked many times during Session and became difficult and complicated due to all of the working parts and people involved. He stated that oftentimes complicated bills have unintended consequences, and he believes this happened with SB 550. As such, he feels that consideration of the bill by the Workgroup is the key to really getting the bill right. He stated that he is wide open to anything the Workgroup comes up with to make the bill better and concluded his remarks by thanking the Workgroup for their work.

VI. Presentation on SB 575

***Baxter Carter, Chief of Staff to The Honorable T. Montgomery
"Monty" Mason, Patron
Senate of Virginia***

Baxter Carter, Chief of Staff to Senator Mason, shared remarks on SB 575 on Senator Mason's behalf since he was unable to attend the Workgroup meeting. He stated that SB 575 was drafted with the goal of being a cost saving measure for the state. He emphasized that he anticipates the bill will have positive benefits for year to come. He shared that during discussion of the bill, his office was made aware early on that there may be some challenges with applying the provisions of the bill to medium-duty and heavy-duty vehicles. He stated that as the bill moved through the legislative process, concerns mounted about the availability of total cost of ownership (TCO) calculators for medium-duty and heavy-duty vehicles, how effective any such calculators that may exist are, and whether truck manufacturers are ready to be included in the process. He shared that it was for these reasons that medium-duty and heavy-duty vehicles were carved out of the bill and that the enactment clause was added to the bill directing the Workgroup to study these issues. He concluded his remarks by thanking the Workgroup for its efforts and expressing his confidence that the Workgroup will consider the issues thoroughly and produce quality recommendations.

VII. Discussion

Mike Tweedy, staff member of the Senate Finance and Appropriations Committee, asked whether it is common that contractors do not pay their subcontracts and if DGS knows the extent to which it happens. Ms. Gill responded that DGS does not have the information to determine whether it is common or not and noted that one of the purposes of the Workgroup is to gather such information.

Jason Saunders, representing the Department of Planning and Budget, mentioned that SB 550 seems to focus solely on payments between contractors and subcontractors specifically on construction contracts. He asked whether it is the intent of the Workgroup to also focus only on construction contracts, or if the Workgroup intends to look at other types of contracts as well. Ms. Gill responded that she believes it is appropriate to limit the Workgroup's discussion to construction contracts.

VIII. Public Comment

Matt Benka addressed the Workgroup on behalf of the Virginia Contractor Procurement Alliance, which represents many mid-size general contractors in Virginia. He stated that they are very opposed to SB 550 as it relates to private work and emphasized that remedies already exist for instances in which subcontractors are not paid by general contractors. He asked that the Workgroup recommend removing from the bill the portions of it that pertain to private contracts.

Patrick Cushing from Williams Mullen spoke to the Workgroup on behalf of AIA Virginia and ACEC Virginia. He shared that at this point in time his clients do not have a position on the underlying substance of SB 550 because they are uncertain as to whether the provisions of the bill apply to them. Mr. Cushing highlighted for the Workgroup some technical issues with the bill that lead to questions as to whether the terms "construction contract" and "contractor on a construction contract" include "design" and "architects

and engineers,” respectively. He noted that Va. Code § 11-4.6 contains definitions of “construction contract,” “general contractor,” and “subcontractor,” but those definitions are not included in the provisions of the bill amending Va. Code § 2.2-4354 in the Virginia Public Procurement Act. He inquired as to whether it was the intent of the bill’s patron and the stakeholders who advocated for the bill to have those definitions also apply to Va. Code § 2.2-4354. He reiterated that his clients, who include both firms that act as general contractors and those that act as subcontractors, truly cannot get to a position on the bill until those questions are answered regarding whether the provisions of the bill are intended to apply to them and some language clarifying that issue is added to the bill.

Steven Koerner, Vice President of Policy for AMPLY Power, spoke to the Workgroup on behalf of Advanced Virginia Economy regarding SB 575. He highlighted that often total cost of ownership (TCO) calculators do not take into account opportunities for managed charging of fleets. He stated that unlike many vehicles that have to charge at home or on the go, fleet charging can be managed to reduce overall cost for fleet operation and maintenance. He shared that in their experience, managed charging can reduce fuel costs by up to 85 percent compared to unmanaged charging. Mr. Koerner directed the Workgroup to a white paper that his organization put together that highlights the differences between managed and unmanaged charging and the cost savings that can be realized with managed charging. He emphasized that these cost savings can tip the balance in terms of comparing the total cost of ownership for internal combustion engine vehicles versus electric vehicles. He stressed that managed charging can also assist with managing duty cycles and can lead to higher overall availability of the vehicle.

Paul Denham, the President and CEO of Southern Air, a large mechanical, electrical, and plumbing contractor in Virginia that participates as a subcontractor on both public and private contracts, spoke to the Workgroup in support of SB 550. He stressed that companies like his are often insulated from the owner and are asked by the general contractor to not have any direct contact with the owner. As such, companies like his do not have a seat at the table from which to be able to determine whether there is a problem with the owner or general contractor, whether there is a problem with the project, and whether or not they will be paid. He emphasized that if another subcontractor or the general contractor on a project has a problem and the owner decides not to pay based on a contract breach or a contract problem that may have no relation to his company’s performance, the general contractor has the ability to not pay the subcontractors across the board because, in essence, the general contractor has not been paid by the owner. Mr. Denham acknowledged that the bill may need technical amendments, but he asked that the general intent of the bill be left as-is.

Kyler Hedrick, representing the Associated General Contractors of Virginia, stated that during the 2022 Regular Session of the General Assembly his association, which represents both general contractors and subcontractors, tried to get to a point where they could support SB 550, but they were unable to during the truncated timeframe of Session. He expressed his appreciation to the Workgroup for taking on the task of looking at the bill and seeing where it can be improved. He emphasized that his association’s three

goals are to protect general contractors, protect subcontractors, and preserve the freedom to contract.

Jack Dyer, President of the Virginia Contractor Procurement Alliance and Chairmen of the Board of Gulf Seaboard General Contractors, spoke to the Workgroup on behalf of both organizations in opposition to SB 550. He began his remarks by noting that the provisions of SB 550 that amend § 2.2-4354 in the Virginia Public Procurement Act do not change the provisions of existing law that require general contractors to pay their subcontractors within seven days after the general contractor has received payment from the state agency or local government for work performed by the subcontractor. As such, he stated that the Virginia Public Procurement Act still establishes a condition precedent for subcontractor payment. He then mentioned that several stakeholders raised the issues of change orders and retainage during Session and in subsequent comments to the Workgroup. He stressed that those issues are entirely different issues than the ones addressed by SB 550. Mr. Dyer then brought to the Workgroup's attention the fact that SB 550 will become effective on January 1, 2023, which is before the General Assembly will have an opportunity to make any changes to the bill. He concluded his remarks by stating that the bill has many problems and by expressing his confusion as to why the General Assembly felt they could overreach and get into the middle of a private contractual relationship between two private parties.

IX. [Adjournment](#)

Ms. Gill adjourned the meeting at 10:13 a.m. and noted that the next Workgroup meeting is scheduled for Thursday, July 28, 2022 at 9:30 a.m. in Conference Rooms C, D, and E in the James Monroe Building in Richmond, Virginia.

For more information, see the [Workgroup's website](#) or contact that Workgroup's staff at pwg@dgs.virginia.gov.

Appendix C: July 28, 2022 Meeting Materials

This appendix contains the meeting materials from the July 28, 2022 Workgroup meeting.

1. Agenda
2. Written Public Comments
 - a. Comments from the Electrification Coalition
 - b. Comments from the Nature Conservancy
 - c. Comments from Michael E. Duffy, Transportation Operations and Fleet Manager, Programs and Informatics, University of Virginia
3. Approved Meeting Minutes

Public Body Procurement Workgroup

<http://dgs.virginia.gov/dgs/directors-office/procurement-workgroup/>

Meeting # 2

Thursday, July 28, 2022, 9:30 a.m.

Conference Rooms C, D, and E

James Monroe Building

101 N 14th St, Richmond, Virginia 23219

AGENDA

I. Call to Order; Remarks by Chair

Sandra Gill, Deputy Director
Department of General Services

II. Approval of Meeting Minutes from the July 14, 2022 Workgroup Meeting

III. Public Comment on SB 550

IV. Public Comment on SB 575

V. Discussion

VI. Adjournment

Members

Department of General Services
Virginia Information Technologies Agency
Department of Planning and Budget
Virginia Association of State Colleges and
University Purchasing Professionals

Department of Small Business and Supplier Diversity
Virginia Department of Transportation
Virginia Association of Government Purchasing

Representatives

Office of the Attorney General
Senate Finance Committee

House Appropriations Committee
Division of Legislative Services

Staff

Jessica Budd, Legal Policy Analyst, DGS
Jessica Hendrickson, Director of Policy and Legislative Affairs, DGS

July 26, 2022

Virginia Department of General Services
Public Body Procurement Working Group
James Monroe Building
101 N 14th St.
Richmond, Virginia 23219

Dear Members of the Virginia DGS Public Body Procurement Working Group,

The Electrification Coalition is pleased to submit the following public comments in response to the request for information related to Virginia's Senate Bill (SB) 575, Fleet Optimization, on the use of total cost of ownership (TCO) calculations by state fleet managers as they consider new or replacement vehicles for their fleet.

The [Electrification Coalition](http://www.electrificationcoalition.org)¹ (EC) is a nonpartisan, nonprofit organization that advances policies and actions to facilitate widespread deployment and adoption of electric vehicles (EVs) in order to reduce the economic, public health, and national security risks caused by America's dependence on oil. The EC has direct experience working at the local, state, and federal levels for cities, states, and businesses. Further, the EC has more than a decade of on-the-ground experience providing technical and program support to fleets on the transition to electric vehicles. Our work includes supporting cities to create successful EV adoption programs, including 250 public fleets through the award-winning [Climate Mayors EV Purchasing Collaborative](http://www.climate-mayors.org),² serving as the technical fleet electrification lead on the American Cities Climate Challenge; and developing comprehensive transportation electrification roadmaps for [Boston, MA](http://www.boston.gov),³ [Raleigh, NC](http://www.raleighnc.org),⁴ and the District of Columbia.

Mass adoption of EVs is key to addressing our economy's reliance on oil and the national security risks associated with an opaque oil market. Given that oil currently powers 90% of our nation's transportation system, our overreliance on oil affects not only our national security but our economic security as well. EVs are powered by electricity—transitioning to EVs can improve our national security by decreasing our reliance on any one feedstock, and the growth of the EV industry means new jobs not only in the automotive sector, but also in the technology, innovation, and electricity sectors. EVs represent an opportunity to maintain U.S. global leadership in auto manufacturing. The auto sector currently [supports 9.9 million jobs](http://www.electrificationcoalition.org)⁵ and generates nearly \$1 trillion each year. Building, driving, and charging electric vehicles in the U.S. represents job opportunities across the entire EV supply chain.

¹ Electrification Coalition: [https://www.electrificationcoalition.org/](http://www.electrificationcoalition.org/)

² Climate Mayors EV Purchasing Collaborative: [https://driveevfleets.org/](http://driveevfleets.org/)

³ City of Boston's Zero Emission Vehicle Program: [https://www.boston.gov/departments/transportation/recharge-boston-electric-vehicle-resources](http://www.boston.gov/departments/transportation/recharge-boston-electric-vehicle-resources)

⁴ City of Raleigh Transportation Electrification Study:

[https://cityofraleigh0drupal.blob.core.usgovcloudapi.net/drupal-prod/COR27/EV Study_Final.pdf](https://cityofraleigh0drupal.blob.core.usgovcloudapi.net/drupal-prod/COR27/EV%20Study_Final.pdf)

⁵ <https://autoalliance.org/economy/>

EC's experience working with fleets on transportation electrification confirms that fleet managers prioritize costs as they assess which vehicles in their fleet should be replaced and which new vehicles to procure. The goal is to ensure that staff has access to the vehicles they need to complete their daily assigned tasks at maximum operational effectiveness while promoting fiscal responsibility by incurring the lowest overall cost.

The EC supports data-driven decision-making on fleet vehicle procurement decisions and appreciates this Workgroup's focus on TCO calculations. TCO calculations help support fleet managers' needs to consider the all-inclusive cost of vehicles, from their purchase price to vehicle maintenance and operation. Fleets are increasingly investigating the transition to electric options since EVs are superior to internal combustion engine (ICE) vehicles in terms of efficiency and operational costs. Electricity is domestically produced and relatively stable and low in price compared to oil, a price-volatile global commodity. EVs also have far fewer moving parts than an ICE vehicle, and in terms of the technology, EVs directly convert more of the energy in their fuel (electricity) to motion. All told, for fleet managers, EVs mean reduced maintenance costs and 50-60% less operating costs.

These operational savings extend over the life of the vehicle but do not offset the high up-front purchase price for EVs, which is often a barrier to adoption. A TCO analysis is therefore highly recommended prior to vehicle procurement, as it can clearly highlight the lifecycle savings of electric vehicles *versus* a business-as-usual approach to vehicle types.

Below we highlight additional information on the availability, suitability, and appropriateness of DGS and other state agencies using TCO calculators to assess vehicle purchases:

- **The availability of public TCO calculators for medium-duty and heavy-duty vehicles, and their suitability for use by DGS and other state agencies**

Based on the needs communicated by our fleet partners, the EC, as well as other entities, have developed TCO tools to help support fleets in their transition to electrification. The EC (with Atlas Public Policy) specifically developed one such tool in 2021, available at no cost—the [Dashboard for Rapid Vehicle Electrification \(DRVE Tool\)](#).⁶ The DRVE Tool provides powerful, turnkey fleet analytics to fleets in need of quickly assessing where electrification is best matched across their light-, medium-, and heavy-duty vehicles. The DRVE Tool is designed to be highly customizable, allowing users to develop various financing, charging, and usage scenarios to identify various deployment options. The DRVE Tool is designed to securely run on users' local computers and can produce detailed vehicle comparisons and reports in under an hour.

TCO calculations can often require a variety of critical inputs for accurate results. Vehicle Identification Numbers (VINs) are used for the DRVE Tool, allowing for further decoding of vehicle specifications such as year, make, model, and engine size (utilizing [National Highway Traffic Safety Administration](#)

⁶ Dashboard for Rapid Vehicle Electrification: <https://www.electrificationcoalition.org/resource/drve/>

database⁷). Additional data such as annual vehicle miles traveled (VMT) and retirement age/service life can also be set on a vehicle-by-vehicle basis to further refine TCO calculations.

The DRVE Tool works by mapping each current fleet vehicle to a user-defined EV, and then providing a comprehensive TCO analysis that compares both vehicles' retail price, operational cost (i.e., fuel price/electricity rates), depreciation, applicable taxes/fees, typical maintenance costs and other factors over the service life of the vehicle. The results are expressed in 'nominal cost per mile,' a uniform basis of measurement which makes it easy for fleet managers to compare vehicles with different characteristics. DRVE analyses are displayed in an appealing user interface with an interactive dashboard that users can employ to narrow their insights and further focus the comparisons.

Overall, the DRVE Tool has seen tremendous response and use from public and private fleets: over 20,000+ vehicles have been assessed across 400+ fleets. Other TCO calculators also exist, such as [the Department of Energy's AFLEET Tool](#)⁸ and [Environmental Defense Fund's Fleet Electrification Center](#),⁹ which can also serve as examples for implementing publicly-available TCO calculators to meet the state's needs.

- **Information on the appropriateness of requiring DGS and all state agencies to use a TCO calculator to assess and compare the total cost to purchase, own, lease, and operate medium-duty and heavy-duty internal combustion engine (ICE) vehicles versus comparable electric vehicles (EVs) prior to purchasing or leasing any medium-duty or heavy-duty vehicle.**

Regardless of the specific calculator used, the shift to medium and heavy-duty (MHD) EVs is accelerating through improved technology, private sector investment, opportunities to capitalize in the competing global market, and meeting federal and state climate goals. A [study](#)¹⁰ from the National Renewable Energy Laboratory found that as improvements to electric vehicle technologies continue, medium- and heavy-duty vehicle classes will reach total cost parity with conventional diesel vehicles by 2035. Additionally, [a study from ICCT](#)¹¹ showed that the financial benefits of the transition to MHD ZEVs will be significant and that a number of depot-charging electric truck applications will be cost-competitive with diesel in the near future. As the market for medium- and heavy-duty vehicles continues to grow, these vehicle options will expand and continue to be integrated into the DRVE Tool and other TCO calculators.

⁷ National Highway Traffic Safety Administration database: <https://vpic.nhtsa.dot.gov/>

⁸ Alternative Fuel Life-Cycle Environmental and Economic Transportation (AFLEET) Tool: <https://afleet.es.anl.gov/home/>

⁹ Environmental Defense Fund's Fleet Electrification Center: <https://www.electricfleet.org/>

¹⁰ (NREL) Decarbonizing Medium- and Heavy-Duty On-Road Vehicles: Zero-Emission Vehicles Cost Analysis: <https://www.nrel.gov/docs/fy22osti/82081.pdf>

¹¹ (ICCT) Estimating the Infrastructure Needs and Costs for the Launch of Zero-Emission Trucks: <https://theicct.org/publication/estimating-the-infrastructure-needs-and-costs-for-the-launch-of-zero-emission-trucks/>

It is therefore critical that fleets employ TCO analyses to support the purchase or lease of MHD vehicles. Such vehicles typically have 10-year (or longer) retirement ages, which means that the decision to add ICE assets in these vehicle classes will lock the fleet into a potentially unpredictable future fuel procurement cycle. All fleets undertake some cost-benefit assessment as they investigate vehicle purchases, and so DGS and other VA state agencies are encouraged to employ a TCO calculator such as the DRVE Tool to analyze their vehicle replacement schedules and the opportunity for savings by transitioning to market-available EVs. Completing this inquiry prior to the purchase or lease of MHD vehicles can spearhead the deployment of advanced transportation technologies by the fleet and avoid investments in less-efficient vehicles.

The DRVE Tool is appropriate for use by state agencies because it was developed with public fleets in mind. Built using Microsoft Excel, DRVE is a publicly accessible virtual tool that automatically pulls ICE and EV retail prices and technical specifications from federal open-source databases, including the Department of Energy and the National Highway Traffic Safety Administration (NHTSA). Thanks to the DRVE Tool's highly customizable nature, it is well-positioned to assist users as they build detail into their procurement scenarios. A cash purchase, the terms of a lease agreement, applying state or local rebates/incentives, and even building the cost of the charging infrastructure (if known) into the per-mile cost of the EV are all options supported by the DRVE Tool's analysis.

We thank you for the opportunity to provide comments and share information about TCO calculators and look forward to working with you. For any follow-up, please contact **Cher Griffith Taylor**, at ctaylor@electrificationcoalition.org.

Thank you.

Sincerely,



Cher Griffith Taylor
Senior Program Specialist
Electrification Coalition



Public Body Procurement Workgroup
Meeting #2 July 28, 2022
SB575 Comments
by Lena Lewis on behalf of The Nature Conservancy

My name is Lena Lewis, and I am the Energy and Climate Policy Manager for the Virginia Chapter of The Nature Conservancy. The Nature Conservancy is a science-based, collaborative, non-partisan, solutions-oriented non-profit. One of our priorities is to tackle climate change, and we support SB575 because it is a fiscally responsible way for the state to lead by example in making the transition to electric vehicles as they become economically feasible.

I'd like to start by highlighting a couple of details and key dates for the light-duty vehicle component of SB575:

For light duty vehicles, the legislation states "*By October 1, 2022, the Department shall identify a publicly available total cost of ownership calculator [that will be used to assess and compare the total cost to purchase, own, lease, and operate light-duty internal combustion-engine vehicles (ICEVs) versus comparable electric vehicles (EVs).]*"

"Beginning on January 1, 2023, the Department and all agencies of the Commonwealth shall utilize the calculator [prior to purchasing or leasing any light-duty vehicles.]"

Once DGS has identified a publicly available TCO calculator, as a stakeholder, The Nature Conservancy would be interested to learn about what they have selected and how they will prepare state agencies to use it by January 1, 2023. Of course, we and other stakeholders are available to assist DGS.

Turning to the section on medium and heavy-duty vehicles (MHDV),

This workgroup "*shall evaluate the appropriateness of requiring the Department and all agencies of the Commonwealth to use a total cost of ownership (TCO) calculator to, prior to purchasing or leasing any medium-duty or heavy-duty vehicle, assess and compare the total cost to purchase, own, lease, and operate medium-duty or heavy-duty internal combustion-engine vehicles versus comparable electric vehicles.*"

I suggest breaking this evaluation down into four component questions:

- First, is it appropriate to consider the TCO at all when procuring MDHVs?
 - From a fiscally responsible perspective, I expect the answer would be yes.
- Second, should a TCO calculator be used to compare different models of conventional diesel and gas-powered vehicles?

- Given the number of cost inputs and variables involved, it seems like again the answer should be yes.
- Third, should that TCO calculator also have the capability to compare the TCO of conventional vehicles to electric vehicles?
 - Yes, if you are going to use a calculator, you might as well use one that is capable of not only comparing conventional vehicles to each other, but also can compare them to electric medium and heavy-duty vehicles.
- Fourth and last question: if the answer to the first three questions is “yes,” then *which* TCO calculator should be used?

For the fourth question, of *which* calculator to use, I have researched the publicly available TCO calculators for MDHVs, and one stands out to me that is definitely up to the job and is user friendly. That TCO calculator is the Dashboard for Rapid Vehicle Electrification, or DRVE Tool. If the user enters in the make and model of the ICE MHDV, the DRVE Tool will offer the comparable electric MHDV, so the user does not have to be knowledgeable about the current EV marketplace.

But rather than spend your time now comparing and contrasting the attributes of the TCO calculators, I’d like to make another suggestion. I know you’ve got a lot on your plate generally, and especially with the task of coming to a decision about SB550. The Nature Conservancy and other stakeholders stand ready to engage on this task for SB575. At your request, stakeholders can form a stakeholder subgroup and evaluate TCO calculators for their ability to handle the specific characteristics of MDHVs. This stakeholder subgroup would be happy to make recommendations for your report that would streamline your workgroup’s workload.

I do not expect that a TCO analysis will result in the procurement of electric MHDVs very often in the first couple of years, because the economics still usually favor conventional vehicles. For now.

And that is actually a good reason to start using a TCO calculator now, to get the hang of it, to give feedback to the software designers, and to recognize the financial trend as it starts to shift in favor of electric MDHV, as we expect it will in a few short years. It makes fiscal sense for DGS to be ready to seize the moment as soon as the economics shift favorably towards electric MHDVs, not years afterwards.

Thank you.

Procurement Workgroup, rr <pwg@dgs.virginia.gov>

Procurement Work Group Request for Information

Duffy, Michael Edward (med7p) <med7p@virginia.edu>
To: "pwg@dgs.virginia.gov" <pwg@dgs.virginia.gov>

Wed, Jul 27, 2022 at 12:51 PM

Hello,

I wish to comment on SB575, concerning Information on the appropriateness of requiring DGS and all state agencies to use a TCO calculator to assess and compare the total cost to purchase, own, lease, and operate medium-duty and heavy-duty internal combustion-engine vehicles versus comparable electric vehicles prior to purchasing or leasing any medium-duty or heavy-duty vehicle.

Specifically, "miles driven" and "vehicle class" is not enough of a metric to make a comparison of Total Cost of Ownership of a fleet. You cannot use a "one-size-fits-all" metric, because fleets are unique in the service they perform, and the environment within which they operate. Total Cost of Ownership has dramatically increased over the past 2 years, due to less miles driven, higher replacement costs and ever-rising fuel costs. A utilization metric must be explored and set for ever agency, as a part of the cost per mile metric of is defined.

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University of Virginia
Facilities Management



Meeting Minutes

Public Body Procurement Workgroup

Meeting # 2

**Thursday, July 28, 2022, 9:30 a.m.
Conference Rooms C, D, and E
James Monroe Building
101 N 14th St, Richmond, Virginia 23219**

<http://dgs.virginia.gov/dgs/directors-office/procurement-workgroup/>

The Public Body Procurement Workgroup (the Workgroup) met in-person in Conference Rooms C, D, and E in the James Monroe Building in Richmond, Virginia, with Sandra Gill, Deputy Director of the Department of General Services, presiding. The meeting began with remarks from Ms. Gill, followed by public comment. Materials presented at the meeting are available through the [Workgroup's website](#).

Workgroup members and representatives present at the meeting included Sandra Gill (Department of General Services), Matthew James (Department of Small Business and Supplier Diversity), Joshua Heslinga (Virginia Information Technologies Agency), Lisa Pride (Virginia Department of Transportation), Jonathan Howe (Department of Planning and Budget), Patricia Innocenti (Virginia Association of Governmental Procurement), John McHugh (Virginia Association of State Colleges and University Purchasing Professionals), Leslie Haley (Office of the Attorney General), Kim McKay (House Appropriations Committee), and Adam Rosatelli (Senate Finance and Appropriations Committee). Joanne Frye, representing the Division of Legislative Services, was absent.

I. Call to Order; Remarks by Chair

***Sandra Gill, Deputy Director
Department of General Services***

Ms. Gill called the meeting to order and asked each of the Workgroup's members and representatives to introduce themselves. Ms. Gill then reminded the Workgroup's members and representatives that they are welcome to ask the stakeholders questions as they provide their comments, and reminded them that this is their opportunity to obtain clarification on the issues before the Workgroup so that the Workgroup will have all of the information that it needs in order to make informed decisions and recommendations at the Workgroup's final meeting. She also requested the stakeholders to direct their comments to the Workgroup's members and representatives, and to be respectful of the other stakeholders when providing their comments.

II. Approval of Meeting Minutes from the July 14, 2022 Workgroup Meeting

Mr. Heslinga made a motion to approve the meeting minutes from the July 14, 2022 meeting of the Workgroup. The motion was seconded by Ms. Pride and unanimously approved by the Workgroup.

III. Public Comment on SB 550

Next, Workgroup heard public comment from stakeholders on SB 550. It began by hearing comments from stakeholders in support of SB 550.

The first stakeholder to comment in support of SB 550 was Lew Bryant with J.E. Liesfeld Contractor, Inc. Mr. Bryant shared that stakeholders began meeting to discuss the issues behind SB 550 in October 2021, which was several months before the start of the 2022 Regular Session of the General Assembly. He noted that after several rounds of discussion, there seemed to be no common ground among all of the stakeholders. As a result, the supporters of the ideas behind SB 550 then found themselves in front of the legislature lobbying for the bill during Session. He stated that he believes that the final version of SB 550 is fair to both subcontractors and general contractors, and appropriately reassigns the financial risks associated with construction. He noted that it has been suggested that there are problems with the language of the bill, but he stated that he disagrees with such suggestions. He stressed that the intent of the bill is to guarantee payment to subcontractors for work properly done. He urged the Workgroup, in whatever decision they may make, to keep the intent of the bill alive and not let it be diminished into something that is not effective and other than what was originally intended.

The second stakeholder to comment in support of SB 550 was Fred Codding with the Iron Workers Employers Association (IWEA). He also spoke on behalf of the Alliance for Construction Excellence (ACE). He stated that nonpayment between general contractors and subcontractors is a frequent issue, and that it often arises in the context of nonpayment or extremely slow payment for change orders and retainage. He expressed that it is unfair that the payment of change orders and retainage puts all of the burden on the subcontractor. He noted that a number of other states have also addressed prompt pay issues, and that these are complicated issues that need to be addressed in order for small, minority, and disadvantaged subcontractors to be successful on public work in the Commonwealth. He stressed that state agencies are often the major culprit behind the nonpayment issues. He shared that his organization's recommendation to the Workgroup is that it initiate a study to determine how small businesses can be treated fairly in the payment for work done, for change orders, and for retainage. Mr. Codding discussed the history of "pay-if-paid" and other clauses that disadvantage subcontractors that are included in contracts between general contractors and subcontractors, and noted how the General Assembly has taken action over the years to pass laws deeming such clauses void and unenforceable in order to protect subcontractors and their suppliers. He argued that SB 550 falls in line with those actions by the General Assembly.

The third stakeholder to comment in support of SB 550 was Paul Denham, the President and CEO of Southern Air. Mr. Denham explained that if companies such as his sign contracts with pay-if-paid condition precedent clauses, which are the subject of SB 550, they are giving away significant rights at the end of a job if something goes wrong. He stated that it is rare that something does in fact go wrong on a job and these clauses end up coming into play, but when it does, they cannot afford to have signed away their right to compensation. He stressed that the problem on a job that is causing nonpayment may not have even been a result of something that his company did, but instead the result instead of something the general contractor or another subcontractor has done. He concluded his remarks by stating that he believes SB 550 is fair as written because it covers the responsibility on the owner to pay the general contractor and on the general contractor to pay the subcontractors.

The fourth stakeholder to comment in support of SB 550 was Joe Piacentino with Colonial Webb Contractors Co. He shared that his company works with both owners and general contractors on both public and private projects in Virginia. He stressed that if his company does not pay its employees weekly and their vendors timely, their employees will not report for work and the vendors will stop supplying the materials they need for their projects. Additionally, he stated that they often subcontract portions of their work to small, minority, and disadvantaged businesses, and his company cannot withhold payment to such businesses because such businesses do not have the cash flow to finance the work while everyone awaits payment from the general contractor. He stated that most of their customers pay them within a reasonable amount of time, but occasionally a general contractor will not pay them for months or even years, citing the contractual pay-if-paid condition precedent clause as the reason for not paying.

Mr. Piacentino explained that as a subcontractor, his company has no relationship with the project owner who ultimately funds the work. He stressed that general contractors are in the best position to vet the ability of an owner to pay, but, nevertheless, general contracts traditionally pass the risk of nonpayment by the owner down to the subcontractors who are doing the work. He further noted that when an owner runs out of money or cannot secure permanent financing to finish a project, by the time payment to the subcontractor becomes past due, the subcontractor typically has several months of work in place before the subcontractor is contractually permitted to stop work. He emphasized that SB 550 motivates the general contractor to do a better job of managing payment risk and stopping the subcontractor from working as soon as the owner stops funding the job. He acknowledged that on private work subcontractors have the option of filing a lien when there is nonpayment, but he stressed that pursuing the lien takes years of civil litigation during which the subcontractor must still cash flow the project.

Mr. Piacentino then discussed change orders. He explained that most contracts between subcontractors and general contractors require subcontractors to perform change order work under a construction change directive before the general contractor secures a change from the owner. He shared, as an example, that his company is currently working on a public project in Virginia on which they have done \$1.4 million worth of change order work directed by the general contractor. He stated that the general contractor is in a

dispute with the public owner about whether the work constitutes a change to their contract. Meanwhile, his company has funded the work for over a year without being paid in order to keep the job on schedule and install systems that will work in the building. He emphasized that if the general contractor is ultimately unable to negotiate a change order with the public owner, his company will have to seek recovery through arbitration. He stressed that SB 550 would have kept his company paid and kept the project moving, and would have motivated the general contractor to work harder with the owner to resolve their differences. He concluded his remarks by stressing that SB 550 is absolutely necessary in Virginia to ensure that subcontractors who actually do the work on a project get paid in a timely manner.

The final stakeholder to comment in support of SB 550 was Carson Rogers with Chewning + Wilmer, Inc., an electrical construction contractor and subcontractor that has been in business in Richmond, Virginia since 1924. He stated that there is no fair reason for pay-if-paid clauses to be in contracts between general contractors and subcontractors, and they simply serve the industry at a point above subcontractors. He stressed that the issue of the financial stability of a project is an issue that is not within the control of the projects' subcontractors. Like other commenters, he stated that his company cannot force pay-if-paid clauses down on his employees and suppliers, and stressed the importance of cash flow. Mr. Rogers emphasized that the supporters of SB 550 are simply asking for a fair contracting opportunity. He shared that during his career he has experienced very limited success in trying to negotiate with general contractors for better and fairer contract terms.

Mr. Rogers then discussed change orders. He explained that language in the contract between the general contractor and the subcontractor often permits the general contractor to require the subcontractor to change the work prior to the general contractor negotiating a proper contract amendment with the owner. He stressed that there are occasions where the general contractor may be at fault for directing the subcontractor to initiate the change in work. Mr. Rogers questioned the motivation of the general contractor to resolve disputes with owners over change orders, especially in situations where the general contractor may have been at fault.

Mr. Rogers concluded his remarks by reiterating that the supporters of SB 550 are simply asking to be paid for their work that has been properly and timely completed. He encouraged general contractors, going forward, to work with reputable vendors and properly vet them before entering into a contract with them.

The Workgroup then heard comments from stakeholders in opposition to SB 550. The only stakeholder to testify in opposition was Jack Dyer, President of the Virginia Contractor Procurement Alliance and Chairman of the Board of Gulf Seaboard General Contractors. Mr. Dyer stressed that he is very opposed to the bill. He began his comments by recalling testimony from Senator Bell, the patron of SB 550, during Session in which Senator Bell explained that SB 550 is targeted at large out-of-state general contractors who are coming into Virginia to do work and who are leaving without paying their subcontractors. Mr. Dyer stressed that Senator Bell acknowledged that there is not an

issue of nonpayment by Virginia companies. Mr. Dyer also referenced comments made by stakeholders in support of SB 550 earlier in the Workgroup meeting in which they stated that the issue of nonpayment between general contractors and subcontractors is rare.

Mr. Dyer then reiterated some of his prior comments from the Workgroup's previous meeting. He strongly emphasized his confusion as to why the General Assembly believes that it can overreach and get into the middle of a private contractual relationship between two private parties. He stressed that contracts are legal agreements entered into by the parties to the contract, and if one of the contracting parties does not like some or all of the terms of the contract, such party should not sign the contract. He also reiterated his previous comments that the issues of change orders and retainage, mentioned by several of the stakeholders who commented in support of SB 550, are not addressed by SB 550.

Next, Mr. Dyer expressed concern that the provisions of SB 550 will hurt small businesses. He stated that in light of the changes made by SB 550, general contractors are now going to become very selective about which subcontractors they will work with in order to mitigate their risk. He stressed that general contractors are going to contract only with subcontractors who can provide payment and performance bonds and who are capable of doing the work. Mr. Dyer further stated that SB 550 will hurt small general contractors because they do not have the cash flow to pay their subcontractors prior to receiving payment from the owner. He also expressed his concern that higher risk will mean higher costs across the board.

Mr. Dyer then addressed existing remedies for nonpayment by general contractors and made some recommendations for additional remedies that could be explored in lieu of the policy in SB 550. Mr. Dyer stressed that there are existing remedies for nonpayment by general contractors (e.g. filing a lawsuit for breach of contract in court, filing a lien, pursuing performance and payment bonds, etc.) and stressed that subcontractors need to utilize those remedies and take whatever action is needed to perfect their claims. He recommended that if subcontractors want to enhance their ability to resolve issues of nonpayment with general contractors, subcontractors should ask the General Assembly to enhance the laws governing those existing remedies rather than pursue the policy in SB 550. Mr. Dyer then highlighted another potential remedy for subcontractors to pursue if they have not been paid by general contractors. He explained that every contractor in Virginia is required to obtain a contractor's license from the Board of Contractors (the Board) at the Department of Professional and Occupational Regulation. He shared that both the Board's regulations and the Code of Virginia list certain acts that licensed contractors are prohibited from doing. He suggested strengthening those regulations and/or Code provisions to further prohibit licensed contractors from not paying their subcontractors. As a result, if a general contractor were to not pay a subcontractor, the subcontractor could file a complaint with the Board regarding nonpayment by the general contractor and the Board could revoke the general contractor's license. He emphasized that the threat alone of potentially losing their license may motivate general contractors to quickly and fairly resolve disputes over nonpayment.

Mr. Dyer concluded his remarks by emphasizing that as a general contractor for forty years, his company has paid their subcontractors and wants to maintain great relationships with their subcontractors. He stressed that they want to be a part of the solution for making sure that subcontractors get paid, but SB 550 is not the solution.

The Workgroup then heard comments from stakeholders who either support SB 550 in part and oppose it in part, or are neutral as to its provisions.

The first stakeholder to comment was Brandon Robinson with the Associated General Contractors of Virginia (AGCVA). He explained that AGCVA is a trade association that represents general contractors, specialty contractors, and anyone within the industry that works in commercial construction. He shared that from the beginning of the conversation on SB 550, AGCVA has acknowledged that nonpayment is an issue for subcontractors and has sought to find a solution to the problem that follows three principles – it (i) protects subcontractors, (ii) protects general contractors, and (iii) protects the freedom to contract as much as possible. He emphasized that those three principals have guided their efforts to try to find a reasonable solution that shares the risk.

Mr. Robinson highlighted that in trying to find a solution to the issue of nonpayment, it is first important to acknowledge the root of the issue. Candidly, he stated that the root cause of the issue lies with owners who do not pay. The issue then becomes how the nonpayment trickles down to the general contractor and subcontractors. Mr. Robinson shared that AGCVA has three suggestions for improving SB 550 or otherwise making changes to the law that could help to address the issue of nonpayment in a way that shares the risk throughout the parties involved. He stated that AGCVA arrived at these recommendations by bringing together their members, who are both subcontractors and general contractors, in a room multiple times to work through the issue and try to find solutions that they could all agree upon.

The first recommendation Mr. Robinson discussed is to provide contractors with the ability to fully analyze an owner's financial situation. He explained that SB 550 prohibits pay-if-paid clauses in contracts between general contractors and subcontractors, and this in turn shifts an undue portion of the financial risk of a construction project from owners and subcontractors to the general contractor. He argued that given this increased risk, general contractors should be given tools to vet an owner's financial situation as comprehensively as possible prior to committing to a contract. Additionally, Mr. Robinson suggested that general contractors could consider requiring a payment bond from owners to help mitigate their increased risk.

The second recommendation Mr. Robinson discussed pertains to the text of SB 550 itself and is more technical in nature. Mr. Robinson briefly explained that AGCVA believes the language in subsections B and C of § 11-4.6 needs to be made more consistent. Creating such consistency, he noted, would lead to more clarity and fairness in spreading the financial risk of nonpayment by the owner down throughout the tiers.

Finally, Mr. Robinson explained that the third recommendation is to amend Virginia's mechanics lien statute to make it a more accessible recourse for payment. He noted that in comparison to other states, Virginia's mechanics lien statute is unnecessarily limited. He stated that Virginia is the only state in the country that has a 150-day lookback period, and that this really limits the ability of subcontractors, especially those that might be on the jobsite early in a job, to perfect the lien. He shared that North Carolina, which is often pointed to as an example of a state that has prohibited pay-if-paid clauses since the late 1980s, has a longer timeline for their mechanics liens - they allow up to 120 days, whereas Virginia is capped at 90 days. Mr. Robinson concluded by emphasizing that these sets of recommendations represent ideas that all contractors could agree upon to enable the financial risk of a project to be shared more fairly throughout the tiers and prevent the issues that were the impetus for SB 550.

The next stakeholder to comment was Patrick Cushing with Williams Mullen, speaking on behalf of the American Institute of Architects of Virginia (AIA VA) and the American Council of Engineering Companies of Virginia (ACEC VA). Mr. Cushing referenced his prior comments at the Workgroup's previous meeting regarding his concerns about how some of the language in SB 550 applies on the design side of contracting, as well as his concerns regarding some discrepancies in the definitions that apply to § 2.2-4354 versus § 11-4.6. He shared that since the last meeting of the Workgroup, it became clear after a discussion among his organization's membership that if the intent of the bill is for it to only apply to the contractor community in terms of traditional construction (general contractor-subcontractor relationship) and not design services or the design vertical in design-bid-build scenarios, his organizations would like to make sure that such intent is clarified in the bill. He stated that there are going to be some situations in design-build and other alternative procurements in which a design firm may sit as a subcontractor or in the seat of the general contractor, and at this time his organizations are neutral on those substantive portions of the bill. They plan to stay engaged, however, to ensure that the language in this bill addresses what everyone believes it is intending to address.

Mr. Cushing concluded his remarks by sharing that he has heard varying interpretations and perspectives on what the provisions of SB 550 do and do not do, and to whom it does and does not apply. He suggested that it may be beneficial to have a presentation to the Workgroup outlining the provisions of the bill and their application to assist the Workgroup with understanding the bill and therefore being able to evaluate it. He reminded the Workgroup that the second enactment clause of SB 550 makes the Workgroup responsible for determining whether there needs to be any legislative changes to the bill.

The final stakeholder to comment on SB 550 was Doug Petersen, the President of EE Reed Construction East Coast and the Chairman of the Board for the Association of Builders and Contractors of Virginia (ABC VA). Mr. Petersen shared that ABC VA represents the largest membership of contractors in their industry and they support SB 550. Nevertheless, he noted that some changes need to be made to the bill. He expressed concerns that the bill will have unintended consequences that could put companies out of business. Specifically, he stated that if general contractors are forced to pay their

subcontractors within 60 days, some contractors who have not yet received payment from the owner within that time frame will not have financial ability to make those payments and will be put out of business. He concluded his remarks by stressing that everyone needs to come together as an industry and reach a consensus on the language of the bill so that it protects all parties involved.

IV. Public Comment on SB 575

The Workgroup then heard public comment from stakeholders on SB 575.

The first stakeholder to comment in support of SB 575 was Cher Griffith Taylor, Senior Electric Vehicle Specialist with the Electrification Coalition, which she explained is a nonpartisan, nonprofit organization that advances policies and actions to accelerate the adoption of electric vehicles (EVs) in order to reduce the economic, public health, and national security risks caused by America's dependence on oil. Ms. Taylor noted that fleet managers prioritize costs as they assess which vehicles on their fleet should be replaced and which new ones to procure. She stressed that fleet managers' goal is to ensure that staff have access to vehicles they need in order to complete their daily tasks at maximum operational effectiveness while promoting fiscal responsibility by incurring the lowest overall cost. She stated that the Electrification Coalition supports data-driven decision making and appreciates the Workgroup's focus on total cost of ownership (TCO) calculations.

Ms. Taylor noted that TCO calculations support fleet managers' needs to consider the all-inclusive cost of vehicles, from their purchase price to vehicle maintenance and operation. She stated that EVs are superior to internal combustion engine vehicles (ICEVs) in terms of efficiency and operational costs. She explained that this is because electricity is domestically produced and relatively stable and low in price compared to oil, which is a price-volatile, global commodity, and because EVs have far fewer moving parts. She further explained that these operational savings extend over the life of the vehicle, but do not always offset the high upfront cost of EVs, which often imposes a barrier to adoption. As such, she stated that a TCO analysis is highly recommended prior to vehicle procurement because it can clearly highlight the total cost differences.

Ms. Taylor shared that Electrification Coalition is one of several entities that has developed a TCO tool. She stated that their tool is called the Dashboard for Rapid Vehicle Electrification, or the DRVE Tool, and is publicly available for no cost. She explained the DRVE Tool is highly customizable for users and supports comparisons between ICEVs and EVs for light-duty, heavy-duty, and medium-duty vehicles. She further explained that the DRVE Tool works by mapping each current vehicle to a user-defined electric vehicle and then providing a comprehensive TCO analysis that compares both vehicles' retail price, operational costs (which really focuses on fuel price versus electricity rates), depreciation, applicable taxes, fees, typical maintenance costs, and a variety of other factors over the service life of the vehicle. She stated that the results are expressed in nominal cost per mile, which is a uniform basis of measurement and comparison and which makes it easy for fleet managers to compare vehicles with

different characteristics. She also described some additional publicly available TCO calculators that are offered by other organizations.

Ms. Taylor noted that the shift to medium-duty and heavy-duty EVs is accelerating through improved technology, private sector investment, opportunities to capitalize in the competitive global market, and meeting federal and state climate goals, and as the market for medium-duty and heavy-duty EVs grows, these models will be incorporated into the DRVE Tool and other publicly available TCO calculators. She stressed that it is critical for fleets to use TCO calculators for medium-duty and heavy-duty vehicles because these assets typically have 10-year or longer retirement ages, which means that the decision to add ICEV assets into these vehicle classes will lock the fleet into unpredictable fuel procurement cycles.

Ms. Taylor concluded her remarks by stressing that the DRVE Tool is appropriate for use by state agencies because it was developed with public fleets in mind. She noted that it automatically pulls retail prices and technical specifications on both ICEVs and EVs from federal open source databases including the Department of Energy and the National Highway Traffic Safety Administration, and that it is capable of including in its analysis such factors as cash purchases, the terms of a lease agreement, state or local rebates or incentives, and the cost of EV charging infrastructure. She encouraged the Workgroup to review the tool and offered to provide a preview of it to the Workgroup's members.

The next stakeholder to comment in support of SB 575 was Lena Lewis, Energy and Climate Policy Advisor for the Virginia Chapter of the Nature Conservancy. She began her remarks by stating that the Nature Conservancy supports SB 575 because it is a fiscally-responsible way for the state to lead by example and in making the transition to EVs as they become economically feasible. Regarding SB 575's requirement that the Workgroup assess the appropriateness of requiring DGS and all state agencies to use a TCO calculator to assess and compare the total cost to purchase, own, lease, and operate medium-duty and heavy-duty internal combustion-engine vehicles versus comparable electric vehicles prior to purchasing or leasing any medium-duty or heavy-duty vehicle, Ms. Lewis posed four questions to assist the Workgroup with its analysis. First, she suggested that the Workgroup consider whether it is appropriate to consider TCO at all when procuring medium-duty and heavy-duty vehicles. She stated that her answer to this question is "yes," because doing so is fiscally responsible. Second, she asked whether a TCO calculator should be used to compare different models of conventional diesel and gas-powered vehicles. She stated that her answer to this question is "yes" in light of the number of cost inputs and variables involved. Third, she asked whether the TCO calculator should have the capability of comparing the TCO of conventional vehicles to EVs. She answered in the affirmative, reasoning that if you are going to use a calculator, you might as well use one that is capable of comparing not only conventional vehicles to one another, but also comparing them to electric medium-duty and heavy-duty vehicles. Finally, she stated that if the answer to the first three questions is "yes," which TCO calculator should be used?

Ms. Lewis then recommended that the Commonwealth use the Electrification Coalition's DRVE Tool for comparing the TCO between medium-duty and heavy-duty ICEVs and EVs. She stated that this tool stood out in her research of publicly available TCO tools for medium-duty and heavy-duty TCO tools as being up to the job and user friendly. She offered, however, to coordinate a stakeholder subgroup to evaluate TCO calculators for their ability to handle the specific characteristics of medium-duty and heavy-duty vehicles and make recommendations to the Workgroup.

Ms. Lewis concluded her remarks by stating that she does not expect that a TCO analysis will result in the procurement of electric medium-duty and heavy-duty vehicles very often in the first couple of years because the economics still typically favor conventional vehicles. She stated that it would be helpful for state agencies to begin using TCO calculators for medium-duty and heavy-duty vehicles now, though, because it would help them begin to get the hang of using them, provide opportunities for feedback to the software designers, and allow state agencies to recognize the financial trend as it starts to shift in favor of electric medium-duty and heavy-duty vehicles. She stressed that it would make financial sense for DGS to be ready to seize the moment as soon as the economics shift favorably towards electric medium-duty and heavy-duty vehicles and not years afterwards.

Finally, Chris Nolan with McGuire Woods Consulting commented on behalf of Volvo Trucks of North America. He did not take a position on the bill, but instead listed some factors that his client would like for the Workgroup to consider in deciding whether state agencies should be required to use a TCO calculator prior to purchasing or leasing medium-duty or heavy-duty vehicles. Mr. Nolan noted that Volvo employs around 3,700 people in Virginia, primarily in Roanoke and Dublin. He stated that in Roanoke, under the Mack brand, Volvo produces medium-duty trucks, and in Dublin, Volvo produces Class 8 heavy-duty trucks. He highlighted that the Dublin plant is the plant that produces all of Volvo Trucks' products for the North American market. As such, he stressed that Volvo is a very important asset to Virginia. He noted that Volvo sells both ICEVs and EVs, and began selling a heavy-duty EV product in 2021. He stated that Volvo believes that EVs are going to make up more of the medium-duty and heavy-duty market as time goes on, and as a company their goal is for 35 percent of their sales to be EVs by 2030. As such, they want EVs to be put in the best light possible and for there to be the fairest and most accurate comparison between ICEVs and EVs as possible.

He stressed that Volvo supports public and private buyers using a TCO calculator when deciding whether to electrify a fleet, provided that the TCO calculator provides a true comparison between ICEVs and EVs. He noted, however, that Volvo believes that there are significant differences between light-duty vehicles compared to medium-duty and heavy-duty vehicles, and that those differences may make it more difficult to obtain a true comparison between ICEVs and EVs when using a TCO calculator for medium-duty and heavy-duty vehicles. As such, Mr. Nolan explained that Volvo is the entity that asked for medium-duty and heavy-duty trucks to be broken out of SB 575 during Session, as well as for adding the language to the bill directing the Workgroup to assess whether it is

appropriate to require state agencies to use a TCO calculator prior to purchasing or leasing medium-duty or heavy-duty vehicles.

In describing the differences light-duty vehicles and medium-duty and heavy-duty vehicles, Mr. Nolan began by highlighting the differences in the markets for each type of vehicle. He stated that over 15 million light-duty vehicles were sold last year, and that over 400,000 of those were battery EVs. Regarding heavy-duty trucks, however, he stated that according to DMV data, 221,000 Class 8 heavy-duty trucks were sold last year, but less than one-hundred of those were EVs. He emphasized that the factors that are considered when deciding whether to buy a light-duty ICEV or EV are quite different from the factors that are considered when deciding whether to buy a diesel or electric medium-duty or heavy-duty vehicle. He noted that the decision regarding medium-duty and heavy-duty vehicles is largely dictated by the vehicle's intended use, and that when a person or a state agency purchases a heavy-duty truck, the truck is often configured for a very specific use. Additionally, with regards to state purchasing, Mr. Nolan questioned whether the state purchases large numbers of medium-duty and heavy-duty vehicles at one time like they do with light-duty vehicles, or whether the state purchases just one or two or a few medium-duty and heavy-duty vehicles at one time. The size of the procurements can affect the price the state pays for the vehicles.

Mr. Nolan then discussed the unique characteristics of medium-duty and heavy-duty vehicles that a TCO calculator would need to accommodate. He first mentioned charging infrastructure. He noted that there is a significant difference in the charging infrastructure needed for light-duty vehicles compared to the charging infrastructure needed for medium-duty and heavy-duty vehicles. He explained that it is relatively easy to set up a charging infrastructure to charge a light-duty car or truck overnight. With medium-duty and heavy-duty vehicles, however, he stated that it is important to have charging infrastructure that supports rapid charging. He noted that the cost for such infrastructure can begin at \$25,000 and that the state may have to work with the power company to ensure that the grid can support such infrastructure. He emphasized that this is a key difference between light-duty EVs and medium-duty and heavy-duty EVs, and he questioned whether this is something that TCO calculators account for. Mr. Nolan then discussed maintenance plans. He noted that in the market for heavy-duty EVs, manufacturers offer maintenance plans, through which the manufacturer takes on more responsibility for the maintenance of the vehicle, in an effort to make heavy-duty EVs more cost competitive. He said that such maintenance plans are a key selling-point, but there is an upfront cost for them. He questioned whether this cost is considered in TCO calculators. Next, he discussed the federal excise tax, which is 12 percent federal surcharge for Class 8 heavy-duty vehicles. He explained that he believes the state may be subject to this tax, and that this tax would significantly affect the cost heavy-duty EVs because they are on average two and one-half times more expensive than their diesel equivalents. He stressed that this added cost must be captured by a TCO calculator in order to have a true apples-to-apples comparison between heavy-duty diesel vehicles and heavy-duty EVs. Another difference he noted between medium and heavy-duty vehicles compared to light-duty vehicles is that there is a requirement to use diesel exhaust fluid to cut down on emission when filling up Class 7 and Class 8 trucks. Such cost would also

need to be reflected in a TCO calculator for medium-duty and heavy-duty vehicles. Additionally, he noted that EVs carry higher insurance costs, and such cost must also be reflected in the calculator. Finally, Mr. Nolan mentioned that Volvo would like to ensure that product lines and prices are accurately reflected in the TCO calculator. He stressed that the TCO calculator should be transparent, accurate, and fair to all manufacturers. He emphasized the importance of making sure that the TCO calculator has a complete, updated (perhaps even updated in real-time) list of the product lines and corresponding prices. He highlighted the difference between obtaining such data from pre-set inputs that are straight from publicly available data versus picking up the phone and calling the dealer to obtain such data based on the configuration that you intend for the use of the vehicle.

Mr. Nolan concluded his remarks by noting that these are the items that Volvo would like to see addressed if the state were to move in the direction of requiring agencies to use a TCO calculator prior to purchasing medium-duty and heavy-duty vehicles. He reiterated that Volvo supports the use of a TCO calculator as long as it is fair and accurate, and publicly available for validation by the original equipment manufacturer. He noted that Virginia may be the first state to require the use of a TCO calculator prior to purchasing medium-duty and heavy-duty vehicles, and, as such, Virginia may be in the position of setting a precedent for other states.

V. Discussion

There was no discussion among the Workgroup members.

VI. Adjournment

Ms. Gill adjourned the meeting at 10:56 a.m. and noted that the next Workgroup meeting is scheduled for Thursday, August 11, 2022 at 9:30 a.m. in Conference Rooms C, D, and E in the James Monroe Building in Richmond, Virginia.

For more information, see the [Workgroup's website](#) or contact that Workgroup's staff at pwg@dgs.virginia.gov.

Appendix D: August 11, 2022 Meeting Materials

This appendix contains the meeting materials from the August 11, 2022 Workgroup meeting.

1. Agenda
2. Excel Spreadsheet Showing the Results of the Email Survey of State Agencies' Current Inventories of Medium-Duty and Heavy-Duty Vehicles
3. Comments from VDOT
4. Approved Meeting Minutes

Public Body Procurement Workgroup

<http://dgs.virginia.gov/dgs/directors-office/procurement-workgroup/>

Meeting # 3

Thursday, August 11, 2022, 9:30 a.m.

Conference Rooms C, D, and E

James Monroe Building

101 N 14th St, Richmond, Virginia 23219

AGENDA

I. Call to Order; Remarks by Chair

Sandra Gill, Deputy Director
Department of General Services

II. Approval of Meeting Minutes from the July 28, 2022 Workgroup Meeting

III. Presentation on the Department of General Services' Responsibilities with Regards to Procurement of Medium-Duty and Heavy-Duty Vehicles

Michael Bisogno, Assistant Director
Department of General Services

IV. Presentation on the Virginia Department of Transportation's Fleet of Medium-Duty and Heavy-Duty Vehicles

Robert Prezioso, State Maintenance Engineer
Virginia Department of Transportation

V. Presentation on the Virginia Department of Rail and Public Transportation's Fleet of Medium-Duty and Heavy-Duty Vehicles and the Impact of Using a TCO Calculator During their Procurement

Grant Sparks, Acting Chief of Public Transportation
Virginia Department of Rail and Public Transportation

VI. Consideration and Discussion of Public Comment, Written Comments, and Other Information Received by the Workgroup on SB 575

VII. Findings and Recommendations on SB 575

VIII. Public Comment

IX. Discussion

X. Adjournment

Members

Department of General Services
Virginia Information Technologies Agency
Department of Planning and Budget
Virginia Association of State Colleges and
University Purchasing Professionals

Department of Small Business and Supplier Diversity
Virginia Department of Transportation
Virginia Association of Government Purchasing

Representatives

Office of the Attorney General
Senate Finance Committee

House Appropriations Committee
Division of Legislative Services

Staff

Jessica Budd, Legal Policy Analyst, DGS
Jessica Hendrickson, Director of Policy and Legislative Affairs, DGS

State Agency Inventory of Medium-Duty and Heavy-Duty Vehicles

Agency	Total # of Medium-Duty and Heavy-Duty Vehicles	Medium-Duty/Heavy-Duty Vehicle Specifics				
		Year	Make	Model	Mileage	Use
Virginia Indigent Defense Commission	0	N/A	N/A	N/A	N/A	N/A
Department of Historic Resources	0	N/A	N/A	N/A	N/A	N/A
Motor Vehicle Dealer Board	0	N/A	N/A	N/A	N/A	N/A
Office of the State Inspector General	0	N/A	N/A	N/A	N/A	N/A
State Corporation Commission	0	N/A	N/A	N/A	N/A	N/A
Department of Juvenile Justice	3	2015 2015 2016	Thomas Ford Ford	341TS Bus Transit 350 HB (Box Truck) F-750 Dump Truck	6,929 8,298 3,774	Staff training for CDL Surplus pick-up/removal between facilities Grounds maintenance work between facilities
Virginia Alcoholic Beverage Control Authority	1	2020	Chevrolet	550 LCF Box Truck	6,941	Used by their Logistics Division to transport large shipments between their Distribution Center and their remote warehouses
Office of the Governor and Cabinet	0	N/A	N/A	N/A	N/A	N/A
Auditor of Public Accounts	0	N/A	N/A	N/A	N/A	N/A
Virginia Department of Agriculture and Consumer Services	6	1997 1998 2012 2018 2020 1985	Volvo Volvo Freightliner Freightliner Freightliner Volvo	Autocar Autocar FL 112 M2 112 M2 112 Autocar	303,730 370,197 88,550 56,306 23,853 285,348	Inspection and testing of commercial scales, exceeding 1,000 pounds in capacity Inspection and testing of commercial scales, exceeding 1,000 pounds in capacity Inspection and testing of commercial scales, exceeding 1,000 pounds in capacity Inspection and testing of commercial scales, exceeding 1,000 pounds in capacity Inspection and testing of commercial scales, exceeding 1,000 pounds in capacity Not in service (to be surplused)
Department of Human Resource Management	0	N/A	N/A	N/A	N/A	N/A
Virginia Department of Elections	0	N/A	N/A	N/A	N/A	N/A
Office of Children's Services	0	N/A	N/A	N/A	N/A	N/A
Commonwealth's Attorney's Services Council	0	N/A	N/A	N/A	N/A	N/A
Virginia Employment Commission	0	N/A	N/A	N/A	N/A	N/A
Virginia Department of Emergency Management	18	2011 2012 2013 2016 2015 2019 2019 2019 2017 2019 2016 2015 2017 2019 2013 2008	Ford Ford Ford Chevrolet Ford Ford Ford Ford Ford Ford Chevrolet Ford Ford Ford Chevrolet Ford	F350 F350 F350 K3500 F350 XL F350 F350 F350 F350 F350 K3500 F350 F350 F350 Barber Bus 5500	146,599 96,750 172,985 65,203 122,765 51,858 36,250 36,672 88,268 41,902 68,894 76,373 80,630 67,455 34,061 32,366 31,766 42,386	Incident Management Team Response Vehicle Hazardous Material Emergency Response Vehicle Logistical Emergency Response Vehicle Search & Rescue Emergency Response Vehicle Emergency Communication Response/Support Hazardous Material Emergency Response Vehicle Hazardous Material Emergency Response Vehicle Hazardous Material Emergency Response Vehicle S Hazardous Material Emergency Response Vehicle Hazardous Material Emergency Response Vehicle Hazardous Material Emergency Response Vehicle Emergency Mobile Command/Operation Vehicle Emergency Mobile Command/Operation Vehicle
Virginia Workers' Compensation Commission	0	N/A	N/A	N/A	N/A	N/A
Department of Treasury	0	N/A	N/A	N/A	N/A	N/A
Department of Planning and Budget	0	N/A	N/A	N/A	N/A	N/A
Virginia Military Institute	3	1998 2006 2004	Chevrolet Ford Ford	60 Series Bus E450 Box Truck F450 Super Duty	25,941 116,205 61,785	Passenger transportation Equipment transportation Maintenance/hauling water
Frontier Culture Museum	0	N/A	N/A	N/A	N/A	N/A
Science Museum of Virginia	0	N/A	N/A	N/A	N/A	N/A
Department of Forensic Science	0	N/A	N/A	N/A	N/A	N/A
Virginia Marine Resources Commission	0	N/A	N/A	N/A	N/A	N/A
Virginia Department of Aviation	0	N/A	N/A	N/A	N/A	N/A
Virginia Department of Energy	0	N/A	N/A	N/A	N/A	N/A
Virginia Western Community College	2	2005 2018	GMC Chevrolet	Box Truck Silverado Dump Truck	20,662 3,453	Grounds Grounds & Trades
		2007 2007 2015	Thomas Thomas International	Bus Bus Bus	150,108 200,404 95,987	Transporting students to/from home and to activities Transporting students to/from home and to activities Transporting students to/from home and to activities
Department of Behavioral Health and Developmental Services	7	2008 2008 2016 2016 2018 2008 2008	GMC-Isuzu GMC-Isuzu Ford Ford Motor Inn Freightliner Freightliner	Tru/Cam Refrigerated Food Truck Tru/Cam Refrigerated Food Truck F550 F550 Shell M2 Medical M2 Medical	71,919 47,340 104,163 59,095 24,788 27,860 16,571	Agency did not specify Agency did not specify Mobile machine/mechanic shop Mobile machine/mechanic shop Mobile dental clinic/surgery suite Mobile dental clinic/surgery suite Mobile dental clinic/surgery suite
		2013 2005 2006 2006 2017 2005 1998	Ford Ford GMC GMC Isuzu Isuzu Hum Vee	F550 Dump Truck F550 Bucket Truck W4500 Box Truck W4500 Box Truck NPR HB Box Truck NPR HB Box Truck Trooper	5,753 10,243 126,543 129,255 22,649 125,153 1,236	Grounds work and snow clearing Overhead electrical/lamp replacement Misc. hauling (recycling, furniture, etc.) Misc. hauling (recycling, furniture, etc.) Misc. hauling (recycling, furniture, etc.) Misc. hauling (recycling, furniture, etc.) Public safety/police
		2015 2015 2015 2015 2018 2018	Ford Ford Ford Ford Ford Ford	E450 Bus E450 Bus E450 Bus E450 Bus F59 Food Truck F59 Food Truck	101,280 97,251 93,387 89,726 96,840 1,162	Transportation service Transportation service Transportation service Transportation service Food service for events Food service for events
		2000 2005 2005 2007 2007 2010	International Freightliner GMC GMC Ford Ford	Dump Truck Road Tractor Bucket Truck Box Truck 14 Pass Bus (w/storage) 12 Pass Bus (Handicap)	152,863 444,591 22,648 41,093 118,051 44,807	Landscaping and Grounds uses to haul rock, mulch, soil, debris, and to pull lowboy trailers to move tractors, backhoe, and other equipment to maintain campus properties Daily use to haul sawdust from sawmills to fuel depot and biomass plant as plant provides primary heat source for the University Bucket truck used by Facilities team to maintain campus infrastructure that is above safety reach for ladders Enclosed box truck with lift gate used by campus movers to move agency items among campus Fleet Services bus used to transport athletic teams and students for academic trips Fleet Services bus used to transport athletic teams and students for academic trips
		2007	GMC	Box Truck	41,093	
		2007	Ford	14 Pass Bus (w/storage)	118,051	
		2010	Ford	12 Pass Bus (Handicap)	44,807	

		2005	Ford	Diesel Service Body Truck	208,228	Service truck used by Landscaping and Grounds department to pull lowboy trailers to move tractors, backhoe, and other equipment to maintain campus properties
		2002	GMC	Bucket Truck	116,340	Bucket truck used by Landscaping and Grounds team for Arborist work on campus properties
		2009	International	30 Pass Bus	97,769	Fleet Services bus used to transport athletic teams and students for academic trips
		2017	International	Road Tractor	191,246	Daily use to haul sawdust from sawmills to fuel depot and biomass plant as plant provides primary heat source for the University
Radford University	8	2005	Volvo	VDH64B	159,629	Facilities
		2007	International	4300 Series	163,041	Facilities
		2009	Chevrolet	C4500	45,443	Facilities
		2015	Volvo	Truck	30,832	Facilities
		2011	Isuzu	Diesel Truck	90,345	Facilities
		2009	International	Truck	170,204	Facilities
		2012	International	Truck	180,845	Facilities
		2021	Chevrolet	Silverado	3,398	Facilities
Department of Criminal Justice Services	0	N/A	N/A	N/A	N/A	N/A
Virginia Innovation Partnership Authority	0	N/A	N/A	N/A	N/A	N/A
VCCS	3	2020	Mack	Anthem	2,632	Mobile welding lab for academic instruction
		2019	Peterbilt	579	57,895	Semi-truck for CDL training
		2012	International	7500	115,023	Dump-truck for facilities snow-plow and other general maintenance
Department of Environmental Quality	0	N/A	N/A	N/A	N/A	N/A
Virginia State Bar	0	N/A	N/A	N/A	N/A	N/A
Virginia Department of Social Services	0	N/A	N/A	N/A	N/A	N/A
Jamestown-Yorktown Foundation	0	N/A	N/A	N/A	N/A	N/A
Piedmont Geriatric Hospital	3	2007	Isuzu	Box Truck	222,583	Laundry
		1995	Ford	Dump Truck	150,898	Grounds
		2021	Ford	F450 Flatbed	680	Grounds
Virginia Center for Behavioral Rehabilitation	2	2008	Ford	Supreme Bus	19,721	Transport Residents
		2008	GMC	Box Truck	70,577	Backup Kitchen Truck
George Mason's Gunston Hall	0	N/A	N/A	N/A	N/A	N/A
Board of Accountancy	0	N/A	N/A	N/A	N/A	N/A
University of Virginia's College at Wise	2	2011	Dodge	Ram 5500	257,500	Bucket truck issued to Maintenance Dept. and primarily used by electricians
		2008	GMC	7500 Box Truck	22,366	Truck issued to marching band to transport instruments
Department of Medical Assistance Services	0	N/A	N/A	N/A	N/A	N/A
Department of Corrections	60	2009	International	Truck	698,162	Agribusiness
		1999	International	Truck	0	Agribusiness
		2017	Ford	Truck	50,223	Agribusiness
		2017	Ford	Truck	35,043	Agribusiness
		2018	Ford	Truck	38,555	Agribusiness
		2018	Ford	Truck	35,254	Agribusiness
		2019	Freightliner	Truck	109,423	Agribusiness
		2019	Freightliner	Truck	234,454	Agribusiness
		2015	Ford	Pickup	82,117	Agribusiness/Augusta
		2017	Ford	F250 Pickup	23,975	Agribusiness/State Farm
		2017	Ford	F550 Truck	16,082	Augusta CC
		2017	Ford	F250 Truck	26,941	Augusta CC
		1985	Ford	Dump Truck	92,943	Bland CC
		1997	International	-	42,176	Bland CC
		2017	Ford	F250 Pickup	30,646	Bland CC
		2017	Ford	F250 Truck	24,354	Bland CC
		2017	Ford	F250 Pickup	13,331	Buckingham CC
		2002	Thomas	Bus	14,817	Corr Const
		2017	Ford	F250 Pickup	76,204	Corr Const
		2022	Thomas	Bus	55,085	Deep Meadow CC
		2018	Thomas	Bus	29,783	Dillwyn CC
		2005	Peterbilt	Dump Truck	3,000,054	Environmental Serv Unit
		1999	Mack	Dump Truck	391,141	Environmental Services
		2000	Mack	Truck	276,447	Environmental Services
		2008	Freightliner	-	72,454	Environmental Services
		2019	International	Truck	43,108	Environmental Services
		2019	International	Truck	241,337	Farmer's Market
		2019	International	Truck	224,780	Farmer's Market
		1998	Thomas	Bus	100,867	Fluvanna CC
		2017	Ford	F550 Truck	77,939	Food Services
		2014	Ford	Dump Truck	123,456	General Services
		2014	Ford	Dump Truck	27,000	General Services
		2015	Thomas	Bus	31,300	General Services
		2016	International	Cab & Chassis	136,366	General Services
		206	International	Cab & Chassis	77,358	General Services
		2015	Senator	Bus	47,244	General Services
		2016	Senator	Bus	25,411	General Services
		2016	Ford	F250 Pickup	97,791	General Services
		2016	Ford	F250 Pickup	50,139	General Services
		2016	Ford	F250 Pickup	0	General Services
		2016	Ford	F250 Pickup	45,236	General Services
		2016	Ford	F250 Pickup	44,814	General Services
		2016	Ford	F250 Pickup	78,892	General Services
		2020	Starcraft	Bus	6,365	General Services
		2020	Starcraft	Bus	1,435	General Services
		2018	Van Hool	Bus	235,629	Greenville CC
		2015	Thomas	Bus	84,877	Indian Creek CC
		2009	Thomas	Bus	97,000	Lunenburg CC
		2004	Thomas	Bus	206,725	Mecklenburg CC
		2018	Ford	Dump Truck	26,202	Red Onion SP
		2014	Thomas	Bus	49,372	River North CC
		1996	Chevrolet	Stakebody	56,851	Southampton DC Men
		2003	Freightliner	-	79,708	Stafford Det Ctr
		2016	Thomas	Bus	411	Sussex I State Prison
		2008	Ford	Bus	0	VCCW
		2020	Starcraft	Bus	1,172	VCCW
		1999	International	-	43,686	Wallens Ridge SP
		2014	Ford	Dump Truck	27,725	Wallens Ridge SP
		2020	Starcraft	Bus	16,487	Wallens Ridge SP
		2019	Ford	F250	29,438	Wise CU 18
		2022	GMC	Dump Truck	44,814	Snow clearing
		2013	Ford	Bus	18,099	Patient bussing between buildings
		1993	Isuzu	Box Truck	8,984	Equip/supply delivery
		1995	Isuzu	Box Truck	109,288	Laundry pickup/delivery
		2012	Chevrolet	Van, Bus, WC	33,432	Patient bussing between buildings
		2012	International	Dump Truck	15,383	Laundry pickup/delivery

Central State Hospital	23	1997	GMC	Dump Truck	80,532	Laundry pickup/delivery
		1995	Isuzu	Box Truck	103,255	Hazardous medical waste disposal
		2010	Ford	Van, Bus	61,035	Patient bussing for therapeutic programs
		2009	Ford	Van, Bus, WC	20,942	Patient bussing non-ambulatory
		1996	International	Bus w/ Lift	118,334	Patient bussing backup
		2012	Chevrolet	Van, Bus, WC	32,617	Patient bussing non-ambulatory backup
		2007	GMC	Box Truck	29,396	Laundry pickup/delivery
		2008	GMC	Box Truck	40,461	Food svcs pickup/delivery
		1999	Isuzu	Box Truck	74,238	Hazardous medical waste disposal
		1998	Isuzu	Box Truck	57,733	Whse pickup/delivery
		2008	GMC	Box Truck	48,426	Food svcs pickup/delivery
		2008	GMC	Box Truck	49,546	Food svcs pickup/delivery
		2001	International	Box Truck	4,753	Warehouse pickup/delivery
		2008	GMC	Box Truck	44,623	Food svcs pickup/delivery
		2011	Chevrolet	Van, Bus, WC	210,843	Patient bussing non-ambulatory
		2011	Chevrolet	Van, Bus	24,087	Patient bussing
		2008	GMC	Box Truck	30,070	Food svcs pickup/delivery
Virginia Museum of Natural History	1	2012	International	Truck - Duramax 4300	211,070	Transporting exhibits and equipment
Virginia Museum of Fine Arts	1	2007	Volvo	Tractor Trailer	579,154	Promotes statewide education of the museum
Office of the Attorney General	1	2016	Ford	Box Van	8,723	Computer forensic lab
Virginia's Community Colleges Shared Services Center	0	N/A	N/A	N/A	N/A	N/A
Department of Veterans Services	8	2006	Ford	Transit Bus		Used as a spare
		2018	Ford	Starcraft Allstar Paratransit		Patient transportation to and from doctors' visits and other appointments and activities
		2018	Ford	Starcraft Allstar Paratransit		Patient transportation to and from doctors' visits and other appointments and activities
		2018	Ford	Starcraft Allstar Paratransit		Patient transportation to and from doctors' visits and other appointments and activities
		2022	Ford	F550		Burial operations, snow removal, equipment transport, materials hauling (Dublin cemetery)
		1990	GMC	6000		Patient transportation to and from doctors' visits and other appointments and activities
		2003	Ford	F450		Resident wheelchair transportation
		2008	Ford	F450		Resident wheelchair transportation
Southern Virginia Mental Health Institute	0	N/A	N/A	N/A	N/A	N/A
Eastern Virginia Medical School	0	N/A	N/A	N/A	N/A	N/A
Virginia DMV	3	2009	International	Test Truck	130,137	Scale test truck
		2013	Ford	F450	220,456	Repair truck
		2011	Ford	F450	226,580	Repair truck
Department of Wildlife Resources	48	1989	Mack	Road Tractor 5T	131,767	Wildlife management area
		1990	Chevrolet	Dump Truck	71,171	Wildlife management area
		1990	International	3T Rollback	221,998	Wildlife management area
		1991	International	Dump Truck	292,480	Wildlife management area
		1992	GMC	Dump Truck	69,205	Wildlife management area
		1992	GMC	Flatbed 2T Dump Truck	142,341	Fish hatchery
		1992	GMC	Flatbed 1T Dump Truck	271,666	Wildlife management area
		1994	Ford	Flatbed 1T Dump Truck	90,563	Fish hatchery
		1995	Ford	Flatbed Chassis 2T	82,462	Fish hatchery
		1997	Ford	Diesel Rollback	87,996	Wildlife management area
		1998	Volvo	Rollback WG64	52,575	Wildlife management area
		1999	GMC	2 Ton Flatbed	84,841	Fish hatchery
		2002	GMC	3T Dumptruck	118,302	Fish hatchery
		2003	Ford	3T Flatbed	90,232	Fish hatchery
		2003	Ford	F450 1.5 Ton Flatbed	-	Fish hatchery
		2004	GMC	2T Flatbed Topkick	155,856	Fish hatchery
		2004	International	4300 Dump Truck	124,016	Wildlife management area
		2005	GMC	2 Ton Flatbed	145,977	Fish hatchery
		2005	GMC	2 Ton Flatbed	100,771	Fish hatchery
		2006	Ford	F350 1T 4x4 Diesel	227,213	Wildlife management area
		2006	Ford	F350 1T 4x4 Diesel	93,270	Fish hatchery
		2006	Ford	F550 2 Ton	109,505	Fish hatchery
		2006	Sterling	Acterra Dump Truck	68,404	Wildlife management area
		2007	Mack	-	237,736	Wildlife management area
		2007	Mack	Dump Truck	181,826	Wildlife management area
		2008	Ford	F450 1.5T Ext Cab w/ Work Body	156,666	Wildlife management area
		2008	Ford	F550 4x2 Cab	58,880	Fish hatchery
		2008	Ford	Flatbet 4x2 2 Ton	88,599	Fish hatchery
		2008	Ford	Pickup 4x4 1 Ton	129,589	Fish hatchery
		2008	Ford	Pickup 4x4 1 Ton	176,860	Fish hatchery
		2011	Dodge	Ram 3500 1T 4x4	246,015	Wildlife management area
		2011	Ford	F750 3.5 Ton	76,424	Fish hatchery
		2011	Ford	F750 3.5 Ton	98,532	Fish hatchery
		2011	Ford	F350 1T 4x4 Diesel	156,666	Wildlife management area
		2011	Ford	F350 4x4 Ext Cab 1T	115,512	Wildlife management area
		2013	Ford	1T Diesel	95,049	Fish hatchery
		2014	Ford	1T 4x4	200,850	Wildlife management area
		2014	Ford	F350 1T	92,516	Fish hatchery
		2015	International	4400	64,950	Fish hatchery
		2016	Ford	F550 2T 4x4	73,003	Fish hatchery
		2017	Ford	F350 1T	112,894	Wildlife management area
		2018	Ford	F550 2T	58,827	Fish hatchery
		2018	Ford	F550 2T	34,630	Fish hatchery
		2018	International	4400	5,657	Wildlife management area
		2019	Ford	F550	39,431	Fish hatchery
		2019	Ford	F550 2T	17,018	Fish hatchery
		2020	Chevrolet	Silverado	35,470	Wildlife management area
		2020	Chevrolet	Silverado	53,859	Wildlife management area
Tidewater Community College Facilities	3	2006	Isuzu	NPR	245,736	Deliveries and pickups
		2009	Isuzu	NPR	162,232	Deliveries and pickups
		2013	Isuzu	NPR	32,947	Deliveries and pickups
University of Mary Washington	2	1998	GMC	6500C Box Truck	30,321	Local campus use; pickup/delivery
		1992	Ford	F700	1,415	Campus snow management
Department of Military Affairs	16	2004	Mack	MR688S Refuse Truck	92,107	Empty dumpsters on base
		2004	International	Dump Truck	74,678	Haul rock, dirt, etc. for Roads and Grounds work
		2014	Ford	Truck	41,076	Haul lawn mowers, carry cleaning supplies to buildings, pickup/deliver sheets, replace appliances, other warehouse duties
		2022	Ford	Truck	-	Pull Emergency Command Trailer and transport emergency supplies
		2020	Western Star	4700SF UTL Bucket	6,725	Utility repairs
		2018	International	Dump Truck 7600	6,602	Haul rock, dirt, etc. for Roads and Grounds work
		2015	Mack	Refuse Truck MRV G13	59,590	Empty dumpsters on base
		2017	Chevrolet	Silverado 3500HD	7,980	Forestry work truck

		2017	Chevrolet	Silverado 3500HD	27,836	Roads & Grounds work truck
		2017	Chevrolet	Silverado 3500HD	40,623	Roads & Grounds work truck
		2021	Chevrolet	3500 Flat	1,342	Logistical Operations for Billeting
		206	Ford	F450 UTL Bucket	20,443	Telecommunications repairs
		2020	Chevrolet	Silverado 3500 DRW 4WD	1,994	Brush truck for Fire Dept..
		2000	Thomas	School Bus	61,112	Bus to carry students
		2000	Thomas	School Bus	58,250	Bus to carry students
		2006	Thomas	School Bus	50,709	Bus to carry students
Virginia Racing Commission	0	N/A	N/A	N/A	N/A	N/A
Department for Aging and Rehabilitative Services	8	2021	International	Truck	82,211	Facilities Maintenance
		2007	Ford	Pickup Truck	30,066	Facilities Maintenance
		1992	Ford	F750 3.5 Ton	76,000	Facilities Maintenance
		2013	International	4300	218,414	Deliver products sold to federal, state, and/or general public customers
		1999	GMC	Truck 24'	163,633	Deliver products sold to federal, state, and/or general public customers
		1993	Ford	Truck 14'	113,184	Deliver products sold to federal, state, and/or general public customers
		2003	GMC	Truck 14'	104,475	Deliver products sold to federal, state, and/or general public customers
		2000	International	4700	177,849+	Not operational and not in use. In process of sending to surplus.
James Madison University	43	1995	Chevrolet	5500	52,630	Recycling
		2003	Ford	E-450	98,433	Bookmobile
		2003	Chevrolet	C-7500	113,194	Landscaping
		2005	Ford	F-550	90,389	Landscaping
		2006	Ford	E-450	46,516	Bookmobile
		2002	Ford	F-550	173,184	Landscaping
		2006	GMC	T7500	54,925	Moving & Delivery
		2010	Kenworth	T270	37,726	Recycling
		2001	Ford	F-650	119,243	Recycling
		2012	Ford	F-550	22,827	Electrical Shop
		2012	MCI	J4500	183,510	Transportation
		2005	GMC	T7500	164,905	Moving & Delivery
		2006	Freightliner	M2	195,010	Athletics
		2005	GMC	T7500	156,050	Moving & Delivery
		2013	Ford	F-450	33,594	Power Plant
		2014	Isuzu	NQR	7,503	Street Sweeper
		2014	Kenworth	T270	35,454	Recycling
		2014	International	Starcraft	22,376	Transportation
		2015	MCI	J4500	147,380	Transportation
		2015	Ford	F-550	18,979	Landscaping
		2015	Ford	F-550	54,412	Landscaping
		2015	Isuzu	NPR	43,026	Recycling
		2016	Freightliner	M2	8,673	Band Dept.
		2016	Kenworth	T370	31,694	Recycling
		2016	MCI	J4500	150,229	Transportation
		2016	International	Starcraft	53,715	Transportation
		2016	International	Starcraft	66,500	Transportation
		2015	Chevrolet	Starcraft	16,683	Transportation
		2016	Kenworth	T370	41,093	Landscaping
		2004	Gillig	Transit	43,327	Transportation
		2004	Gillig	Transit	35,401	Transportation
		2004	Gillig	Transit	44,483	Transportation
		2019	Kenworth	K370	15,559	Recycling
		2014	Isuzu	NPR	57,091	Housekeeping
		2019	Freightliner	M2-106	1,185	Landscaping
		2019	Ford	F-550	5,304	Recycling
		2019	Ford	F-550	9,385	Transportation
		2019	Prevost	H3-45	39,835	Transportation
		2019	Gillig	Transit	6,778	Transportation
		2019	Gillig	Transit	6,818	Transportation
		2022	Freightliner	Coachliner	6,245	Transportation
		2019	Volvo	9700	7,659	Transportation
		2014	Chevrolet	G350	45,031	Residence Life
Virginia State Police	54	2003	FREIGHTLINER	CASCADIA	356150	Road tractor
		2018	FREIGHTLINER	M2	58747	Tow Truck/Rollback
		2013	FORD	F-550	48933	Tower Truck/STARS
		2019	FORD	F-550	60969	Tower Truck/STARS
		1967	FORD	F-450	83933	Tower Truck/STARS
		2017	NAVISTAR INTERNATIONAL	4200	14664	Supply Truck / Box Truck
		1993	NAVISTAR INTERNATIONAL	4600	229669	Supply Truck / Box Truck
		2020	FREIGHTLINER	MT-55	4174	Specialty Truck
		2002	FORD	F-650	314126	Tow Truck/ Rollback
		1995	FORD	F-600	-	Supply Truck/ Box Truck
		1993	NAVISTAR INTERNATIONAL	BLUE BIRD BODY CO.	-	Transport Bus
		1993	NAVISTAR INTERNATIONAL	BLUE BIRD BODY CO.	-	Transport Bus
		1992	NAVISTAR INTERNATIONAL	4900	-	Transport Bus
		1995	FORD	F-800	-	Specialty Truck
		2019	FORD	F-550	2391	Specialty Truck
		2004	NAVISTAR INTERNATIONAL	4200	-	Specialty Truck
		2011	FREIGHTLINER	M2	116114	Specialty Truck
		2012	FREIGHTLINER	M2	30279	Specialty Truck
		2020	FORD	F-550	2184	Specialty Truck
		2020	FORD	F-550	2545	Specialty Truck
		2005	CHEVROLET	C550	12804	Specialty Truck
		2005	CHEVROLET	C550	22322	Specialty Truck
		2005	CHEVROLET	C550	56336	Specialty Truck
		2005	CHEVROLET	C550	14331	Specialty Truck
		2005	CHEVROLET	C550	14210	Specialty Truck
		2005	CHEVROLET	C550	22400	Specialty Truck
		2005	CHEVROLET	C550	14030	Specialty Truck
		2013	FREIGHTLINER	M2	14624	Specialty Truck
		2013	FORD	M2	14875	Specialty Truck
		2019	FREIGHTLINER	MT-55	4650	Specialty Truck
		2015	FREIGHTLINER	MT-55	18950	Specialty Truck
		2012	FORD	F-550	84120	Specialty Truck

		2017	NAVISTAR INTERNATIONAL	4200	14604	Supply Truck / Box Truck
		2017	FREIGHTLINER	MT-55	2998	Specialty Truck
		2017	NAVISTAR INTERNATIONAL	4200	30000	Supply Truck / Box Truck
		2012	FORD	F-550	76942	Specialty Truck
		2016	NAVISTAR INTERNATIONAL	4200	54549	Supply Truck / Box Truck
		2012	FREIGHTLINER	M2	29441	Specialty Truck
		2012	FORD	F-550	66721	Specialty Truck
		2012	FORD	F-550	56123	Specialty Truck
		2019	FREIGHTLINER	MT-55	2952	Specialty Truck
		2005	GMC	C6500	239463	Supply Truck / Box Truck
		2012	FORD	F-550	70588	Specialty Truck
		2005	GMC	C6500	206072	Supply Truck / Box Truck
		2019	NAVISTAR INTERNATIONAL	4200	32671	Supply Truck / Box Truck
		1993	CHEVROLET	C6500	40069	Specialty Truck
		2012	FORD	F-550	55138	Specialty Truck
		2007	GMC	C6500	136351	Supply Truck / Box Truck
		2007	FREIGHTLINER	MT-55	28076	Specialty Truck
		2012	FORD	F-550	85460	Specialty Truck
		2019	FORD	F-550	7746	Specialty Truck
		2019	FORD	F-550	2615	Specialty Truck
		2019	FORD	F-550	2940	Specialty Truck
		2019	FORD	F-550	11089	Specialty Truck
Virginia Department of Health Professions		0	N/A	N/A	N/A	N/A
College of William & Mary		0	N/A	N/A	N/A	N/A
		2001	Volvo	HWY Tractor	337025	Shuttle Trailers
		2000	Volvo	HWY Tractor	352811	Shuttle Trailers
		2000	Volvo	HWY Tractor	32646	Shuttle Trailers
		2005	Volvo	HWY Tractor	403860	Truck Deliveries
		2004	Volvo	HWY Tractor	523397	Truck Deliveries
		2008	International	HWY Tractor	5740	Truck Deliveries
		2008	International	HWY Tractor	416713	Truck Deliveries
		2008	International	HWY Tractor	419213	Truck Deliveries
		2001	Volvo	HWY Tractor	437200	Truck Deliveries
		2009	Volvo	HWY Tractor	462553	Truck Deliveries
		2009	Volvo	HWY Tractor	551009	Truck Deliveries
		2009	Volvo	HWY Tractor	566935	Truck Deliveries
		2009	Volvo	HWY Tractor	476003	Truck Deliveries
		2009	Volvo	HWY Tractor	491210	Truck Deliveries
		2012	Volvo	HWY Tractor	482638	Truck Deliveries
		2012	Volvo	HWY Tractor	545461	Truck Deliveries
		2012	Volvo	HWY Tractor	502456	Truck Deliveries
		2012	Volvo	HWY Tractor	513069	Truck Deliveries
		2012	Volvo	HWY Tractor	521317	Truck Deliveries
		2012	Volvo	HWY Tractor	501191	Truck Deliveries
		2014	Peterbuilt	HWY Tractor	394216	Truck Deliveries
		2014	Peterbuilt	HWY Tractor	405288	Truck Deliveries
		2014	Peterbuilt	HWY Tractor	454929	Truck Deliveries
		2014	Peterbuilt	HWY Tractor	476888	Truck Deliveries
		2004	Ottwa	Yard Tractor	28260	Shuttle Trailers
		2005	Ottwa	Yard Tractor	20576	Shuttle Trailers
		2005	Ottwa	Yard Tractor	27534	Shuttle Trailers
		2012	Ottwa	Yard Tractor	2573	Shuttle Trailers
		2012	Ottwa	Yard Tractor	5922	Shuttle Trailers
		2012	Ottwa	Yard Tractor	8896	Shuttle Trailers
		2005	Ottwa	Yard Tractor	9879	Shuttle Trailers
		2008	Ford	24 Pass Bus	57697	Inmate Transport
		2008	Thomas	40 Pass Bus	40902	Inmate Transport
		2000	International	4700	148,516	Dump truck - move/remove large items
Catawba Hospital	3	1997	International	4000	27,127	Bucket truck - access pole lighting/upper exterior levels of buildings
		2006	Ford	E450	5308	Public Safety Command Center - Mobile command center
		1984	Ford	F600, Beverage Truck	-	-
		2006	GMC	Tilt Cab 5000 Series - Over Scissors Catering Lift Truck	-	-
		1999	Isuzu	NPR EFI	-	-
		2016	Chevrolet	4500 LCF	-	-
		2019	Chevrolet	4500 LCF	-	-
		1984	International	S1900 Truck Tractor	-	-
		2008	Ford	F450 Dump Truck	-	-
		2011	Ford	F450	-	-
		2011	Ford	F550 4WD SD SC	-	-
		2012	Isuzu	NPR Box Van	-	-
		2011	Chevrolet	Silverado 3500	-	-
		2015	Ford	F350 Utility	-	-
		2014	Freightliner	Crane Truck 18 Ton	-	-
		2015	Ford	F550 Dump Truck	-	-
		2015	Ford	F350	-	-
		2016	Ford	F350 Ext Cab	-	-
		2017	Ford	F550 4x4 DumpTruck	-	-
		2017	Ford	F750 Dump Truck w/snowblade & salt spreader	-	-
		2017	Ford	F450 Dump Truck w/salt spreader	-	-
		2017	Ford	F450 4x4 Reg Cab	-	-
		2017	Ford	F450 4x4 Reg Chasis Cab	-	-
		2017	Ford	F450 4x4 Reg Chasis Cab	-	-
		2018	Freightliner	M2 106 Truck w/Heil PT 1000 13 cubic yard compactor	-	-
		2018	Ford	F650 w/switch & go body	-	-
		2019	Freightliner	114SD VACTOR PUMPER Truck	-	-
		2018	Ford	F550 XL w/svc crane reg. cab/utility body	-	-
		2019	Ford	F550 w/Terex LT40 Bucket	-	-
		2019	Ford	F550 Dump Truck 4x4	-	-
		2019	Chevrolet	4500 LCF 16' Box Van w/liftgate	-	-
		2020	Ford	F350 w/Knapheide Svc Body & Liftmore Svc Crane	-	-

University of Virginia	97	2020	Ford	F550 Reg Cab Utility Body w/Svc Crane	-	-
		2020	Ford	F350 4x2 w/Dejana Custom Stake Body	-	-
		2020	Brooks Brothers	3RT 162-12KE 5'x3' Trailer Tubular Steel Main Frame	-	-
		2020	Brooks Brothers	UP8000A 7'x3' Trailer Tubular Steel Frame Dexter Torflex Axle	-	-
		2021	Ford	F550 4x2 Dump Truck	-	-
		2021	Ford	F550 4x2 Reg. Cab Utility Body	-	-
		2009	International	4300M7 SBA Box Truck	-	-
		2009	International	4300M7 Truck 26' ft. morgan w/lift gate	-	-
		2017	Ford	Starcraft E450 Bus Super Duty	-	-
		2014	International	4400 SBA LP 4x2 Ambulance	-	-
		2007	International	4300 Horton Ambulance	-	-
		2016	Freightliner	M2-BF1000A Ambulance	-	-
		2018	Ford	F550 Ambulance	-	-
		2019	Freightliner	M2 106 Ambulance	-	-
		2015	Freightliner	XCR	-	-
		2003	Freightliner	Mobile Digital Mammography Coach	-	-
		2002	Freightliner	FL60 Type 1 Ambulance	-	-
		2019	Freedom	8.5x24TTA4 Enclosed Cargo Trailer	-	-
		2016	Chevrolet	4500 Ambulance	-	-
		1994	Ford	Cutaway Box Cargo Van	-	-
		2010	Setra	S417 Motor Coach	-	-
		2013	International	IC PC505 Bus	-	-
		2009	Setra	S417	-	-
		2009	Setra	S417	-	-
		2007	Gillig	Low Floor Bus	-	-
		2007	Gillig	Low Floor Bus	-	-
		2009	Gillig	Low Floor Bus	-	-
		2009	Gillig	Low Floor Bus	-	-
		2012	Gillig	Low Floor Bus	-	-
		2012	Gillig	Low Floor Bus	-	-
		2012	Gillig	Low Floor Bus	-	-
		2012	Gillig	Low Floor Bus	-	-
		2012	Gillig	Low Floor Bus	-	-
		2012	Gillig	Low Floor Bus	-	-
		2014	Gillig	Low Floor Bus	-	-
		2014	Gillig	Low Floor Bus	-	-
		2014	Gillig	Low Floor Bus	-	-
		2014	Gillig	Low Floor Bus	-	-
		2014	Gillig	Low Floor Bus	-	-
		2017	Gillig	Low Floor Bus	-	-
		2017	Gillig	Low Floor Bus	-	-
		2017	Gillig	Low Floor Bus	-	-
		2017	Gillig	Low Floor Bus	-	-
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		2018	Gillig	Low Floor Bus	-	-
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		2018	Gillig	Low Floor Bus	-	-
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		2018	Gillig	Low Floor Bus	-	-
		2018	Gillig	Low Floor Bus	-	-
		2019	Gillig	Low Floor Bus	-	-
		2019	Gillig	Low Floor Bus	-	-
		2019	Gillig	Low Floor Bus	-	-
		2019	Gillig	Low Floor Bus	-	-
		2020	Gillig	G27B Bus	-	-
		2020	Gillig	G27B Bus	-	-
		2020	Gillig	G27B Bus	-	-
		2020	Gillig	G27B Bus	-	-
		2019	Gillig	Low Floor Bus	-	-
		2011	Dodge	Ram 5500	-	-
		2007	Gillig	Transit Bus	263,000	-
		2006	Gillig	Transit Bus	906,922	-
		2006	Gillig	Transit Bus	340,000	-
		1977	International	TRUCK	42205	Dump Truck
		1988	GMC	C7000	77723	Dump Truck
		1986	GMC	C7000	80742	Dump Truck
		1990	CHEVROLET	C70	57696	Dump Truck
		1992	International	4900	65606	Dump Truck
		1997	VOLVO	Volvo Rig	173485	Tractor Truck
		1995	Peterbilt	379	198604	Tractor Truck
		2000	GMC	C7500	15568	Line Truck
		1986	CHEVROLET	TRUCK	31336	Dump Truck
		1974	International	TRUCK	53446	Dump Truck
		1977	GMC	K65	36642	Dump Truck
		1980	CHEVROLET	C70	46313	Dump Truck
		1985	International	1754	107106	Flat Bed
		1991	FORD	F800	28870	Line Truck
		1989	FORD	F700	161390	Flat Bed
		1972	GMC	6500 Fire Truck	27288	Flat Bed
		1999	International	4700	14213	Line Truck
		2000	GMC	C7500	53668	Dump Truck
		2001	Sterling	LT9500	50450	Dump Truck
		1999	FORD	F450	64272	Dump Truck
		1995	FORD	F800	58665	Dump Truck
		1991	International	4900	29932	Dump Truck
		2002	ISUZU	NPR	56800	Box Truck
		1995	ISUZU NPR	QUBE VAN	75864	Box Truck
		1998	FORD	AMBULANCE	61360	Ambulance
		2001	GMC	TRUCK	12537	Line Truck
		1990	FORD	F600	53030	Flat Bed

Virginia Tech	87	2003	FORD	F550	33522	Line Truck
		2002	GMC	C7500	12828	Dump Truck
		2003	GMC	C7500	40000	Dump Truck
		2004	GMC	Sweeper	17006	Sweeper Truck
		2004	GMC	C7500	56429	Box Truck
		2005	AUTOCAR	Xpeditor	93770	Trash Truck
		2004	International	7600	55003	Flat Bed
		2006	International	7600	41105	Dump Truck
Department of Conservation and Recreation	60	1994	FORD	LT9500	191132	Sweeper Truck
		2006	Sterling	Aceterra	28624	Box Truck
		2006	FORD	F450	43952	Ambulance
		2008	CHEVROLET	AMBULANCE	45912	Pass Bus
		2008	CHEVROLET	Express 3500	78871	Box Truck
		2007	Mitsubishi	FE145	11460	Flat Bed
		2008	International	Workstar 7300	105740	Pass Bus
		1991	International	BUS	152672	Pass Bus
		2000	VOLVO	VNL	18130	Tractor Truck
		2009	International	Durastar 4300	8499	Line Truck
		2008	GMC	C7500	29548	Box Truck
		2009	FORD	AMBULANCE	23878	Ambulance
		2003	MCI	MCI Coach	13738	Pass Bus
		1995	FORD	LT8000	354360	Dump Truck
		1990	FORD	LT8000	347927	Dump Truck
		2007	FREIGHTLINER	Cascadia	39131	Tractor Truck
		2002	CHEVROLET	BUS	121752	Pass Bus
		2006	International	4300	15000	Box Truck
		1996	CHEVROLET	C70	308192	Box Truck
		2013	FREIGHTLINER	M2-106	62076	Box Truck
		1991	GMC	C7000	23518	Box Truck
		2013	International	SA515	14865	Dump Truck
		2013	CHEVROLET	Express 3500	31150	Box Truck
		1994	FORD	F800	87316	Dump Truck
		2006	Sterling	Aceterra	161724	Box Truck
		2005	Sterling	Sweeper	36553	Sweeper Truck
		1992	FORD	F800	65311	Dump Truck
		2014	International	4300	9266	Line Truck
		2015	International	LONESTAR	19985	Tractor Truck
		2015	FORD	F550 4X4	12103	Line Truck
		1990	FORD	FT900	123991	Dump Truck
		2016	International	Workstar 7300	9261	Dump Truck
		2016	Kenworth	T370	11783	Box Truck
		2016	DODGE	CREW CAB	26985	Box Truck
		2012	Mitsubishi	FUSO FE 160	88290	Box Truck
		2016	FORD	F550	7550	Box Truck
		2016	FORD	F550	6155	Box Truck
		2017	International	7600	17558	Box Truck
		2004	ITAS	MTRHOME	61111	Motorhome (Autism)
		2017	FORD	AMBULANCE	20372	Ambulance
		2018	International	Workstar 7400	3389	Dump Truck
		1998	FREIGHTLINER	FL80	22814	Flat Bed
		1995	FORD	L9000	78642	Dump Truck
		1995	FORD	L9000	65120	Dump Truck
		2008	FORD	F450	54559	Dump Truck
		2019	CHEVROLET	4500C	8636	Box Truck
		2020	Hino	268A	7954	Box Truck
		1994	FORD	F800	62502	Dump Truck
		2019	CHEVROLET	4500C	1990	Box Truck
		2004	International	7600	34462	Dump Truck
		2005	FORD	F550	59530	Dump Truck
		2021	FORD	F450	1738	Dump Truck
		1985	FORD	F350	-	MAINTENANCE; DUMP TRUCK
		1985	FORD	F350	-	MAINTENANCE; DUMP TRUCK
		1986	INTERNATIONAL	S SERIES 1853	-	TRANSPORTATION OF WARDS OF THE STATE
		1987	GMC	C6500	-	MAINTENANCE; DUMP TRUCK
		1988	CHEVROLET	R30	-	MAINTENANCE; DUMP TRUCK
		1988	CHEVROLET	KODIAK	212476	MAINTENANCE; DUMP TRUCK
		1988	FORD	F800	102955	MAINTENANCE; DUMP TRUCK
		1988	GMC	TOPKICK	140164	MAINTENANCE; DUMP TRUCK
		1989	CHEVROLET	KODIAK	151307	MAINTENANCE; DUMP TRUCK
		1989	CHEVROLET	R3500	31440	MAINTENANCE; DUMP TRUCK
		1991	FIRE TRUCK	FIRE	-	FIRE SUPPRESSION
		1994	CHEVROLET	C3500	75623	MAINTENANCE; DUMP TRUCK
		1996	CHEVROLET	PICKUP	-	MAINTENANCE; DUMP TRUCK
		1996	INTERNATIONAL	3600	-	TRANSPORTATION OF WARDS OF THE STATE
		1997	SCHOOL BUS	3000	60063	TRANSPORTATION OF WARDS OF THE STATE
		1998	INTERNATIONAL	SERIES 3800	56384	TRANSPORTATION OF WARDS OF THE STATE
		2001	FORD	BUS	159319	TRANSPORTATION OF WARDS OF THE STATE
		2002	FORD	F350	66022	MAINTENANCE; DUMP TRUCK
		2002	FORD	F350	47446	MAINTENANCE; DUMP TRUCK
		2002	FORD	F350	42490	MAINTENANCE; DUMP TRUCK
		2002	FORD	F350	43962	MAINTENANCE; DUMP TRUCK
		2003	FORD	F350	80438	MAINTENANCE; DUMP TRUCK
		2003	FORD	F350	97872	MAINTENANCE; DUMP TRUCK
		2003	FORD	F350	44867	MAINTENANCE; DUMP TRUCK
		2003	FORD	F350	47711	MAINTENANCE; DUMP TRUCK
		2003	FORD	F350	88721	MAINTENANCE; DUMP TRUCK
		2006	FORD	F350	58582	MAINTENANCE; DUMP TRUCK
		2006	FORD	F350	15148	MAINTENANCE; DUMP TRUCK
		2008	CHEVROLET	ARBOC	-	TRANSPORTATION OF WARDS OF THE STATE
		2008	FORD	F350	21495	MAINTENANCE; DUMP TRUCK
		2008	FORD	E350	73353	TRANSPORTATION OF WARDS OF THE STATE
		2008	FORD	F350	30115	MAINTENANCE; DUMP TRUCK
		2008	FORD	F350	30093	MAINTENANCE; DUMP TRUCK
		2008	FORD	F450	49384	MAINTENANCE; DUMP TRUCK
		2011	FORD	SXTWAG	73583	TRANSPORTATION OF WARDS OF THE STATE
		2011	FORD	SXTWAG	80002	TRANSPORTATION OF WARDS OF THE STATE
		2011	FORD	F350	21143	MAINTENANCE; DUMP TRUCK
		2011	FORD	F350	14389	MAINTENANCE; DUMP TRUCK
		2011	FORD	F350	23959	MAINTENANCE; DUMP TRUCK
		2011	FORD	F350	33263	MAINTENANCE; DUMP TRUCK
		2011	FORD	F350XL	24681	MAINTENANCE; DUMP TRUCK
		2011	FORD	F350	-	MAINTENANCE; OPERATIONS
		2012	CHEVROLET	SILVERADO	-	MAINTENANCE; OPERATIONS
		2012	FORD	F350	-	MAINTENANCE; OPERATIONS
		2012	FORD	F350	66962	MAINTENANCE; OPERATIONS

		2015	FORD	F450	32754	MAINTENANCE; OPERATIONS
		2016	FORD	F350	-	MAINTENANCE; OPERATIONS
		2016	FORD	F350	-	MAINTENANCE; OPERATIONS
		2016	FORD	F450	28248	MAINTENANCE; OPERATIONS
		2017	FORD	F450	17715	MAINTENANCE; DUMP TRUCK
		2019	FORD	F450	5615	MAINTENANCE; DUMP TRUCK
		2019	FORD	F450	1665	MAINTENANCE; DUMP TRUCK
		2019	FORD	F450	2757	MAINTENANCE; DUMP TRUCK
		2019	FORD	F450	7148	MAINTENANCE; DUMP TRUCK
		2019	FORD	F450	5096	MAINTENANCE; DUMP TRUCK
		2020	DUMP TRAILER	N082729	N/A	MAINTENANCE; DUMP TRAILER
		2021	BRI-MAR	DT610LP-LE-10	N/A	MAINTENANCE; DUMP TRAILER
		2021	CAM	DUMP TRAILER	N/A	MAINTENANCE; DUMP TRAILER
		2021	FORD	F450	1373	MAINTENANCE; DUMP TRUCK
		2021	FORD	F450	1649	MAINTENANCE; DUMP TRUCK
Eastern State Hospital	2	2014	Isuzu	Cargo Truck	19,969	Food Delivery
		2008	Ford	Cargo Truck	37,473	Hospital Supply Delivery
Department of Accounts	0	N/A	N/A	N/A	N/A	N/A
Norfolk State University	15	2005	MCI	J45000	384,424	Transportation services for athletics, academic groups, and band
		2005	MCI	J45000	266,633	Transportation services for athletics, academic groups, and band
		2005	MCI	J45000	265,159	Transportation services for athletics, academic groups, and band
		2005	MCI	J45000	260,857	Transportation services for athletics, academic groups, and band
		2021	MCI	J45000	5,152	Transportation services for athletics, academic groups, and band
		2021	MCI	J45000	6,770	Transportation services for athletics, academic groups, and band
		2018	Ford	E450	45,319	Used for campus transportation of student and student services, shuttle services for students housed at hotels, and weekend student shuttle service to shopping areas
		2018	Ford	E450	51,954	Used for campus transportation of student and student services, shuttle services for students housed at hotels, and weekend student shuttle service to shopping areas
		2011	Chevrolet	4500	121,036	Used for campus transportation of student and student services, shuttle services for students housed at hotels, and weekend student shuttle service to shopping areas
		2011	Chevrolet	4500	132,197	Used for campus transportation of student and student services, shuttle services for students housed at hotels, and weekend student shuttle service to shopping areas
		2020	Chevrolet	Cargo Express G350	1,034	Used for moving/setups, carpentry, grounds heavy equipment for the band and athletics
		1999	Ford	E350	146,131	Used for moving/setups, carpentry, grounds heavy equipment for the band and athletics
		2000	GMC	3500	124,513	Used for moving/setups, carpentry, grounds heavy equipment for the band and athletics
		2005	Ford	F650	12,952	Transportation of furniture, equipment for graduation and Fine Arts concerts
		2016	Ford	F550	3,476	-
Virginia Commonwealth University	6	2005	Isuzu	NPR	78,112	Physical plant equipment - movement
		2012	Isuzu	NPR	55,021	Physical plant equipment - movement
		2007	Isuzu	NPR	11,896	School of Arts equipment - movement
		2013	Ford	F450	19,342	Grounds management
		2008	GMC	W5500	9,623	Boom truck - building/electrical maintenance
		2000	Ford	E450	59,314	Trauma/critical care training
Department of General Services	2	2013	Volvo	Tractor	-	Surplus - Darbytown
Library of Virginia	1	2013	Isuzu	NPR 16' Box Truck	5,661	Surplus - Wytheville
Virginia State University	24	1991	CHEVY	KODIAK DUMP TRUCK	43,675	POWER PLANT HAULING
		1996	INTERNATIONAL	BOX BODY	87,644	PHYSICAL PLANT HAULING
		2005	CHEVY	GRAIN BODY C7500 C7 CAT ENG.	5,835	COOP-EXT FARMING
		2007	INTERNATIONAL	BOX BODY	28,526	CENTRAL RECEIVING MOVING
		2011	FORD	F-750 4x2 24' REFRIGERATED BOX	152,074	COOP-EXT FARMING
		2012	FORD	F-550 4X2 DUMP	1,896	PHYSICAL PLANT MOVING
		2012	INTERNATIONAL	BOX BODY 4300M7 4X2	9,416	CENTRAL RECEIVING MOVING
		2012	INTERNATIONAL	BOX BODY 4000	8,164	COOP-EXT FARMING
		1994	WINNEBAGO	MOTOR HOME	19,209	POLICE DEPARTMENT
		1987	MCI	BUS	98,358	MOTOR POOL STUDENT TRANSPORT
		1997	MCI	102 D3	151,285	MOTOR POOL STUDENT TRANSPORT
		1999	MCI	102-D3	62,013	MOTOR POOL STUDENT TRANSPORT
		2004	THOMAS	BUS COMPUTER LAB	52,626	COOP-EXT FARMING
		2007	CHEVY / STARCRAFT	SHUTTLE BUS	40,901	MOTOR POOL STUDENT TRANSPORT
		2007	CHEVY / STARCRAFT	SHUTTLE BUS	68,511	MOTOR POOL STUDENT TRANSPORT
		2008	MCI	D4505	16,872	MOTOR POOL STUDENT TRANSPORT
		2011	CHEVY	SENATOR SII	13,403	MOTOR POOL STUDENT TRANSPORT
		2011	FORD	E-450 SD AEROTECH BY THOR	19,568	MOTOR POOL
		2011	FORD	E-450 SD AEROTECH BY THOR	78,681	MOTOR POOL
		2011	FORD	E-350 SD STARTRANS	55,863	MOTOR POOL
		2011	FORD	E-450 SD STARTRANS	38,436	MOTOR POOL
		2011	FORD	F-550 SD ELDARADO	56,506	MOTOR POOL
		2011	FORD	F-550 SD ELDARADO	23,836	MOTOR POOL
		2008	MCI	J4500	273,151	MOTOR POOL
Virginia Resources Authority	0	N/A	N/A	N/A	N/A	N/A
eVA Data (State Agency Purchases from State Contracts)	44	-	-	-	-	-
Virginia Department of Transportation	2,595					See next sheet for data from VDOT
* TOTAL =	3325					

* Total is derived from agency responses to an email survey conduct the Workgroup's staff.

VDOT Data

UNIT NO	YEAR	MAKE	MODEL	METER	CATEGORY	CATEGORY DESC	CATEGORY CLASS	CATEGORY CLASS DESC
R00056	2006	FORD	F550	84224	R0193X	TRUCK - DRILL - B27/B36/B38/B86	TK5000	TRUCK - CLASS 5 - 16001-19500
R00591	1995	INTL.	4700	139782	R0890X	TRUCK - BRIDGE - 36000 GVW - C/C M/T CRN	TK8000	TRUCK - CLASS 8 - OVER 33000
R00600	1995	FORD	LT9000	36560	R0873X	TRUCK - FUEL HANDLING - 3500 GAL	TK8000	TRUCK - CLASS 8 - OVER 33000
R00615	1995	INTL.	4700	59946	R0156X	TRUCK - ASPHALT DISTRIBUTOR	TK6000	TRUCK - CLASS 6 - 19501-26000
R00861	1995	INTL.	4700	129718	R0864X	TRUCK - DUMP - 36000 GVW M/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R00968	1994	SIMON	9245	43440	R0945X	TRUCK - POLE DERRICK/AUGER - 30000 GVW	TK7000	TRUCK - CLASS 7 - 26001-33000
R01195	1995	FORD	F800	43781	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R01196	1995	FORD	F800	37514	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R01198	1995	FORD	F800	68872	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R01201	1995	FORD	F800	52190	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R01203	1995	FORD	F800	39111	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R01204	1995	FORD	F800	46944	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R01205	1995	FORD	F800	45855	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R01207	1995	FORD	F800	97225	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R01211	1995	FORD	F800	41184	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R01213	1995	FORD	F800	12707	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R01215	1995	FORD	F800	68338	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R01218	1995	FORD	F800	51553	R0865X	TRUCK - STAKE BODY - 28000 GVW	TK7000	TRUCK - CLASS 7 - 26001-33000
R01219	1995	FORD	F800	79429	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R01229	1995	FORD	F800	56796	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R01230	1995	FORD	F800	61076	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R01233	1995	FORD	F800	77074	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R01234	1995	FORD	F800	39148	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R01235	1995	FORD	F800	43312	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R01241	1995	FORD	F800	69333	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R01243	1995	FORD	F800	80334	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R01259	1995	FORD	F800	50829	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R01260	1995	FORD	F800	57889	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R01262	1995	FORD	F800	58470	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R01321	1996	FORD	F800	54876	R0156X	TRUCK - ASPHALT DISTRIBUTOR	TK6000	TRUCK - CLASS 6 - 19501-26000
R01524	1995	FORD	CF7000	116065	R0877X	TRUCK - BOX VAN BODY - VARIOUS GVW	TK4000	TRUCK - CLASS 4 - 14001-16000
R01648	1995	FORD	F800	66246	R0156X	TRUCK - ASPHALT DISTRIBUTOR	TK6000	TRUCK - CLASS 6 - 19501-26000
R01746	1996	INTL.	4700	40700	R0891X	TRUCK - BRIDGE - 36000 GVW - C/C M/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R01792	1995	INTL.	4800	114252	R0894X	TRUCK - DUMP - 37000 GVW 4WD	TK8000	TRUCK - CLASS 8 - OVER 33000
R02006	1996	FORD	F800	49836	R0865X	TRUCK - STAKE BODY - 28000 GVW	TK7000	TRUCK - CLASS 7 - 26001-33000
R02056	1996	INTL.	4700	61635	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R02057	1996	INTL.	4700	28161	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R02061	1996	INTL.	4700	12788	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R02068	1996	INTL.	4700	103577	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R02071	1996	INTL.	4700	67653	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R02072	1996	INTL.	4700	41617	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R02077	1996	INTL.	4700	43451	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R02078	1996	INTL.	4700	54569	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R02080	1996	INTL.	4700	72821	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R02082	1996	INTL.	4700	34963	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R02083	1996	INTL.	4700	42196	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R02084	1996	INTL.	4700	50795	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R02086	1996	INTL.	4700	62565	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R02088	1996	INTL.	4700	45369	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R02091	1996	INTL.	4700	60554	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R02094	1996	INTL.	4700	94487	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R02096	1996	INTL.	4700	48257	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R02097	1996	INTL.	4700	31565	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R02098	1996	INTL.	4700	31030	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R02099	1996	INTL.	4700	32270	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R02100	1996	INTL.	4700	63592	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R02101	1996	INTL.	4700	73736	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R02102	1996	INTL.	4700	39480	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R02103	1996	INTL.	4700	23110	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R02104	1996	INTL.	4700	76301	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R02108	1996	INTL.	4700	51894	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R02112	1996	INTL.	4700	58455	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R02113	1996	INTL.	4700	91908	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R02125	1996	INTL.	4700	62007	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R02128	1996	INTL.	4700	62494	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R02303	1996	FORD	F800	43802	R0885X	TRUCK - TRACTOR - 33000 GVW	TK7000	TRUCK - CLASS 7 - 26001-33000
R02548	1996	INTL.	2574	43390	R0940X	TRUCK - WRECKER - 44000 GVW	TK8000	TRUCK - CLASS 8 - OVER 33000
R02678	1996	INTL.	4700	12422	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R02679	1996	INTL.	4700	53170	R0865X	TRUCK - STAKE BODY - 28000 GVW	TK7000	TRUCK - CLASS 7 - 26001-33000
R02680	1996	INTL.	4700	52935	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R02681	1996	INTL.	4700	34477	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R02682	1996	INTL.	4700	50465	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R02683	1996	INTL.	4700	28742	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R02686	1996	INTL.	4700	63891	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R02687	1996	INTL.	4700	31863	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R02688	1996	INTL.	4700	47547	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R02689	1996	INTL.	4700	71027	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R02690	1996	INTL.	4700	55040	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R02694	1996	INTL.	4700	65378	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R02699	1996	INTL.	4700	44259	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R02701	1996	INTL.	4700	48113	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R02702	1996	INTL.	4700	44969	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000

R02703	1996	INTL.	4700	50347	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R02706	1996	INTL.	4700	26958	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R02707	1996	INTL.	4700	48050	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R02709	1996	INTL.	4700	52105	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R02710	1996	INTL.	4700	21700	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R02712	1996	INTL.	4700	65247	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R02714	1996	INTL.	4700	40883	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R02720	1996	INTL.	4700	32362	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R02724	1996	INTL.	4700	95720	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R02731	1996	INTL.	4700	28377	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R02732	1996	INTL.	4700	84129	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R02734	1996	INTL.	4700	94656	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R02739	1996	INTL.	4700	48262	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R02741	1996	INTL.	4700	23485	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R02742	1996	INTL.	4700	31754	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R02743	1996	INTL.	4700	30401	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R02744	1996	INTL.	4700	26022	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R02745	1996	INTL.	4700	75421	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R02991	1998	GMC	7500	30400	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R02993	1998	GMC	7500	22494	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R03005	1997	FORD	CF8000	2359	R0693X	TRUCK - SWEEPER VACUUM - 4-7 CY	TK7000	TRUCK - CLASS 7 - 26001-33000
R03195	1997	MOOG	MB1901S	4706	R0944X	TRUCK - UNDERBRIDGE INSPECTION UNIT - SMALL	TK8000	TRUCK - CLASS 8 - OVER 33000
R03449	1998	INTL.	2674	434063	R0887A	TRUCK - TRACTOR - 50000 GVW - A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R03500	1998	INTL.	2674	313929	R0887X	TRUCK - TRACTOR - 50000 GVW	TK8000	TRUCK - CLASS 8 - OVER 33000
R03510	1998	VOLVO	WG64	40228	R0896X	TRUCK - DUMP - 50000 GVW 105/T SSD	TK8000	TRUCK - CLASS 8 - OVER 33000
R03511	1998	VOLVO	WG64	38072	R0896X	TRUCK - DUMP - 50000 GVW 105/T SSD	TK8000	TRUCK - CLASS 8 - OVER 33000
R03560	1998	GMC	7500	82401	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R03562	1998	GMC	7500	60744	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R03563	1998	GMC	7500	38901	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R03564	1998	GMC	7500	44845	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R03565	1998	GMC	7500	59826	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R03567	1998	GMC	7500	31380	R0865X	TRUCK - STAKE BODY - 28000 GVW	TK7000	TRUCK - CLASS 7 - 26001-33000
R03568	1998	GMC	7500	46998	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R03572	1998	GMC	7500	61938	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R03574	1998	GMC	7500	68362	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R03575	1998	GMC	7500	50919	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R03576	1998	GMC	7500	48469	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R03577	1998	GMC	7500	56298	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R03578	1998	GMC	7500	124061	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R03579	1998	GMC	7500	25119	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R03580	1998	GMC	7500	38536	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R03581	1998	GMC	7500	72717	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R03582	1998	GMC	7500	37132	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R03584	1998	GMC	7500	41581	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R03587	1998	GMC	7500	95674	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R03588	1998	GMC	7500	65709	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R03589	1998	GMC	7500	92739	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R03590	1998	GMC	7500	56125	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R03591	1998	GMC	7500	59262	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R03593	1998	GMC	7500	107655	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R03594	1998	GMC	7500	47102	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R03595	1998	GMC	7500	51130	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R03596	1998	GMC	7500	30462	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R03597	1998	GMC	7500	39440	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R03599	1998	GMC	7500	68751	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R03600	1998	GMC	7500	87070	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R03601	1998	GMC	7500	60129	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R03602	1998	GMC	7500	72464	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R03603	1998	GMC	7500	80700	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R03604	1998	GMC	7500	31858	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R03606	1998	GMC	7500	53356	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R03609	1998	GMC	7500	28524	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R03610	1998	GMC	7500	60444	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R03611	1998	GMC	7500	46132	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R03612	1998	GMC	7500	69237	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R03613	1998	GMC	7500	54228	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R03614	1998	GMC	7500	54110	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R03615	1998	GMC	7500	39105	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R03703	1998	INTL.	4700	104713	R0951X	TRUCK - AERIAL BUCKET - 30000 GVW - 900#	TK7000	TRUCK - CLASS 7 - 26001-33000
R03704	1998	INTL.	4700	59955	R0951X	TRUCK - AERIAL BUCKET - 30000 GVW - 900#	TK7000	TRUCK - CLASS 7 - 26001-33000
R03711	1998	FORD	F800	43658	R0156X	TRUCK - ASPHALT DISTRIBUTOR	TK6000	TRUCK - CLASS 6 - 19501-26000
R03718	1998	FORD	F800	167901	R0662X	TRUCK - HERBICIDE SPRAYER	TK7000	TRUCK - CLASS 7 - 26001-33000
R03862	1998	GMC	7500	23961	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R03863	1998	GMC	7500	37564	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R03864	1998	GMC	7500	79121	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R03865	1998	GMC	7500	48573	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R03866	1998	GMC	7500	31428	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R03885	1998	INTL.	2574	14253	R0940X	TRUCK - WRECKER - 44000 GVW	TK8000	TRUCK - CLASS 8 - OVER 33000
R03888	1997	FORD	F450	31669	R0937X	TRUCK - WRECKER - 18000 GVW - 24HR OPS	TK5000	TRUCK - CLASS 5 - 16001-19500
R03894	1998	GMC	7500	40070	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R03896	1998	GMC	7500	62699	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R03898	1998	GMC	7500	30234	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R03899	1998	GMC	7500	39864	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R03900	1998	GMC	7500	45885	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000

R03901	1998	GMC	7500	37129	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R03903	1998	GMC	7500	98107	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R03905	1998	GMC	7500	45020	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R03909	1998	GMC	7500	97498	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R03911	1998	GMC	7500	44314	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R03912	1998	GMC	7500	22861	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R03913	1998	GMC	7500	32015	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R03914	1998	GMC	7500	116051	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R03916	1998	GMC	7500	105221	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R04192	1999	INTL.	4800	108387	R0894X	TRUCK - DUMP - 37000 GVW 4WD	TK8000	TRUCK - CLASS 8 - OVER 33000
R04367	1999	STERLING	LT8501	47426	R0941X	TRUCK - CATCH BASIN CLEANER - 50000 GVW	TK8000	TRUCK - CLASS 8 - OVER 33000
R04368	1999	GMC	7500	53587	R0949X	TRUCK - AERIAL BUCKET - 24000 GVW M/T	TK6000	TRUCK - CLASS 6 - 19501-26000
R04369	1998	ROSCO	RA300	46098	R0411X	TRUCK - SPRAY INJECTION POTHOLE PATCHER	TK7000	TRUCK - CLASS 7 - 26001-33000
R04377	1999	INTL.	2574	36059	R0938X	TRUCK - WRECKER - 24000 GVW L/P - 24HR OPS	TK6000	TRUCK - CLASS 6 - 19501-26000
R04431	1999	GMC	7500	10235	R0360X	TRUCK - PAINT MARKER - 400 GAL - SINGLE AXLE	TK7000	TRUCK - CLASS 7 - 26001-33000
R04432	1999	PETERBILT	320	15534	R0361X	TRUCK - PAINT MARKER - 800 GAL - TANDEM AXLE	TK8000	TRUCK - CLASS 8 - OVER 33000
R04460	1999	INTL.	3600	101684	R028X	BUS - OFFENDER TRANSPORTATION	TK7000	TRUCK - CLASS 7 - 26001-33000
R04468	1999	STERLING	LT8501	3118	R0941X	TRUCK - CATCH BASIN CLEANER - 50000 GVW	TK8000	TRUCK - CLASS 8 - OVER 33000
R04729	1999	GMC	7500	135942	R0890X	TRUCK - BRIDGE - 36000 GVW - C/C M/T CRN	TK8000	TRUCK - CLASS 8 - OVER 33000
R04835	1999	GMC	3500	77411	R0950X	TRUCK - AERIAL BUCKET - 19500 GVW M/T	TK5000	TRUCK - CLASS 5 - 16001-19500
R04859	2000	VOLVO	WX64	9468	R0361X	TRUCK - PAINT MARKER - 800 GAL - TANDEM AXLE	TK8000	TRUCK - CLASS 8 - OVER 33000
R04879	2000	GMC	7500	117190	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R04880	2000	GMC	7500	20812	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R04881	2000	GMC	7500	39544	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R04882	2000	GMC	7500	59038	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R04884	2000	GMC	7500	24102	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R04885	2000	GMC	7500	95605	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R04886	2000	GMC	7500	44516	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R04887	2000	GMC	7500	51080	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R04888	2000	GMC	7500	35666	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R04890	2000	GMC	7500	173240	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R04893	2000	INTL.	4700	58349	R0410X	TRUCK - ASPHALT PATCHER	TK7000	TRUCK - CLASS 7 - 26001-33000
R04900	2000	CHEVROLET	7500	190340	R0949X	TRUCK - AERIAL BUCKET - 24000 GVW M/T	TK6000	TRUCK - CLASS 6 - 19501-26000
R04902	2001	INTL.	2674	304273	R0887X	TRUCK - TRACTOR - 50000 GVW	TK8000	TRUCK - CLASS 8 - OVER 33000
R04923	2001	JOHNSTON	605	3042	R0693X	TRUCK - SWEEPER VACUUM - 4-7 CY	TK7000	TRUCK - CLASS 7 - 26001-33000
R04924	2001	INTL.	4900	25868	R0158X	TRUCK - DITCHER - 50000 GVW	TK8000	TRUCK - CLASS 8 - OVER 33000
R04937	2001	GMC	3500	155867	R0844A	TRUCK - UTIL BODY - 16000 GVW	TK4000	TRUCK - CLASS 4 - 14001-16000
R04960	2001	GMC	3500	186624	R0844A	TRUCK - UTIL BODY - 16000 GVW	TK4000	TRUCK - CLASS 4 - 14001-16000
R04994	2002	GMC	7500	62515	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R04996	2002	GMC	7500	76127	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R04999	2002	GMC	7500	49447	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R05000	2002	GMC	7500	41012	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R05002	2002	GMC	7500	39313	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R05003	2002	GMC	7500	49645	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R05005	2002	GMC	7500	21058	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R05010	2002	GMC	7500	39347	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R05011	2002	GMC	7500	41268	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R05012	2002	GMC	7500	49217	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R05013	2002	GMC	7500	31106	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R05014	2002	GMC	7500	39515	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R05015	2002	GMC	7500	24177	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R05016	2002	INTL.	4800	114317	R0894X	TRUCK - DUMP - 37000 GVW 4WD	TK8000	TRUCK - CLASS 8 - OVER 33000
R05214	2001	GMC	7500	107093	R0864X	TRUCK - DUMP - 36000 GVW M/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R05216	2001	GMC	7500	130856	R0864X	TRUCK - DUMP - 36000 GVW M/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R05273	2001	GMC	7500	91100	R0864B	TRUCK - DUMP - 36000 GVW M/T SSD	TK8000	TRUCK - CLASS 8 - OVER 33000
R05277	2001	GMC	7500	129929	R0890A	TRUCK - BRIDGE - 36000 GVW - C/C A/T FLT CRN	TK8000	TRUCK - CLASS 8 - OVER 33000
R05278	2004	FORD	F550	14225	R0193X	TRUCK - DRILL - B27/B36/B38/B86	TK5000	TRUCK - CLASS 5 - 16001-19500
R05296	2007	INTL.	7300	47883	R0156X	TRUCK - ASPHALT DISTRIBUTOR	TK6000	TRUCK - CLASS 6 - 19501-26000
R05297	2007	INTL.	7300	43016	R0156X	TRUCK - ASPHALT DISTRIBUTOR	TK6000	TRUCK - CLASS 6 - 19501-26000
R05298	2007	INTL.	7300	33265	R0156X	TRUCK - ASPHALT DISTRIBUTOR	TK6000	TRUCK - CLASS 6 - 19501-26000
R05320	2002	INTL.	2674	196622	R0896X	TRUCK - DUMP - 50000 GVW 10S/T SSD	TK8000	TRUCK - CLASS 8 - OVER 33000
R05650	2001	JOHNSTON	605	2293	R0693X	TRUCK - SWEEPER VACUUM - 4-7 CY	TK7000	TRUCK - CLASS 7 - 26001-33000
R05654	2002	STERLING	M7500	72173	R0865X	TRUCK - STAKE BODY - 28000 GVW	TK7000	TRUCK - CLASS 7 - 26001-33000
R05655	2002	STERLING	M7500	59549	R0865X	TRUCK - STAKE BODY - 28000 GVW	TK7000	TRUCK - CLASS 7 - 26001-33000
R05791	2002	GMC	7500	37876	R0411X	TRUCK - SPRAY INJECTION POTHOLE PATCHER	TK7000	TRUCK - CLASS 7 - 26001-33000
R05822	2002	GMC	7500	56748	R0156X	TRUCK - ASPHALT DISTRIBUTOR	TK6000	TRUCK - CLASS 6 - 19501-26000
R05823	2002	GMC	7500	49726	R0156X	TRUCK - ASPHALT DISTRIBUTOR	TK6000	TRUCK - CLASS 6 - 19501-26000
R05825	2002	GMC	7500	41159	R0156X	TRUCK - ASPHALT DISTRIBUTOR	TK6000	TRUCK - CLASS 6 - 19501-26000
R05833	2001	FORD	E450	29942	R0028X	BUS - OFFENDER TRANSPORTATION	TK7000	TRUCK - CLASS 7 - 26001-33000
R05837	2002	INTL.	2674	120221	R0887X	TRUCK - TRACTOR - 50000 GVW	TK8000	TRUCK - CLASS 8 - OVER 33000
R05868	2002	STERLING	CONDOR	93601	R0663X	TRUCK - SALT BRINE/CHEMICAL 1000 GAL	TK7000	TRUCK - CLASS 7 - 26001-33000
R05887	2002	LINEAR DYN	MAXI910A	17985	R0361X	TRUCK - PAINT MARKER - 800 GAL - TANDEM AXLE	TK8000	TRUCK - CLASS 8 - OVER 33000
R06183	2004	VOLVO	VHD	145836	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R06186	2004	VOLVO	VHD	130309	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R06260	2003	GMC	7500	82859	R0864X	TRUCK - DUMP - 36000 GVW M/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R06272	2003	GMC	7500	96345	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R06273	2003	GMC	7500	109070	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R06279	2003	GMC	7500	78077	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R06280	2003	GMC	7500	95284	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R06282	2003	GMC	7500	58396	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R06284	2003	GMC	7500	195659	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R06285	2003	GMC	7500	166037	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R06298	2003	GMC	7500	52000	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R06316	2003	GMC	7500	101107	R0864X	TRUCK - DUMP - 36000 GVW M/T	TK8000	TRUCK - CLASS 8 - OVER 33000

R06317	2003	GMC	7500	107728	R0864X	TRUCK - DUMP - 36000 GVW M/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R06318	2003	GMC	7500	105037	R0864X	TRUCK - DUMP - 36000 GVW M/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R06325	2003	GMC	7500	64968	R0891X	TRUCK - BRIDGE - 36000 GVW - C/C M/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R06335	2003	GMC	7500	193410	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R06336	2003	GMC	7500	156569	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R06337	2003	GMC	7500	180934	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R06338	2003	GMC	7500	177966	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R06339	2003	GMC	7500	74986	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R06340	2003	GMC	7500	29357	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R06341	2003	GMC	7500	29265	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R06342	2003	GMC	7500	73996	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R06343	2003	GMC	7500	108386	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R06344	2003	GMC	7500	33837	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R06345	2003	GMC	7500	108123	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R06346	2003	GMC	7500	55047	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R06348	2003	GMC	7500	55489	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R06350	2003	GMC	7500	36658	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R06351	2003	GMC	7500	35584	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R06352	2003	GMC	7500	74789	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R06354	2003	GMC	7500	38967	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R06355	2003	GMC	7500	53509	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R06356	2003	GMC	7500	42848	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R06357	2003	GMC	7500	47130	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R06358	2003	GMC	7500	39894	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R06359	2003	GMC	7500	28996	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R06360	2003	GMC	7500	52646	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R06361	2003	GMC	7500	34681	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R06362	2003	GMC	7500	43633	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R06363	2003	GMC	7500	56126	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R06556	2003	FORD	F450	96574	R0844A	TRUCK - UTIL BODY - 16000 GVW	TK4000	TRUCK - CLASS 4 - 14001-16000
R06586	2003	STERLING	CONDOR	7543	R0360X	TRUCK - PAINT MARKER - 400 GAL - SINGLE AXLE	TK7000	TRUCK - CLASS 7 - 26001-33000
R06587	2003	STERLING	CONDOR	14185	R0361X	TRUCK - PAINT MARKER - 800 GAL - TANDEM AXLE	TK8000	TRUCK - CLASS 8 - OVER 33000
R06604	2004	FORD	F650	85058	R0949X	TRUCK - AERIAL BUCKET - 24000 GVW M/T	TK6000	TRUCK - CLASS 6 - 19501-26000
R06605	2004	FORD	F650	78629	R0949X	TRUCK - AERIAL BUCKET - 24000 GVW M/T	TK6000	TRUCK - CLASS 6 - 19501-26000
R06610	2003	FORD	F550	214027	R0954A	TRUCK - AERIAL BUCKET - 19500 GVW M/H	TK5000	TRUCK - CLASS 5 - 16001-19500
R06612	2003	FORD	F550	58791	R0954A	TRUCK - AERIAL BUCKET - 19500 GVW M/H	TK5000	TRUCK - CLASS 5 - 16001-19500
R06613	2003	FORD	F550	81156	R0954A	TRUCK - AERIAL BUCKET - 19500 GVW M/H	TK5000	TRUCK - CLASS 5 - 16001-19500
R06614	2003	FORD	F550	86061	R0954A	TRUCK - AERIAL BUCKET - 19500 GVW M/H	TK5000	TRUCK - CLASS 5 - 16001-19500
R06620	2003	FORD	F450	220431	R0950X	TRUCK - AERIAL BUCKET - 19500 GVW M/T	TK5000	TRUCK - CLASS 5 - 16001-19500
R06625	2004	STERLING	CONDOR	51200	R0662X	TRUCK - HERBICIDE SPRAYER	TK7000	TRUCK - CLASS 7 - 26001-33000
R06626	2003	GMC	7500	21134	R0156X	TRUCK - ASPHALT DISTRIBUTOR	TK6000	TRUCK - CLASS 6 - 19501-26000
R06630	2003	GMC	7500	234571	R0845X	TRUCK - UTIL BODY W/CRANE - 21000 GVW L/P	TK7000	TRUCK - CLASS 7 - 26001-33000
R06632	2004	STERLING	LT9513	82453	R0887A	TRUCK - TRACTOR - 50000 GVW - A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R06642	2004	INTL	4400	11379	R0363X	TRUCK - THERMOPLASTIC SUPPLY MARKER	TK4000	TRUCK - CLASS 4 - 14001-16000
R06663	2004	INTL	7400	36868	R0953X	TRUCK - AERIAL BUCKET - 50000 GVW - 65FT	TK8000	TRUCK - CLASS 8 - OVER 33000
R06664	2004	INTL	7600	31774	R0953X	TRUCK - AERIAL BUCKET - 50000 GVW - 65FT	TK8000	TRUCK - CLASS 8 - OVER 33000
R06665	2003	FORD	F550	42578	R0197A	TRUCK - DRILL - CORE	TK5000	TRUCK - CLASS 5 - 16001-19500
R06666	2004	STERLING	L9511	43961	R0940X	TRUCK - WRECKER - 44000 GVW	TK8000	TRUCK - CLASS 8 - OVER 33000
R07051	2005	INTL	7600	161962	R0896X	TRUCK - DUMP - 50000 GVW 105/T SSD	TK8000	TRUCK - CLASS 8 - OVER 33000
R07053	2005	INTL	7600	72271	R0663X	TRUCK - SALT BRINE/CHEMICAL 1000 GAL	TK7000	TRUCK - CLASS 7 - 26001-33000
R07056	2005	INTL	7600	103645	R0896X	TRUCK - DUMP - 50000 GVW 105/T SSD	TK8000	TRUCK - CLASS 8 - OVER 33000
R07063	2005	INTL	7600	114904	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R07064	2005	INTL	7600	203980	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R07067	2005	INTL	7600	57867	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R07112	2005	INTL	4200	35902	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R07113	2005	INTL	4200	33996	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R07114	2005	INTL	4200	68065	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R07116	2005	INTL	4200	76335	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R07117	2005	INTL	4200	40694	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R07118	2005	INTL	4200	45963	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R07122	2005	GMC	7500	27389	R0865X	TRUCK - STAKE BODY - 28000 GVW	TK7000	TRUCK - CLASS 7 - 26001-33000
R07123	2005	GMC	7500	58927	R0865X	TRUCK - STAKE BODY - 28000 GVW	TK7000	TRUCK - CLASS 7 - 26001-33000
R07124	2005	GMC	7500	115106	R0865X	TRUCK - STAKE BODY - 28000 GVW	TK7000	TRUCK - CLASS 7 - 26001-33000
R07130	2005	FORD	F450	107695	R0844A	TRUCK - UTIL BODY - 16000 GVW	TK4000	TRUCK - CLASS 4 - 14001-16000
R07132	2005	FORD	F450	121407	R0844A	TRUCK - UTIL BODY - 16000 GVW	TK4000	TRUCK - CLASS 4 - 14001-16000
R07154	2005	GMC	7500	88250	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R07156	2005	GMC	7500	78376	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R07164	2005	GMC	7500	84641	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R07166	2005	GMC	7500	51236	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R07167	2005	GMC	7500	101440	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R07168	2005	GMC	7500	48482	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R07169	2005	GMC	7500	63780	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R07170	2005	GMC	7500	97423	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R07171	2005	GMC	7500	94498	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R07173	2005	GMC	7500	117086	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R07174	2005	GMC	7500	72971	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R07175	2005	GMC	7500	81151	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R07186	2005	GMC	7500	68475	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R07187	2005	GMC	7500	76831	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R07190	2005	GMC	7500	101584	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R07191	2005	GMC	7500	77485	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R07194	2005	GMC	7500	138278	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R07195	2005	GMC	7500	182951	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R07198	2005	GMC	7500	154518	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000

R07566	2004	FORD	F450	138390	R0844A	TRUCK - UTIL BODY - 16000 GVW	TK4000	TRUCK - CLASS 4 - 14001-16000
R07567	2004	FORD	F450	104763	R0844A	TRUCK - UTIL BODY - 16000 GVW	TK4000	TRUCK - CLASS 4 - 14001-16000
R07569	2004	FORD	F450	248319	R0844A	TRUCK - UTIL BODY - 16000 GVW	TK4000	TRUCK - CLASS 4 - 14001-16000
R07570	2004	FORD	F450	124096	R0844A	TRUCK - UTIL BODY - 16000 GVW	TK4000	TRUCK - CLASS 4 - 14001-16000
R07572	2004	FORD	F450	167252	R0844A	TRUCK - UTIL BODY - 16000 GVW	TK4000	TRUCK - CLASS 4 - 14001-16000
R07573	2004	FORD	F450	229090	R0844A	TRUCK - UTIL BODY - 16000 GVW	TK4000	TRUCK - CLASS 4 - 14001-16000
R07731	2005	INTL.	4200	61112	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R07765	2005	GMC	7500	32252	R0156X	TRUCK - ASPHALT DISTRIBUTOR	TK6000	TRUCK - CLASS 6 - 19501-26000
R07766	2005	GMC	7500	40952	R0156X	TRUCK - ASPHALT DISTRIBUTOR	TK6000	TRUCK - CLASS 6 - 19501-26000
R07767	2005	GMC	7500	43331	R0156X	TRUCK - ASPHALT DISTRIBUTOR	TK6000	TRUCK - CLASS 6 - 19501-26000
R07768	2005	GMC	7500	44759	R0156X	TRUCK - ASPHALT DISTRIBUTOR	TK6000	TRUCK - CLASS 6 - 19501-26000
R07769	2005	GMC	7500	42507	R0156X	TRUCK - ASPHALT DISTRIBUTOR	TK6000	TRUCK - CLASS 6 - 19501-26000
R07771	2005	GMC	7500	53137	R0156X	TRUCK - ASPHALT DISTRIBUTOR	TK6000	TRUCK - CLASS 6 - 19501-26000
R08134	2008	STERLING	ACTERRA	105774	R0936A	TRUCK - ROLLBACK - 24000 GVW A/T	TK5000	TRUCK - CLASS 5 - 16001-19500
R08186	2006	INTL.	7700	36413	R0899A	TRUCK - ANTI-ICING	TK8000	TRUCK - CLASS 8 - OVER 33000
R08187	2006	FORD	F650	120835	R0949A	TRUCK - AERIAL BUCKET - 24000 GVW A/T	TK6000	TRUCK - CLASS 6 - 19501-26000
R08189	2006	FORD	F650	171535	R0949A	TRUCK - AERIAL BUCKET - 24000 GVW A/T	TK6000	TRUCK - CLASS 6 - 19501-26000
R08192	2006	FORD	F650	28482	R0949A	TRUCK - AERIAL BUCKET - 24000 GVW A/T	TK6000	TRUCK - CLASS 6 - 19501-26000
R08198	2006	FORD	F650	27112	R0955A	TRUCK - AERIAL BUCKET - 24000 GVW M/H	TK6000	TRUCK - CLASS 6 - 19501-26000
R08200	2006	FORD	F650	11677	R0955A	TRUCK - AERIAL BUCKET - 24000 GVW M/H	TK6000	TRUCK - CLASS 6 - 19501-26000
R08209	2006	GMC	7500	2567	R0693X	TRUCK - SWEeper VACUUM - 4-7 CY	TK7000	TRUCK - CLASS 7 - 26001-33000
R08212	2006	FORD	F550	258769	R0950A	TRUCK - AERIAL BUCKET - 19500 GVW A/T	TK5000	TRUCK - CLASS 5 - 16001-19500
R08214	2006	FORD	F550	194992	R0950A	TRUCK - AERIAL BUCKET - 19500 GVW A/T	TK5000	TRUCK - CLASS 5 - 16001-19500
R08216	2006	STERLING	LT7501	5512	R0941X	TRUCK - CATCH BASIN CLEANER - 50000 GVW	TK8000	TRUCK - CLASS 8 - OVER 33000
R08217	2006	STERLING	LT7501	6037	R0941X	TRUCK - CATCH BASIN CLEANER - 50000 GVW	TK8000	TRUCK - CLASS 8 - OVER 33000
R08218	2006	STERLING	LT7501	7386	R0941X	TRUCK - CATCH BASIN CLEANER - 50000 GVW	TK8000	TRUCK - CLASS 8 - OVER 33000
R08220	2006	STERLING	LT7501	3534	R0941X	TRUCK - CATCH BASIN CLEANER - 50000 GVW	TK8000	TRUCK - CLASS 8 - OVER 33000
R08264	2006	GMC	7500	110755	R0864X	TRUCK - DUMP - 36000 GVW M/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R08265	2006	GMC	7500	133579	R0864X	TRUCK - DUMP - 36000 GVW M/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R08266	2006	GMC	7500	54151	R0864X	TRUCK - DUMP - 36000 GVW M/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R08267	2006	GMC	7500	175536	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R08272	2006	GMC	7500	141770	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R08274	2006	GMC	7500	138811	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R08275	2006	GMC	7500	125403	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R08280	2006	GMC	7500	78325	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R08281	2006	GMC	7500	118141	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R08283	2006	GMC	7500	117932	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R08285	2006	GMC	7500	133392	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R08287	2006	GMC	7500	141021	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R08288	2006	GMC	7500	144176	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R08292	2006	GMC	7500	89943	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R08294	2006	GMC	7500	92168	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R08295	2006	GMC	7500	140985	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R08296	2006	GMC	7500	121622	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R08299	2006	GMC	7500	114736	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R08300	2006	GMC	7500	175678	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R08301	2006	GMC	7500	121778	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R08302	2006	GMC	7500	138983	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R08303	2006	GMC	7500	128204	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R08304	2006	GMC	7500	202740	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R08306	2006	GMC	7500	66956	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R08308	2006	GMC	7500	137428	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R08310	2006	GMC	7500	114835	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R08313	2006	GMC	7500	155721	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R08314	2006	GMC	7500	141354	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R08318	2006	GMC	7500	184617	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R08319	2006	GMC	7500	121961	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R08320	2006	GMC	7500	172561	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R08325	2006	GMC	7500	125980	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R08327	2006	GMC	7500	58043	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R08328	2006	GMC	7500	65832	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R08335	2006	INTL.	7600	123320	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R08339	2006	INTL.	4200	53497	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R08340	2006	INTL.	4200	30364	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R08350	2006	GMC	7500	62457	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R08352	2006	GMC	7500	77903	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R08353	2006	GMC	7500	55903	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R08354	2006	GMC	7500	146378	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R08355	2006	GMC	7500	138758	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R08356	2006	GMC	7500	51689	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R08357	2006	GMC	7500	68537	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R08358	2006	GMC	7500	75153	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R08359	2006	GMC	7500	78399	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R08360	2006	GMC	7500	73616	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R08361	2006	GMC	7500	144589	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R08362	2006	GMC	7500	42769	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R08363	2006	GMC	7500	80917	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R08364	2006	GMC	7500	68461	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R08366	2006	GMC	7500	135700	R0864C	TRUCK - DUMP - 36000 GVW C/C A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R08375	2006	GMC	7500	115623	R0864B	TRUCK - DUMP - 36000 GVW M/T SSD	TK8000	TRUCK - CLASS 8 - OVER 33000
R08376	2006	GMC	7500	87408	R0864B	TRUCK - DUMP - 36000 GVW M/T SSD	TK8000	TRUCK - CLASS 8 - OVER 33000
R08380	2006	GMC	7500	100291	R0890A	TRUCK - BRIDGE - 36000 GVW - C/C A/T FLT CRN	TK8000	TRUCK - CLASS 8 - OVER 33000
R08382	2006	GMC	7500	69393	R0890A	TRUCK - BRIDGE - 36000 GVW - C/C A/T FLT CRN	TK8000	TRUCK - CLASS 8 - OVER 33000
R08383	2006	GMC	7500	90574	R0890A	TRUCK - BRIDGE - 36000 GVW - C/C A/T FLT CRN	TK8000	TRUCK - CLASS 8 - OVER 33000

R08384	2006	GMC	7500	139019	R0892A	TRUCK - BRIDGE - 36000 GVW - C/C A/T U/B CRN	TK8000	TRUCK - CLASS 8 - OVER 33000
R08385	2006	GMC	7500	120290	R0892A	TRUCK - BRIDGE - 36000 GVW - C/C A/T U/B CRN	TK8000	TRUCK - CLASS 8 - OVER 33000
R08541	2006	GMC	2500	143494	R0847C	TRUCK - ENCL UTILITY BODY - 16000 GVW C/C	TK4000	TRUCK - CLASS 4 - 14001-16000
R08595	2006	FORD	F450	211371	R0844C	TRUCK - UTIL BODY - 16000 GVW C/C	TK4000	TRUCK - CLASS 4 - 14001-16000
R08596	2006	FORD	F450	183819	R0844A	TRUCK - UTIL BODY - 16000 GVW	TK4000	TRUCK - CLASS 4 - 14001-16000
R08598	2006	FORD	F450	79731	R0844A	TRUCK - UTIL BODY - 16000 GVW	TK4000	TRUCK - CLASS 4 - 14001-16000
R08599	2006	FORD	F450	114569	R0877X	TRUCK - BOX VAN BODY - VARIOUS GVW	TK4000	TRUCK - CLASS 4 - 14001-16000
R08600	2006	SIMCO	255PTC	53983	R0197A	TRUCK - DRILL - CORE	TK5000	TRUCK - CLASS 5 - 16001-19500
R08608	2008	INTL.	7600	7914	R0942X	TRUCK - UNDERBRIDGE INSPECTION UNIT - LARGE	TK8000	TRUCK - CLASS 8 - OVER 33000
R08720	2007	INTL.	4300	56994	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R08755	2007	GMC	7500	20925	R0156X	TRUCK - ASPHALT DISTRIBUTOR	TK6000	TRUCK - CLASS 6 - 19501-26000
R08762	2008	INTL.	7600	146536	R0896X	TRUCK - DUMP - 50000 GVW 105/T SSD	TK8000	TRUCK - CLASS 8 - OVER 33000
R08763	2008	INTL.	7600	139507	R0896X	TRUCK - DUMP - 50000 GVW 105/T SSD	TK8000	TRUCK - CLASS 8 - OVER 33000
R08764	2008	INTL.	7600	85144	R0896X	TRUCK - DUMP - 50000 GVW 105/T SSD	TK8000	TRUCK - CLASS 8 - OVER 33000
R08767	2008	FORD	F450	162924	R0844A	TRUCK - UTIL BODY - 16000 GVW	TK4000	TRUCK - CLASS 4 - 14001-16000
R08768	2008	FORD	F450	75409	R0844I	TRUCK - UTIL BODY W/CRANE - 16000 GVW	TK4000	TRUCK - CLASS 4 - 14001-16000
R08770	2008	FORD	F450	253616	R0844I	TRUCK - UTIL BODY W/CRANE - 16000 GVW	TK4000	TRUCK - CLASS 4 - 14001-16000
R08868	2007	INTL.	7600	114159	R0896X	TRUCK - DUMP - 50000 GVW 105/T SSD	TK8000	TRUCK - CLASS 8 - OVER 33000
R08869	2007	INTL.	7600	145664	R0896X	TRUCK - DUMP - 50000 GVW 105/T SSD	TK8000	TRUCK - CLASS 8 - OVER 33000
R08870	2007	INTL.	7600	146809	R0896X	TRUCK - DUMP - 50000 GVW 105/T SSD	TK8000	TRUCK - CLASS 8 - OVER 33000
R08871	2007	INTL.	7600	169109	R0896X	TRUCK - DUMP - 50000 GVW 105/T SSD	TK8000	TRUCK - CLASS 8 - OVER 33000
R08872	2007	INTL.	7600	199844	R0896X	TRUCK - DUMP - 50000 GVW 105/T SSD	TK8000	TRUCK - CLASS 8 - OVER 33000
R08873	2007	INTL.	7600	192150	R0896X	TRUCK - DUMP - 50000 GVW 105/T SSD	TK8000	TRUCK - CLASS 8 - OVER 33000
R08874	2007	INTL.	7600	161217	R0896X	TRUCK - DUMP - 50000 GVW 105/T SSD	TK8000	TRUCK - CLASS 8 - OVER 33000
R08875	2007	INTL.	7600	95955	R0896X	TRUCK - DUMP - 50000 GVW 105/T SSD	TK8000	TRUCK - CLASS 8 - OVER 33000
R08876	2007	INTL.	7600	106992	R0896X	TRUCK - DUMP - 50000 GVW 105/T SSD	TK8000	TRUCK - CLASS 8 - OVER 33000
R08877	2007	INTL.	7600	194550	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R08881	2007	INTL.	7600	149290	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R08882	2007	INTL.	7600	124286	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R08883	2007	INTL.	7600	161427	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R08884	2007	INTL.	7600	132050	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R08885	2007	INTL.	7600	156455	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R08886	2007	INTL.	7600	116238	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R08887	2007	INTL.	7600	128450	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R08888	2007	INTL.	7600	115632	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R08917	2008	ALF	CONDOR	4238	R0360X	TRUCK - PAINT MARKER - 400 GAL - SINGLE AXLE	TK7000	TRUCK - CLASS 7 - 26001-33000
R08926	2008	GMC	7500	61336	R0864X	TRUCK - DUMP - 36000 GVW M/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R08928	2008	GMC	7500	94290	R0864X	TRUCK - DUMP - 36000 GVW M/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R08931	2008	GMC	7500	73343	R0864X	TRUCK - DUMP - 36000 GVW M/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R08932	2008	GMC	7500	124578	R0864X	TRUCK - DUMP - 36000 GVW M/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R08933	2008	GMC	7500	82041	R0864X	TRUCK - DUMP - 36000 GVW M/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R08934	2008	GMC	7500	123735	R0864X	TRUCK - DUMP - 36000 GVW M/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R08935	2008	GMC	7500	80598	R0864X	TRUCK - DUMP - 36000 GVW M/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R08936	2008	GMC	7500	80236	R0864X	TRUCK - DUMP - 36000 GVW M/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R08937	2008	GMC	7500	135900	R0864X	TRUCK - DUMP - 36000 GVW M/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R08942	2008	GMC	7500	142750	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R08943	2008	GMC	7500	173080	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R08944	2008	GMC	7500	119594	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R08948	2008	GMC	7500	103911	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R08952	2008	GMC	7500	83076	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R08953	2008	GMC	7500	89991	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R08956	2008	GMC	7500	37055	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R08961	2008	GMC	7500	89708	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R08962	2008	GMC	7500	43507	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R08963	2008	GMC	7500	47377	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R08964	2008	GMC	7500	62669	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R08965	2008	GMC	7500	93080	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R08966	2008	GMC	7500	38649	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R08967	2008	GMC	7500	99147	R0864C	TRUCK - DUMP - 36000 GVW C/C A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R08968	2008	GMC	7500	168647	R0864C	TRUCK - DUMP - 36000 GVW C/C A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R08972	2008	GMC	7500	151867	R0892A	TRUCK - BRIDGE - 36000 GVW - C/C A/T U/B CRN	TK8000	TRUCK - CLASS 8 - OVER 33000
R08974	2008	GMC	7500	120890	R0864B	TRUCK - DUMP - 36000 GVW M/T SSD	TK8000	TRUCK - CLASS 8 - OVER 33000
R08976	2008	GMC	7500	90493	R0864B	TRUCK - DUMP - 36000 GVW M/T SSD	TK8000	TRUCK - CLASS 8 - OVER 33000
R08977	2008	FORD	F550	173504	R0855B	TRUCK - UTIL BODY - 19500 GVW 4WD CRN 11'	TK5000	TRUCK - CLASS 5 - 16001-19500
R08986	2008	GMC	7500	35829	R0156X	TRUCK - ASPHALT DISTRIBUTOR	TK6000	TRUCK - CLASS 6 - 19501-26000
R08987	2008	GMC	7500	45469	R0156X	TRUCK - ASPHALT DISTRIBUTOR	TK6000	TRUCK - CLASS 6 - 19501-26000
R08988	2008	GMC	7500	31238	R0156X	TRUCK - ASPHALT DISTRIBUTOR	TK6000	TRUCK - CLASS 6 - 19501-26000
R08989	2008	FORD	F450	183682	R0843X	TRUCK - DUMP - 15000 GVW 4WD	TK4000	TRUCK - CLASS 4 - 14001-16000
R08990	2008	FORD	F450	206150	R0844A	TRUCK - UTIL BODY - 16000 GVW	TK4000	TRUCK - CLASS 4 - 14001-16000
R08994	2008	FORD	F450	203776	R0844A	TRUCK - UTIL BODY - 16000 GVW	TK4000	TRUCK - CLASS 4 - 14001-16000
R08995	2008	FORD	F450	163041	R0844I	TRUCK - UTIL BODY W/CRANE - 16000 GVW	TK4000	TRUCK - CLASS 4 - 14001-16000
R09000	2008	FORD	F450	75339	R0844I	TRUCK - UTIL BODY W/CRANE - 16000 GVW	TK4000	TRUCK - CLASS 4 - 14001-16000
R09001	2008	FORD	F450	164947	R0844I	TRUCK - UTIL BODY W/CRANE - 16000 GVW	TK4000	TRUCK - CLASS 4 - 14001-16000
R09002	2008	FORD	F450	121326	R0844I	TRUCK - UTIL BODY W/CRANE - 16000 GVW	TK4000	TRUCK - CLASS 4 - 14001-16000
R09003	2008	FORD	F450	132952	R0844I	TRUCK - UTIL BODY W/CRANE - 16000 GVW	TK4000	TRUCK - CLASS 4 - 14001-16000
R09004	2008	INTL.	7600	119946	R0896X	TRUCK - DUMP - 50000 GVW 105/T SSD	TK8000	TRUCK - CLASS 8 - OVER 33000
R09033	2008	INTL.	7600	103727	R0896X	TRUCK - DUMP - 50000 GVW 105/T SSD	TK8000	TRUCK - CLASS 8 - OVER 33000
R09034	2008	INTL.	7600	63226	R0896X	TRUCK - DUMP - 50000 GVW 105/T SSD	TK8000	TRUCK - CLASS 8 - OVER 33000
R09035	2008	INTL.	7600	127384	R0896X	TRUCK - DUMP - 50000 GVW 105/T SSD	TK8000	TRUCK - CLASS 8 - OVER 33000
R09141	2009	INTL.	4300	49736	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R09142	2009	INTL.	4300	44958	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R09143	2008	GMC	7500	55337	R0865X	TRUCK - STAKE BODY - 28000 GVW	TK7000	TRUCK - CLASS 7 - 26001-33000
R09144	2008	GMC	7500	64840	R0865X	TRUCK - STAKE BODY - 28000 GVW	TK7000	TRUCK - CLASS 7 - 26001-33000
R09165	2008	INTL.	7600	128174	R0896X	TRUCK - DUMP - 50000 GVW 105/T SSD	TK8000	TRUCK - CLASS 8 - OVER 33000

R09166	2008	INTL.	7600	121320	R0896X	TRUCK - DUMP - 50000 GVW 105/T SSD	TK8000	TRUCK - CLASS 8 - OVER 33000
R09167	2008	INTL.	7600	162818	R0896X	TRUCK - DUMP - 50000 GVW 105/T SSD	TK8000	TRUCK - CLASS 8 - OVER 33000
R09168	2008	INTL.	7600	178228	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R09169	2008	INTL.	7600	139407	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R09170	2008	INTL.	7600	123787	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R09171	2008	INTL.	7600	106664	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R09173	2008	INTL.	7600	177677	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R09174	2008	INTL.	7600	114416	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R09175	2008	INTL.	7600	102447	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R09176	2008	INTL.	7600	116742	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R09177	2008	INTL.	7600	95692	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R09178	2008	INTL.	7600	130654	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R09179	2008	INTL.	7600	152635	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R09180	2008	INTL.	7600	141813	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R09185	2009	INTL.	7600	107438	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R09187	2008	INTL.	7600	164928	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R09228	2008	GMC	7500	144982	R0864X	TRUCK - DUMP - 36000 GVW M/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R09231	2008	GMC	7500	105327	R0864X	TRUCK - DUMP - 36000 GVW M/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R09232	2008	GMC	7500	110488	R0864X	TRUCK - DUMP - 36000 GVW M/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R09233	2008	GMC	7500	121580	R0864X	TRUCK - DUMP - 36000 GVW M/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R09234	2008	GMC	7500	86683	R0864X	TRUCK - DUMP - 36000 GVW M/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R09235	2008	GMC	7500	138691	R0864X	TRUCK - DUMP - 36000 GVW M/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R09236	2008	GMC	7500	132924	R0864X	TRUCK - DUMP - 36000 GVW M/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R09237	2008	GMC	7500	179510	R0864X	TRUCK - DUMP - 36000 GVW M/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R09238	2008	GMC	7500	67164	R0864X	TRUCK - DUMP - 36000 GVW M/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R09239	2008	GMC	7500	75459	R0864X	TRUCK - DUMP - 36000 GVW M/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R09240	2008	GMC	7500	70333	R0864X	TRUCK - DUMP - 36000 GVW M/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R09241	2008	GMC	7500	101413	R0864X	TRUCK - DUMP - 36000 GVW M/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R09245	2008	GMC	7500	171219	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R09247	2008	GMC	7500	132792	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R09248	2008	GMC	7500	140924	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R09252	2008	GMC	7500	115406	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R09254	2008	GMC	7500	144015	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R09255	2008	GMC	7500	104247	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R09258	2008	GMC	7500	88764	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R09259	2008	GMC	7500	118148	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R09262	2008	GMC	7500	133605	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R09265	2008	GMC	7500	95847	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R09266	2008	GMC	7500	140000	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R09270	2008	GMC	7500	172415	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R09272	2008	GMC	7500	176150	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R09273	2008	GMC	7500	66255	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R09274	2008	GMC	7500	53959	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R09275	2008	GMC	7500	26431	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R09276	2008	GMC	7500	54212	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R09277	2008	GMC	7500	129751	R0864C	TRUCK - DUMP - 36000 GVW C/C A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R09278	2008	GMC	7500	163324	R0864C	TRUCK - DUMP - 36000 GVW C/C A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R09279	2008	GMC	7500	127482	R0864C	TRUCK - DUMP - 36000 GVW C/C A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R09280	2008	GMC	7500	131753	R0864C	TRUCK - DUMP - 36000 GVW C/C A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R09281	2008	GMC	7500	174670	R0864C	TRUCK - DUMP - 36000 GVW C/C A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R09282	2008	GMC	7500	82280	R0864C	TRUCK - DUMP - 36000 GVW C/C A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R09285	2008	GMC	7500	111412	R0864C	TRUCK - DUMP - 36000 GVW C/C A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R09286	2008	GMC	7500	192641	R0864C	TRUCK - DUMP - 36000 GVW C/C A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R09290	2008	GMC	7500	102314	R0890X	TRUCK - BRIDGE - 36000 GVW - C/C M/T CRN	TK8000	TRUCK - CLASS 8 - OVER 33000
R09297	2008	VACCON	V216/13200SH	4562	R0941X	TRUCK - CATCH BASIN CLEANER - 50000 GVW	TK8000	TRUCK - CLASS 8 - OVER 33000
R09356	2008	INTL.	7600	132447	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R09357	2008	INTL.	7600	136584	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R09358	2008	INTL.	7600	136872	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R09359	2008	INTL.	7600	112365	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R09360	2008	INTL.	7600	135698	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R09362	2008	INTL.	7600	121897	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R09363	2008	INTL.	7600	99505	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R09364	2008	INTL.	7600	118832	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R09365	2008	INTL.	7600	96971	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R09366	2008	INTL.	7600	142534	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R09367	2008	INTL.	7600	136695	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R09369	2008	INTL.	7600	167226	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R09370	2008	INTL.	7600	126086	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R09372	2008	INTL.	7600	173434	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R09443	2008	STERLING	AT9513	87435	R0887X	TRUCK - TRACTOR - 50000 GVW	TK8000	TRUCK - CLASS 8 - OVER 33000
R09452	2008	ELGIN	WHIRLWIND	2907	R0693X	TRUCK - SWEEPER VACUUM - 4-7 CY	TK7000	TRUCK - CLASS 7 - 26001-33000
R09457	2009	GMC	7500	85223	R0864X	TRUCK - DUMP - 36000 GVW M/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R09459	2009	GMC	7500	122040	R0864X	TRUCK - DUMP - 36000 GVW M/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R09461	2009	GMC	7500	64030	R0864X	TRUCK - DUMP - 36000 GVW M/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R09462	2009	GMC	7500	90226	R0864X	TRUCK - DUMP - 36000 GVW M/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R09463	2009	GMC	7500	125614	R0864X	TRUCK - DUMP - 36000 GVW M/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R09464	2009	GMC	7500	128881	R0864X	TRUCK - DUMP - 36000 GVW M/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R09465	2009	GMC	7500	135620	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R09466	2009	GMC	7500	110864	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R09467	2009	GMC	7500	91124	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R09468	2009	GMC	7500	96609	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R09470	2009	GMC	7500	105867	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R09472	2009	GMC	7500	113602	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R09473	2009	GMC	7500	108877	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000

R09474	2009	GMC	7500	90749	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R09476	2009	GMC	7500	101664	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R09477	2009	GMC	7500	103178	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R09478	2009	GMC	7500	110260	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R09479	2009	GMC	7500	49042	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R09480	2009	GMC	7500	62853	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R09481	2009	GMC	7500	104571	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R09482	2008	STERLING	ACTERRA	104682	R0936X	TRUCK - ROLLBACK - 18000 GVW - SHOP OPS	TK6000	TRUCK - CLASS 6 - 19501-26000
R09488	2009	GMC	7500	121540	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R09489	2009	GMC	7500	125514	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R09490	2009	GMC	7500	40159	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R09491	2009	GMC	7500	50408	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R09492	2009	GMC	7500	26277	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R09493	2009	GMC	7500	52336	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R09494	2009	GMC	7500	49445	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R09495	2009	GMC	7500	88554	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R09496	2009	GMC	7500	50436	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R09497	2009	GMC	7500	103948	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R09498	2009	GMC	7500	134032	R0864C	TRUCK - DUMP - 36000 GVW C/C A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R09502	2009	GMC	7500	155486	R0864C	TRUCK - DUMP - 36000 GVW C/C A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R09503	2009	GMC	7500	79282	R0864B	TRUCK - DUMP - 36000 GVW M/T SSD	TK8000	TRUCK - CLASS 8 - OVER 33000
R09505	2009	GMC	7500	131772	R0890A	TRUCK - BRIDGE - 36000 GVW - C/C A/T FLT CRN	TK8000	TRUCK - CLASS 8 - OVER 33000
R09507	2009	GMC	7500	66275	R0890A	TRUCK - BRIDGE - 36000 GVW - C/C A/T FLT CRN	TK8000	TRUCK - CLASS 8 - OVER 33000
R09508	2009	FORD	F450	138486	R0937A	TRUCK - WRECKER - 16000 GVW A/T	TK4000	TRUCK - CLASS 4 - 14001-16000
R09509	2009	FORD	F550	94537	R0936A	TRUCK - ROLLBACK - 24000 GVW A/T	TK5000	TRUCK - CLASS 5 - 16001-19500
R09510	2009	FORD	F550	85454	R0936A	TRUCK - ROLLBACK - 24000 GVW A/T	TK5000	TRUCK - CLASS 5 - 16001-19500
R09511	2009	FORD	F550	120073	R0936A	TRUCK - ROLLBACK - 24000 GVW A/T	TK5000	TRUCK - CLASS 5 - 16001-19500
R09512	2009	STERLING	ACTERRA	55972	R0936A	TRUCK - ROLLBACK - 24000 GVW A/T	TK5000	TRUCK - CLASS 5 - 16001-19500
R09513	2009	FORD	F450	191997	R0843X	TRUCK - DUMP - 15000 GVW 4WD	TK4000	TRUCK - CLASS 4 - 14001-16000
R09514	2009	FORD	F450	134239	R0844A	TRUCK - UTIL BODY - 16000 GVW	TK4000	TRUCK - CLASS 4 - 14001-16000
R09515	2009	GMC	7500	97111	R0890A	TRUCK - BRIDGE - 36000 GVW - C/C A/T FLT CRN	TK8000	TRUCK - CLASS 8 - OVER 33000
R09523	2010	INTL.	7600	132215	R0896X	TRUCK - DUMP - 50000 GVW 105/T SSD	TK8000	TRUCK - CLASS 8 - OVER 33000
R09524	2010	INTL.	7600	121712	R0896X	TRUCK - DUMP - 50000 GVW 105/T SSD	TK8000	TRUCK - CLASS 8 - OVER 33000
R09525	2010	INTL.	7600	163028	R0896X	TRUCK - DUMP - 50000 GVW 105/T SSD	TK8000	TRUCK - CLASS 8 - OVER 33000
R09526	2010	INTL.	7600	165337	R0896X	TRUCK - DUMP - 50000 GVW 105/T SSD	TK8000	TRUCK - CLASS 8 - OVER 33000
R09527	2010	INTL.	7600	170792	R0896X	TRUCK - DUMP - 50000 GVW 105/T SSD	TK8000	TRUCK - CLASS 8 - OVER 33000
R09528	2010	INTL.	7600	200652	R0896X	TRUCK - DUMP - 50000 GVW 105/T SSD	TK8000	TRUCK - CLASS 8 - OVER 33000
R09529	2010	INTL.	7600	117600	R0896X	TRUCK - DUMP - 50000 GVW 105/T SSD	TK8000	TRUCK - CLASS 8 - OVER 33000
R09530	2010	INTL.	7600	110623	R0896X	TRUCK - DUMP - 50000 GVW 105/T SSD	TK8000	TRUCK - CLASS 8 - OVER 33000
R09531	2010	INTL.	7600	169224	R0896X	TRUCK - DUMP - 50000 GVW 105/T SSD	TK8000	TRUCK - CLASS 8 - OVER 33000
R09532	2010	INTL.	7600	104377	R0896X	TRUCK - DUMP - 50000 GVW 105/T SSD	TK8000	TRUCK - CLASS 8 - OVER 33000
R09533	2010	INTL.	7600	151562	R0896X	TRUCK - DUMP - 50000 GVW 105/T SSD	TK8000	TRUCK - CLASS 8 - OVER 33000
R09534	2010	INTL.	7600	73073	R0896X	TRUCK - DUMP - 50000 GVW 105/T SSD	TK8000	TRUCK - CLASS 8 - OVER 33000
R09535	2010	INTL.	7600	113132	R0896X	TRUCK - DUMP - 50000 GVW 105/T SSD	TK8000	TRUCK - CLASS 8 - OVER 33000
R09536	2010	INTL.	7600	134363	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R09537	2010	INTL.	7600	126299	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R09538	2010	INTL.	7600	143512	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R09539	2010	INTL.	7600	128316	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R09540	2010	INTL.	7600	159913	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R09541	2010	INTL.	7600	189074	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R09542	2010	INTL.	7600	152723	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R09543	2010	INTL.	7600	116144	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R09544	2010	INTL.	7600	133646	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R09545	2010	INTL.	7600	172826	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R09546	2010	INTL.	7600	126242	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R09547	2010	INTL.	7600	151446	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R09548	2010	INTL.	7600	182553	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R09549	2010	INTL.	7600	137372	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R09550	2010	INTL.	7600	117203	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R09551	2010	INTL.	7600	104792	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R09552	2010	INTL.	7600	136848	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R09553	2010	INTL.	7600	134347	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R09554	2010	INTL.	7600	99701	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R09555	2010	INTL.	7600	84161	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R09556	2010	INTL.	7600	113638	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R09557	2010	INTL.	7600	116252	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R09559	2010	INTL.	7600	56516	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R09561	2010	INTL.	7600	48201	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R09562	2010	INTL.	7600	40890	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R09566	2010	INTL.	7500	29875	R0156X	TRUCK - ASPHALT DISTRIBUTOR	TK6000	TRUCK - CLASS 6 - 19501-26000
R09597	2010	INTL.	7500	46731	R0156X	TRUCK - ASPHALT DISTRIBUTOR	TK6000	TRUCK - CLASS 6 - 19501-26000
R09598	2010	INTL.	7500	25796	R0156X	TRUCK - ASPHALT DISTRIBUTOR	TK6000	TRUCK - CLASS 6 - 19501-26000
R09599	2010	INTL.	7500	26766	R0156X	TRUCK - ASPHALT DISTRIBUTOR	TK6000	TRUCK - CLASS 6 - 19501-26000
R09641	2011	INTL.	7600	3458	R0942X	TRUCK - UNDERBRIDGE INSPECTION UNIT - LARGE	TK8000	TRUCK - CLASS 8 - OVER 33000
R11013	2011	ELGIN	WHIRLWIND	3081	R0693X	TRUCK - SWEEPER VACUUM - 4-7 CY	TK7000	TRUCK - CLASS 7 - 26001-33000
R11126	2011	FORD	F750	23704	R0156X	TRUCK - ASPHALT DISTRIBUTOR	TK6000	TRUCK - CLASS 6 - 19501-26000
R12014	2012	INTL.	7300	98626	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R12015	2012	INTL.	7300	119771	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R12016	2012	INTL.	7300	114051	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R12017	2012	INTL.	7300	68231	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R12018	2012	INTL.	7300	100887	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R12019	2012	INTL.	7300	104893	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R12020	2012	INTL.	7300	101011	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R12021	2012	INTL.	7300	101434	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000

R13103	2013	INTL.	7600	51286	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R13104	2013	INTL.	7600	106086	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R13105	2013	INTL.	7600	98801	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R13106	2013	INTL.	7600	73745	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R13107	2013	INTL.	7600	95574	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R13108	2013	INTL.	7600	103137	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R13109	2013	INTL.	7600	124328	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R13110	2013	INTL.	7600	98625	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R13111	2013	INTL.	7600	104336	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R13113	2013	INTL.	7600	90183	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R13169	2013	THOMAS	0918N	95747	R0028X	BUS - OFFENDER TRANSPORTATION	TK7000	TRUCK - CLASS 7 - 26001-33000
R13170	2013	THOMAS	0918N	58600	R0028X	BUS - OFFENDER TRANSPORTATION	TK7000	TRUCK - CLASS 7 - 26001-33000
R13171	2013	THOMAS	0918N	110916	R0028X	BUS - OFFENDER TRANSPORTATION	TK7000	TRUCK - CLASS 7 - 26001-33000
R13173	2013	THOMAS	0918N	62916	R0028X	BUS - OFFENDER TRANSPORTATION	TK7000	TRUCK - CLASS 7 - 26001-33000
R13177	2013	FREIGHTLIN	M2	11599	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R13178	2013	FREIGHTLIN	M2	103244	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R13179	2013	FREIGHTLIN	M2	90068	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R13180	2013	FREIGHTLIN	M2	38657	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R13181	2013	FREIGHTLIN	M2	35604	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R13182	2013	FREIGHTLIN	M2	105264	R0865C	TRUCK - STAKE BODY - 28000 GVW C/C	TK7000	TRUCK - CLASS 7 - 26001-33000
R13183	2013	FREIGHTLIN	M2	74998	R0865C	TRUCK - STAKE BODY - 28000 GVW C/C	TK7000	TRUCK - CLASS 7 - 26001-33000
R13184	2013	FREIGHTLIN	M2	38003	R0865X	TRUCK - STAKE BODY - 28000 GVW	TK7000	TRUCK - CLASS 7 - 26001-33000
R13185	2013	FREIGHTLIN	M2	33413	R0865X	TRUCK - STAKE BODY - 28000 GVW	TK7000	TRUCK - CLASS 7 - 26001-33000
R13369	2013	FORD	F450	115548	R0844D	TRUCK - UTIL BODY - 16000 GVW 4WD C/C	TK4000	TRUCK - CLASS 4 - 14001-16000
R13370	2013	FORD	F450	112783	R0844D	TRUCK - UTIL BODY - 16000 GVW 4WD C/C	TK4000	TRUCK - CLASS 4 - 14001-16000
R13371	2013	FORD	F450	273950	R0844D	TRUCK - UTIL BODY - 16000 GVW 4WD C/C	TK4000	TRUCK - CLASS 4 - 14001-16000
R13372	2013	FORD	F450	119039	R0844B	TRUCK - UTIL BODY - 16000 GVW 4WD	TK4000	TRUCK - CLASS 4 - 14001-16000
R13373	2013	FORD	F450	80683	R0844B	TRUCK - UTIL BODY - 16000 GVW 4WD	TK4000	TRUCK - CLASS 4 - 14001-16000
R13374	2013	FORD	F550	95384	R0853A	TRUCK - DUMP - 19500 GVW 9'	TK5000	TRUCK - CLASS 5 - 16001-19500
R13375	2013	FORD	F550	106498	R0853A	TRUCK - DUMP - 19500 GVW 9'	TK5000	TRUCK - CLASS 5 - 16001-19500
R13377	2013	FORD	F550	135343	R0853A	TRUCK - DUMP - 19500 GVW 9'	TK5000	TRUCK - CLASS 5 - 16001-19500
R13378	2013	FORD	F550	83345	R0853B	TRUCK - DUMP - 19500 GVW 4WD 9'	TK5000	TRUCK - CLASS 5 - 16001-19500
R13379	2013	FORD	F550	109693	R0853B	TRUCK - DUMP - 19500 GVW 4WD 9'	TK5000	TRUCK - CLASS 5 - 16001-19500
R13380	2013	FORD	F550	153356	R0853B	TRUCK - DUMP - 19500 GVW 4WD 9'	TK5000	TRUCK - CLASS 5 - 16001-19500
R13381	2013	FORD	F550	31801	R0853B	TRUCK - DUMP - 19500 GVW 4WD 9'	TK5000	TRUCK - CLASS 5 - 16001-19500
R13382	2013	FORD	F550	128305	R0853B	TRUCK - DUMP - 19500 GVW 4WD 9'	TK5000	TRUCK - CLASS 5 - 16001-19500
R13383	2013	FORD	F550	96260	R0853C	TRUCK - DUMP - 19500 GVW C/C 9'	TK5000	TRUCK - CLASS 5 - 16001-19500
R13384	2013	FORD	F550	171641	R0853D	TRUCK - DUMP - 19500 GVW 4WD C/C 9'	TK5000	TRUCK - CLASS 5 - 16001-19500
R13385	2013	FORD	F550	165415	R0853D	TRUCK - DUMP - 19500 GVW 4WD C/C 9'	TK5000	TRUCK - CLASS 5 - 16001-19500
R13386	2013	FORD	F550	218920	R0853D	TRUCK - DUMP - 19500 GVW 4WD C/C 9'	TK5000	TRUCK - CLASS 5 - 16001-19500
R13387	2013	FORD	F550	187190	R0853D	TRUCK - DUMP - 19500 GVW 4WD C/C 9'	TK5000	TRUCK - CLASS 5 - 16001-19500
R13388	2013	FORD	F550	132858	R0853D	TRUCK - DUMP - 19500 GVW 4WD C/C 9'	TK5000	TRUCK - CLASS 5 - 16001-19500
R13389	2013	FORD	F550	146540	R0853D	TRUCK - DUMP - 19500 GVW 4WD C/C 9'	TK5000	TRUCK - CLASS 5 - 16001-19500
R13390	2013	FORD	F550	129226	R0853D	TRUCK - DUMP - 19500 GVW 4WD C/C 9'	TK5000	TRUCK - CLASS 5 - 16001-19500
R13391	2013	FORD	F550	121257	R0853D	TRUCK - DUMP - 19500 GVW 4WD C/C 9'	TK5000	TRUCK - CLASS 5 - 16001-19500
R13392	2013	FORD	F550	215952	R0853D	TRUCK - DUMP - 19500 GVW 4WD C/C 9'	TK5000	TRUCK - CLASS 5 - 16001-19500
R13393	2013	FORD	F550	135743	R0853D	TRUCK - DUMP - 19500 GVW 4WD C/C 9'	TK5000	TRUCK - CLASS 5 - 16001-19500
R13394	2013	FORD	F550	151245	R0853D	TRUCK - DUMP - 19500 GVW 4WD C/C 9'	TK5000	TRUCK - CLASS 5 - 16001-19500
R13395	2013	FORD	F550	171036	R0853D	TRUCK - DUMP - 19500 GVW 4WD C/C 9'	TK5000	TRUCK - CLASS 5 - 16001-19500
R13396	2013	FORD	F550	133087	R0857A	TRUCK - UTIL BODY - 19500 GVW CRN AUG 11'	TK5000	TRUCK - CLASS 5 - 16001-19500
R13397	2013	FORD	F550	141976	R0857A	TRUCK - UTIL BODY - 19500 GVW CRN AUG 11'	TK5000	TRUCK - CLASS 5 - 16001-19500
R13398	2013	FORD	F550	92210	R0855B	TRUCK - UTIL BODY - 19500 GVW 4WD CRN 11'	TK5000	TRUCK - CLASS 5 - 16001-19500
R13399	2013	FORD	F550	107572	R0855B	TRUCK - UTIL BODY - 19500 GVW 4WD CRN 11'	TK5000	TRUCK - CLASS 5 - 16001-19500
R13400	2013	FORD	F550	46108	R0855A	TRUCK - UTIL BODY - 19500 GVW CRN 11'	TK5000	TRUCK - CLASS 5 - 16001-19500
R13401	2013	FORD	F550	23692	R0855A	TRUCK - UTIL BODY - 19500 GVW CRN 11'	TK5000	TRUCK - CLASS 5 - 16001-19500
R13402	2013	FORD	F550	27353	R0855A	TRUCK - UTIL BODY - 19500 GVW CRN 11'	TK5000	TRUCK - CLASS 5 - 16001-19500
R13404	2013	FORD	F550	177843	R0855B	TRUCK - UTIL BODY - 19500 GVW 4WD CRN 11'	TK5000	TRUCK - CLASS 5 - 16001-19500
R13405	2013	FORD	F550	33058	R0855B	TRUCK - UTIL BODY - 19500 GVW 4WD CRN 11'	TK5000	TRUCK - CLASS 5 - 16001-19500
R13406	2013	FORD	F550	107095	R0855B	TRUCK - UTIL BODY - 19500 GVW 4WD CRN 11'	TK5000	TRUCK - CLASS 5 - 16001-19500
R13407	2013	FORD	F550	61356	R0855B	TRUCK - UTIL BODY - 19500 GVW 4WD CRN 11'	TK5000	TRUCK - CLASS 5 - 16001-19500
R13408	2013	FORD	F550	241898	R0954A	TRUCK - AERIAL BUCKET - 19500 GVW M/H	TK5000	TRUCK - CLASS 5 - 16001-19500
R13409	2013	FORD	F550	178587	R0954A	TRUCK - AERIAL BUCKET - 19500 GVW M/H	TK5000	TRUCK - CLASS 5 - 16001-19500
R13410	2013	FORD	F550	179016	R0954A	TRUCK - AERIAL BUCKET - 19500 GVW M/H	TK5000	TRUCK - CLASS 5 - 16001-19500
R13411	2013	FORD	F550	37165	R0950A	TRUCK - AERIAL BUCKET - 19500 GVW A/T	TK5000	TRUCK - CLASS 5 - 16001-19500
R13412	2013	FORD	F550	176129	R0950A	TRUCK - AERIAL BUCKET - 19500 GVW A/T	TK5000	TRUCK - CLASS 5 - 16001-19500
R13413	2013	FORD	F550	136788	R0950A	TRUCK - AERIAL BUCKET - 19500 GVW A/T	TK5000	TRUCK - CLASS 5 - 16001-19500
R13414	2013	FORD	F550	202121	R0950A	TRUCK - AERIAL BUCKET - 19500 GVW A/T	TK5000	TRUCK - CLASS 5 - 16001-19500
R13415	2013	FORD	F550	251672	R0950A	TRUCK - AERIAL BUCKET - 19500 GVW A/T	TK5000	TRUCK - CLASS 5 - 16001-19500
R13416	2013	FORD	F550	134262	R0950A	TRUCK - AERIAL BUCKET - 19500 GVW A/T	TK5000	TRUCK - CLASS 5 - 16001-19500
R13419	2013	FREIGHTLIN	M2	19906	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R13420	2013	FREIGHTLIN	M2	20493	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R13421	2013	FREIGHTLIN	M2	97361	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R13422	2013	FREIGHTLIN	M2	94032	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R13423	2013	FREIGHTLIN	M2	40990	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R13424	2013	FREIGHTLIN	M2	29749	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R13425	2013	FREIGHTLIN	M2	122496	R0955A	TRUCK - AERIAL BUCKET - 24000 GVW M/H	TK6000	TRUCK - CLASS 6 - 19501-26000
R13433	2013	FREIGHTLIN	M2106	26302	R0410X	TRUCK - ASPHALT PATCHER	TK7000	TRUCK - CLASS 7 - 26001-33000
R13437	2013	INTL.	7400	9068	R0158X	TRUCK - DITCHER - 50000 GVW	TK8000	TRUCK - CLASS 8 - OVER 33000
R13438	2013	INTL.	7400	10378	R0158X	TRUCK - DITCHER - 50000 GVW	TK8000	TRUCK - CLASS 8 - OVER 33000
R14000	2014	THOMAS	0918N	49466	R0028X	BUS - OFFENDER TRANSPORTATION	TK7000	TRUCK - CLASS 7 - 26001-33000
R14001	2014	THOMAS	0918N	22605	R0028X	BUS - OFFENDER TRANSPORTATION	TK7000	TRUCK - CLASS 7 - 26001-33000
R14003	2014	THOMAS	0918N	81127	R0028X	BUS - OFFENDER TRANSPORTATION	TK7000	TRUCK - CLASS 7 - 26001-33000
R14004	2014	INTL.	7400	89495	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R14005	2014	INTL.	7400	60511	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000

R14174	2014	INTL.	7600	94421	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R14175	2014	INTL.	7600	95936	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R14176	2014	INTL.	7600	80501	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R14177	2014	INTL.	7600	97015	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R14178	2014	INTL.	7600	133627	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R14179	2014	INTL.	7600	69877	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R14180	2014	INTL.	7600	136170	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R14181	2014	INTL.	7600	109046	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R14182	2014	INTL.	7600	61858	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R14183	2014	INTL.	7600	113361	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R14184	2014	INTL.	7600	133539	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R14185	2014	INTL.	7600	130490	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R14186	2014	INTL.	7600	110579	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R14187	2014	INTL.	7600	37801	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R14188	2014	INTL.	7600	88049	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R14189	2014	INTL.	7600	26996	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R14190	2014	INTL.	7600	33095	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R14191	2014	INTL.	7600	82301	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R14192	2014	INTL.	7600	53603	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R14193	2014	INTL.	7600	27087	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R14195	2014	INTL.	7400	82125	R0890A	TRUCK - BRIDGE - 36000 GVW - C/C A/T FLT CRN	TK8000	TRUCK - CLASS 8 - OVER 33000
R14196	2014	INTL.	7400	20322	R0890A	TRUCK - BRIDGE - 36000 GVW - C/C A/T FLT CRN	TK8000	TRUCK - CLASS 8 - OVER 33000
R14197	2014	INTL.	7400	54980	R0890A	TRUCK - BRIDGE - 36000 GVW - C/C A/T FLT CRN	TK8000	TRUCK - CLASS 8 - OVER 33000
R14198	2014	INTL.	7400	44951	R0890A	TRUCK - BRIDGE - 36000 GVW - C/C A/T FLT CRN	TK8000	TRUCK - CLASS 8 - OVER 33000
R14199	2014	INTL.	7400	65783	R0892A	TRUCK - BRIDGE - 36000 GVW - C/C A/T U/B CRN	TK8000	TRUCK - CLASS 8 - OVER 33000
R14200	2014	INTL.	7400	36143	R0892A	TRUCK - BRIDGE - 36000 GVW - C/C A/T U/B CRN	TK8000	TRUCK - CLASS 8 - OVER 33000
R14201	2014	INTL.	7400	73362	R0892A	TRUCK - BRIDGE - 36000 GVW - C/C A/T U/B CRN	TK8000	TRUCK - CLASS 8 - OVER 33000
R14202	2014	INTL.	7400	61307	R0892A	TRUCK - BRIDGE - 36000 GVW - C/C A/T U/B CRN	TK8000	TRUCK - CLASS 8 - OVER 33000
R14203	2014	INTL.	7400	35632	R0892A	TRUCK - BRIDGE - 36000 GVW - C/C A/T U/B CRN	TK8000	TRUCK - CLASS 8 - OVER 33000
R14204	2014	INTL.	7400	68496	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R14205	2014	INTL.	7400	54882	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R14206	2014	INTL.	7600	28236	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R14207	2014	INTL.	7600	74787	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R14210	2014	FORD	F550	20916	R0196A	TRUCK - DRILL - CORE - ROTATING BASE	TK5000	TRUCK - CLASS 5 - 16001-19500
R14211	2014	FORD	F550	34304	R0196A	TRUCK - DRILL - CORE - ROTATING BASE	TK5000	TRUCK - CLASS 5 - 16001-19500
R14212	2014	FORD	F550	29968	R0196A	TRUCK - DRILL - CORE - ROTATING BASE	TK5000	TRUCK - CLASS 5 - 16001-19500
R14213	2014	INTL.	7500	10230	R0953X	TRUCK - AERIAL BUCKET - 50000 GVW - 65FT	TK8000	TRUCK - CLASS 8 - OVER 33000
R14215	2014	MACK	LE600	4397	R0361X	TRUCK - PAINT MARKER - 800 GAL - TANDEM AXLE	TK8000	TRUCK - CLASS 8 - OVER 33000
R14216	2014	MACK	LE600	6938	R0361X	TRUCK - PAINT MARKER - 800 GAL - TANDEM AXLE	TK8000	TRUCK - CLASS 8 - OVER 33000
R14224	2014	FREIGHTLIN	M2	19755	R0156X	TRUCK - ASPHALT DISTRIBUTOR	TK6000	TRUCK - CLASS 6 - 19501-26000
R14225	2014	FREIGHTLIN	M2	18678	R0156X	TRUCK - ASPHALT DISTRIBUTOR	TK6000	TRUCK - CLASS 6 - 19501-26000
R14226	2014	FREIGHTLIN	M2	20397	R0156X	TRUCK - ASPHALT DISTRIBUTOR	TK6000	TRUCK - CLASS 6 - 19501-26000
R14227	2014	FREIGHTLIN	M2	10005	R0156X	TRUCK - ASPHALT DISTRIBUTOR	TK6000	TRUCK - CLASS 6 - 19501-26000
R14228	2014	FREIGHTLIN	M2	20095	R0156X	TRUCK - ASPHALT DISTRIBUTOR	TK6000	TRUCK - CLASS 6 - 19501-26000
R14229	2014	FREIGHTLIN	M2	10719	R0156X	TRUCK - ASPHALT DISTRIBUTOR	TK6000	TRUCK - CLASS 6 - 19501-26000
R14230	2014	FREIGHTLIN	M2	24181	R0156X	TRUCK - ASPHALT DISTRIBUTOR	TK6000	TRUCK - CLASS 6 - 19501-26000
R14231	2014	FREIGHTLIN	M2	26419	R0156X	TRUCK - ASPHALT DISTRIBUTOR	TK6000	TRUCK - CLASS 6 - 19501-26000
R14232	2014	FREIGHTLIN	M2	11169	R0156X	TRUCK - ASPHALT DISTRIBUTOR	TK6000	TRUCK - CLASS 6 - 19501-26000
R14233	2014	FREIGHTLIN	M2	9326	R0156X	TRUCK - ASPHALT DISTRIBUTOR	TK6000	TRUCK - CLASS 6 - 19501-26000
R14234	2014	FREIGHTLIN	M2	29144	R0156X	TRUCK - ASPHALT DISTRIBUTOR	TK6000	TRUCK - CLASS 6 - 19501-26000
R14235	2014	FREIGHTLIN	M2	9920	R0156X	TRUCK - ASPHALT DISTRIBUTOR	TK6000	TRUCK - CLASS 6 - 19501-26000
R14236	2014	FREIGHTLIN	M2	13488	R0156X	TRUCK - ASPHALT DISTRIBUTOR	TK6000	TRUCK - CLASS 6 - 19501-26000
R14237	2014	ELGIN	WHIRLWIND	15240	R0693X	TRUCK - SWEEPER VACUUM - 4-7 CY	TK7000	TRUCK - CLASS 7 - 26001-33000
R14238	2014	ELGIN	WHIRLWIND	2873	R0693X	TRUCK - SWEEPER VACUUM - 4-7 CY	TK7000	TRUCK - CLASS 7 - 26001-33000
R14239	2014	ELGIN	WHIRLWIND	1678	R0693X	TRUCK - SWEEPER VACUUM - 4-7 CY	TK7000	TRUCK - CLASS 7 - 26001-33000
R14346	2014	FREIGHTLIN	M2106	12134	R0410X	TRUCK - ASPHALT PATCHER	TK7000	TRUCK - CLASS 7 - 26001-33000
R14347	2014	FREIGHTLIN	M2106	29566	R0410X	TRUCK - ASPHALT PATCHER	TK7000	TRUCK - CLASS 7 - 26001-33000
R14612	2014	ELGIN	WHIRLWIND	1733	R0693X	TRUCK - SWEEPER VACUUM - 4-7 CY	TK7000	TRUCK - CLASS 7 - 26001-33000
R15000	2015	INTL.	7600	79551	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R15001	2015	INTL.	7600	78071	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R15002	2015	INTL.	7600	96717	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R15003	2015	INTL.	7600	108827	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R15004	2015	INTL.	7600	129511	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R15005	2015	INTL.	7600	102213	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R15006	2015	INTL.	7600	90131	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R15007	2015	INTL.	7600	82100	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R15008	2015	INTL.	7600	83603	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R15009	2015	INTL.	7600	97195	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R15010	2015	INTL.	7600	91138	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R15011	2015	INTL.	7600	48263	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R15012	2015	INTL.	7600	65525	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R15013	2015	INTL.	7600	51755	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R15014	2015	INTL.	7600	87556	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R15015	2015	INTL.	7600	84617	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R15016	2015	INTL.	7600	95882	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R15017	2015	INTL.	7600	95338	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R15018	2015	INTL.	7600	87130	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R15019	2015	INTL.	7600	59054	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R15020	2015	INTL.	7600	61659	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R15021	2015	INTL.	7600	66394	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R15022	2015	INTL.	7600	66172	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R15023	2015	INTL.	7600	66958	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R15024	2015	INTL.	7600	56933	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R15025	2015	INTL.	7600	56353	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000

R15026	2015	INTL.	7600	63282	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R15027	2015	INTL.	7600	73368	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R15028	2015	INTL.	7600	77531	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R15029	2015	INTL.	7600	97056	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R15030	2015	INTL.	7600	151239	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R15031	2015	INTL.	7600	98845	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R15032	2015	INTL.	7600	98901	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R15033	2015	INTL.	7600	95439	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R15034	2015	INTL.	7600	109995	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R15035	2015	INTL.	7600	129354	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R15036	2015	INTL.	7600	99720	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R15037	2015	INTL.	7600	86859	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R15038	2015	INTL.	7600	84860	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R15039	2015	INTL.	7600	80526	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R15040	2015	INTL.	7600	32836	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R15041	2015	INTL.	7600	44537	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R15045	2015	FREIGHTLIN	122SD	161044	R0887X	TRUCK - TRACTOR - 50000 GVW	TK8000	TRUCK - CLASS 8 - OVER 33000
R15046	2015	FREIGHTLIN	122SD	106615	R0887X	TRUCK - TRACTOR - 50000 GVW	TK8000	TRUCK - CLASS 8 - OVER 33000
R15047	2015	FREIGHTLIN	122SD	241026	R0887A	TRUCK - TRACTOR - 50000 GVW - A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R15048	2015	FREIGHTLIN	122SD	83673	R0887A	TRUCK - TRACTOR - 50000 GVW - A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R15049	2015	FREIGHTLIN	122SD	146796	R0887X	TRUCK - TRACTOR - 50000 GVW	TK8000	TRUCK - CLASS 8 - OVER 33000
R15050	2015	FREIGHTLIN	122SD	192887	R0887A	TRUCK - TRACTOR - 50000 GVW - A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R15061	2015	FORD	F450	167075	R0844A	TRUCK - UTIL BODY - 16000 GVW	TK4000	TRUCK - CLASS 4 - 14001-16000
R15062	2015	FORD	F450	90450	R0844A	TRUCK - UTIL BODY - 16000 GVW	TK4000	TRUCK - CLASS 4 - 14001-16000
R15063	2015	FORD	F450	143027	R0844B	TRUCK - UTIL BODY - 16000 GVW 4WD	TK4000	TRUCK - CLASS 4 - 14001-16000
R15064	2015	FORD	F450	36895	R0844B	TRUCK - UTIL BODY - 16000 GVW 4WD	TK4000	TRUCK - CLASS 4 - 14001-16000
R15065	2015	FORD	F450	141339	R0844D	TRUCK - UTIL BODY - 16000 GVW 4WD C/C	TK4000	TRUCK - CLASS 4 - 14001-16000
R15066	2015	FORD	F450	122192	R0844D	TRUCK - UTIL BODY - 16000 GVW 4WD C/C	TK4000	TRUCK - CLASS 4 - 14001-16000
R15067	2015	FORD	F450	87352	R0847C	TRUCK - ENCL UTILITY BODY - 16000 GVW C/C	TK4000	TRUCK - CLASS 4 - 14001-16000
R15068	2015	FORD	F450	133940	R0847D	TRUCK - ENCL UTILITY BODY - 16000 GVW 4WD C/C	TK4000	TRUCK - CLASS 4 - 14001-16000
R15069	2015	FORD	F550	156188	R0853C	TRUCK - DUMP - 19500 GVW C/C 9'	TK5000	TRUCK - CLASS 5 - 16001-19500
R15070	2015	FORD	F550	128137	R0853C	TRUCK - DUMP - 19500 GVW C/C 9'	TK5000	TRUCK - CLASS 5 - 16001-19500
R15071	2015	FORD	F550	141663	R0853C	TRUCK - DUMP - 19500 GVW C/C 9'	TK5000	TRUCK - CLASS 5 - 16001-19500
R15072	2015	FORD	F550	146247	R0853D	TRUCK - DUMP - 19500 GVW 4WD C/C 9'	TK5000	TRUCK - CLASS 5 - 16001-19500
R15073	2015	FORD	F550	170306	R0853D	TRUCK - DUMP - 19500 GVW 4WD C/C 9'	TK5000	TRUCK - CLASS 5 - 16001-19500
R15074	2015	FORD	F550	124290	R0853D	TRUCK - DUMP - 19500 GVW 4WD C/C 9'	TK5000	TRUCK - CLASS 5 - 16001-19500
R15075	2015	FORD	F550	136405	R0853D	TRUCK - DUMP - 19500 GVW 4WD C/C 9'	TK5000	TRUCK - CLASS 5 - 16001-19500
R15076	2015	FORD	F550	113572	R0853D	TRUCK - DUMP - 19500 GVW 4WD C/C 9'	TK5000	TRUCK - CLASS 5 - 16001-19500
R15077	2015	FORD	F550	113427	R0853D	TRUCK - DUMP - 19500 GVW 4WD C/C 9'	TK5000	TRUCK - CLASS 5 - 16001-19500
R15078	2015	FORD	F550	129563	R0853D	TRUCK - DUMP - 19500 GVW 4WD C/C 9'	TK5000	TRUCK - CLASS 5 - 16001-19500
R15079	2015	FORD	F550	181662	R0855A	TRUCK - UTIL BODY - 19500 GVW CRN 11'	TK5000	TRUCK - CLASS 5 - 16001-19500
R15080	2015	FORD	F550	103435	R0855A	TRUCK - UTIL BODY - 19500 GVW CRN 11'	TK5000	TRUCK - CLASS 5 - 16001-19500
R15081	2015	FORD	F550	152549	R0855A	TRUCK - UTIL BODY - 19500 GVW CRN 11'	TK5000	TRUCK - CLASS 5 - 16001-19500
R15083	2015	FORD	F550	166782	R0855A	TRUCK - UTIL BODY - 19500 GVW CRN 11'	TK5000	TRUCK - CLASS 5 - 16001-19500
R15084	2015	FORD	F550	47014	R0855B	TRUCK - UTIL BODY - 19500 GVW 4WD CRN 11'	TK5000	TRUCK - CLASS 5 - 16001-19500
R15085	2015	FORD	F550	36857	R0855B	TRUCK - UTIL BODY - 19500 GVW 4WD CRN 11'	TK5000	TRUCK - CLASS 5 - 16001-19500
R15086	2015	FORD	F550	82229	R0855B	TRUCK - UTIL BODY - 19500 GVW 4WD CRN 11'	TK5000	TRUCK - CLASS 5 - 16001-19500
R15087	2015	FORD	F550	56026	R0855B	TRUCK - UTIL BODY - 19500 GVW 4WD CRN 11'	TK5000	TRUCK - CLASS 5 - 16001-19500
R15088	2015	FORD	F550	162438	R0855B	TRUCK - UTIL BODY - 19500 GVW 4WD CRN 11'	TK5000	TRUCK - CLASS 5 - 16001-19500
R15089	2015	FORD	F550	205764	R0950A	TRUCK - AERIAL BUCKET - 19500 GVW A/T	TK5000	TRUCK - CLASS 5 - 16001-19500
R15090	2015	FORD	F550	171826	R0950A	TRUCK - AERIAL BUCKET - 19500 GVW A/T	TK5000	TRUCK - CLASS 5 - 16001-19500
R15091	2015	FORD	F550	170790	R0950A	TRUCK - AERIAL BUCKET - 19500 GVW A/T	TK5000	TRUCK - CLASS 5 - 16001-19500
R15092	2015	FORD	F550	168070	R0950A	TRUCK - AERIAL BUCKET - 19500 GVW A/T	TK5000	TRUCK - CLASS 5 - 16001-19500
R15093	2015	FORD	F550	22742	R0950A	TRUCK - AERIAL BUCKET - 19500 GVW A/T	TK5000	TRUCK - CLASS 5 - 16001-19500
R15094	2015	FORD	F550	33594	R0950B	TRUCK - AERIAL BUCKET - 19500 GVW A/T 4WD	TK5000	TRUCK - CLASS 5 - 16001-19500
R15095	2015	FORD	F550	121019	R0950B	TRUCK - AERIAL BUCKET - 19500 GVW A/T 4WD	TK5000	TRUCK - CLASS 5 - 16001-19500
R15096	2015	FORD	F550	32052	R0950B	TRUCK - AERIAL BUCKET - 19500 GVW A/T 4WD	TK5000	TRUCK - CLASS 5 - 16001-19500
R15100	2015	FREIGHTLIN	M2	24703	R0156X	TRUCK - ASPHALT DISTRIBUTOR	TK6000	TRUCK - CLASS 6 - 19501-26000
R15101	2015	FREIGHTLIN	M2	25211	R0156X	TRUCK - ASPHALT DISTRIBUTOR	TK6000	TRUCK - CLASS 6 - 19501-26000
R15102	2015	FREIGHTLIN	M2	11315	R0156X	TRUCK - ASPHALT DISTRIBUTOR	TK6000	TRUCK - CLASS 6 - 19501-26000
R15103	2015	FREIGHTLIN	M2	19874	R0156X	TRUCK - ASPHALT DISTRIBUTOR	TK6000	TRUCK - CLASS 6 - 19501-26000
R15104	2015	FREIGHTLIN	M2	11954	R0156X	TRUCK - ASPHALT DISTRIBUTOR	TK6000	TRUCK - CLASS 6 - 19501-26000
R15110	2015	INTL.	7400	88513	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R15111	2015	INTL.	7400	82407	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R15112	2015	INTL.	7400	99341	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R15113	2015	INTL.	7400	70925	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R15114	2015	INTL.	7400	74402	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R15115	2015	INTL.	7400	78374	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R15116	2015	INTL.	7400	87833	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R15117	2015	INTL.	7400	59278	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R15118	2015	INTL.	7400	74798	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R15119	2015	INTL.	7400	32475	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R15120	2015	INTL.	7400	42905	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R15121	2015	INTL.	7400	76823	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R15122	2015	INTL.	7400	53954	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R15123	2015	INTL.	7400	66974	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R15124	2015	INTL.	7400	41869	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R15125	2015	INTL.	7400	46475	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R15126	2015	INTL.	7400	60982	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R15127	2015	INTL.	7400	47993	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R15128	2015	INTL.	7400	59059	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R15129	2015	INTL.	7400	72227	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R15130	2015	INTL.	7400	62064	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R15131	2015	INTL.	7400	40422	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000

R16172	2016	INTL.	7400	43725	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R16173	2016	INTL.	7400	63544	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R16174	2016	INTL.	7400	44804	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R16175	2016	INTL.	7400	29697	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R16176	2016	INTL.	7400	25343	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R16177	2016	INTL.	7400	91414	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R16178	2016	INTL.	7400	36582	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R16179	2016	INTL.	7400	59475	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R16180	2016	INTL.	7400	27423	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R16181	2016	INTL.	7400	43524	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R16190	2016	INTL.	7600	83565	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R16191	2016	INTL.	7600	50847	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R16192	2016	INTL.	7600	77134	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R16193	2016	INTL.	7600	83983	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R16194	2016	INTL.	7600	62258	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R16195	2016	INTL.	7600	72156	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R16196	2016	INTL.	7600	66570	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R16197	2016	INTL.	7600	62904	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R16198	2016	INTL.	7600	80555	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R16199	2016	INTL.	7600	61396	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R16200	2016	INTL.	7600	68451	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R16201	2016	INTL.	7600	68156	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R16202	2016	INTL.	7600	68669	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R16203	2016	INTL.	7600	60605	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R16204	2016	INTL.	7600	87090	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R16205	2016	INTL.	7600	74109	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R16206	2016	INTL.	7600	66787	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R16207	2016	INTL.	7600	60827	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R16208	2016	INTL.	7600	77576	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R16209	2016	INTL.	7600	48194	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R16210	2016	INTL.	7600	60413	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R16211	2016	INTL.	7600	60250	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R16212	2016	INTL.	7600	41805	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R16213	2016	INTL.	7600	18926	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R16214	2016	INTL.	7600	16262	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R16215	2016	INTL.	7600	42516	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R16216	2016	INTL.	7600	44953	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R16217	2016	INTL.	7600	53933	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R16218	2016	INTL.	7600	49314	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R16219	2016	INTL.	7600	92999	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R16220	2016	INTL.	7600	66001	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R16221	2016	INTL.	7600	50951	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R16222	2016	INTL.	7600	92007	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R16223	2016	INTL.	7600	53729	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R16224	2016	INTL.	7600	37494	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R16334	2016	FREIGHTLINER	M2	11115	R0156X	TRUCK - ASPHALT DISTRIBUTOR	TK6000	TRUCK - CLASS 6 - 19501-26000
R16335	2016	FREIGHTLINER	M2	16871	R0156X	TRUCK - ASPHALT DISTRIBUTOR	TK6000	TRUCK - CLASS 6 - 19501-26000
R16336	2016	FREIGHTLINER	M2	6783	R0156X	TRUCK - ASPHALT DISTRIBUTOR	TK6000	TRUCK - CLASS 6 - 19501-26000
R16480	2016	FORD	F450	52305	R0844A	TRUCK - UTIL BODY - 16000 GVW	TK4000	TRUCK - CLASS 4 - 14001-16000
R16481	2016	FORD	F450	67337	R0844B	TRUCK - UTIL BODY - 16000 GVW 4WD	TK4000	TRUCK - CLASS 4 - 14001-16000
R16482	2016	FORD	F450	50838	R0844B	TRUCK - UTIL BODY - 16000 GVW 4WD	TK4000	TRUCK - CLASS 4 - 14001-16000
R16483	2016	FORD	F450	79704	R0844D	TRUCK - UTIL BODY - 16000 GVW 4WD C/C	TK4000	TRUCK - CLASS 4 - 14001-16000
R16487	2016	FORD	F550	105656	R0853A	TRUCK - DUMP - 19500 GVW 9'	TK5000	TRUCK - CLASS 5 - 16001-19500
R16488	2016	FORD	F550	43825	R0853B	TRUCK - DUMP - 19500 GVW 4WD 9'	TK5000	TRUCK - CLASS 5 - 16001-19500
R16489	2016	FORD	F550	49735	R0853B	TRUCK - DUMP - 19500 GVW 4WD 9'	TK5000	TRUCK - CLASS 5 - 16001-19500
R16490	2016	FORD	F550	105985	R0853C	TRUCK - DUMP - 19500 GVW C/C 9'	TK5000	TRUCK - CLASS 5 - 16001-19500
R16491	2016	FORD	F550	122103	R0853D	TRUCK - DUMP - 19500 GVW 4WD C/C 9'	TK5000	TRUCK - CLASS 5 - 16001-19500
R16492	2016	FORD	F550	168321	R0853D	TRUCK - DUMP - 19500 GVW 4WD C/C 9'	TK5000	TRUCK - CLASS 5 - 16001-19500
R16493	2016	FORD	F550	119575	R0853D	TRUCK - DUMP - 19500 GVW 4WD C/C 9'	TK5000	TRUCK - CLASS 5 - 16001-19500
R16494	2016	FORD	F550	89322	R0853D	TRUCK - DUMP - 19500 GVW 4WD C/C 9'	TK5000	TRUCK - CLASS 5 - 16001-19500
R16495	2016	FORD	F550	135564	R0853D	TRUCK - DUMP - 19500 GVW 4WD C/C 9'	TK5000	TRUCK - CLASS 5 - 16001-19500
R16496	2016	FORD	F550	133303	R0853D	TRUCK - DUMP - 19500 GVW 4WD C/C 9'	TK5000	TRUCK - CLASS 5 - 16001-19500
R16497	2016	FORD	F550	107633	R0853D	TRUCK - DUMP - 19500 GVW 4WD C/C 9'	TK5000	TRUCK - CLASS 5 - 16001-19500
R16498	2016	FORD	F550	83468	R0853D	TRUCK - DUMP - 19500 GVW 4WD C/C 9'	TK5000	TRUCK - CLASS 5 - 16001-19500
R16499	2016	FORD	F550	101788	R0853D	TRUCK - DUMP - 19500 GVW 4WD C/C 9'	TK5000	TRUCK - CLASS 5 - 16001-19500
R16500	2016	FORD	F550	65344	R0853D	TRUCK - DUMP - 19500 GVW 4WD C/C 9'	TK5000	TRUCK - CLASS 5 - 16001-19500
R16501	2016	FORD	F550	73739	R0853D	TRUCK - DUMP - 19500 GVW 4WD C/C 9'	TK5000	TRUCK - CLASS 5 - 16001-19500
R16502	2016	FORD	F550	28145	R0853D	TRUCK - DUMP - 19500 GVW 4WD C/C 9'	TK5000	TRUCK - CLASS 5 - 16001-19500
R16503	2016	FORD	F550	14336	R0855A	TRUCK - UTIL BODY - 19500 GVW CRN 11'	TK5000	TRUCK - CLASS 5 - 16001-19500
R16504	2016	FORD	F550	75332	R0855B	TRUCK - UTIL BODY - 19500 GVW 4WD CRN 11'	TK5000	TRUCK - CLASS 5 - 16001-19500
R16505	2016	FORD	F550	37054	R0855B	TRUCK - UTIL BODY - 19500 GVW 4WD CRN 11'	TK5000	TRUCK - CLASS 5 - 16001-19500
R16506	2016	FORD	F550	31082	R0855B	TRUCK - UTIL BODY - 19500 GVW 4WD CRN 11'	TK5000	TRUCK - CLASS 5 - 16001-19500
R16507	2016	FORD	F550	111188	R0855B	TRUCK - UTIL BODY - 19500 GVW 4WD CRN 11'	TK5000	TRUCK - CLASS 5 - 16001-19500
R16508	2016	FORD	F550	108065	R0950A	TRUCK - AERIAL BUCKET - 19500 GVW A/T	TK5000	TRUCK - CLASS 5 - 16001-19500
R16509	2016	FORD	F550	104626	R0950A	TRUCK - AERIAL BUCKET - 19500 GVW A/T	TK5000	TRUCK - CLASS 5 - 16001-19500
R17000	2017	FREIGHTLINER	M2	23342	R0867A	TRUCK - UTIL BODY W/CRANE - 26000 GVW	TK6000	TRUCK - CLASS 6 - 19501-26000
R17001	2017	FREIGHTLINER	M2	36280	R0867A	TRUCK - UTIL BODY W/CRANE - 26000 GVW	TK6000	TRUCK - CLASS 6 - 19501-26000
R17002	2017	FREIGHTLINER	M2	51465	R0949M	TRUCK - AERIAL BUCKET - 24000 GVW M/H	TK6000	TRUCK - CLASS 6 - 19501-26000
R17003	2017	FREIGHTLINER	122SD	124141	R0887A	TRUCK - TRACTOR - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R17004	2017	INTL.	7400	70701	R0864C	TRUCK - DUMP - 36000 GVW C/C A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R17005	2017	INTL.	7400	92575	R0864C	TRUCK - DUMP - 36000 GVW C/C A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R17006	2017	INTL.	7400	41211	R0864C	TRUCK - DUMP - 36000 GVW C/C A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R17007	2017	INTL.	7400	56942	R0864C	TRUCK - DUMP - 36000 GVW C/C A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R17008	2017	INTL.	7400	25562	R0864C	TRUCK - DUMP - 36000 GVW C/C A/T	TK8000	TRUCK - CLASS 8 - OVER 33000

R17009	2017	INTL.	7400	60452	R0864C	TRUCK - DUMP - 36000 GVW C/C A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R17010	2017	INTL.	7400	57022	R0864C	TRUCK - DUMP - 36000 GVW C/C A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R17011	2017	INTL.	7400	57100	R0864C	TRUCK - DUMP - 36000 GVW C/C A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R17125	2017	AUTOCAR	XPERT	350	R0693X	TRUCK - SWEEPER VACUUM - 4-7 CY	TK7000	TRUCK - CLASS 7 - 26001-33000
R17126	2017	AUTOCAR	XPERT	700	R0693X	TRUCK - SWEEPER VACUUM - 4-7 CY	TK7000	TRUCK - CLASS 7 - 26001-33000
R17183	2017	INTL.	7600	2740	R0942X	TRUCK - UNDERBRIDGE INSPECTION UNIT - LARGE	TK8000	TRUCK - CLASS 8 - OVER 33000
R17186	2017	AUTOCAR	XPERT	1995	R0693X	TRUCK - SWEEPER VACUUM - 4-7 CY	TK7000	TRUCK - CLASS 7 - 26001-33000
R17187	2017	AUTOCAR	XPERT	1125	R0693X	TRUCK - SWEEPER VACUUM - 4-7 CY	TK7000	TRUCK - CLASS 7 - 26001-33000
R17194	2017	THOMAS	0918N EFX	42319	R0028X	BUS - OFFENDER TRANSPORTATION	TK7000	TRUCK - CLASS 7 - 26001-33000
R17195	2017	THOMAS	0918N EFX	26847	R0028X	BUS - OFFENDER TRANSPORTATION	TK7000	TRUCK - CLASS 7 - 26001-33000
R17196	2017	THOMAS	0918N EFX	33734	R0028X	BUS - OFFENDER TRANSPORTATION	TK7000	TRUCK - CLASS 7 - 26001-33000
R17197	2017	FORD	F450	83160	R0844A	TRUCK - UTIL BODY - 16000 GVW	TK4000	TRUCK - CLASS 4 - 14001-16000
R17198	2017	FORD	F450	55255	R0844B	TRUCK - UTIL BODY - 16000 GVW 4WD	TK4000	TRUCK - CLASS 4 - 14001-16000
R17199	2017	FORD	F450	72280	R0844C	TRUCK - UTIL BODY - 16000 GVW C/C	TK4000	TRUCK - CLASS 4 - 14001-16000
R17200	2017	FORD	F450	61388	R0844D	TRUCK - UTIL BODY - 16000 GVW 4WD C/C	TK4000	TRUCK - CLASS 4 - 14001-16000
R17201	2017	FORD	F450	58639	R0844D	TRUCK - UTIL BODY - 16000 GVW 4WD C/C	TK4000	TRUCK - CLASS 4 - 14001-16000
R17202	2017	FORD	F550	80993	R0865X	TRUCK - STAKE BODY - 28000 GVW	TK7000	TRUCK - CLASS 7 - 26001-33000
R17203	2017	FORD	F550	81753	R0853B	TRUCK - DUMP - 19500 GVW 4WD 9'	TK5000	TRUCK - CLASS 5 - 16001-19500
R17204	2017	FORD	F550	114155	R0853B	TRUCK - DUMP - 19500 GVW 4WD 9'	TK5000	TRUCK - CLASS 5 - 16001-19500
R17205	2017	FORD	F550	82273	R0853D	TRUCK - DUMP - 19500 GVW 4WD C/C 9'	TK5000	TRUCK - CLASS 5 - 16001-19500
R17206	2017	FORD	F550	79887	R0853D	TRUCK - DUMP - 19500 GVW 4WD C/C 9'	TK5000	TRUCK - CLASS 5 - 16001-19500
R17207	2017	FORD	F550	69627	R0853D	TRUCK - DUMP - 19500 GVW 4WD C/C 9'	TK5000	TRUCK - CLASS 5 - 16001-19500
R17208	2017	FORD	F550	107337	R0853D	TRUCK - DUMP - 19500 GVW 4WD C/C 9'	TK5000	TRUCK - CLASS 5 - 16001-19500
R17209	2017	FORD	F550	28471	R0853D	TRUCK - DUMP - 19500 GVW 4WD C/C 9'	TK5000	TRUCK - CLASS 5 - 16001-19500
R17210	2017	FORD	F550	68599	R0853D	TRUCK - DUMP - 19500 GVW 4WD C/C 9'	TK5000	TRUCK - CLASS 5 - 16001-19500
R17211	2017	FORD	F550	44808	R0853D	TRUCK - DUMP - 19500 GVW 4WD C/C 9'	TK5000	TRUCK - CLASS 5 - 16001-19500
R17212	2017	FORD	F550	87699	R0853D	TRUCK - DUMP - 19500 GVW 4WD C/C 9'	TK5000	TRUCK - CLASS 5 - 16001-19500
R17213	2017	FORD	F550	79375	R0853D	TRUCK - DUMP - 19500 GVW 4WD C/C 9'	TK5000	TRUCK - CLASS 5 - 16001-19500
R17214	2017	FORD	F550	74289	R0853D	TRUCK - DUMP - 19500 GVW 4WD C/C 9'	TK5000	TRUCK - CLASS 5 - 16001-19500
R17215	2017	FORD	F550	76776	R0853D	TRUCK - DUMP - 19500 GVW 4WD C/C 9'	TK5000	TRUCK - CLASS 5 - 16001-19500
R17216	2017	FORD	F550	64036	R0853D	TRUCK - DUMP - 19500 GVW 4WD C/C 9'	TK5000	TRUCK - CLASS 5 - 16001-19500
R17217	2017	FORD	F550	47162	R0857A	TRUCK - UTIL BODY - 19500 GVW CRN AUG 11'	TK5000	TRUCK - CLASS 5 - 16001-19500
R17229	2017	PETERBILT	PB320	2626	R0361X	TRUCK - PAINT MARKER - 800 GAL - TANDEM AXLE	TK8000	TRUCK - CLASS 8 - OVER 33000
R17230	2017	PETERBILT	PB320	1929	R0361X	TRUCK - PAINT MARKER - 800 GAL - TANDEM AXLE	TK8000	TRUCK - CLASS 8 - OVER 33000
R17231	2017	PETERBILT	PB320	2409	R0361X	TRUCK - PAINT MARKER - 800 GAL - TANDEM AXLE	TK8000	TRUCK - CLASS 8 - OVER 33000
R18000	2018	INTL.	7400	61545	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R18001	2018	INTL.	7400	54145	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R18002	2018	INTL.	7400	61439	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R18003	2018	INTL.	7400	63241	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R18004	2018	INTL.	7400	40293	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R18005	2018	INTL.	7400	62956	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R18006	2018	INTL.	7400	75076	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R18007	2018	INTL.	7400	37989	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R18008	2018	INTL.	7400	43586	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R18009	2018	INTL.	7400	44322	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R18010	2018	INTL.	7400	34935	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R18011	2018	INTL.	7400	56997	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R18012	2018	INTL.	7400	58568	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R18013	2018	INTL.	7400	34329	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R18014	2018	INTL.	7400	62717	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R18015	2018	INTL.	7400	69901	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R18016	2018	INTL.	7400	41130	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R18017	2018	INTL.	7400	42241	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R18018	2018	INTL.	7400	33796	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R18019	2018	INTL.	7400	30531	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R18020	2018	INTL.	7400	42114	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R18021	2018	INTL.	7400	48444	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R18022	2018	INTL.	7400	48162	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R18023	2018	INTL.	7400	51855	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R18024	2018	INTL.	7400	49671	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R18025	2018	INTL.	7400	20172	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R18026	2018	INTL.	7400	49387	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R18027	2018	INTL.	7400	27836	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R18028	2018	INTL.	7400	41056	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R18029	2018	INTL.	7400	38186	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R18030	2018	INTL.	7400	42116	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R18031	2018	INTL.	7400	31013	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R18032	2018	INTL.	7400	56174	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R18033	2018	INTL.	7400	73970	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R18034	2018	INTL.	7400	69226	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R18035	2018	INTL.	7400	75189	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R18036	2018	INTL.	7400	69005	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R18037	2018	INTL.	7400	55277	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R18038	2018	INTL.	7400	69195	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R18039	2018	INTL.	7400	26857	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R18040	2018	INTL.	7400	10769	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R18041	2018	INTL.	7400	34381	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R18042	2018	INTL.	7400	16858	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R18043	2018	INTL.	7400	20898	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R18044	2018	INTL.	7400	58432	R0864C	TRUCK - DUMP - 36000 GVW C/C A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R18045	2018	INTL.	7400	48946	R0864C	TRUCK - DUMP - 36000 GVW C/C A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R18046	2018	INTL.	7400	74358	R0864C	TRUCK - DUMP - 36000 GVW C/C A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R18047	2018	INTL.	7400	69089	R0864C	TRUCK - DUMP - 36000 GVW C/C A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R18048	2018	INTL.	7400	63068	R0864C	TRUCK - DUMP - 36000 GVW C/C A/T	TK8000	TRUCK - CLASS 8 - OVER 33000

R19049	2019	INTL.	7600	49738	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000	
R19050	2019	INTL.	7600	43008	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000	
R19051	2019	INTL.	7600	45322	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000	
R19052	2019	INTL.	7600	51369	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000	
R19053	2019	INTL.	7600	49197	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000	
R19054	2019	INTL.	7600	39429	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000	
R19055	2019	INTL.	7600	51874	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000	
R19056	2019	INTL.	7600	53770	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000	
R19057	2019	INTL.	7600	43822	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000	
R19058	2019	INTL.	7600	47268	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000	
R19059	2019	INTL.	7600	40220	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000	
R19060	2019	INTL.	7600	51089	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000	
R19061	2019	INTL.	7600	21025	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000	
R19062	2019	INTL.	7600	46759	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000	
R19063	2019	INTL.	7600	38443	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000	
R19064	2019	INTL.	7600	36021	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000	
R19065	2019	INTL.	7600	21756	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000	
R19066	2019	INTL.	7600	66374	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000	
R19067	2019	INTL.	7600	30804	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000	
R19068	2019	INTL.	7600	23505	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000	
R19069	2019	INTL.	7600	22457	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000	
R19070	2019	INTL.	7600	57470	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000	
R19071	2019	INTL.	7600	15351	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000	
R19072	2019	INTL.	7600	17102	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000	
R19073	2019	INTL.	DURASTAR	8423	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000	
R19074	2019	INTL.	DURASTAR	14823	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000	
R19075	2019	INTL.	DURASTAR	37552	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000	
R19076	2019	INTL.	DURASTAR	41654	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000	
R19077	2019	INTL.	DURASTAR	19292	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000	
R19078	2019	INTL.	DURASTAR	18556	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000	
R19079	2019	INTL.	DURASTAR	31046	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000	
R19080	2019	INTL.	DURASTAR	15536	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000	
R19081	2019	INTL.	DURASTAR	41116	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000	
R19082	2019	INTL.	DURASTAR	11042	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000	
R19083	2019	INTL.	DURASTAR	24539	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000	
R19084	2019	INTL.	DURASTAR	18746	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000	
R19085	2019	INTL.	DURASTAR	12413	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000	
R19086	2019	INTL.	DURASTAR	19024	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000	
R19087	2019	INTL.	DURASTAR	24127	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000	
R19088	2019	INTL.	DURASTAR	22814	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000	
R19089	2019	INTL.	DURASTAR	22569	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000	
R19090	2019	INTL.	DURASTAR	33178	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000	
R19091	2019	INTL.	DURASTAR	7275	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000	
R19092	2019	INTL.	DURASTAR	9117	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000	
R19093	2019	INTL.	DURASTAR	6272	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000	
R19094	2019	INTL.	DURASTAR	31720	R0865C	TRUCK - STAKE BODY - 28000 GVW C/C	TK7000	TRUCK - CLASS 7 - 26001-33000	
R19095	2019	INTL.	DURASTAR	4419	R0865X	TRUCK - STAKE BODY - 28000 GVW	TK7000	TRUCK - CLASS 7 - 26001-33000	
R19096	2019	INTL.	DURASTAR	10214	R0865X	TRUCK - STAKE BODY - 28000 GVW	TK7000	TRUCK - CLASS 7 - 26001-33000	
R19097	2019	INTL.	DURASTAR	18200	R0867A	TRUCK - UTIL BODY W/CRANE - 26000 GVW	TK6000	TRUCK - CLASS 6 - 19501-26000	
R19098	2019	INTL.	DURASTAR	12541	R0867A	TRUCK - UTIL BODY W/CRANE - 26000 GVW	TK6000	TRUCK - CLASS 6 - 19501-26000	
R19099	2019	FORD	F550	43570	R0854D	TRUCK - DUMP - 19500 GVW 4WD CC 11'	TK5000	TRUCK - CLASS 5 - 16001-19500	
R19100	2019	FORD	F550	49613	R0853D	TRUCK - DUMP - 19500 GVW 4WD C/C 9'	TK5000	TRUCK - CLASS 5 - 16001-19500	
R19101	2019	FORD	F550	25513	R0853D	TRUCK - DUMP - 19500 GVW 4WD C/C 9'	TK5000	TRUCK - CLASS 5 - 16001-19500	
R19102	2019	FORD	F550	30790	R0853D	TRUCK - DUMP - 19500 GVW 4WD C/C 9'	TK5000	TRUCK - CLASS 5 - 16001-19500	
R19103	2019	FORD	F550	30600	R0853D	TRUCK - DUMP - 19500 GVW 4WD C/C 9'	TK5000	TRUCK - CLASS 5 - 16001-19500	
R19104	2019	FORD	F550	23711	R0853D	TRUCK - DUMP - 19500 GVW 4WD C/C 9'	TK5000	TRUCK - CLASS 5 - 16001-19500	
R19105	2019	FORD	F550	56739	R0854D	TRUCK - DUMP - 19500 GVW 4WD CC 11'	TK5000	TRUCK - CLASS 5 - 16001-19500	
R19106	2019	INTL.		7500	925	R0944X	TRUCK - UNDERBRIDGE INSPECTION UNIT - SMALL	TK8000	TRUCK - CLASS 8 - OVER 33000
R19107	2019	PETERBILT	PB520	1578	R0361X	TRUCK - PAINT MARKER - 800 GAL - TANDEM AXLE	TK8000	TRUCK - CLASS 8 - OVER 33000	
R19109	2019	FORD	F550	47484	R0853B	TRUCK - DUMP - 19500 GVW 4WD 9'	TK5000	TRUCK - CLASS 5 - 16001-19500	
R19110	2019	FORD	F550	46936	R0853D	TRUCK - DUMP - 19500 GVW 4WD C/C 9'	TK5000	TRUCK - CLASS 5 - 16001-19500	
R19111	2019	THOMAS	0918N EFX	16230	R0028X	BUS - OFFENDER TRANSPORTATION	TK7000	TRUCK - CLASS 7 - 26001-33000	
R19199	2019	AUTOCAR	XPERT	312	R0693X	TRUCK - SWEEPER VACUUM - 4-7 CY	TK7000	TRUCK - CLASS 7 - 26001-33000	
R19200	2019	INTL.	MV607	5720	R0156X	TRUCK - ASPHALT DISTRIBUTOR	TK6000	TRUCK - CLASS 6 - 19501-26000	
R19201	2019	INTL.	MV607	4620	R0156X	TRUCK - ASPHALT DISTRIBUTOR	TK6000	TRUCK - CLASS 6 - 19501-26000	
R19279	2019	FORD	F550	58843	R0853B	TRUCK - DUMP - 19500 GVW 4WD 9'	TK5000	TRUCK - CLASS 5 - 16001-19500	
R19280	2019	FORD	F550	47078	R0853B	TRUCK - DUMP - 19500 GVW 4WD 9'	TK5000	TRUCK - CLASS 5 - 16001-19500	
R19281	2019	FORD	F550	15062	R0853B	TRUCK - DUMP - 19500 GVW 4WD 9'	TK5000	TRUCK - CLASS 5 - 16001-19500	
R19282	2019	FORD	F550	57972	R0853D	TRUCK - DUMP - 19500 GVW 4WD C/C 9'	TK5000	TRUCK - CLASS 5 - 16001-19500	
R19283	2019	FORD	F550	47529	R0853D	TRUCK - DUMP - 19500 GVW 4WD C/C 9'	TK5000	TRUCK - CLASS 5 - 16001-19500	
R19284	2019	FORD	F550	46841	R0853D	TRUCK - DUMP - 19500 GVW 4WD C/C 9'	TK5000	TRUCK - CLASS 5 - 16001-19500	
R19285	2019	FORD	F550	33401	R0853D	TRUCK - DUMP - 19500 GVW 4WD C/C 9'	TK5000	TRUCK - CLASS 5 - 16001-19500	
R19286	2019	FORD	F550	48107	R0853D	TRUCK - DUMP - 19500 GVW 4WD C/C 9'	TK5000	TRUCK - CLASS 5 - 16001-19500	
R19287	2019	FORD	F550	44413	R0853D	TRUCK - DUMP - 19500 GVW 4WD C/C 9'	TK5000	TRUCK - CLASS 5 - 16001-19500	
R19288	2019	FORD	F550	53540	R0853D	TRUCK - DUMP - 19500 GVW 4WD C/C 9'	TK5000	TRUCK - CLASS 5 - 16001-19500	
R19289	2019	FORD	F550	48043	R0853D	TRUCK - DUMP - 19500 GVW 4WD C/C 9'	TK5000	TRUCK - CLASS 5 - 16001-19500	
R19290	2019	FORD	F550	38238	R0853D	TRUCK - DUMP - 19500 GVW 4WD C/C 9'	TK5000	TRUCK - CLASS 5 - 16001-19500	
R19291	2019	FORD	F550	22746	R0853D	TRUCK - DUMP - 19500 GVW 4WD C/C 9'	TK5000	TRUCK - CLASS 5 - 16001-19500	
R19292	2019	FORD	F550	30950	R0853D	TRUCK - DUMP - 19500 GVW 4WD C/C 9'	TK5000	TRUCK - CLASS 5 - 16001-19500	
R19293	2019	FORD	F550	23015	R0853D	TRUCK - DUMP - 19500 GVW 4WD C/C 9'	TK5000	TRUCK - CLASS 5 - 16001-19500	
R19294	2019	FORD	F550	22222	R0853D	TRUCK - DUMP - 19500 GVW 4WD C/C 9'	TK5000	TRUCK - CLASS 5 - 16001-19500	
R19295	2019	FORD	F550	32329	R0853D	TRUCK - DUMP - 19500 GVW 4WD C/C 9'	TK5000	TRUCK - CLASS 5 - 16001-19500	
R19296	2019	FORD	F550	22530	R0853D	TRUCK - DUMP - 19500 GVW 4WD C/C 9'	TK5000	TRUCK - CLASS 5 - 16001-19500	
R19297	2019	FORD	F550	30882	R0853D	TRUCK - DUMP - 19500 GVW 4WD C/C 9'	TK5000	TRUCK - CLASS 5 - 16001-19500	

R20060	2020	INTL.	HV507 SFA	8493	R0864C	TRUCK - DUMP - 36000 GVW C/C A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R20061	2020	INTL.	HV613	46585	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R20062	2020	INTL.	HV613	48243	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R20063	2020	INTL.	HV613	34963	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R20064	2020	INTL.	HV613	44525	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R20065	2020	INTL.	HV613	37058	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R20066	2020	INTL.	HV613	57863	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R20067	2020	INTL.	HV613	26409	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R20068	2020	INTL.	HV613	45859	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R20069	2020	INTL.	HV613	31006	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R20070	2020	INTL.	HV613	31462	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R20071	2020	INTL.	HV613	46367	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R20072	2020	INTL.	HV613	41451	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R20073	2020	INTL.	HV613	24520	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R20074	2020	INTL.	HV613	33673	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R20075	2020	INTL.	HV613	22206	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R20076	2020	INTL.	HV613	46212	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R20077	2020	INTL.	HV613	49019	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R20078	2020	INTL.	HV613	26858	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R20079	2020	INTL.	HV613	22283	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R20080	2020	INTL.	HV613	44231	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R20081	2020	INTL.	HV613	23794	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R20082	2020	INTL.	HV613	15951	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R20083	2020	INTL.	HV613	16291	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R20084	2020	INTL.	HV613	18604	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R20085	2020	INTL.	HV613	23900	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R20086	2020	INTL.	HV613	31695	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R20087	2020	INTL.	HV613	23119	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R20088	2020	INTL.	HV613	10374	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R20089	2020	INTL.	HV613	16275	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R20090	2020	INTL.	HV613	29002	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R20091	2020	INTL.	HV613	19135	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R20092	2020	INTL.	HV613	17925	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R20093	2020	INTL.	HV613	22754	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R20094	2020	INTL.	HV613	27175	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R20095	2020	INTL.	HV613	26259	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R20096	2020	INTL.	HV613	25617	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R20097	2020	INTL.	HV613	29076	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R20098	2020	INTL.	HV613	43026	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R20099	2020	INTL.	HV613	44184	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R20100	2020	INTL.	HV613	41365	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R20101	2020	INTL.	HV613	25273	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R20102	2020	INTL.	HV613	22015	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R20103	2020	INTL.	HV613	9424	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R20104	2020	INTL.	HV613	9541	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R20105	2020	INTL.	HV613	25809	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R20106	2020	INTL.	HV613	12893	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R20107	2020	INTL.	HV607	25500	R0892A	TRUCK - BRIDGE - 36000 GVW - C/C A/T U/B CRN	TK8000	TRUCK - CLASS 8 - OVER 33000
R20108	2020	INTL.	HV607	13086	R0892A	TRUCK - BRIDGE - 36000 GVW - C/C A/T U/B CRN	TK8000	TRUCK - CLASS 8 - OVER 33000
R20109	2020	INTL.	HV607	14097	R0892A	TRUCK - BRIDGE - 36000 GVW - C/C A/T U/B CRN	TK8000	TRUCK - CLASS 8 - OVER 33000
R20110	2020	INTL.	HV607	15860	R0892A	TRUCK - BRIDGE - 36000 GVW - C/C A/T U/B CRN	TK8000	TRUCK - CLASS 8 - OVER 33000
R20111	2020	INTL.	HV607	11522	R0890A	TRUCK - BRIDGE - 36000 GVW - C/C A/T FLT CRN	TK8000	TRUCK - CLASS 8 - OVER 33000
R20112	2020	INTL.	HV607	9377	R0890A	TRUCK - BRIDGE - 36000 GVW - C/C A/T FLT CRN	TK8000	TRUCK - CLASS 8 - OVER 33000
R20113	2020	INTL.	HV607	13064	R0890A	TRUCK - BRIDGE - 36000 GVW - C/C A/T FLT CRN	TK8000	TRUCK - CLASS 8 - OVER 33000
R20114	2020	INTL.	HV607	2666	R0890A	TRUCK - BRIDGE - 36000 GVW - C/C A/T FLT CRN	TK8000	TRUCK - CLASS 8 - OVER 33000
R20115	2020	INTL.	HV607	2491	R0891A	TRUCK - BRIDGE - 36000 GVW - C/C A/T ALL BODY	TK8000	TRUCK - CLASS 8 - OVER 33000
R20116	2020	INTL.	HV607	17151	R0865C	TRUCK - STAKE BODY - 28000 GVW C/C	TK7000	TRUCK - CLASS 7 - 26001-33000
R20117	2020	INTL.	HV607	4953	R0892A	TRUCK - BRIDGE - 36000 GVW - C/C A/T U/B CRN	TK8000	TRUCK - CLASS 8 - OVER 33000
R20118	2020	INTL.	HV607	8708	R0892A	TRUCK - BRIDGE - 36000 GVW - C/C A/T U/B CRN	TK8000	TRUCK - CLASS 8 - OVER 33000
R20119	2020	FREIGHTLIN	122SD	26611	R0887X	TRUCK - TRACTOR - 50000 GVW	TK8000	TRUCK - CLASS 8 - OVER 33000
R20120	2020	INTL.	HV613	2665	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R20121	2020	INTL.	MV607	18677	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R20122	2020	INTL.	MV607	11791	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R20123	2020	INTL.	MV607	33273	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R20124	2020	INTL.	MV607	14009	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R20125	2020	INTL.	MV607	8483	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R20126	2020	INTL.	MV607	17802	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R20127	2020	INTL.	MV607	8814	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R20128	2020	INTL.	MV607	8414	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R20129	2020	INTL.	MV607	18837	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R20130	2020	INTL.	MV607	17697	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R20131	2020	INTL.	MV607	6002	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R20132	2020	INTL.	MV607	14172	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R20133	2020	INTL.	MV607	15030	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R20134	2020	INTL.	MV607	4636	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R20135	2020	INTL.	MV607	6163	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R20136	2020	INTL.	MV607	4790	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R20137	2020	THOMAS	0918N EFX	11225	R0028X	BUS - OFFENDER TRANSPORTATION	TK7000	TRUCK - CLASS 7 - 26001-33000
R20138	2020	THOMAS	0918N EFX	27359	R0028X	BUS - OFFENDER TRANSPORTATION	TK7000	TRUCK - CLASS 7 - 26001-33000
R20139	2020	THOMAS	0918N EFX	28565	R0028X	BUS - OFFENDER TRANSPORTATION	TK7000	TRUCK - CLASS 7 - 26001-33000
R20140	2020	FORD	F550	41751	R0853D	TRUCK - DUMP - 19500 GVW 4WD C/C 9'	TK5000	TRUCK - CLASS 5 - 16001-19500
R20141	2020	FORD	F550	31826	R0853D	TRUCK - DUMP - 19500 GVW 4WD C/C 9'	TK5000	TRUCK - CLASS 5 - 16001-19500
R20142	2020	FORD	F550	19966	R0853B	TRUCK - DUMP - 19500 GVW 4WD 9'	TK5000	TRUCK - CLASS 5 - 16001-19500
R20143	2020	FORD	F550	25312	R0853D	TRUCK - DUMP - 19500 GVW 4WD C/C 9'	TK5000	TRUCK - CLASS 5 - 16001-19500

R21231	2021	INTL.	HV613	12117	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R21232	2021	INTL.	HV613	20474	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R21233	2021	INTL.	HV613	12275	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R21234	2021	INTL.	HV613	7015	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R21235	2021	INTL.	HV613	10004	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R21236	2021	INTL.	HV613	7448	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R21237	2021	INTL.	HV613	5193	R0896A	TRUCK - DUMP - 50000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R21238	2021	INTL.	HV607	5984	R0890A	TRUCK - BRIDGE - 36000 GVW - C/C A/T FLT CRN	TK8000	TRUCK - CLASS 8 - OVER 33000
R21239	2021	FREIGHTLINER	M2	568	R0693X	TRUCK - SWEeper VACUUM - 4-7 CY	TK7000	TRUCK - CLASS 7 - 26001-33000
R21240	2021	FREIGHTLINER	M2	622	R0693X	TRUCK - SWEeper VACUUM - 4-7 CY	TK7000	TRUCK - CLASS 7 - 26001-33000
R21242	2021	FREIGHTLINER	M2112	3391	R0936X	TRUCK - ROLLBACK - 18000 GVW - SHOP OPS	TK6000	TRUCK - CLASS 6 - 19501-26000
R21246	2021	THOMAS	0918N EFX	6381	R0028X	BUS - OFFENDER TRANSPORTATION	TK7000	TRUCK - CLASS 7 - 26001-33000
R22004	2022	INTL.	HV507 SFA	2447	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R22007	2022	INTL.	HV507 SFA	1560	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R22008	2022	INTL.	HV507 SFA	1588	R0864A	TRUCK - DUMP - 36000 GVW A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R22014	2022	INTL.	HV507 SFA	2540	R0864C	TRUCK - DUMP - 36000 GVW C/C A/T	TK8000	TRUCK - CLASS 8 - OVER 33000
R22058	2022	FORD	F550	2107	R0853D	TRUCK - DUMP - 19500 GVW 4WD C/C 9'	TK5000	TRUCK - CLASS 5 - 16001-19500
R22061	2022	FORD	F550	2952	R0853D	TRUCK - DUMP - 19500 GVW 4WD C/C 9'	TK5000	TRUCK - CLASS 5 - 16001-19500
R22062	2022	FORD	F550	896	R0853D	TRUCK - DUMP - 19500 GVW 4WD C/C 9'	TK5000	TRUCK - CLASS 5 - 16001-19500
R22063	2022	FORD	F550	11070	R0853D	TRUCK - DUMP - 19500 GVW 4WD C/C 9'	TK5000	TRUCK - CLASS 5 - 16001-19500
R22064	2022	FORD	F550	9139	R0853D	TRUCK - DUMP - 19500 GVW 4WD C/C 9'	TK5000	TRUCK - CLASS 5 - 16001-19500
R22065	2022	FORD	F550	6695	R0853D	TRUCK - DUMP - 19500 GVW 4WD C/C 9'	TK5000	TRUCK - CLASS 5 - 16001-19500
R22066	2022	FORD	F550	5668	R0853D	TRUCK - DUMP - 19500 GVW 4WD C/C 9'	TK5000	TRUCK - CLASS 5 - 16001-19500
R22067	2022	FORD	F550	7421	R0853D	TRUCK - DUMP - 19500 GVW 4WD C/C 9'	TK5000	TRUCK - CLASS 5 - 16001-19500
R22068	2022	FORD	F550	2486	R0853D	TRUCK - DUMP - 19500 GVW 4WD C/C 9'	TK5000	TRUCK - CLASS 5 - 16001-19500
R22069	2022	FORD	F550	9303	R0853D	TRUCK - DUMP - 19500 GVW 4WD C/C 9'	TK5000	TRUCK - CLASS 5 - 16001-19500
R22070	2022	FORD	F550	3296	R0853D	TRUCK - DUMP - 19500 GVW 4WD C/C 9'	TK5000	TRUCK - CLASS 5 - 16001-19500
R22071	2022	FORD	F550	3529	R0853D	TRUCK - DUMP - 19500 GVW 4WD C/C 9'	TK5000	TRUCK - CLASS 5 - 16001-19500
R22072	2022	FORD	F550	2425	R0853D	TRUCK - DUMP - 19500 GVW 4WD C/C 9'	TK5000	TRUCK - CLASS 5 - 16001-19500
R22073	2022	FORD	F550	2281	R0853D	TRUCK - DUMP - 19500 GVW 4WD C/C 9'	TK5000	TRUCK - CLASS 5 - 16001-19500
R22074	2022	FORD	F550	1897	R0853D	TRUCK - DUMP - 19500 GVW 4WD C/C 9'	TK5000	TRUCK - CLASS 5 - 16001-19500
R22075	2022	FORD	F550	7368	R0853D	TRUCK - DUMP - 19500 GVW 4WD C/C 9'	TK5000	TRUCK - CLASS 5 - 16001-19500
R22076	2022	FORD	F550	264	R0853D	TRUCK - DUMP - 19500 GVW 4WD C/C 9'	TK5000	TRUCK - CLASS 5 - 16001-19500
R22077	2022	FORD	F550	1113	R0853D	TRUCK - DUMP - 19500 GVW 4WD C/C 9'	TK5000	TRUCK - CLASS 5 - 16001-19500
R22078	2022	FORD	F550	216	R0855B	TRUCK - UTIL BODY - 19500 GVW 4WD CRN 11'	TK5000	TRUCK - CLASS 5 - 16001-19500
R22079	2022	FORD	F550	13893	R0859B	TRUCK - UTIL BODY - 19500 GVW 4WD 11'	TK5000	TRUCK - CLASS 5 - 16001-19500
R22080	2022	FORD	F550	15243	R0859B	TRUCK - UTIL BODY - 19500 GVW 4WD 11'	TK5000	TRUCK - CLASS 5 - 16001-19500
R22081	2022	FORD	F550	4761	R0859B	TRUCK - UTIL BODY - 19500 GVW 4WD 11'	TK5000	TRUCK - CLASS 5 - 16001-19500
R22082	2022	FORD	F550	2835	R0856D	TRUCK - UTIL BODY - 19500 GVW 4WD CC 9'	TK5000	TRUCK - CLASS 5 - 16001-19500
R22083	2022	FORD	F550	5117	R0857B	TRUCK - UTIL BODY - 19500 GVW 4WD CRN AUG 11'	TK5000	TRUCK - CLASS 5 - 16001-19500
R22084	2022	FORD	F550	8014	R0858B	TRUCK - ENCL UTIL BODY - 19500 GVW 4WD 9'	TK5000	TRUCK - CLASS 5 - 16001-19500
R22085	2022	FORD	F550	4591	R0859B	TRUCK - UTIL BODY - 19500 GVW 4WD 11'	TK5000	TRUCK - CLASS 5 - 16001-19500
R22086	2022	FORD	F550	1091	R0859B	TRUCK - UTIL BODY - 19500 GVW 4WD 11'	TK5000	TRUCK - CLASS 5 - 16001-19500
R22211	2022	FORD	F550	2123	R0855B	TRUCK - UTIL BODY - 19500 GVW 4WD CRN 11'	TK5000	TRUCK - CLASS 5 - 16001-19500
R22212	2022	FORD	F550	2789	R0856D	TRUCK - UTIL BODY - 19500 GVW 4WD CC 9'	TK5000	TRUCK - CLASS 5 - 16001-19500
R22213	2022	FORD	F550	2986	R0856D	TRUCK - UTIL BODY - 19500 GVW 4WD CC 9'	TK5000	TRUCK - CLASS 5 - 16001-19500
R22433	2022	FREIGHTLINER	M2106	2287	R0951X	TRUCK - AERIAL BUCKET - 30000 GVW - 900#	TK7000	TRUCK - CLASS 7 - 26001-33000
R23089	2023	INTL.	MV607	1185	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R23090	2023	INTL.	MV607	1014	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R23093	2023	INTL.	MV607	4025	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R23094	2023	INTL.	MV607	1461	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R23095	2023	INTL.	MV607	875	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R23096	2023	INTL.	MV607	731	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R23097	2023	INTL.	MV607	978	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R23098	2023	INTL.	MV607	1338	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R23099	2023	INTL.	MV607	1025	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R23100	2023	INTL.	MV607	1012	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R23101	2023	INTL.	MV607	751	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R23102	2023	INTL.	MV607	1060	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R23103	2023	INTL.	MV607	1287	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R23104	2023	INTL.	MV607	1709	R0861X	TRUCK - CRASH CUSHION - NCHRP350	TK6000	TRUCK - CLASS 6 - 19501-26000
R52847	1988	FREIGHTLINER	112CONVENTIO	58956	R0873X	TRUCK - FUEL HANDLING - 3500 GAL	TK8000	TRUCK - CLASS 8 - OVER 33000
R58225	1988	FORD	LT8000	45986	R0158X	TRUCK - DITCHER - 50000 GVW	TK8000	TRUCK - CLASS 8 - OVER 33000
R58583	1989	INTL.	4700	225489	R0936X	TRUCK - ROLLBACK - 18000 GVW - SHOP OPS	TK6000	TRUCK - CLASS 6 - 19501-26000
R62069	1990	INTL.	4700	153294	R0936X	TRUCK - ROLLBACK - 18000 GVW - SHOP OPS	TK6000	TRUCK - CLASS 6 - 19501-26000
R62074	1991	MACK	MR688P	21785	R0973X	TRUCK - TUNNEL WRECKER - 40000 GVW	TK8000	TRUCK - CLASS 8 - OVER 33000
R62313	1992	INTL.	4700	51314	R0865C	TRUCK - STAKE BODY - 28000 GVW C/C	TK7000	TRUCK - CLASS 7 - 26001-33000
R62391	1992	GMC	7000	34997	R0865X	TRUCK - STAKE BODY - 28000 GVW	TK7000	TRUCK - CLASS 7 - 26001-33000
R65983	1990	CHEVROLET	3500	45339	R0193X	TRUCK - DRILL - B27/B36/B38/B86	TK5000	TRUCK - CLASS 5 - 16001-19500
R67293	1992	FORD	F800	43456	R0951X	TRUCK - AERIAL BUCKET - 30000 GVW - 900#	TK7000	TRUCK - CLASS 7 - 26001-33000
R67778	1993	INTL.	4700	62041	R0156X	TRUCK - ASPHALT DISTRIBUTOR	TK6000	TRUCK - CLASS 6 - 19501-26000
R67779	1993	INTL.	4700	65597	R0156X	TRUCK - ASPHALT DISTRIBUTOR	TK6000	TRUCK - CLASS 6 - 19501-26000
R67946	1994	GMC	7500	201107	R0945X	TRUCK - POLE DERRICK/AUGER - 30000 GVW	TK7000	TRUCK - CLASS 7 - 26001-33000
R67949	1994	FORD	LT8000	3361	R0971X	TRUCK - TUNNEL FLUSH - 50000 GVW	TK8000	TRUCK - CLASS 8 - OVER 33000
R99909	2005	FORD	E450	45280	R0877X	TRUCK - BOX VAN BODY - VARIOUS GVW	TK4000	TRUCK - CLASS 4 - 14001-16000
R99914	2005	FORD	E450	176595	R0877X	TRUCK - BOX VAN BODY - VARIOUS GVW	TK4000	TRUCK - CLASS 4 - 14001-16000

Procurement Work Group Data Request

FY 2021 & FY2022

Source: Vendor Reports/eVA System

eVA Purchase Order Number	Agency/Locality	Quantity
School Bus Contract (E194-73321 & E194-90742)		
210704 / EP3203533	Virginia Beach City Public Schools	23
DO2025928	LYNCHBURG CITY PUBLIC SCHOOLS	1
DO2025929	LYNCHBURG CITY PUBLIC SCHOOLS	5
DO2025930	LYNCHBURG CITY PUBLIC SCHOOLS	2
DO2035009	NEW KENT COUNTY PUBLIC SCHOOLS	1
EP3145086	Newport News City Public Schools	18
EP3159631-V2	York County Public Schools	2
EP3159635	York County Public Schools	3
EP3168591	TAZEWELL COUNTY PUBLIC SCHOOLS	4
EP3193809	ORANGE COUNTY PUBLIC SCHOOLS	5
EP3193816	Orange County Public Schools	2
EP3195130	VIRGINIA BEACH CITY PUBLIC SCHOOLS	4
EP3195142	VIRGINIA BEACH CITY PUBLIC SCHOOLS	3
EP3195986	PULASKI COUNTY PUBLIC SCHOOLS	3
EP3196482	RUSSELL COUNTY PUBLIC SCHOOLS	3
EP3197254	Hampton City Public Schools	2
EP3197650-V2	CAMPBELL COUNTY PUBLIC SCHOOLS	1
EP3202372-V2	GOOCHLAND COUNTY PUBLIC SCHOOLS	1
EP3202876	NOTTOWAY COUNTY PUBLIC SCHOOLS	2
EP3203436	Virginia Beach City Public Schools	2
EP3203657	Loudoun County Public Schools	13
EP3203658	Loudoun County Public Schools	12
EP3203659	LOUDOUN COUNTY PUBLIC SCHOOLS	10
EP3203660	LOUDOUN COUNTY PUBLIC SCHOOLS	21
EP3203767	HOPEWELL CITY PUBLIC SCHOOLS	2
EP320657	Loudoun County Public Schools	5
EP3207205	FAUQUIER COUNTY PUBLIC SCHOOLS	4
EP3207307	Fauquier County Public Schools	4
EP3209632	BEDFORD COUNTY PUBLIC SCHOOLS	14
EP3210081	Dinwiddie County Public Schools	6
EP3210082	Dinwiddie County Public Schools	1
EP3215704	FRANKLIN COUNTY PUBLIC SCHOOLS	3
EP3216232	VIRGINIA BEACH CITY PUBLIC SCHOOLS	8
EP3217188-V3	CAROLINE COUNTY PUBLIC SCHOOLS	5
EP3218734	York County Public Schools	6
EP3219094	York County Public Schools	4
EP3223919	Stafford County Public Schools	10
EP3225966	FALLS CHURCH CITY PUBLIC SCHOOLS	1
EP3226309	SALEM CITY PUBLIC SCHOOLS	2
EP3230155	CHARLOTTESVILLE CITY PUBLIC SCHOOLS	3
EP3234966	CHESTERFIELD COUNTY PUBLIC SCHOOLS	26
EP3236610	Pittsylvania County Public Schools	5
EP3241788	Frederick County Public Schools	4
EP3245186	NELSON COUNTY PUBLIC SCHOOLS	2
EP3247998	Washington County School Board	1
EP3248677	CAMPBELL COUNTY PUBLIC SCHOOLS	2
EP3249731	Staunton City Public Schools	2
EP3251940	SCOTT COUNTY PUBLIC SCHOOLS	3
EP3252043	Frederick County Public Schools	16

EP3254954	STAFFORD COUNTY PUBLIC SCHOOLS	3
EP3254958	Stafford County Public Schools	2
EP3257507	Goochland County Public Schools	3
EP325786	Washington County School Board	1
EP3258658	FRANKLIN COUNTY PUBLIC SCHOOLS	3
EP3258830	GLOUCESTER COUNTY PUBLIC SCHOOLS	12
EP3260019	Smyth County Public Schools	3
EP3262211	PRINCE WILLIAM COUNTY PUBLIC SCHOOLS	14
EP3263266	CHESTERFIELD COUNTY PUBLIC SCHOOLS	5
EP3264252	Spotsylvania County Public Schools	9
EP3265142	PETERSBURG CITY PUBLIC SCHOOLS	1
EP3268169	MATHEWS COUNTY PUBLIC SCHOOLS	2
EP3271512-V2	Charlottesville City Public Schools	2
EP3273230	Chesapeake City Public Schools	9
EP3279450-V2	Pulaski County Public Schools	1
EP3279477	Pulaski County Public Schools	1
EP3279503	Pulaski County Public Schools	3
EP3283255	Virginia Beach City Public Schools	25
EP3286830	Northampton County Public Schools	1
EP3286855	Sussex County Public Schools	2
EP3287035	Augusta County Public Schools	10
EP3289622	Tazewell County Public Schools	5
EP3292322	Clarke County Schools	1
EP3293792	Albemarle County Public Schools	2
EP3295762	Prince George County Public Schools	4
EP3298954	Williamsburg James City County Public	10
EP3305110	Campbell County Public Schools	2
EP3305133	Campbell County Public Schools	4
EP3305427	Henrico County Public Schools	34
EP3310089	Dinwiddie County Public Schools	2
EP3313736	Dinwiddie County Public Schools	4
EP3314072	Chesterfield County Public Schools	22
EP3318529	Virginia Beach City Public Schools	21
EP3318536	Virginia Beach City Public Schools	19
EP3318538	Virginia Beach City Public Schools	37
EP3318541	Virginia Beach City Public Schools	36
EP3318545	Virginia Beach City Public Schools	7
EP3318930	Petersburg City Public Schools	12
EP3319360	Salem City Public Schools	1
EP3320438	Henrico County Public Schools	5
EP3321922	Washington County Public Schools	1
EP3324834	Salem City Public Schools	3
EP3327301	Goochland County Public Schools	2
EP3327607	Fauquier County Public Schools	1
EP3328301	Northampton County Public Schools	1
EP3328780	Nelson County Public Schools	1
EP3329677	Smyth County Public Schools	2
EP3331013	Richmond City Public Schools	10
EP-3331965	Goochland County Public Schools	1
EP3332792	Richmond City Head Start	3
EP3335665	Newport News City Public Schools	38
EP3336061	Caroline County Public Schools	3
EP3336583	Pittsylvania County Public Schools	1
EP3336934	Scott County Public Schools	2

EP3336964	Scott County Public Schools	1
EP3339801	Campbell County Public Schools	2
EP3339819	Orange County Public Schools	7
EP3341847	Washington County Public Schools	1
EP3343410	Scott County Public Schools	1
EP3343414	Scott County Public Schools	1
EP3343417	Scott County Public Schools	1
EP3346706	Stafford County Public Schools	15
EP3347686	Nelson County Public Schools	3
EP3347993	Franklin County Public Schools	3
EP3348040	York County Public Schools	5
EP3348960	Prince William County Public Schools	41
EP3352213	Nottoway County Public Schools	2
EP3352621	Caroline County Public Schools	5
EP3353071	Petersburg City Public Schools	2
EP3357951-V2	Clarke County Public Schools	1
EP3362057	Scott County Public Schools	1
EP3364962	Bedford County Public Schools	12
EP3366956	Smyth County Public Schools	1
EP3369688	Prince George County Public Schools	4
EP3370746	Augusta County Public Schools	12
EP3370943	Frederick County Public Schools	2
EP3372354	Fauquier County Public Schools	1
EP3373800	Henrico County Public Schools	48
EP3375015	Chesapeake City Public Schools	100
EP3382625-V2	Stafford County Public Schools	2
EP3393348	Bedford County Public Schools	3
EP3393349	Bedford County Public Schools	3
EP3393854	Gloucester County Schools	2
EP3393855	Gloucester County Schools	1
EP3396638	Scott County Public Schools	1
EP3403693	Norfolk Public Schools	3
EP3406761	Colonial Heights Public Schools	2
EP3409775	Scott County Public Schools	1
EP3413934	Staunton City Public Schools	2
EP3417433	Scott County Public Schools	1
EP3443686	Campbell County Public Schools	3
EP3443699	Franklin County Public Schools	2
EP3443804	Scott County Public Schools	1
EP3445669	Isle of Wight County Public Schools	2
EP3448643	Cumberland County Public Schools	2
EP3466079	Washington County Public Schools	1
EP3466089	Washington County Public Schools	4
EP3466092	Washington County School Board	3
EP3466628	Smyth County Public Schools	1
EP3467460	Pulaski County Public Schools	2
EP3477415	Fauquier County Public Schools	1
EP3489074	Scott County Public Schools	1
EP3494111	Clarke County Schools	1
T33AD / EP3215705		1
Sub-Total		1009
Electric School Bus Contract# E194-84826		
EP3364965-V3	Bedford County Public Schools	1
EP3379362	Montgomery County Public Schools	1

EP3379546	Louisa County Public Schools	2
EP3379765	Augusta County Public Schools	2
EP3389781	Montgomery County Public Schools	2
EP3389783-V2	Montgomery County Public Schools	1
EP3435175	Essex County Public Schools	2
EP3465312	Southampton School Board Office - Bus Garage	2
EP3487344	Petersburg City Public Schools	3
EP3487379	Galax City Public Schools	2
EP3488437	Alexandria City Public Schools	10
EP3501331	Albemarle County Procurement	2
Sub-Total		30
Electric Transit Buses Contract# E194-81688		
EP3112404-V2	Blacksburg Transit	3
EP3112405-V2	Blacksburg Transit	2
Sub-Total		5
Vehicle Trucks Contract# E194-91556		
EP3405472	DGS - Office of Fleet Management	1
EP3405472	DGS - Office of Fleet Management	6
EP3501555	DGS - Office of Fleet Management	1
Sub-Total		8
Vehicle Transit Buses ADS Accessible w/ Wheel Chair Lift Contract# E194-79495		
EP3473119	JAUNT	28
EP3399187	Department of Rail and Public Transportation	1
EP3357076	Appalachian Agency for Senior Citizens	8
EP3378322	District Three Governmental Cooperative	4
EP3360485	City of Petersburg-Office of Budget and Procurement	3
EP3397380	Bay Transit	3
EP3359604	Blacksburg Transit	4
EP3451187	Hampton Roads Planning District/Tidewater EMS	2
EP3401104	Mountain Empire Older Citizens	3
EP3360067	STAR Transit	2
EP3360066	Virginia Regional Transit	2
EP3358419	City of Danville	1
EP3441317	Lake Country Area Agency on Aging	2
EP3358304	City of Danville	1
EP3358304-V2	City of Danville	1
EP3397385	Bay Transit	1
EP3434100	Town of Blackstone	1
EP3360063	Virginia Regional Transit	1
EP3360196	UHSTS Inc / RADAR	1
EP3424170	City of Bristol	1
EP3403135	GENERAL SERVICES - FLEET	1
EP3357494	New River Valley Senior Services, Inc.	1
EP3440622	Parking Services / Old Dominion University	1
EP3451406	Piedmont Senior Resources Area Agency on Aging, Inc.	1
EP3471808	Blacksburg Transit	1
EP3472104	Blacksburg Transit	1
EP3359088	Blacksburg Transit	1
EP3269107	Central Receiving	35
EP3300997	Department of Rail and Public Transportation	1
EP3290668	Appalachian Agency for Senior Citizens	9
EP3260292	Fleet Management	3
EP3295398	City of Petersburg-Petersburg Area Transit	3
EP3283894	District Three Governmental Cooperative	4

EP3274635	City of Danville	2
EP3327519	Virginia Regional Transit	3
EP3303638	Bay Transit	3
EP3303648	Bay Transit	2
EP3307541	STAR Transit	2
EP3284754-V2	Hampton Roads Planning District/Tidewater EMS	2
EP3290636	New River Valley Senior Services, Inc.	2
EP3274753	City of Danville	1
EP3210752	Fredericksburg Transit	1
EP3327510	Virginia Regional Transit	1
EP3308576	Town of Altavista	1
EP3288797	Town of Blackstone	1
EP3243811	City of Petersburg-Purchasing Office	1
DO2035821	VPA Police Command & Control Center	1
EP3245728	City of Petersburg-Petersburg Area Transit	1
EP3279963	Hanover County - Purchasing Division	1
EP3328301	Northampton County Public Schools	1
EP3313358	Department of Rail and Public Transportation	1
EP3346165	Middle Peninsula Northern Neck CSB	1
Sub-Total		246
Vehicle BOC 15, 19 &21 Passenger Contract# E194-74640		
EP3347114	City of Harrisonburg - Purchasing Office	4
Sub-Total		4
Vehicle BOC 13 - 21 Passenger Contract# E194-94462		
EP3441568	Charlottesville Area Transit	5
Sub-Total		5
Total		1,307

VDOT has a vehicle fleet of approximately 8,000 pieces of equipment.

Of that fleet nearly 2,600 pieces are medium to heavy duty (Class 4 thru Class 8). Over half of the medium and heavy duty vehicles are in Class 8 (over 33,000 lbs).

YEAR	(All)
Row Labels	Count of UNIT NO
■ TRUCK - CLASS 4 - 14001-16000	64
■ TRUCK - CLASS 5 - 16001-19500	442
■ TRUCK - CLASS 6 - 19501-26000	394
■ TRUCK - CLASS 7 - 26001-33000	81
■ TRUCK - CLASS 8 - OVER 33000	1618
Grand Total	2599

In addition to its responsibilities to build, maintain and operate highways, VDOT fulfills a critical role of highway incident response. This can include response to vehicle crashes, response to thunderstorms, response to tropical weather events and response to winter weather events. These events can occur at any time of the day or night. Some events require vehicles to be in use for 24 hours/day in back-to-back 12-hour shifts. This type of readiness and long-term performance requirement is not conducive to the re-charging needs of an electric vehicle.

Medium and heavy duty vehicles are the core items that are used to respond to these types of incidents. Of the nearly 2,600 medium and heavy duty pieces of equipment at VDOT, only about 150 are not part of the immediate incident response plans.

Most have unique uses that require accessories that would make EV power inefficient. Examples include line striping trucks, asphalt distributor tankers, and roadway sweepers.

There are about 20 Class 7 Buses not dedicated to incident response that are used to transport Dept of Corrections inmate road crews to/from work sites. VDOT would need to consult with DOC to evaluate the risks associated with incorporating EV power into the Class 7 Bus category.

Overall, VDOT has a large fleet of medium and heavy duty equipment. Incident response demands and unique accessory needs eliminate all but a few of the vehicles from reasonable consideration for electrification.

Row Labels	Count of UNIT NO
■ TRUCK - CLASS 4 - 14001-16000	1
■ TRUCK - THERMOPLASTIC SUPPLY MARKER	1
■ TRUCK - CLASS 5 - 16001-19500	10
■ TRUCK - DRILL - B27/B36/B38/B86	4
■ TRUCK - DRILL - CORE	2
■ TRUCK - DRILL - CORE - ROTATING BASE	4
■ TRUCK - CLASS 6 - 19501-26000	52
■ TRUCK - ASPHALT DISTRIBUTOR	52
■ TRUCK - CLASS 7 - 26001-33000	50
■ BUS - OFFENDER TRANSPORTATION	17
■ TRUCK - ASPHALT PATCHER	6
■ TRUCK - HERBICIDE SPRAYER	2
■ TRUCK - MINI SCRIM	1
■ TRUCK - PAINT MARKER - 400 GAL - SINGLE AXLE	3
■ TRUCK - POLE DERRICK/AUGER - 30000 GVW	2
■ TRUCK - SPRAY INJECTION POTHOLE PATCHER	2
■ TRUCK - SWEEPER VACUUM - 4-7 CY	17
■ TRUCK - CLASS 8 - OVER 33000	35
■ TRUCK - CATCH BASIN CLEANER - 50000 GVW	13
■ TRUCK - DITCHER - 50000 GVW	6
■ TRUCK - PAINT MARKER - 800 GAL - TANDEM AXLE	10
■ TRUCK - TUNNEL FLUSH - 50000 GVW	1
■ TRUCK - UNDERBRIDGE INSPECTION UNIT - LARGE	3
■ TRUCK - UNDERBRIDGE INSPECTION UNIT - SMALL	2
Grand Total	148

Meeting Minutes

Public Body Procurement Workgroup

Meeting # 3

Thursday, August 11, 2022, 9:30 a.m.

Conference Rooms C, D, and E

James Monroe Building

101 N 14th St, Richmond, Virginia 23219

<http://dgs.virginia.gov/dgs/directors-office/procurement-workgroup/>

The Public Body Procurement Workgroup (the Workgroup) met in-person in conference rooms C, D, and E in the James Monroe Building in Richmond, Virginia, with Sandra Gill, Deputy Director of the Department of General Services (DGS), presiding. The meeting began with remarks from Ms. Gill, followed by public comment. Materials presented at the meeting are available through the [Workgroup's website](#).

Workgroup members and representatives present at the meeting included Sandra Gill (Department of General Services), Matthew James (Department of Small Business and Supplier Diversity), Mary Lou Bulger (Virginia Information Technologies Agency), Robert Prezioso (Virginia Department of Transportation), Jason Saunders (Department of Planning and Budget), Patricia Innocenti (Virginia Association of Governmental Procurement), John McHugh (Virginia Association of State Colleges and University Purchasing Professionals), Andrea Peeks (House Appropriations Committee), Tyler Williams (Senate Finance and Appropriations Committee) and Amigo Wade (Division of Legislative Services). Leslie Haley, representing the Office of the Attorney General, was absent.

I. Call to Order; Remarks by Chair

Sandra Gill, Deputy Director
Department of General Services

Ms. Gill called the meeting to order and explained that the Workgroup will not be discussing SB 550 at this meeting, but during the public comment portion of the agenda stakeholders are welcome to make comments on either SB 550 or SB 575. She requested that stakeholders who have already provided public comment to the Workgroup at previous meetings limit their comments to any new information they wish to share with the Workgroup.

II. Approval of Meeting Minutes from the July 28, 2022 Workgroup Meeting

After the Workgroup heard and agreed to a request from Mr. Saunders to correct a typo on page 8, Mr. Prezioso made a motion to approve the meeting minutes from the July 28, 2022 meeting of the Workgroup. The motion was seconded by Mr. James and unanimously approved by the Workgroup.

III. Presentation on the Department of General Services' Responsibilities with Regards to Procurement of Medium-Duty and Heavy-Duty Vehicles

Next, Michael Bisogno, the Assistant Director of DGS, gave a presentation to the Workgroup about DGS and its Office of Fleet Management Services (OFMS), and their role in the purchase and use of Commonwealth-owned motor vehicles. He explained that OFMS is responsible for the centralized fleet of approximately 3,800 vehicles, which are spread out throughout the Commonwealth. He noted that the light-duty passenger-type vehicles are leased back to state agencies and institutions of higher education to assist them with their roles in carrying out the mission of the Commonwealth. In addition to operating the centralized fleet, he noted that OFMS is responsible for (i) developing guidance documents pertaining to the purchase, use, storage, maintenance, repair, and disposal of Commonwealth-owned light-duty passenger-type vehicles; (ii) assisting in the development of specifications for vehicles to be purchased on statewide contract through DGS's Division of Purchases and Supply (DPS); and (iii) approving the acquisition of all light-duty passenger-type vehicles for all state agencies.

Mr. Bisogno explained that due to the unique nature of medium-duty and heavy-duty vehicles, including their usage, specifications, and lifecycles, the development of vehicle specifications and purchasing responsibility for medium-duty and heavy-duty vehicles lies with the purchasing agency as opposed to OFMS. He emphasized that OFMS is mainly focused on light-duty passenger-type vehicles and their day-to-day mission.

IV. Presentation on the Virginia Department of Transportation's Fleet of Medium-Duty and Heavy-Duty Vehicles

The Workgroup then heard a presentation from Robert Prezioso, the State Maintenance Engineer with the Virginia Department of Transportation (VDOT), on VDOT's fleet of medium-duty and heavy-duty vehicles. He explained that VDOT has a vehicle fleet of approximately 8,000 pieces of equipment. Of that fleet nearly 2,600 pieces are medium-duty and heavy-duty vehicles (Class 4 through Class 8), and over half of those medium-duty and heavy-duty vehicles are in Class 8 (over 33,000 pounds).

Mr. Prezioso explained that in addition to VDOT's responsibilities to build, maintain and operate highways, VDOT fulfills a critical role of highway incident response. This includes responses to vehicle crashes, thunderstorms, tropical weather events, winter weather events, etc. He emphasized that these events can occur at any time of the day or night, and that some of these events require vehicles to be in use for 24 hours per day in

back-to-back 12-hour shifts. He noted that this need for readiness and long-term performance is not conducive to the recharging needs of an electric vehicle.

Mr. Prezioso shared that medium-duty and heavy-duty vehicles are the core items that are used to respond to these types of incidents. Of the nearly 2,600 medium-duty and heavy-duty pieces of equipment at VDOT, only about 150 are not part of the immediate incident response plans.

Mr. Prezioso explained that of the 150 medium-duty and heavy-duty vehicles that are not part of the immediate incident response plans, many have unique uses that require accessories that would make EV power inefficient. Examples he gave included line striping trucks, asphalt distributor tankers, drills, ditchers, and roadway sweepers.

After accounting for the unique vehicles described above, Mr. Prezioso shared that the remainder of the 150 non-incident response vehicles consist of about 20 Class 7 buses that VDOT uses to transport Department of Corrections (DOC) inmate road crews to and from work sites. He stressed that VDOT would need to consult with DOC to evaluate the risks associated with incorporating EV power into VDOT's Class 7 bus category.

Mr. Prezioso concluded his remarks by noting that overall, VDOT has a large fleet of medium-duty and heavy-duty equipment, but incident response demands and unique accessory needs eliminate all but a few of their vehicles from reasonable consideration for electrification. He emphasized that the provisions of SB 575 that require state agencies to use of a total cost of ownership (TCO) calculator for light-duty vehicles provide an exemption for vehicles used in incident response and other emergency response activities, and he expressed VDOT's desire that that same exemption be extended to any requirement that state agencies use a TCO calculator for medium-duty and heavy-duty vehicles.

V. Presentation on the Virginia Department of Rail and Public Transportation's Fleet of Medium-Duty and Heavy-Duty Vehicles and the Impact of Using a TCO Calculator During their Procurement

Next, the Workgroup heard a presentation from Grant Sparks, the Acting Chief of Public Transportation for the Virginia Department of Rail and Public Transportation (DRPT), on DRPT's mission and the impact that a requirement to use a TCO calculator for medium-duty and heavy-duty vehicles would have on their operations. Mr. Sparks explained that DRPT's mission is to facilitate and improve the mobility of people in Virginia and to promote the efficient movement of goods and people in a safe, reliable, and cost-effective manner. He noted that DRPT works very closely with all public transportation providers and stakeholders in the Commonwealth to promote the benefits of using public transportation. He explained that DRPT is also a major funder of public transit investments in the Commonwealth for both operations, which includes transit agency salaries, wages, and maintenance, as well as capital projects, which includes bus replacements, infrastructure, and equipment.

Mr. Sparks then spoke to the Workgroup to share DRPT's comments on SB 575 as it relates to the procurement of public transportation vehicles and human service transportation vehicles. As background, he explained that today their transit agencies and human services transportation providers operate over 3,600 transit vehicles in the Commonwealth. About half of these vehicles are medium-duty and heavy-duty vehicles, which typically need to be replaced every 10 to 12 years. The other half of these vehicles are light-duty vehicles, which need to be replaced every four to five years. He shared that on average, DRPT provides funding for and helps support the purchase of over 300 transit vehicles per year. He stressed that as a state agency, DRPT does not operate transit services nor does it act as the title holder for transit vehicles in Virginia. It also does not make the decision as to which type of vehicle needs to be purchased for service. He explained that those are the responsibilities of the local transit agency.

Mr. Sparks shared that due to the volume of transit vehicles that are purchased in the Commonwealth annually, DRPT has historically worked with DGS to leverage economies of scale and develop a fully-procured and federally-compliant state transit vehicle contract. He explained that this contract may be used by any transit agency or human services transportation provider in the Commonwealth.

Mr. Sparks explained that when DRPT participates in the funding of a transit vehicle, the transit agency works directly with their preferred manufacturer on the state vehicle contract and specs out the vehicle, gets a final quote, and issues a purchase order directly through eVA. He noted that DRPT does not participate in the process of purchasing or leasing the vehicles. He explained that for human services transportation providers, which are much smaller agencies, the process is essentially the same – the agency works with their preferred vehicle manufacturer and gets a final quote for the vehicle, but DRPT issues the purchase order through eVA on behalf of the human services agency. He explained that this is something that they do as a courtesy for some of their very small agencies. He emphasized again, however, that the titles are held by the agencies, not DRPT.

Speaking specifically to SB 575, he stated that as the Workgroup considers implementing a requirement that state agencies use a TCO calculator for medium-duty and heavy-duty vehicles, DRPT would support making a clear distinction that this requirement is only for state agencies that wish to purchase or lease vehicles, and not for local agencies that wish to purchase off of a state vehicle contract. He stated that if that is not feasible, DRPT would alternatively support establishing an exemption for transit vehicles, similar to the emergency vehicle exemption. He shared that these recommendations would also apply to any guidance documents that DGS develops for the TCO calculator for light-duty vehicles.

Mr. Sparks explained that while DRPT supports transit electrification efforts, it feels as though a requirement to use a TCO calculator for medium-duty and heavy-duty vehicles, if implemented with the intent of including transit vehicles, would be duplicative of the work that DRPT is already doing and could be burdensome for its staff and transit agency staff. He stated that through the Infrastructure Investment and Jobs Act (IIJA), the

Federal Transit Administration (FTA) is providing over \$ 1.1 bill per year to transit agencies nationwide for the purchase of low or no emission transit vehicles. In order to apply for these funds, agencies must submit a “transition plan” to FTA, which is essentially a cost-benefit analysis and considers the capital and operating costs of the EVs (in coordination with utility providers), infrastructure capacity and installation, and a number of other criteria. He noted that DRPT staff are working very closely with their transit agencies to develop these transition plans, and thus DRPT believes that the use of a state-approved calculator tool is unnecessary and duplicative of the work that DRPT is currently doing with their agencies.

Mr. Saunders noted that oftentimes TCO calculators are focused primarily on the cost of procuring the vehicle. He inquired as to the current practice for procuring medium-duty and heavy-duty vehicles, and asked whether factors other than cost are taken into consideration.

Mr. Prezioso explained that the procurement process for medium-duty and heavy-duty vehicles is essentially a low-bid process. The vehicle is purchased from a low-bid contract that VDOT has negotiated itself or from a contract negotiated by someone they have partnered with, such as DGS. Mr. Sparks explained that for public transportation, the local transit agencies make the procurement decision. He noted that DRPT works with DGS on developing the state vehicle contract for transit vehicles, and that there are not that many transit vehicle manufacturers in the country that meet all of the federal requirements. He explained that all of the large manufacturing companies are on the state vehicle contract in Virginia, and when a local transit agency needs to replace a vehicle, it looks to the state vehicle contract and works with their preferred manufacturer. He noted that local transit agencies tend to select that same manufacturer each time because the agency already has all of the equipment and materials for that manufacturer within their maintenance departments. Mr. Sparks also noted that electric buses are already on the state vehicle contract, so nothing currently prohibits a local transit agency from purchasing an electric bus. Finally, Pete Stamps, Director of DPS, which facilitates the procuring and establishment of state contracts, commented that the specifications and need are determined by DRPT or OFMS, and DPS facilitates the contract. He noted that the contract is awarded to the lowest responsive and responsible bidder.

VI. Consideration and Discussion of Public Comment, Written Comments, and Other Information Received by the Workgroup on SB 575

The Workgroup then moved into consideration and discussion of the public comment, written comments, and other information received by the Workgroup on SB 575. Ms. Gill began the discussion by reminding the Workgroup of the tasks that it was assigned to complete by the third enactment clause of SB 575 – (i) consult with relevant stakeholders, including at least one medium-duty or heavy-duty vehicle technology provider with experience in real-world deployments and (ii) consider (a) the current commercial market for medium-duty and heavy-duty electric vehicles, (b) the unique characteristics of medium-duty and heavy-duty vehicles, including charging infrastructure and operational duty cycles, (c) the potential volume of medium-duty and

heavy-duty vehicles purchased by DGS and other state agencies, (d) the availability of public total cost of ownership (TCO) calculators for medium-duty and heavy-duty vehicles and their suitability for use by DGS and other state agencies, and (e) the appropriateness of requiring DGS and all state agencies to use a TCO calculator to assess and compare the total cost to purchase, own, lease, and operate medium-duty and heavy-duty internal combustion-engine vehicles versus comparable electric vehicles prior to purchasing or leasing any medium-duty or heavy-duty vehicle. Ms. Gill then walked the Workgroup through discussion on each of those tasks.

Ms. Gill noted that regarding the first task (“consult with relevant stakeholders, including at least one medium-duty or heavy-duty vehicle technology provider with experience in real-world deployments”), Chris Nolan with McGuire Woods Consulting spoke to the Workgroup at its previous meeting on behalf of Volvo Trucks of North America. He shared that Volvo produces both medium-duty and heavy-duty trucks, and began producing a heavy-duty EV product in 2021. As such, Ms. Gill noted that the Workgroup has completed its first task.

Regarding the second task (“consider the current commercial market for medium-duty and heavy-duty electric vehicles”), Ms. Gill reminded the Workgroup that at its previous meeting Mr. Nolan shared some information about the current commercial market for medium-duty and heavy-duty vehicles and highlighted that Volvo believes that EVs are going to make up more of the medium-duty and heavy-duty market as time goes on. He shared that as a company their goal is for 35 percent of their sales to be EVs by 2030. She then opened up the floor for discussion on this task.

Mr. Prezioso shared that at this point in time manufacturers are struggling to even deliver standard light-duty internal combustion engine vehicles (ICEVs). He stated that anything they order in that category today is going to be 12, 14, or 15 months out for delivery, and there are only a limited number of them that they can get. He stated that the availability of medium-duty and heavy-duty vehicles is just as, or even more, challenging. As far as EVs, and medium-duty and heavy-duty EVs in particular, he noted that there does not really seem to be any available on the market, especially on a large scale. He shared that he knows manufacturers are making some change over to produce EVs, but they seem to be heavily focused on meeting current demand before they start making EVs.

Ms. Gill then asked Ms. Innocenti about what she is hearing from the local government community concerning their transition to EVs and any challenges they are seeing, Ms. Innocenti responded that their experience is much as Mr. Prezioso reported. She noted that for a regular fleet there are significant delivery delays. She shared that it was reported to her that for Ford Super Duty trucks, there is only a one-day opening in the window bank this fall for fleet purchasers, and she noted that that speaks to the overall challenges in fleet replenishment. Ms. Innocenti also explained that localities use the statewide vehicle contract to purchase school buses and vehicles for their transit fleet, and while the availability of EVs on the state vehicle contract is a valuable tool in trying to transition their fleet, localities face concerns about EV infrastructure, the ability of their existing maintenance facilities to be able to support EVs, and charging infrastructure. She

stressed that the decision to transition to EVs is a complex decision, and it is not strictly limited to what is available on the market. She explained that localities must take into consideration all of the factors that go into the purchase and support of EVs over their lifetime.

Mr. Wade expressed concern about having a strict mandate to state agencies to purchase an EV if they are the more cost-efficient option regardless of whether EVs are, in fact, available. He suggested establishing an exemption from the mandate for situations in which EVs are not available for purchase and delivery within a reasonable timeframe.

Ms. Gill asked Mr. McHugh about what institutions of higher education are doing regarding transit at their schools. He responded that most institutions partner with their local transit authority (for example, VCU has a partnership with GRTC), and, as Mr. Sparks mentioned, those transit authorities have a transition plan, which is an expectation of any authority to determine whether EVs are appropriate.

Ms. Gill then directed the Workgroup's attention to a spreadsheet that was included in the meeting materials showing the results of an email survey conducted by the Workgroup's staff of agencies' current inventory of medium-duty and heavy-duty vehicles. She noted that the results show that the Commonwealth currently has a total of just over 3,000 medium-duty and heavy-duty vehicles. She demonstrated that once VDOT's incident and emergency response vehicles (which VDOT intends to have exempted from any requirement to use a TCO calculator of medium-duty and heavy-duty vehicles, similar to their current exemption from the requirement to use a TCO calculator for light-duty vehicles) are subtracted from the total, only 730 medium-duty and heavy-duty vehicles remain.

Ms. Gill then asked the Workgroup to consider its fifth task ("the availability of public TCO calculators for medium-duty and heavy-duty vehicles and their suitability for use DGS and other state agencies"). She noted that at its previous meeting the Workgroup heard from the Electrification Coalition and that they provided the Workgroup with a significant amount of information on their TCO calculator, called the DRVE Tool. Ms. Gill asked if any of the Workgroup members had any comments on the factors that the Workgroup should consider in deciding whether state agencies should be required to use a TCO calculator for medium-duty and heavy-duty vehicles.

Ms. Gill asked Mr. Sparks what the timeline is for applying for IIJA funds. Mr. Sparks responded that the low and no emission program through FTA, which received a substantial increase in funding through IIJA, is an annual program. He noted that DRPT just went through a round of grant applications a couple of months ago, so they will apply again next year. When asked specifically if there is a set expiration for the IIJA funds, Mr. Sparks responded that funding is available through the next four or five years, but beyond that it is unclear.

Mr. Prezioso then shared that the TCO calculators that he is aware of that are publicly available tend to focus mainly on light-duty passenger-type vehicles. He asked whether

any of the Workgroup members have found any other publicly available TCO calculators that are better focused on heavy-duty equipment. Ms. Gill responded that she recalls that the Electrification Coalition testified at the Workgroup's previous meeting that their TCO calculator, the DRVE Tool, does have that capability.

Ms. Gill then asked the Workgroup members to share their thoughts on the Workgroup's sixth and final task ("consider the appropriateness of requiring DGS and all state agencies to use a TCO calculator to assess and compare the total cost to purchase, own, lease, and operate medium-duty and heavy-duty internal combustion-engine vehicles versus comparable electric vehicles prior to purchasing or leasing any medium-duty or heavy-duty vehicle").

Mr. McHugh expressed concerns about the practicality of requiring state agencies to use a TCO calculator for medium-duty and heavy-duty vehicles at this point in time. He stressed that TCO calculators do not take into consideration availability, and he referred to previous testimony from Mr. Nolan that Volvo will not be producing a significant number of medium-duty and heavy-duty EVs until 2030. He also highlighted the importance of making sure that the cost of infrastructure is accurately included in the TCO calculator, particularly for medium-duty and heavy-duty vehicles because they are so specialized. He noted that the cost of building out infrastructure falls on the procuring agency, and it is a significant cost. He also encouraged the Workgroup to consider any differences there may be in building out the grid and procuring infrastructure in urban areas, such as the City of Richmond, versus more rural areas.

Regarding infrastructure, Ms. Innocenti noted that the capacity of the fleet management organization to support the infrastructure should be taken into consideration. She emphasized that infrastructure is more than just charging stations – it includes the need to train technicians, the availability of repair parts and other elements that are involved in fleet maintenance, and so on. Additionally, she asked the Workgroup to consider what the market is for the batteries and other elements that are needed to maintain the fleet.

VII. Findings and Recommendations on SB 575

The Workgroup then proceeded to discuss and formalize its findings and recommendations. Regarding SB 575's ultimate task to the Workgroup to decide whether it is appropriate to require DGS and all state agencies to use a TCO calculator to assess and compare the total cost to purchase, own, lease, and operate medium-duty and heavy-duty internal combustion-engine vehicles versus comparable electric vehicles prior to purchasing or leasing any medium-duty or heavy-duty vehicle, Ms. Gill stated that at this point in time she does not believe that it is appropriate to require state agencies to use a TCO calculator for medium-duty and heavy-duty vehicles, but she thinks that it is potentially the right time for agencies to begin researching and investigating their long-term use. Mr. McHugh and Ms. Innocenti indicated that they agree with Ms. Gill's statement.

Mr. Wade also indicated his agreement, noting again his concerns with having a mandate without taking into consideration practical considerations. Mr. Saunders stated his

agreement, as well. He pointed to the spreadsheet demonstrating the potential number of vehicles that would be impacted by a requirement to use a TCO calculator for medium-duty and heavy-duty vehicles and noted that the number of such vehicles is relatively small compared to the number of vehicles that will be impacted by the recent requirement to use a TCO calculator for light-duty vehicles. He emphasized that if the requirement to use a TCO calculator for light-duty vehicles turns out to be beneficial, and the market for medium-duty and heavy-duty EVs grows over time, then perhaps the next step will be to implement a requirement to use a TCO calculator for medium-duty and heavy-duty vehicles. He stated that while now may not be the right time to implement the TCO requirement for medium-duty and heavy-duty vehicles, there may be a time in the future when it will be appropriate.

Mr. Prezioso stated that he agrees. He drew the Workgroup's attention to the fact that diesel-powered equipment has seen many improvements over the last five to ten years in efficiency and its carbon footprint, and he noted that even if the Workgroup does not move forward with endorsing a requirement to use a TCO calculator for medium-duty and heavy-duty equipment, those gains will still exist. He suggested that in lieu of recommending that state agencies be required to use a TCO calculator for medium-duty and heavy-duty vehicles at this time, the Workgroup could recommend that state agencies be directed to establish a TCO calculator for medium-duty and heavy-duty vehicles or investigate what factors they believe need to be included in a TCO calculator for medium-duty and heavy-duty vehicles.

Mr. Williams and Ms. Peeks abstained from the recommendation. Ms. Bulger and Mr. James stated that they agree with the recommendation.

Regarding Mr. Prezioso's suggestion, Ms. Gill asked the Workgroup members for their thoughts on including in their recommendations a recommendation that the state agencies that procure the largest number of medium-duty and heavy-duty vehicles, including VDOT and DRPT, consider what factors should be included in a TCO calculator for medium-duty and heavy-duty vehicles. She asked Mr. Prezioso whether VDOT would be open to that as part of the recommendation, and he indicated that they would be because they are likely going to do some of that on their own anyways. Mr. McHugh and Mr. Sparks indicated that they are okay with the recommendation, as well.

Ms. Gill then summarized the group's recommendation as follows: The Workgroup finds that it is not appropriate at this time to require DGS and all other state agencies to use a TCO calculator for medium-duty and heavy-duty vehicles, but the Workgroup recommends that the General Assembly consider directing VDOT, DRPT, and other state agencies to (i) investigate and determine the appropriate factors that need to be included in a TCO calculator for medium-duty and heavy-duty vehicles and (ii) determine when it may be appropriate to implement a requirement that state agencies use a TCO calculator for medium-duty and heavy-duty vehicles. Ms. Gill asked for feedback on the recommendation, and the Workgroup members indicated their agreement.

VIII. Public Comment

The Workgroup then heard public comment from stakeholders.

Chris Bast, Director of EV Infrastructure and Investments for the Electrification Coalition (EC), provided additional comment to the Workgroup about the EC's TCO calculator, the DRVE Tool. He stressed that the DRVE Tool does include infrastructure and maintenance, and that users are essentially able to input anything they want into the calculator to ensure that they are getting an appropriate calculation. He stressed that many heavy-duty vehicle manufacturers include training and maintenance in their contracts. He said that right now, the only limitation with the DRVE Tool in the context of medium-duty and heavy-duty vehicles is that there are simply not enough models of medium-duty and heavy-duty EVs available. He stated that every day they are getting more information about new models that have become available and will become available in the future, and they are continuously updating the calculator to reflect that information. He emphasized that as more governments and businesses use the tool, the EC will get better information and be able to continuously improve it. He stressed that the EC is happy to continue conversations with state agencies to figure out how to make sure the DRVE Tool has the functionality they need.

Referring to previous testimony about the unique nature of medium-duty and heavy-duty vehicles and how their uses would require them to have rapid chargers in order for them to get the most use during a work day, as well as how the cost of charging is dependent upon the utility rate at the time of day that the EV is charged, Ms. Gill asked Mr. Bast about the ability of the DRVE Tool to take factors such as those into consideration. She asked him to elaborate further about how the DRVE Tool is ready at this point to make accurate comparisons between ICEVs and EVs, particularly when comparing the use of ICEVs to EVs in places like Southwest Virginia as opposed to the City of Richmond. Mr. Bast responded that a lot of that is user-inputted. He explained that the DRVE Tool has the formulas and algorithms that will do the calculations for you, but the user defines the variables.

The Workgroup then heard from Mr. Nolan, who spoke again on behalf of Volvo Trucks. He reiterated that Volvo does support the use of TCO calculators when comparing ICEVs and EVs, but he mentioned that Volvo is not endorsing a specific tool. He emphasized that the fact that a TCO calculator *can* include certain variables does not solve the issue of *which* variables *should* be included in order for a user to obtain an accurate total cost of ownership comparison between a medium-duty or heavy-duty ICEV versus medium-duty or heavy-duty EV. Expressing concern that the variables are user-defined, he questioned what the guidelines for using the tool would be for users. Referring again to the unique nature of medium-duty and heavy-duty vehicles, as opposed to light-duty vehicles, he emphasized the complex and situation-specific factors that are at play when determining the cost of purchasing and operating a medium-duty or heavy-duty EV – e.g. existing infrastructure, location (urban versus rural), whether the existing power line coming into the facility is sufficient to support the type of rapid charging needed for medium-duty and heavy-duty EVs, etc. He stressed the importance of ensuring that such

factors are accounted for in a TCO calculator for medium-duty and heavy-duty vehicles in order for users to obtain an accurate comparison.

Referring again to his concern about the TCO calculators' user-defined fields, Mr. Nolan shared that when SB 575 was introduced during the 2022 Session of the General Assembly, Volvo looked at the EC's DRVE Tool and noticed that the DRVE Tool's drop-down box for selecting a medium-duty or heavy-duty EV did not include a Volvo product even though a Volvo product was for available for sale at the time. He concluded his remarks by stating that if there is going to be a requirement for state agencies to use a TCO calculator for medium-duty and heavy-duty vehicles, state employees will need a significant amount of guidance as to what to what they need to input into the user-defined fields of the TCO calculator in order for them to obtain a truly accurate comparison of the total cost of ownership between the ICEV and the EV.

IX. Discussion

Ms. Gill then asked the Workgroup if anyone desired to make any changes to what the Workgroup previously discussed based on the additional public comment they received. No member of the Workgroup responded in the affirmative.

X. Adjournment

Ms. Gill adjourned the meeting at 10:44 a.m. and noted that the next Workgroup meeting has been rescheduled for Wednesday, August 31, 2022 at 9:30 a.m. in East Reading Room in the Patrick Henry Building in Richmond, Virginia. She also noted that the because the Workgroup only focused on SB 575 today, it will focus on SB 550 at its next meeting and will be adding a fifth meeting to its work plan.

For more information, see the [Workgroup's website](#) or contact that Workgroup's staff at pwg@dgs.virginia.gov.

Appendix E: September 19, 2022 Meeting Materials

This appendix contains the meeting materials from the September 19, 2022 Workgroup meeting.

1. Agenda
2. Draft of Final Recommendation for SB 575
3. Draft Meeting Minutes

Public Body Procurement Workgroup

<http://dgs.virginia.gov/dgs/directors-office/procurement-workgroup/>

Meeting # 5

Monday, September 19, 2022, 9:30 a.m.
Conference Rooms C, D, and E

James Monroe Building
101 N 14th St, Richmond, Virginia 23219

AGENDA

I. Call to Order; Remarks by Chair

Sandra Gill, Deputy Director
Department of General Services

II. Approval of Meeting Minutes from the August 31, 2022 Workgroup Meeting

III. Public Comment on Draft Recommendation for SB 575

IV. Finalize Recommendations on SB 575

V. Public Comment on Draft Recommendations for SB 550

VI. Finalize Recommendations on SB 550

VII. Introduction of Study of SB 272 – Review and recommend policies related to the climate impact of concrete

Sandra Gill, Deputy Director
Department of General Services

VIII. Public Comment

IX. Discussion

X. Adjournment

Members

Department of General Services
Virginia Information Technologies Agency
Department of Planning and Budget
Virginia Association of State Colleges and
University Purchasing Professionals

Department of Small Business and Supplier Diversity
Virginia Department of Transportation
Virginia Association of Government Purchasing

Representatives

Office of the Attorney General
Senate Finance Committee

House Appropriations Committee
Division of Legislative Services

Staff

Jessica Budd, Legal Policy Analyst, DGS
Jessica Hendrickson, Director of Policy and Legislative Affairs, DGS

Public Body Procurement Workgroup

Draft of Final Recommendation for SB 575

The Workgroup finds that it is not appropriate at this time to require DGS and all other state agencies to use a TCO calculator for medium-duty and heavy-duty vehicles, but the Workgroup recommends that the General Assembly consider directing VDOT, DRPT, and other state agencies to (i) investigate and determine the appropriate factors that need to be included in a TCO calculator for medium-duty and heavy-duty vehicles and (ii) determine when it may be appropriate to implement a requirement that state agencies use a TCO calculator for medium-duty and heavy-duty vehicles.

DRAFT Meeting Minutes

Public Body Procurement Workgroup

Meeting # 5

Monday, September 19, 2022, 9:30 a.m.

Conference Rooms C, D, and E

James Monroe Building

101 N 14th St, Richmond, Virginia 23219

<http://dgs.virginia.gov/dgs/directors-office/procurement-workgroup/>

The Public Body Procurement Workgroup (the Workgroup) met in-person in conference rooms C, D, and E in the James Monroe Building in Richmond, Virginia, with Sandra Gill, Deputy Director of the Department of General Services (DGS), presiding. The meeting began with remarks from Ms. Gill, followed by presentations, discussion, and public comment. Materials presented at the meeting are available through the [Workgroup's website](#).

Workgroup members and representatives present at the meeting included Sandra Gill (Department of General Services), Matthew James (Department of Small Business and Supplier Diversity), Joshua Heslinga (Virginia Information Technologies Agency), Lisa Pride (Virginia Department of Transportation), Jason Saunders (Department of Planning and Budget), , John McHugh (Virginia Association of State Colleges and University Purchasing Professionals), Leslie Haley (Office of the Attorney General), Andrea Peeks, (House Appropriations Committee), Adam Rosatelli (Senate Finance and Appropriations Committee) and Joanne Frye (Division of Legislative Services). Elizabeth Dooley with the Virginia Association of Governmental Procurement was absent.

I. Call to Order; Remarks by Chair

Sandra Gill, Deputy Director
Department of General Services

Ms. Gill called the meeting to order and informed the Workgroup that today it will receive public comment and finalize its recommendations on SB 575 and SB 550. She noted that the draft language of the final recommendations for SB 575 and SB 550 was shared with the Workgroup and members of the public for their review in advance of today's meeting. She requested that stakeholders who have already provided public comment to the Workgroup at previous meetings limit their comments to any new information that they wish to share with the Workgroup.

II. Approval of Meeting Minutes from the August 31, 2022 Workgroup Meeting

Mr. Heslinga made a motion to approve the meeting minutes from the August 11, 2022 meeting of the Workgroup. The motion was seconded by Mr. James and unanimously approved by the Workgroup.

III. Public Comment on Draft Recommendations for SB 575

Ms. Gill invited stakeholders to provide public comment on the draft recommendations for SB 575. There was no public comment.

IV. Finalize Recommendations on SB 575

Draft of Final Recommendation for SB 575

The Workgroup finds that it is not appropriate at this time to require DGS and all other state agencies to use a TCO calculator for medium-duty and heavy-duty vehicles, but the Workgroup recommends that the General Assembly consider directing VDOT, DRPT, and other state agencies to (i) investigate and determine the appropriate factors that need to be included in a TCO calculator for medium-duty and heavy-duty vehicles and (ii) determine when it may be appropriate to implement a requirement that state agencies use a TCO calculator for medium-duty and heavy-duty vehicles.

Next, Ms. Gill asked the Workgroup for their comments on the draft version of the Workgroup's final recommendation for SB 575. Mr. McHugh asked whether the Workgroup had intended to use the term "TCO calculations" instead of "TCO calculator" in the final recommendation. Mr. Heslinga noted that SB 575 uses the term "calculator." Ms. Gill echoed Mr. Heslinga's comment and stated that for consistency she recommends sticking with the term "calculator" in the final recommendation. The rest of the Workgroup members indicated their agreement with Ms. Gill's recommendation. Mr. McHugh then also indicated his agreement. There was no further discussion on the draft version of the final recommendation for SB 575.

Mr. Heslinga then made a motion for the Workgroup approve the final recommendation on SB 575. The motion was seconded by Ms. Pride. The motion carried by a vote of 5-0-1.¹

V. Public Comment on Draft Recommendations for SB 550

Ms. Gill then invited stakeholders to provide public comment on the draft recommendations for SB 550. There was no public comment.

¹ Yes: Mr. McHugh, Ms. Pride, Mr. James, Ms. Gill, and Mr. Heslinga. Abstain: Mr. Saunders.

VI. Finalize Recommendations on SB 550

Draft of Final Recommendations for SB 550

I. AMENDMENTS PERTAINING TO ALL OF SB 550

Recommendation #1:

The Workgroup recommends that the General Assembly consider making the definitions of “construction/construction contract,” “contractor/general contractor,” and “subcontractor” that are applicable to SB 550’s payment liability and timing provisions pertaining to public contacts in § 2.2-4354 and to SB 550’s payment liability and timing provisions pertaining to private contracts in § 11-4.6 uniform.

Recommendation #2:

The Workgroup recommends that the General Assembly consider clarifying whether contracts for professional services, including architectural or professional engineering services, should be included within the scope of SB 550’s payment liability and timing provisions.

Recommendation #3:

The Workgroup recommends that the General Assembly consider making the following language in SB 550 uniform in order to enhance the clarity and consistency of the bill:

Lines 12-13: Such contractor shall not be liable for amounts otherwise reducible due to the subcontractor's noncompliance with the terms of the contract.

Lines 57-58: An owner shall not be required to pay amounts invoiced that are subject to withholding pursuant to the contract for the general contractor's noncompliance with the terms of the contract.

Lines 72-73: Such contractors shall not be liable for amounts otherwise reducible pursuant to a breach of contract by the subcontractor.

Recommendation #4:

The Workgroup recommends that the General Assembly consider making the following language in SB 550 uniform where appropriate and intended in order to enhance the clarity and consistency of the bill:

Lines 14-16: However, in the event that the contractor withholds all or a part of the amount promised to the subcontractor under the contract, the

contractor shall notify the subcontractor, in writing, of his intention to withhold all or a part of the subcontractor's payment with the reason for nonpayment.

Lines 59-62: However, in the event that an owner withholds all or a part of the amount invoiced by the general contractor under the terms of the contract, the owner shall notify the general contractor, in writing and with reasonable specificity, of his intention to withhold all or part of the general contractor's payment with the reason for nonpayment.

Lines 74-78: However, in the event that a contractor withholds all or a part of the amount invoiced by any lower-tier subcontractor under the contract, the contractor shall notify the subcontractor, in writing, of his intention to withhold all or a part of the subcontractor's payment with the reason for nonpayment, specifically identifying the contractual noncompliance, the dollar amount being withheld, and the lower-tier subcontractor responsible for the contractual noncompliance.

Recommendation #5:

The Workgroup recommends that the General Assembly consider establishing a timeline for when the notice of withholding payment must be given.

II. AMENDMENTS PERTAINING TO § 2.2-4354 – PUBLIC CONTRACTS

Recommendation #6:

The Workgroup recommends that the General Assembly consider reconciling the provisions added by SB 550 in subdivision 1 of § 2.2-4354 with the existing provisions of the Prompt Payment Act that were moved to subsection 2 of § 2.2-4354 and, in doing so, consider clarifying (i) the type of contracts to which each subdivision applies, (ii) how the “entire amount owed” language in subdivision 1 is intended to interact with the “proportionate share” language in subdivision 2, (iii) that the “entire amount owed” language in subdivision 1 is not intended to affect the VPPA’s retainage provisions, and (iv) when a general contractor must pay a subcontractor when the general contractor has not been paid by the public body.

III. AMENDMENTS PERTAINING TO § 11-4.6 – PRIVATE CONTRACTS

Recommendation #7:

The Workgroup recommends that the General Assembly consider updating the catchline of § 11-4.6 to reflect both the provisions of § 11-4.6 that existed prior to the amendments made by SB 550 and that are still in effect (dealing with the liability of a

contractor for the wages of a subcontractor's employees) and the new provisions added by SB 550 (dealing with payment liability and timing between private owners, general contractors, and subcontractors).

Recommendation #8:

The Workgroup recommends that the General Assembly consider amending the subsection and subdivision lettering in § 11-4.6 to separate out the provisions of § 11-4.6 dealing with the liability of a contractor for the wages of a subcontractor's employees from the new provisions added by SB 550 dealing with owners' and general contractors' payment liability and timing in order to make § 11-4.6 easier to interpret.

Recommendation #9:

The Workgroup recommends that the General Assembly consider clarifying that the provisions of subsection C of § 11-4.6 applies only to construction contracts.

Recommendation #10:

The Workgroup recommends that the General Assembly consider (i) reconciling the inconsistency between the timelines for payment that are set out on lines 55-57 in subsection B of § 11-4.6 for owners and on lines 69-70 in subsection C of § 11-4.6 for general contractors and (ii) reconciling such inconsistency by using the "receipt of invoice" language used on lines 55-57 in subsection B as the trigger for payment in both subsections.

Recommendation #11:

The Workgroup recommends that the General Assembly consider clarifying the inconsistent and confusing terminology used in subsection C of § 11-4.6 by amending it (i) to use only the terms "general contractor" and "subcontractor" (similar to § 2.2-4354 in the VPPA dealing with public contracts) and (ii) by inserting the following language from § 2.2-4354 in the VPPA that would make the provisions of subsection C apply throughout all of the tiers: Any such contract awarded shall further require the contractor to include in each of its subcontracts a provision requiring each subcontractor to include or otherwise be subject to the same payment and interest requirements with respect to each lower-tier subcontractor.

Next, Ms. Gill asked the Workgroup for their comments on the draft versions of the Workgroup's final recommendations for SB 555. There was no discussion by the Workgroup.

Mr. Heslinga then made a motion for the Workgroup approve all of the final recommendations on SB 550. The motion was seconded by Ms. James. The motion carried by a vote of 5-0-1.²

² Yes: Mr. McHugh, Ms. Pride, Mr. James, Ms. Gill, and Mr. Heslinga. Abstain: Mr. Saunders.

VII. Introduction of Study of SB 272 – Review and recommend policies related to the climate impact of concrete

Ms. Gill shared with the Workgroup that its next study will be of SB 272 from the 2022 Regular Session of the General Assembly. She noted that the bill was introduced by Senator Hashmi. She informed the Workgroup that it will take this bill up for study at a future meeting.

VIII. Public Comment

There was no public comment.

IX. Discussion

There was no further discussion among the Workgroup members.

X. Adjournment

Ms. Gill adjourned the meeting at 9:41 a.m. and noted that the Workgroup's staff will send drafts of the final reports for SB 575 and SB 550 to the Workgroup's members for their review prior to submitting them to the General Assembly by their December 1, 2022 due dates.

For more information, see the [Workgroup's website](#) or contact that Workgroup's staff at pwg@dgs.virginia.gov.
