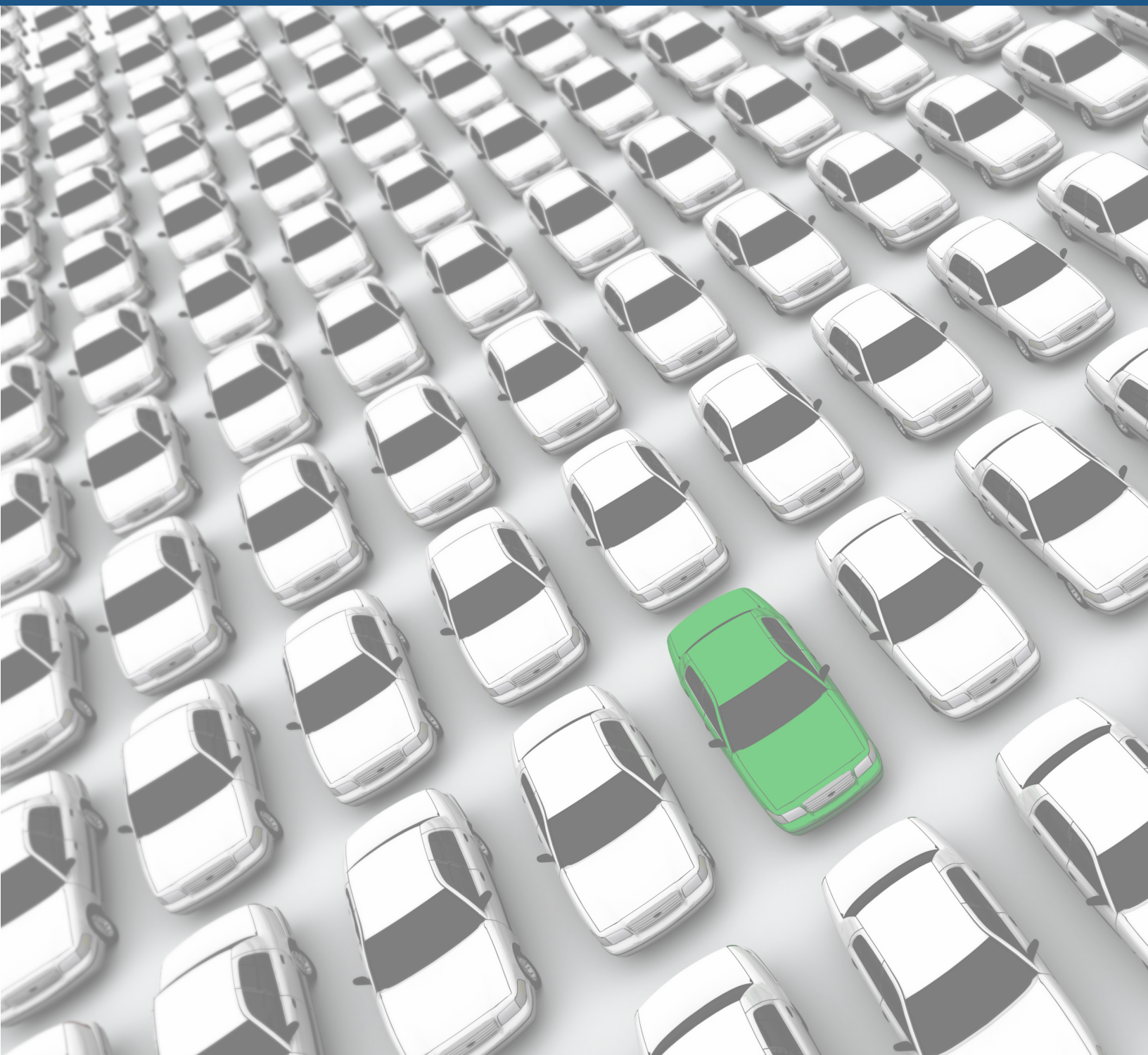
NAFA
Fleet Management Association

Asset Management Guide



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Strategic Sourcing

01

INTRODUCTION

Strategic sourcing plays an important role in analyzing purchases whether large, small, unexpected or routine and forming relationships with current and potential suppliers. Fleet Managers should use strategic sourcing to optimize their purchases and future transactions with dealers and suppliers.

Relationship building is a critical component in any business environment and the ability to build healthy relationships with suppliers is crucial to keeping transaction costs low and also provides other benefits. For example, if the fleet runs into issues with cash flow and has a healthy relationship with a supplier, the supplier may be more inclined to allow a delayed payment for their vehicles. This is one of the many reasons why strategic sourcing, rather than finding the least expensive or most convenient product, is important.

DEFINITION OF SOURCING

According to the experts,

> Strategic sourcing is an organizational procurement and supply management process used to locate, develop, qualify, and employ suppliers that add maximum value to the buyer's products or services. [1]

The main objective of strategic sourcing is to locate and form relationships with those suppliers that best promote the strategic and operational goals of your organization. The term 'strategic' recognizes that many, if not most, sourcing projects are best served by a long-term plan of supply chain action. Not only does this approach identify the best partners, strategic sourcing also seeks continuous improvement and reevaluation of the purchasing activities of a company. In a sense it creates a cost effective and efficient strategy to optimize the process of acquiring new assets through supplier and buyer relations.

Strategic sourcing is also an approach to supply chain management that formalizes the way information is gathered and used so that an organization can leverage its consolidated purchasing power to find the best values in the marketplace. Strategic sourcing, however, is not a one step process. It involves constant reflection on how to improve the overall process. This can be done by:

- Evaluating suppliers to select ones that are compatible
- Building relationships, not just contractual obligations, and
- Nurturing relationships that will be mutually beneficial.

The results can be varied. One example of adopting a strategic sourcing

1 Sollish, Fred & John Semanik, Global Strategic Sourcing. 2011.

strategy may be to limit the number of suppliers for your fleet if this allows you to gain leverage and purchasing power for the procurement of quality vehicles at the best price.

Though strategic sourcing involves finding products at reasonable costs, it does not involve finding the cheapest products. Quality and supplier relationships are factors that cannot be overlooked in the process.

Strategic sourcing bears many differences to traditional sourcing. For instance, the focus of traditional sourcing is cost whereas the focus of strategic sourcing is competence. Table 1 outlines the differences between traditional and strategic sourcing.

TRADITIONAL		**STRATEGIC**
COST	FOCUS	COMPETENCE
AD HOC WITH SUPPLIERS	APPROACH	NETWORK
NATIONAL	PLAYING FIELD	GLOBAL
SHORT TERM (Initial Cost)	BUYER'S MOTIVES	LONG TERM (Total Cost of Ownership)
TURNOVER	SUPPLIERS' MOTIVES	CUSTOMER
NUMEROUS	NUMBER OF SUPPLIERS	FEW
CONTRACT	RELATIONSHIP	TRUST
INDIVIDUAL	RISK	SHARED
STANDARD	ACTIVITIES	SPECIFIC

Table 1 - Sourcing Comparison

BENEFITS OF STRATEGIC SOURCING

Many benefits that come from strategic sourcing flow from the relationship that is built between fleet and the supplier.

The first potential benefit of strategic sourcing is the limited number of suppliers. Limited vehicle providers may yield a number of benefits including lower prices for paying in bulk. Bulk purchasing may increase your leverage over a dealer to discuss favorable pricing and other concessions. Volume purchases benefit both the vendor and the purchaser in that they can concentrate efforts on fewer relationships. For the buyer, consolidating the number of suppliers means you become a more desirable customer by making larger purchases and dealing repeatedly with the same buyer.

New opportunities may arise from strategic sourcing. Reverse logistics for

defective products, incorrect orders, or waste can be negotiated with the supplier. Consolidating products or services with one supplier is a time-saver and a money saver. Other terms such as delivery, warranty and service may also be points of negotiation in a strategic partnership. A more complete list of qualifiers that could generate benefits through strategic sourcing appear in Table 2.

Warranty
On-Time Delivery
Speedy Delivery
Order Accuracy
Service/Product Defects
Location
Employee Diversity
Long-term Goals
Sustainability Practices
Supplier Market Position
Financial Risk Profile
Supplier Ownership

Table 2 - Strategic Sourcing Qualifiers

Having a system to measure supplier performance in these areas can lead to better decisions when it is time to decide between acquiring a new supplier or staying with the current one. Transparency in decision-making is also positively affected when you have objective reasons that are supported by data.

As mentioned, suppliers also benefit from strategic sourcing. Not only are they getting larger purchases and more orders from you, they also benefit from improved communication and not having to juggle multiple small contracts with a vast array of customers. This allows for communication in real time which can help eliminate costly errors such as overproduction, underproduction and late shipments, and improve the ability for the supplier to order materials in a timely manner. Suppliers may then be able to pass on these savings to you and your firm.

Strategic sourcing may also lead to long term savings as well as cost effectiveness by leading to fewer defects and mistakes by suppliers.

RISKS OF STRATEGIC SOURCING

Though strategic sourcing provides a multitude of benefits, there are still risks involved.

One of the risks that you might encounter as a buyer is overpaying the initial costs. The acquisition price offered by a high-quality, relationship-focused vendor may not be the least expensive. It may take into account up-front costs of ensuring service excellence that other bids may not

reflect. In the long-run, however, strategic sourcing should focus on the lifecycle costs or total cost of ownership (TCO) of a given commodity. Once the TCO over the life of the asset is considered, the strategic sourcing approach should reflect the best approach.

Strategic sourcing takes much more time to execute than traditional sourcing activities because it is more complicated, and requires more knowledgeable and skilled personnel. Also, your organization's sourcing and purchasing work flows may need to be restructured. Ensure that your organization properly performs all strategic sourcing components by starting early enough to meet deadlines and having the right staff available.

Another potential risk occurs when supplier requirements are too strict or narrow. In this case, it is possible to lock out potentially great suppliers from consideration or to restrict vendors from becoming suppliers. To mitigate this risk, make sure your bid requirements fit the nature of the desired product or service along with the supplying industry. A sourcing committee's job is to create specifications for order winners and qualifiers based on the desired product or service and the industry that offers them.

A final risk that comes with strategic sourcing is the potential change of suppliers. When finding the best suppliers through strategic sourcing current or past suppliers may no longer be relevant. Natural disasters or other emergencies could interrupt your supply chain if a large supplier is affected. There are always costs and risks involved with changing suppliers that may result in damaged relationships or reputation, paying a higher price with a new supplier, or fees for breaking a contract.

METHODOLOGY

Most literature suggests a five step process as the method for strategic sourcing. The five basic steps are as follows:

1. Understand the spend category

In this phase the purchasing or sourcing team will identify their purchasing and price constraints, the time and money it takes for the supplier to acquire the assets, as well as the historic purchases in asset categories.

For example, if you are adding ten new vans to your fleet you will need to consider the prices previously paid for similar vans, how long the dealer will take to acquire the vans, bulk order discounts, and which dealership will fit within your company's budget.

2. Assess Potential Suppliers

With an understanding of budget limitations it is time to find the right suppliers for your fleet. There are multiple approaches to doing so, and a starting point can be found in Table 1. With strategic sourcing you rely

on suppliers that are competent, trustworthy, communicative, and those that offer deals that are valuable and fairly priced. Instead of finding the cheapest deals like traditional sourcing, strategic sourcing takes into account other factors when selecting suppliers.

3. Create a Strategy
After assessing your budget and potential suppliers, the next step is to develop a sourcing strategy. To create this strategy:

- Start by identifying how competitive the supplier marketplace is. In the marketplace different suppliers may become incumbents in trying to obtain a contract to supply your fleet. By showing suppliers the value in your business, new deals can be made and incumbent suppliers will know the importance of sourcing your fleet.

- Ensure that other departments are on board with your supplier choices. Management and financial officers will be relying on you to find the best price for quality goods. Other managers and employees may be focused on finding suppliers that they can build relationships with or maintaining positive relationships with current suppliers. In making your sourcing decision both of these factors should come into play.

4. Select a supplier
Negotiate with potential suppliers for a fair dollar value. Determine whether the best deal is a contract, partnership, or joint venture? Discuss intangible product/service terms, i.e. improvement, measurement, continuing business conditions. Also, have the sourcing committee develop a balanced scorecard to objectively measure and compare each supplier's offers.

5. Cultivate relationships
After making purchases with the supplier or suppliers you identify, it is important to maintain a positive relationship with them. Relationships with suppliers may lead to future benefits including savings on purchases, preference, and flexibility.

NECESSARY COMPONENTS
The following is a list of components necessary to strategic sourcing:

- Performance improvement requirements. Performance improvements are crucial to keeping the buying and selling processes a positive experience. Some ways to accomplish this are by improving the cycle time, cost, quality, and delivery performance. This can be done both internally with your fleet and by the suppliers.

- Supplier, purchasing and sourcing importance. Management of an organization should have a balanced perception of the value of pro-

curement and the subject matter experts and include purchasing and sourcing activities when putting together strategic goals.

• Organization. It is important to develop teams that will organize, evaluate, select, develop, and manage suppliers. Creating cross-functional sourcing teams to complete different supply chain management tasks will ensure positive collaboration as well as the ability to select suppliers most suitable for the organization's needs.

• Systems development. By developing purchasing systems there will be a notable increase in the emphasis of links between external systems along with networking between purchasing sites with suppliers. Developing systems will also lead to an increase in useful technology and information systems. Some systems, like electronic data interchange systems allow companies to communicate in real time with suppliers as well as manage a centralized location for data to be accessed.

• Performance measurement. Performance measurement is an important component for gauging the effectiveness of functional team based strategies. In the area of procurement, managers should develop measurement systems that identify supplier performance and improvement opportunities, the best suppliers to select for routine and long-term purchases, and the overall effectiveness of supply chain management improvement efforts.

• Supply base management. It is crucial to find and manage suppliers who work best for your specific needs. Having the right number of suppliers supplying the right products and services that fits your strategy is a necessity. Reward suppliers who perform well with continued business or recognition. Act on consequences toward suppliers who perform poorly.

• Purchasing responsibilities and activities. With a managerial emphasis on procurement as well as a developed sourcing team already in place, the next logical step is to define the purchasing responsibilities and activities. Assign members of the team to be points of contact with specific suppliers and to research new potential suppliers. By clearly identifying the responsibilities involved in the purchasing process you will be sure to see positive results.

APPLICATION TO FLEET MANAGEMENT

When a company, in this case a fleet, decides to switch their sourcing practices to strategic sourcing, the fleet manager often finds themselves leading a cross functional sourcing team. This sourcing team is comprised of a group of individuals who are maintaining relationships with the fleet suppliers and identifying the sourcing needs of the fleet.

The manager's role will be to oversee this cross functional team in thoroughly examining fleet purchasing activities and supplier selection. Fleet managers are the individuals responsible for making the final say in finding new sources and developing those lasting relationships between vehicle supplier and buyer.

The focus of many buying groups in any industry is finding the lowest cost and this provides many benefits, but fleet managers are responsible for voicing concerns when non-fleet members of the sourcing team focus only on low cost suppliers without taking other fleet-related concerns into mind. On the other side of things however non-fleet members often bring new and fresh ideas to the table that fleet employees may not have considered. Both of these factors contribute to the benefits and disadvantages of assembling cross functional teams.

Another important aspect that fleet managers need to consider is right-sizing the fleet. This can be determining the correct customer service levels for internal service and rental fleets as well as understanding the vehicle-task suitability (sourcing vehicles that are appropriate for specific tasks.)

CORPORATE FLEET LEASING vs. REIMBURSEMENT (case study)

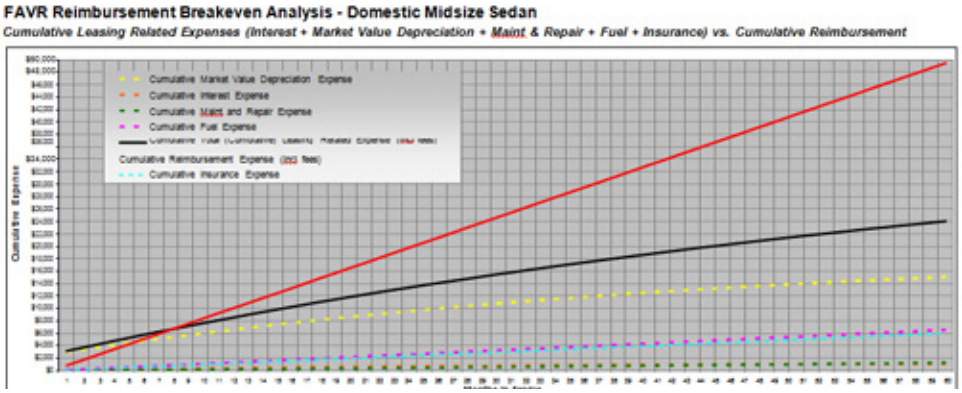
ECONOMIC/FINANCIAL (COMPANY)

When analyzing the economic impact of utilizing a company supplied or reimbursement fleet management strategy, many variables need to be considered. Major leasing-related expenses derived from interest, depreciation, vehicle maintenance and repairs, fuel, insurance and fees all need to be compared to the (fixed and/or variable) reimbursement amount over a selected duration to see which solution is the more economical alternative. the economics of comparing a company-supplied strategy to a reimbursement strategy are dependent upon many variables.

Vehicle selection for a company-supplied strategy is a key variable since it impacts the capitalized cost, fuel expense, estimated market value depreciation and maintenance and repair expense. Other important variables include the financing terms, annual mileage driven, insurance cost and current fuel prices. On the reimbursement side, the main variables are the reimbursement structure (fixed, variable, or a combination of fixed and variable) and the specific reimbursement amounts tied to the chosen structure.

Once all variables are determined, there are many ways to model the financial comparison between the two strategies. An example showing the comparison of all leasing-related expenses versus the expenses for a fixed and variable reimbursement strategy for a hypothetical vehicle is shown below. Assuming typical "fleet centric" assumptions for financing and operating parameters, and realistic reimbursement parameters, the cumulative expense incurred by the employer related to reimbursement

normally exceeds the cumulative expense related to leasing very early in the vehicle's duration and widens over time.



ECONOMIC/FINANCIAL (DRIVER)

Fleet drivers drive an average of 20,000-plus miles per year, while personal leases are typically established at 12,000 to 15,000 miles per year. if employees exceed the contractual mileage established on their personal lease, at maturity they could be responsible for the payment of substantial over mileage charges. in addition, corporations have the advantages of manufacturer incentives and rebates, volume pricing and other pricing benefits resulting from the pricing expertise and manufacturer relationship of their leasing company. These pricing benefits result in a lower transaction price per unit (in addition to lower financing costs).

In most cases, an individual is also required to place a down payment on the vehicle, resulting in a large out-of-pocket expense at the inception of the personal loan or lease. An example of these variances is shown below.

	Employer	Employee	Difference
Factory Base invoice	($20,800)	($20,800)	$0
Adjustments	$100	$0	($100)
Manufacturer Allowance	$1,200	$300	$900
Dealer Markup	$0	($500)	$500
Advertising	$0	($200)	$200
Sales tax (6%)	$0	($1,272)	$1,272
License & title	($200)	($200)	$0
Vehicle net transaction Price	($19,700)	($22,672)	$2,972
Down Payment	$0	($2,267	$2,267

HUMAN RESOURCES

A company-provided vehicle can be used as a recruiting tool. A common misconception is that employees prefer a reimbursement program

because they have the freedom to choose their vehicle. In reality, company- supplied vehicles give a company a hiring advantage. Past industry surveys show that potential employees perceive a company vehicle as a valuable benefit, like healthcare coverage or profit sharing.
Reimbursement can be a hiring disadvantage. it may be more difficult for a company utilizing reimbursement to successfully hire an individual that has a company- supplied vehicle with their current employer. This is attributed to the fact that a new hire would be forced to acquire a replacement vehicle, which may result in a substantial capital outlay in the form of a down payment.
Employee turnover tends to increase when switching from company-supplied to a reimbursement program.

MAINTENANCE AND REPAIR COSTS
Maintenance and repair costs can be significantly lower for companies.

Due to greater purchasing power available to fleet operators in conjunction with network partners, maintenance costs are lower for a company than for an individual. Leasing companies benefit from relationships with network partners, allowing for discounts that are passed on to the client through maintenance programs in which the client is charged less than the retail price for maintenance, repairs, tires and labor. Maintenance and repair charges are also managed by the leasing company to ensure that drivers are charged a fair price for the products and services.

EXPENSE REPORTING
Employees may tend to exaggerate their business mileage in a driver reimbursement program.

When using a variable or fixed and variable (FAVR) reimbursement program, employees may attempt to increase their financial gain by overstating their mileage. According to Fleet Financials (Sept./Oct. 2006) magazine, one fleet management company conducted a study with its lessees and found that when switching from reimbursement to a company- provided vehicle, the reported business mileage decreased by 30 percent as a result of the capture of actual fuel card or maintenance sourced mileage data.

COMPANY PERCEPTION
Company supplied vehicles allow greater control over a company's image.

The condition and type of vehicle used for business is a reflection on the entire organization and therefore needs to project the proper image. With a reimbursement program, a driver may select a vehicle that is not appropriate for the business and/or may not keep the vehicle in satisfactory condition. A company-provided vehicle will ensure that your company's image is protected.

INSURANCE
Auto insurance can be inadequate and more expensive with an employee- provided vehicle.

Under a reimbursement program, the company is responsible for making sure the employee has sufficient insurance to protect the employer from exposure to any vicarious liability claims. it is not only difficult for a company to monitor driver compliance and maintain proper documentation, but increased insurance limits, as dictated by the company, will result in a higher premium to the employee.

DRIVER SAFETY
Reimbursement offers less control over employee driver safety.

When vehicle parameters are not established by the company, some employees may opt to purchase a less expensive vehicle in order to pocket the difference from their reimbursement program. the less expensive vehicle may also be lacking in safety, which puts the employee, and possibly the company, at risk. A company-provided vehicle will normally be equipped with the latest safety features, while an older, employee- provided vehicle may not.

Under a reimbursement program, motor vehicle record (MVR) checks should be performed to avoid having an employee driving on company time without a valid driver's license or under major violations charges. While it is still recommended to establish policies surrounding the use of personal vehicles while conducting company business, to minimize potential liability issues, enforcing employee compliance may be difficult. With a company-provided vehicle, an organization can easily establish restrictions on employees and authorized drivers, such as spouses, children, etc.

TAX IMPLICATIONS
There are tax consequences associated with driver reimbursement programs, which vary by type.

If FAVR (fixed and variable) IRS guidelines are followed and substantiated, the FAVR reimbursement amount is not taxable for either the employee or the employer. The FAVR reimbursement amount paid to the employee is deductible by the employer. However, if the FAVR guidelines are not followed or substantiated as per IRS Revenue Procedure 2003-76, the reimbursement amount is taxable as income for the employee, while the employer is required to pay employment tax on the reimbursement amount.

Per IRS guidelines, flat rate reimbursement is taxable as income. Therefore, the employee will have a higher taxable income, possibly moving the employee into a higher tax bracket and transferring an additional tax burden. After taxes, the employee will not recover the whole flat rate

reimbursement amount.
Another tax consequence relates to Social Security (FICA) taxes, with the employer and employee sharing the burden. FICA taxes cannot be reduced by itemized deductions for the business use of a personal vehicle.

The cents per mile reimbursement amount is deductible for the employee once 2 percent of the adjusted gross income floor is met. The reimbursement amount is also deductible by the employer.

The IRS guidelines surrounding reimbursement are complex and subject to change. Please consult with your organization's tax expert when reviewing leasing verses reimbursement options and the related tax implications.

ENVIRONMENTAL FOOTPRINT
Driver reimbursement is counter-productive to "green" initiatives.

Companies that provide vehicles through professional fleet management assist in realizing environmental goals by operating well-maintained, fuel-efficient vehicles. the newer model company- provided vehicles in service contribute to lower carbon emissions and energy conservation, while employee-provided vehicles are typically not as well maintained, older and less fuel-efficient.

Company-supplied vehicles play a part in reducing emissions and fuel conservation because they routinely restrict the grade of gasoline used. For example, many fleets have policies or use a fuel card that restricts buying premium-grade fuel. Many drivers mistakenly believe that their vehicle requires premium fuel, when in reality most domestic vehicles are designed to operate at their optimum level using regular unleaded gasoline.

Source: http://info.us.leaseplan.com/rs/leaseplan/images/Leasing_vs_Reimbursement_LeasePlanWhitePaper.pdf

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Vehicle Invoices and Pricing

02

VEHICLE INVOICES AND PRICING

Fleet vehicle pricing is very different from retail pricing. Fleet managers should understand how to read a dealer invoice as well as know the differences between ordering from the factory and selecting from dealer stock. Strategies for negotiating discounts from the OEM, fleet management company, or dealer also impact the ultimate vehicle cost.

PRICING TERMINOLOGY

Term	Also Known As	Meaning
Advertising	National Advertising, CMA (Chrysler Marketing Adjustment), FDAF (Ford Dealer Advertising Fund)	A percent of MSRP (typically 1%) or a flat dollar amount set by the factory.
Bid Assistance	Government price concessions, Rifle Shot programs, Competitive Price Allowance (CPA)	Additional negotiated rebates that may replace or be in addition to the national fleet rebates.
B4A		Before Advertising.
Dealer Invoice	Factory Invoice	The invoice amount the dealer pays the manufacturer for a specific vehicle. Not be confused with the dealer's "actual" cost for the vehicle. "Actual" dealer invoice cost can only be determined by deducting manufacturer-provided holdback allowances, incentives, rebates, bonuses and other discounts from dealer invoice.
Factory Invoice	Invoice, Tissue	The price the dealer pays the manufacturer for the vehicle. This is not generally their net cost, which is influenced by the holdback and any factory to dealer incentives.
Factory to Dealer Incentives	Factory cash, Factory money, Cash in the trunk, Backdoor money	This is money paid to the dealer by the manufacturer to sell specific models. These incentives can come and go, according to market conditions. (e.g., a hot selling model most likely would have no incentives; a slow selling model may have a large incentive).
Financing	Floor Plan, Floor Plan Assistance Program, SFPAP (Supplemental Floor Plan Assistance Program)	Flat dollar amount that is included in the factory invoice.

Fleet Incentives	National fleet incentives, Commercial fleet credits	This is money given by a vehicle manufacturer to a fleet as an added incentive for buying their product. Usually funded 100% by the factory.
Holdback	Factory Holdback	An amount paid by the factory to the dealer after the car has been sold, usually on a quarterly basis. Most manufacturers will pay dealers an amount equal to between 2% and 3% of either the invoice cost or the MSRP. The holdback is one of the reasons that "invoice cost" is not net cost to the dealer. The other reason is "factory to dealer incentives."
MSRP	Manufacturer's Suggested Retail Price (MSRP), Monroney Label, Sticker Price, List Price	The retail selling price of the vehicle as determined by the manufacturer, printed on the label (the Monroney Label) on the window.
Triple Net Invoice		Manufacturer-to-dealer invoice price less holdback less advertising & financing.

Table 3 - Pricing Terms

READING AN INVOICE

To determine how to acquire vehicles, you must fully understand vehicle pricing. The most important document in a vehicle purchase is the factory invoice. This invoice contains many terms that can be confusing if not properly understood.

Of course, you want to get the best possible price for a vehicle. To do this, you need to know what the dealer has actually paid for the vehicle or "dealer cost." The manufacturer's suggested retail price (MSRP) is of far less concern to you as this is not what you will eventually pay for the vehicle. You have to be able to identify and understand all available rebates and incentives to assist in determining the price you should pay.

The most important price for a fleet manager to identify is the "invoice price" as this amount is usually the basis for starting negotiations on the purchase of a vehicle. Invoice price is not necessarily what the dealer or fleet management company actually paid for the vehicle. That price, the true cost, is often called triple net (manufacturer to dealer invoice price, less holdback, less advertising &financing).

Parts of a Standard Factory Invoice

A standard factory invoice will contain the price, features and details regarding the purchase and delivery of the vehicle. Two distinct columns are typically used to compare the suggested retail price and the factory invoice price. Features associated with the vehicle are listed as a package deal or as individual line items that include both the cost and order code associated with the feature(s). Near the end of the invoice there may be a section detailing the invoice total, holdback, incentive programs and cost

categories. This information takes different formats depending on the manufacturer, so it is important to read carefully. Additionally, a standard factory invoice will include both "ordering dealership" and "ship to" fields for the dealership or Fleet Management Company that placed the order and the Vehicle Identification Number (VIN).

An invoice will also include the Destination and Delivery charge – sometimes called Freight charge – which is the cost to transport the vehicle from a factory to a dealership. This cost is the same for retail and factory orders and does not fluctuate depending on the distance to the destination.

When reading an invoice, Fleet Managers can ignore the retail price side and instead focus on the factory side of the invoice. The most important strategy when considering multiple vehicles is to be consistent in how you evaluate each invoice, and to use the same starting point for each negotiation. For example, use the factory invoice price to negotiate the price down. It is important to realize that leasing companies and dealerships don't get anything different than each other, and there are often discounts the dealership enjoys from the manufacturer, meaning they can afford to offer you a discounted price from the invoice.

Essential Terms

Dealer Invoice: The invoice amount the dealer pays the manufacturer for a specific vehicle, not to be confused with the dealer's "actual" cost for the vehicle. "Actual" dealer invoice cost can only be determined by deducting manufacturer-provided holdback allowances, incentives, rebates, bonuses, and other discounts from dealer invoice.

Holdback: Holdback is a type of discount that is often listed on the invoice. It is an amount paid from the factory to the dealership to offset normal costs of doing business.

Triple Net: Manufacturer-to-dealer invoice price less holdback, less advertising & financing.

Invoice – Holdback – Advertising – Financing = Triple Net Cost

Sample Invoice

Examples of invoices are found below. (Courtesy Lease Plan USA)

Table 4 – Sample Invoice

2015 LACROSSE AND PREMIUM 1 - 1SP			GENERAL MOTORS LLC	
GLJ SMOKY GRAY METALLIC /V6G				
H1W LIGHT NEUTRAL/COLOR ACCENTS			RENAISSANCE CENTER	
ORDER NO. SMXFOM/FLS			DETROIT MI 48243-1114	
VIN 1G4 GESG 33 FF307			VEHICLE INVOICE 40D19453881	
**********6591**********5				
MODEL & FACTORY OPTIONS		MSRP	INV AMT	FLEET LEASE
4GH69 LACROSSE AND PREMIUM 1 - 15		40285.00	38673.61	INVOICE 04/30/15
CAP FLT- COMPETITIVE ASSISTANCE PRGM		0.00	0.00	SHIPPED 04/30/15
FA2 FLT-COMPETITIVE ASSISTANCE PGM		0.00	2700.00-	EXP I/T 05/04/15
FE9 50-STATE EMISSIONS		N/C	N/C	INT COM 05/04/15
LFX ENGINE 3.6L, SIDI V6		N/C	N/C	PRC EFF 01/01/14
	E8S CAPABLE			KEYS Z0723 Z0723
M7U	TRANSMISSION, 6- SPD AUTO AWD	N/C	N/C	WFP-S QTR OPT-1
PCI	DRIVER CONFIDENCE PACKAGE #1:	2125.00	1870.00	FAN: 000808
	* SENSOR INDICATOR, FOLLOWING DISTANCE			BANK: JP MORGAN CHG-TO 53-953
	* FORWARD COLLISION ALERT			SHIP-TO 42-333
	* REAR CROSS TRAFFIC ALERT LANE DEPARTURE WARNING			LUNCHAMER BUICK G WATERFORD MI
	* SIDE BLIND ZONEALERT WITH LANE DEPARTURE			SHIP WT: 4147
	* HEADLAMPS, HIGH INTENSITY DISCHARGE W/ ADAPTIVE FORWARD LIGHTING			HP: 32.9 CUST PO NUMBER: 006880-00971
	* HEAD-UP DISPLAY			DAN: 971
	* FRONT FOG LAMPS			
R9V	FLEET MAINTENANCE CREDIT	135.00-	118.80-	
U2K	XM RADIO + SERVICE	0.00	0.00	
	SUBSCRIPTION SOLD SEPARATELY			
	BY SIRIUSXM AFTER 3 MTHS			
VAW	FLOOR MATS, ALL WEATHER FRONT	140.00	123.20	
	AND REAR (DEALER INSTALLED)			
VQ1	FLEET ORDERING AND ASSISTANCE	0.00	0.00	
VV4	ONSTAR(R) 4G LTE WI-FI (R)			
	HOTSPOT W/ 3GB/3MO DATA TRIAL			
TOTAL MODEL & OPTIONS		42415.00	37848.01	ACT 231 37500.56
DESTINATION CHARGE		925.00	925.00	H/B 261 1272.45
TOTAL		43340.00	38773.01	PAY 310 38773.01
**********				
INVOICE DOES NOT REFLECT DEALER'S ULTIMATE COST BECAUSE OF MANUFACTURER REBATES, ALLOWANCES, INCENTIVES, HOLDBACK, FINANCE CREDIT AND RETURN TO DEALER OF ADVERTISING MONIES, ALL OF WHICH MAY APPLY TO VEHICLE.				
**********				
GROSSINGER MOTORCORP/LEASE PLAN				

2015 TRAVERSE AWD 1LT			GENERAL MOTORS LLC	
GMI BLUE VELVET METALLIC /V6G				
19C EBONY			RENAISSANCE CENTER	
ORDER NO. SKHJTB/FLS			DETROIT MI 48243-1114	
VIN 1GN KWGK D5 FJ322			VEHICLE INVOICE 10D35202463	
**********				5
MODEL & FACTORY OPTIONS		MSRP	INV AMT	FLEET LEASE
CV14526 TRAVERSE AWD 1LT		35620.00	33839.00	INVOICE 03/30/15
CAP FLT- COMPETITIVE ASSISTANCE PRGM		0.00	0.00	SHIPPED 03/28/15
FA2 FLT-COMPETITIVE ASSISTANCE PGM		0.00	3250.00-	EXP I/T 04/13/15
FE9 50-STATE EMISSIONS		N/C	N/C	INT COM 04/13/15
LLT ENGINE 3.6L, SIDI V6		N/C	N/C	PRC EFF 01/01/14
M7X	TRANSMISSION, 6-SPD AUTOMATIC	0.00	0.00	KEYS G2645 G2645
R9V	FLEET MAINTENANCE CREDIT	135.00-	118.80-	WFP-S QTR OPT-1
UE1	6 MTH ONSTAR(R) DIRECTIONS & CONNECTIONS W/ AUTOMATIC CRASH RESPONSE & TURN-BY-TURN NAV PLUS 5-YEAR ONSTAR BASIC PLAN (OMITS SAFETY, SECURITY & NAV) (SEE ONSTAR.COM)	N/C	N/C	FAN: 000808 BANK: JP MORGAN C CHG-TO 11-564 SHIP TO- 04-565 SUBURBAN CHEVROLE EDEN PRAIRIE MN
VQ1	FLEET ORDERING AND ASSISTANCE	0.00	0.00	
				SHIP WT: 4805
				HP: 32.9
				GVWR: 6459
				GAWR.FT: 3196
				GAWR.RR: 3527
				NTR: 1/2
				CUST PO NUMBER:
				006880-00956
				DAN: 956
TOTAL MODEL & OPTIONS		35485.00	30470.20	ACT 237 30280.65
DESTINATION CHARGE		875.00	875.00	H/B 261 1064.55
TOTAL		36360.00	31345.20	PAY 310 31345.20

****

INVOICE DOES NOT REFLECT DEALER'S ULTIMATE COST BECAUSE OF MANUFACTURER REBATES, ALLOWANCES, INCENTIVES, HOLDBACK, FINANCE CREDIT AND RETURN TO DEALER OF ADVERTISING MONIES, ALL OF WHICH MAY APPLY TO VEHICLE.

****

RAY CHEVROLET/LEASE PLAN USA

	01415		
	E1YA TRANSIT 150 LR VAN	29715.00	27411.00
	4094-447F01/01/14 V2		3400.00-
	2015 MODEL YEAR		
YZ	OXFORD WHITE		
WK	PEWTER VINYL		
	INCLUDED ON THIS VEHICLE		
	. DESC UNKNOWN		
	OPTIONAL EQUIPMENT		
	PREFERRED EQUIPMENT PKG.101A		
	.XL TRIM		
57B	MANUAL AIR CONDITIONER	NC	NC
99M	3.7L TIVCT V6 ENGINE		
446	6-SPD AUTO SELECT SHIFT TR		
TC8	235/65R16 BSW ALL-SEASON		
X73	3.73 RATIO REGULAR AXLE X73	NC	NC
	JOB #2 ORDER		
153	FRONT LICENSE PLATE BRACKET	NC	NC
204	86000 GVWR PACKAGE	NC	NC
310	SHIP-THRU LEGGETT & PLATT	NC	NC
425	50-STATE EMISSIONS	NC	NC
61C	REAR VIEW CAMERA	470.00	401.00
66P	SECURILOCK PATS	75.00	64.00
85D	CARGO AREA LED LOAD COMP PKG	70.00	60.00
	FLEX FUEL		
	TOTAL OPTIONS	615.00	525.00
	TOTAL VEHICLE & OPTIONS	30330.00	24536.00
	DESTINATION & DELIVERY	995.00	995.00
	TOTAL FOR VEHICLE	31325.00	
	FUEL CHARGE		13.28
	CPA FLEET INCENTIVE (564)		
	NJ ENVIRONMENTAL PROTECT FEE		25
	FLEET P.O. NUMBER 07177-00417		
	SHIPPING WEIGHT 4788 LBS.		
	TOTAL	31325.00	25544.53

Sold To: Arlington Hgts Fd/Lse Plan Usa 1165 Sanctuary Parkway Alpharetta GA 30009 LP								
			Order Type CC15VCA2G			EMC22	520	
Ship To: Maplecrest Ford Lincoln 13044 2800 Springfield Avenue Vauxhall NJ 07088			12 03	14	41	24F8	15	
			Ship Though: LEGGETT PLATT 8250 NE UNDGRD P151 KANSAS CITY MO					
Invoice & Unit Identification No 1FTNE1YM7FKA41			KANSAS CITY			JP Morgan Chase Ba 011423		
Approximate Finance Cost Reimbursement	Total Holdback	Invoice Total	Invoice Less Holdback	A & Z Plan		D Plan	X Plan	
	09	25544.53						

	01415		
	TAURUS FWD SEL	29370.00	27094.00
	4094-457F01/01/14 VZ		3700.00-
	2015 MODEL YEAR		
UX	INCOT SILVER METALLIC		
MW	CHARCOAL BLK CLOTH SEATING		
	INCLUDED ON THIS VEHICLE		
	EQUIPMENT GROUP 200A		
	OPTIONAL EQUIPMENT/OTHER		
998	3.5L V6 TIVCT ENGINE	NC	NC
443	6-SPEED AUTO TRANSMISSION	NC	NC
153	FRONT LICENSE PLATE BRACKET	NC	NC
422	CALIFORNIA EMISSIONS SYSTEM	NC	NC
451	2.77 RATIO REGULAR AXLE	NC	NC
	TOTAL OPTIONS/OTHER	00	00
	TOTAL VEHICLE & OPTIONS/OTHER	29370.00	23394.00
	DESTINATION & DELIVERY	825.00	825.00
	TOTAL FOR VEHICLE	30195.00	
	FUEL CHARGE		5.08
	CPA FLEET INCENTIVE (564)		
	NJ ENVIRONMENTAL PROTECT FEE		25
	FLEET P.O. NUMBER 07177-00469		
	SHIPPING WEIGHT 3852 LBS.		
	TOTAL	30195.00	24224.33

Sold To: Arlington Hgts Fd/Lse Plan Usa 1165 Sanctuary Parkway Alpharetta GA 30009 LP								
			Order Type CA41			FE291	515	
Ship To: Weisleder Ford 13583 Bricktown NJ 08723		05 25	15	41	1813	15		
		Ship Though:						
Invoice & Unit Identification No 1FAMP2E89FG169		CHICAGO				JP Morgan Chase Ba 011423		
Approximate Finance Cost Reimbursement	Total Holdback	Invoice Total	Invoice Less Holdback	A & Z Plan		D Plan	X Plan	
	81	24224.33						

	01415		
	82XB TRANSIT 250 HR VAN	35285.00	32551.00
	4066-843F01/01/14 NL		3500.00-
	2015 MODEL YEAR		
YZ	OXFORD WHITE		
CK	PEWTER CLOTH		
	INCLUDED ON THIS VEHICLE		
	. DESC UNKNOWN		
	OPTIONAL EQUIPMENT/OTHER		
	PREFERRED EQUIPMENT PKG.101A		
	.XL TRIM		
57B	MANUAL AIR CONDITIONER	NC	NC
99M	3.7L TIVCT V6 ENGINE		
446	6-SPD AUTO SELECT SHIFT TR		
TCR	235/65R16 BSW ALL-SEASON		
X41	4.10 RATIO REGULAR AXLE X41	NC	NC
	JOB #2 ORDER		
153	FRONT LICENSE PLATE BRACKET	NC	NC
17A	FIXED REAR DOOR GLASS	75.00	64.00
20B	9000# GVWR PACKAGE	NC	NC
21C	PEWTER CLOTH 2 WAY MANUAL	60.00	52.00
31V	SHIP-THRU ADRIAN STEEL	NC	NC
425	50 STATE EMISSIONS	NC	NC
544	MIRRORS, LONG POWER/HEAT	220.00	188.00
60C	CRUISE CONTROL	325.00	277.00
	FLEX FUEL		
	TOTAL OPTIONS/OTHER	680.00	581.00
	TOTAL VEHICLE & OPTIONS/OTHER	35965.00	29632.00
	DESTINATION & DELIVERY	995.00	995.00
	TOTAL FOR VEHICLE	36960.00	
	FUEL CHARGE		10.88
	CPA FLEET INCENTIVE (56A)		
	FLEET P.O. NUMBER 07178-01376		
	SHIPPING WEIGHT 5064 LBS.		
	TOTAL	36960.00	30637.88

Sold To: Arlington Hgts Fd/Lse Plan Usa 1165 Sanctuary Parkway Alpharetta GA 30009 LP					Order Type CJ15VCM4K		FA091	520
Ship To: Gus Johnson Ford 74202 Spokane WA 99213			01 05	15	41	4009	01	
			Ship Though:					
Invoice & Unit Identification No JFTWR2XM7FKA50			KANSAS CITY				JP Morgan Chase Ba 011423	
Approximate Finance Cost Reimbursement	Total Holdback	Invoice Total	Invoice Less Holdback	A & Z Plan			D Plan	X Plan
	1480	30637.88						

	01415		
	E1YA TRANSIT 150 LR VAN	29715.00	27411.00
	4066-842F01/01/14 NL		3300.00-
	2015 MODEL YEAR		
YZ	OXFORD WHITE		
CK	PEWTER CLOTH		
	INCLUDED ON THIS VEHICLE		
	. DESC UNKNOWN		
	OPTIONAL EQUIPMENT/OTHER		
	PREFERRED EQUIPMENT PKG.101A		
	.XL TRIM		
57B	MANUAL AIR CONDITIONER	NC	NC
99M	3.7L TIVCT V6 ENGINE		
446	6-SPD AUTO SELECT SHIFT TR		
TCR	235/65R16 BSW ALL-SEASON		
X73	3.73 RATIO REGULAR AXLE X73	NC	NC
	JOB #2 ORDER		
17A	FIXED REAR DOOR GLASS	75.00	64.00
20A	8600# GVWR PACKAGE	NC	NC
21C	PEWTER CLOTH 2 WAY MANUAL	60.00	52.00
31V	SHIP-THRU ADRIAN STEEL	NC	NC
425	50 STATE EMISSIONS	NC	NC
544	MIRRORS, LONG POWER/HEAT	220.00	188.00
60C	CRUISE CONTROL	325.00	277.00
	FLEX FUEL		
	TOTAL OPTIONS/OTHER	680.00	581.00
	TOTAL VEHICLE & OPTIONS/OTHER	35965.00	29632.00
	DESTINATION & DELIVERY	995.00	995.00
	TOTAL FOR VEHICLE	36960.00	
	FUEL CHARGE		10.88
	CPA FLEET INCENTIVE (56A)		
	FLEET P.O. NUMBER 07178-01377		
	SHIPPING WEIGHT 4788 LBS.		
	TOTAL	31325.00	25642.88

Sold To: Arlington Hgts Fd/Lse Plan Usa 41C893 1165 Sanctuary Parkway Alpharetta GA 30009 LP							
	Order Type CC15VCA21			FA253	520		
Ship To: Plantation Ford 24010 707 N State Road 7 Plantation FL 33317	01 15	15	41	4010	17		
	Ship Though:						
Invoice & Unit Identification No JFTNE1YW9FKA50	KANSAS CITY			JP Morgan Chase Ba 011423			
Approximate Finance Cost Reimbursement	Total Holdback	Invoice Total	Invoice Less Holdback	A & Z Plan		D Plan	X Plan
	410	25642.88					

	01415		
	KSC3 FLEX FWD-SEL	32100.00	29933.00
	4094-450F01/01/14 VZ		2500.00-
	2015 MODEL YEAR		
J7	MAGNETIC		
LQ	DUNE LEATHER		
	INCLUDED ON THIS VEHICLE		
	EQUIPMENT GROUP 202A	2600.00	2269.00
	POWER LIFTGATE		
	REAR VIEW CAMERA		
	ADJUSTABLE PEDALS W/ MEMORY		
	BLIND SPOT MONITORING SYS		
	MEMORY DRIVER SEAT AND MIRRORS		
	PREMIUM AUDIO SYSTEM		
	OPTIONAL EQUIPMENT/OTHER		
64R	18" PAINTED ALUM WHEELS		
998	3.5L TIVCT V6 ENGINE	NC	NC
	6-SPEED SELECTSHIFT AUTO TRAN		
TC8	P235/60TR18 85W AVS TIRES		
	MONOCHROMATIC ROOF		
L	LEATHER TRIMMED SEATS	NC	NC
	TOTAL OPTIONS/OTHER	2600.00	2269.00
	TOTAL VEHICLE & OPTIONS/OTHER	34700.00	29702.00
	DESTINATION & DELIVERY	895.00	895.00
	TOTAL FOR VEHICLE	35595.00	
	FUEL CHARGE		5.08
	CPA FLEET INCENTIVE (56A)		
	FLEET P.O. NUMBER 07177-00468		
	SHIPPING WEIGHT 4325 LBS.		
	TOTAL	35595.00	30602.08

Sold To: Arlington Hgts Fd/Lse Plan Usa 41C893 1165 Sanctuary Parkway Alpharetta GA 30009 LP							
Order Type CA32					FF091	515	
Ship To: Parkway Ford, Inc. 21331 3150 University Parkway Winston Salem NC 27105			06 05	15 41 1702	16		
			Ship Though:				
Invoice & Unit Identification No 2FMGK5C84FBA1C			OAKVILLE		JP Morgan Chase Ba 011423		
Approximate Finance Cost Reimbursement	Total Holdback	Invoice Total	Invoice Less Holdback	A & Z Plan	D Plan	X Plan	
	141	30602.08					

DAIMLERCHRYSLER MOTORS COMPANY LLC INVOICE			
PLANT 2462	ZONE DEALER VEHICLE ID NO. 51 69904 1C4PJMCB9FW75	INVOICE NO. F-KLJ-50002114	INVOICE DT 5/20/15
SHIP TO:	STEWART AUTO GROUP INC 780 SERRAMONTE BLVD COLMA CA 94014	SHP DLR 71 60518 IGN KEY M1409 TRK KEY	
SOLD TO:	1165 SANCTUARY PARKWAY ALPHARETTA GA 30009	2462-01-SF20 SHIPPING WT. 3878	
PAID FOR BY:	FIRST UNION NATIONAL BANK CREDIT SALE XX CASH SALE	000-021000-00	
BODY & EQUIPMENT	DESCRIPTION	FACTORY WHOLSESALE PRICE	
KLJM74	JEEP CHEROKEE LATITUDE 4X4 010" WB	25,819.00	
PGX	ECO GREEN PC		
ASX9	CLOTH		
AC5	SAFETYTEC: blind spot & cross path detec	905.00	
ADE	COLD WEATHER GROUP: all-season floor mat	723.00	
DFH	TRANSMISSION: 9-speed automatic		
ED8	ENGINE: 2.4L I4 pzev multair, act grill		
NAE	EMISSIONS: (REQ ED8) special		
TBB	SPARE TIRE: (N/A TBC) full size	91.00	
YGS		10.00	
21J	QUICK ORDER PKG: *** REPLACE WITH 24J IF		
3GC	Fleet Incentive Waiver		
3GD	Delete Group Funds - Fleet		
4EA	Sold Car		
4FM			
4FT	Fleet Sale Re-Order		
4KY	Major Client		
4UC	Lease Plan U.S.A.		
5XV			
	VIP VOLUME INCENTIVE PGM	2,000.00-	
001	DESTINATION CHARGE	995.00	
	HB 0085500		
	PO NUMBER 006880-00972		
	MSRP RETAIL TOTAL 29,480.00 TOTAL 26,543.00 ORIGINAL INVOICE		

FLEET INCENTIVES

Organizations wanting to buy fleet vehicles may be able to negotiate with dealers to obtain fleet pricing in order to receive a lower price on a large quantity order of vehicles. It is often in the dealer's best interest to sell vehicles to a fleet for a much lower price than to sell the vehicles individually. Typically, it takes dealers months to sell the same number of vehicles that it would sell to an organization at one time through a fleet purchase. If the dealer sells vehicles to a fleet, the potential also exists that the dealer will be able to sell the organization a contract to service the fleet, which brings in more income for the dealer.

Vehicle manufacturers have different requirements to qualify for fleet pricing. For some manufacturers, a requirement for fleet pricing is to

purchase five or more vehicles; for others the requirement may be larger, such as a minimum of 10 vehicles. It is possible that the requirement is specified on a term basis such as leasing 15 vehicles one year as well as purchasing/leasing 5 new vehicles each year. Once the eligibility requirement is met, special fleet pricing is negotiated, which is significantly lower than the MSRP and retail price for the make and model of the vehicle.

An example of fleet incentives is shown in Table 5 below. Specific model and year data have been removed.

Table 5 - Sample Fleet Incentives

Extended Cab Pick-Up Truck

56M	NATIONAL FLEET INCENTIVE *Available to qualified fleet buyers only. Fleet customer will have the option of selecting the greater of available fleet incentive or retail customer cash incentive. 2005 National Fleet Incentives include: Fleet Special Account Credit and all applicable Commercial Fleet Credits* *CREDIT*	-$2,500.00	-$2,500.00

Mid-Size Sedan

FVX	NATIONAL FLEET INCENTIVE **The dealer, on behalf of the fleet customer, will have the option of selecting the greater of the available fleet incentive (FVX/FPP) or a regional retail consumer cash incentive (CNC, CNE, CSE, CSR, CWE) IN EFFECT AT THE TIME OF DELIVERY, but not both. See the retail consumer cash administrative message for full guidelines. Regardless of the incentive taken, all deliveries are to be reported as fleet **	-$1,500.00	-$1,500.00

Source: PC Carbook

2016 Model Year Ford and Lincoln National Fleet Incentives as of 6/24/2015

VEHICLE	NATIONAL COMMERCIAL FLEET INCENTIVE $ (56M)
16MY FORD CARS AND CUV'S	
C-Max Energi**NEW**	500
C-Max Hybrid**NEW**	1000
Fiesta	1000
Fusion Gas	2250
Fusion Hybrid	750
Fusion Energi	1000
Focus less S**NEW**	2000
Focus S (P3E)/b**NEW**	1500
Mustang b/	750
16MY FORD TRUCKS & SUVS's a/	
Edge **NEW**	2000
Escape	1500
E-Series Cutaway/Stripped Chassis d/ e/	2500
Expedition (including EL)	3500
Explorer (excludes Police Interceptor Utility)	1750
Police Interceptor Utility f/	1500

Source: http://www.fleet.ford.com/edms/content?chronicleId=0900cad9823b4fb4

2016 MY National Fleet Purchase Program (FVX)

CHEVROLET	
SPARK	$250
SONIC (EXCLUDES R8T)	$500
SONIC W/R8T	$200
CRUZE (EXCLUDING LIMITED) (EXCLUDES R8T, 1SM)	$750
CRUZE (EXCLUDING LIMITED) R8T (EXCLUDES 1SM)	$200
CRUZE LIMITED (EXCLUDES 1SM)	$1,250
MALIBU (EXCLUDING LIMITED/HYBRID)	$1,250
MALIBU HYBRID	$0
MALIBU LIMITED W/1FL (EXCLUDES AG1, QCL)	$1,500
MALIBU LIMITED W/1LS	$1,500
MALIBU LIMITED W/1LT/1LZ	$2,000
MALIBU LIMITED W/AGI, QLC, 1FL	$2,000
IMPALA (EXCLUDING LIMITED)	$1,500
IMPALA LIMITED	$4,000

Source: http://www.gmfleet.com/national-fleet-purchase-program.html#nav_tablay_item_c1_3_1

2015 Model Year Fleet Purchase Program (37AFF)

Body Model	Program Allowance
Chrysler 200	$1,500
Chrysler 300 (excluding SRT)	$2,000
Town & Country	$2,000
Dart	$1,500
Challenger (excluding SRT)	$500
Charger (excluding SRT)	$2,000
Durango	$2,500
Grand Caravan	$2,000
Journey	$2,500
Fiat 500	$1,000
Fiat 500 Cabrio	$1,000
Fiat 500L	$1,000
Fiat 500e (California Dealers Only)	$1,000
Cherokee	$1,800

Source: https://www.fleet.chrysler.com/FleetHome/CommercialIncentives/Fleet_Purcahse_Program_Rules.pdf

Price

The obvious purchasing advantage for fleets is the price. Because organizations can purchase vehicles in bulk through fleet pricing, they are able to save significant amounts compared to what they might pay for the retail price of the vehicle. Additionally, organizations can generally negotiate good deals through the dealership on servicing their new fleet of vehicles, as well as getting top price on a trade-in when the organization decides to replace the old fleet with a new fleet.

Organizations can further achieve cost-saving benefits through fleet pricing by utilizing standard vehicle specifications. Specification standardization is a strategy that identifies the fewest number of vehicle configurations that can meet the requirements of the widest range of business divisions and branches within an organization. The idea is to develop core specs for vehicles while still allowing for slight variations for factors such as geographical location, terrain, etc….

Best practices for lowering costs through specification standardization in order to get the best prices for fleet purchases are below:

• Centralize fleet management. Organizations need to allow only the leader of the organization to be the decision maker when purchasing vehicles, instead of allowing each division of an organization to order vehicles for their own purposes. An organization may need a manager with enough confidence to say, "I understand that each of you has your own concerns about how your vehicle is used, but we need to move to thinking about the impact of vehicle selection globally and not just locally."

• Distinguish "needs" from "wants". Organizations have saved hundreds of dollars per fleet vehicle by shying away from customized vehicles. For a standardized specification vehicle, fleet managers need to decide what is necessary and what is not. Potential areas to save costs are:

- Cloth or vinyl seats instead of leather
- Bench seats instead of buckets
- Two-wheel instead of four-wheel drive
- Gasoline instead of diesel
- Four-cylinder engine instead of six or eight cylinders
- Standard length pickup box instead of extended

• Conduct annual specification reviews. This helps fleet managers pinpoint opportunities to improve specifications fleet-wide and adjust, as necessary. If the organization's service model has changed, it's important that the fleet vehicles reflect that change as needed. Fleet managers need to determine what is needed currently and in the future instead of relying on what has been done in the past.

• Develop standards based on vehicle role and location. Certain regions within an organization may require slight modification for vehicle specifications, such as trucks that operate in mountainous terrain. In this example, the fleet manager would need to consider vehicle specifications that are going to perform well in that terrain (4-wheel drive, larger engine, heavier tires, etc.). Additionally, certain divisions within the organization might have different duties that need to be taken into account. For example, a fleet may need to develop a specification for a service truck equipped with a crane and tool boxes, and another specification for a superintendent vehicle that doesn't need significant upfit.

Pricing incentives are divided into two categories: National Fleet Incentives and Competitive Pricing Assistance (CPAs). If a company owns 10-15 vehicles it can receive a Fleet Identification Number and be entitled to a fleet discount from the manufacturer. However, if a Fleet Manager works with the manufacturer and negotiates an individual incentive instead of the national fleet incentive, often they can find a lower price through CPA. Keep in mind that CPAs often can depend on the vehicle volume commitment, and whatever is agreed upon will be noted on the factory invoice.

While initial vehicle pricing is important, the Total Cost of Ownership (TCO) is a better indicator of the true vehicle cost. Having a long-term focus will help better evaluate the options and make good investment decisions.

Warranty

Warranty information is displayed on an invoice in various ways. There is often no consistency and the formatting and offerings will change based on the vehicle model, year, and manufacturer. Typically this is not negotiable unless stated in the CPA agreement, but it is not main criteria for making a final purchase decision unless all other terms are equal. If you do find yourself in a situation to consider the warranty, it's important to have a prediction of that vehicle's expected life and how it adds up to the warranty you will be paying for.

Parts

If you don't manage a garage for your fleet, keeping parts is probably not of value to you. However, in the public sector side, many fleets do operate a repair facility and may choose to keep high volume parts to ensure efficient repair. The fleet may be able to negotiate part discounts for volume purchasing as well. Additionally some manufacturers offer rebates based on the quantity of parts purchased.

INCENTIVE STRUCTURES

Knowledge of pricing, delivery, warranty, and parts will help to get the best deal on a vehicle, but there are other incentives that should be known and considered to help drive down cost even more. These incentives are structured differently depending on the manufacturer. When ordering vehicles for a fleet, the fleet manager should identify the commercial or government sales person at the dealership. This person will be familiar with fleets and will be familiar with the manufacturing programs for fleets.

A fleet manager should have a Fleet identification number once they purchase, register, or lease five new vehicles; this fleet ID number entitles the owner to fleet discounts. However, this fleet discount can only be used in lieu of the retail rebate (if there is one offered), not in addition to it.

If you are buying more than one vehicle, ask if there is a volume rebate available. The factory may give you a discount for purchasing multiple units at once, even, in some cases, if you are not taking delivery of all of the vehicles at once. If there is not a volume rebate, there is almost always a component rebate for any truck purchase, however, there is a catch in some cases. In order to receive this rebate, the order must include special equipment or an extra component that needs to be added. If you have any unique requests for your fleet vehicles this can work in your favor, but check with the factory regarding the amount and restrictions for component rebates as they differ for different manufacturers.

FACTORY VS STOCK

Advantages	Disadvantages
• Personalized customization • Can specify the vehicle to fit specific needs • Better pricing offered by the dealer • Opportunities to add or delete options that are not available in a retail sale	• Longer wait time • Incentives may be lost during the wait period • Production windows may close unexpectedly and the factory may reject the order • Some options or popular models may not be available for fleet orders

Table 5 - Factory Vs Stock

There are multiple benefits to ordering vehicles directly from the factory. The biggest benefit is that a vehicle may be completely customized to tailor to every specific need. From specific work truck specifications to the radio dials a factory-ordered vehicle can be made to fit every need.

When it comes to buying vehicles there are many key tips to ordering vehicles to increase savings. In the case of ordering from a corporate dealer however there are some great ways to maximize savings based on timing of your orders.

Most car manufacturers and dealers are publicly traded companies. Each of these companies reports their earnings at the end of each quarter and year and need to meet their estimates in order for their stock price to be maintained. If they do not meet these estimates they can see a large dip in prices.

To meet these estimates car dealers will often boost incentives near the end of each quarter and especially at the end of the calendar year. In America this means around December, however if the vehicles are coming from a foreign market they may have different dates. For example Japan ends its fiscal year on March 31st.

Many of these incentives to purchase vehicles do not apply to factory orders; however when your fleet is in need of vehicles without complicated specs ordering from the dealer stock during these time periods may prove to give the best return on investment.

The incentive structures for Factory vs Stock are important when considering the vehicle. Factory orders typically take more time but will provide the fleet with the exact vehicle it needs down to each spec for a complicated order.

For less complicated, quicker, and more cost-effective orders it would be best to stick to dealer stock orders. Here you will find vehicles that can be driven off the lot the day of sale and brought back to your fleet. The sales promotions for stock vehicles also provide an added benefit. See the section on Factory Order Vs Dealer Stock Purchase timing for more information.

Pricing Differences

Ordering directly from the factory may be cheaper than ordering from stock. When a dealer places a fleet order to the factory, the dealer does not have to worry about the vehicle sitting on the lot or trying to find a buyer. Instead the buyer is already setup and ready to go as soon as the vehicle is delivered. This helps the dealer cash flow and limits exposure to finance charges

Dealer incentives such as limited time warranties may also expire while your vehicle is being built in the factory. The expiration of these short-term incentives is another way that ordering directly from the factory may be more expensive.

In the US it may be difficult or costly to order a vehicle directly from a foreign factory rather than from stock that is already in the United States. Some vehicles that are ordered from the factory and manufactured outside of the US may have extremely long delivery times.

NEGOTIATING FLEET PRICES

The basic rule for negotiating vehicle price is ensuring you use the same terms and the same starting point as the dealer. Knowing the difference between dealer invoice and triple net invoice can help with negotiations. To get the best price you should consolidate volume whenever possible – prices are often tiered based on order volume – and order early. If you order early you help the manufacturer fill its production slots. As those slots fill the manufacturing then has incentive to give discounts.

There are two approaches to negotiating:

a. Start at Dealer Invoice and work down
b. Start at Triple Net Invoice and work up

Ultimately, if a dealer is giving you the vehicle at cost he or she is charging you the triple net cost determined by using the following formula:

Invoice - Holdback – Advertising – Financing = Triple Net Cost

Note that some fleet managers, particularly those in government agencies, may be prohibited from negotiating and may instead rely on bidding or some other process.

Although the initial vehicle price is important when purchasing, it is equally valuable to have an idea of the TCO of the vehicle as well. Considering the lifetime/total cost will justify or discourage a price point and encourage better long-term investment decisions.

Proposed price for 2015 Elite Stock Trailer (dealer invoice)

AXLE	1212	Axle - Two - 8,000# Axles (ILO Std)	1	$1,749
TIRE	8409	Tire - (5) LT235/85R16 Load Range “G” Wheel & Tire (ILO Std Load Range “E”)	1	$1,525
WHEEL	9501B	Wheel - SSTL Simulator’s, 16” (4) (ILO SSTL Hubcaps (4))	1	$269
E SKIN	2900	Exterior Skin - Pre-painted Black Skin ILO Std (Roof Line + Width Does Both Sides)	19	$133
K/O WIN	9901D **NOTE:**	Window - Delete 15” X 34” Window (Sliding) **DELETE WINDOWS IN GN**	2	($336)
DIVID-ER	2409	Divider - Add Horse Divider w/ Padding (Horse or Stock Combo)	1	$652
IN TIES	8301	Tie - Add Trailer Ties Welded Inside (Each)	2	$12
S.RACK	7203 **NOTE:**	Saddle Rack - Additional Saddle Rack (Each Saddle) **MAKES 2 - 4T - IN DRESS**	2	$208
MAT	5100D	Mat - Delete Floor Mats (Per Sq Ft)	189	($756)
TRACK	6002 **NOTE:**	Track - Track Only for Plexiglas (Per Ft) **ESCAPE GATE**	3	$36

Option Totals: **$5, 497**

Total Price: **$39, 462**

Sales invoice price for same 2015 Elite Stock Trailer following price negotiation

MAKE Elite	MODEL 7 Horse	NEW/USED New	SERIAL OR MOTOR NO. 5MKW62923F0015787		DATE 6-10-15
YEAR 2015	COLOR Silver	TYPE 6N Horse	MILEAGE	STOCK NO.	APPROX. DELIVERY DATE
ADDITIONAL EQUIPMENT OPTIONS OR WORK TO BE DONE			CASH PRICE OF VEHICLE		28,000.00
CASH PRICE OF VEHICLE		$			
FREIGHT			TOTAL CASH DELIVERED PRICE		
COLOR & TRIM			TRADE ALLOWANCE (A)		
ACCESSORIES			TRADE ALLOWANCE (B)		
			DIFFERENCE		28,000.00
			BALANCE OWED ON TRADE		
			PARTIAL PAYMENT		
			CASH ON DELIVERY		28,000.00
			UNPAID BALANCE		
			CREDIT DESIRED YES _____ NO _____ INSURANCE DESIRED YES _____ NO _____ (See contract conditions on reverse side)		
			RECORD OF TRADE-IN (A)		
			MAKE & YEAR	TYPE	MODEL / COLOR
			MILEAGE	SERIAL NO.	
			RECORD OF TRADE-IN (B)		
			MAKE & YEAR	TYPE	MODEL / COLOR
			MILEAGE	SERIAL NO.	

NAFA
Fleet Management Association

Asset Management Guide

Vehicle Selection

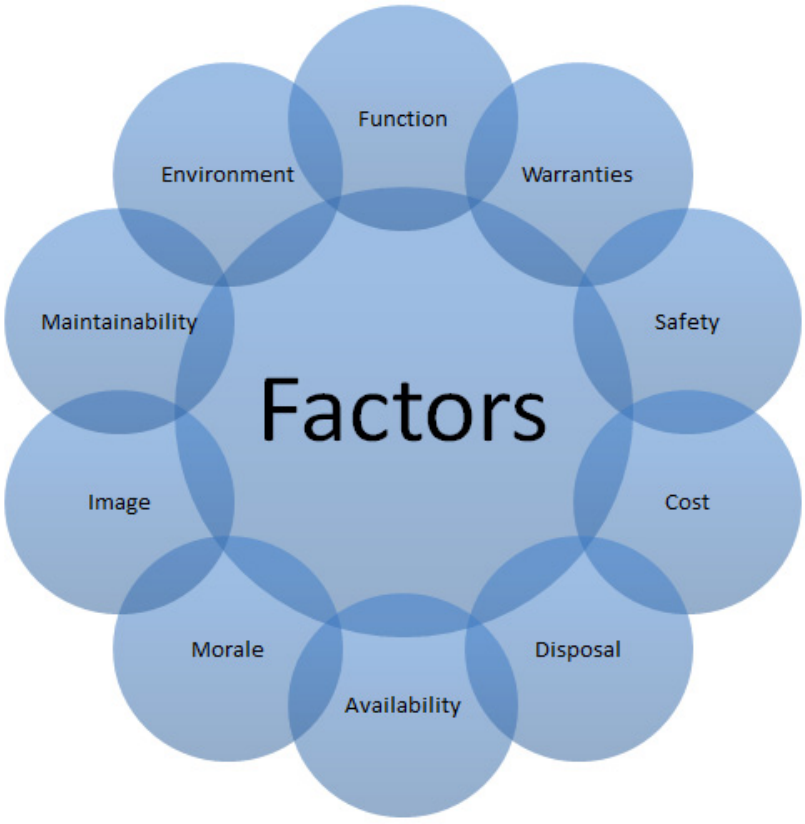
03

INTRODUCTION

Vehicle selection is one of the most important decisions that a fleet manager can make. Requirements such as job function, cargo, and terrain are just a few of the considerations that weigh in on the fleet manager's decision. A helpful resource when selecting fleet vehicles is the Vehicle Selector List, which is a predetermined list of vehicles that drivers or others can choose from to meet their vehicle requirements.

When going through the process of vehicle selection, there are several questions that need to be answered to assist in the decision-making process. Managers should address at least the following questions:

- How many choices of vehicles exist?
- What is important to management?
- How much input do drivers have?
- Can drivers purchase options?
- Philosophy – work or perk?



Choices

More choice offerings when selecting vehicles can cause a greater administrative burden as well as prevent bulk discounts. As earlier mentioned in standardized specs, if fewer options are available and a fleet is more consistent, greater discounts will be offered when purchasing. The fewer vehicle choices that are offered by the fleet manager the easier it will be on administration as well as provide a greater opportunity for discounts.

Importance to Management

Fleet managers will need to determine what factors in vehicle selection are important to their organization's leadership. Fleet managers must remember that management will have opinions but may not be cognizant of the implication of their preferences. For example, leadership may feel that upfront cost is an important consideration. It is the fleet manager's responsibility to educate management and explain that total cost of ownership may be a more important consideration.

Driver Input

Fleet managers may allow their drivers to have input in the vehicle selection process. When asking for input from drivers, managers should collect driver preferences on color, vehicle model, and options for the vehicle including entertainment features, style upgrades, GPS and towing capabilities.

Fleet managers should also know how to collect driver input efficiently and effectively, such as through an annual survey or through a fleet steering committee. After obtaining this information, fleet managers need to process the feedback from drivers and make a decision that is most cost effective and considers the fleet drivers' preferences.

Driver Purchase Options

If a fleet manager wants to allow drivers to have input in the options of the vehicle for the driver's own convenience or luxury, a manager needs to decide which features will or will not be paid for by the organization. If the decision is made to allow the driver to purchase luxury options it needs to be discussed before the vehicle is purchased. Depending on the organization philosophy, the driver's responsibilities, and human resource factor, an organization may place more or less emphasis on the "perk" when making vehicle selection. A public entity would typically lean more towards the work end of the spectrum.

Work or Perk





WORK **PERK**

IMPORTANCE OF VEHICLE SELECTION

The importance of selecting the correct vehicle cannot be overstated. The upfront cost is significant and a suboptimal vehicle will probably have to wait until the next time the vehicle is replaced.

Government vs. Corporate

Government fleets are typically more cost conscious due to the use of taxpayer dollars to acquire vehicles and public perceptions about spending. Additionally, government agencies are more likely to purchase vehicles at lower trim levels, with fewer options than a corporate entity. Corporate fleets are more concerned with the image projected by the company and are more likely to use a vehicle as an incentive to retain staff.

Industry Sectors

Selecting a vehicle that fits your needs is important. For example a pharmaceutical company may have smaller, more efficient, and visually appealing vehicles that would be best for representatives making sales calls. Work trucks or 15 passenger vans would not be an appropriate vehicle choice for this fleet.

On the other hand if most of your vehicles are used for construction purposes you would want heavy-duty work trucks that could carry large loads and handle the environment of being on a construction site.

When making vehicle selection it is crucial to determine vehicle function to determine which vehicles will be most appropriate for a specific task.

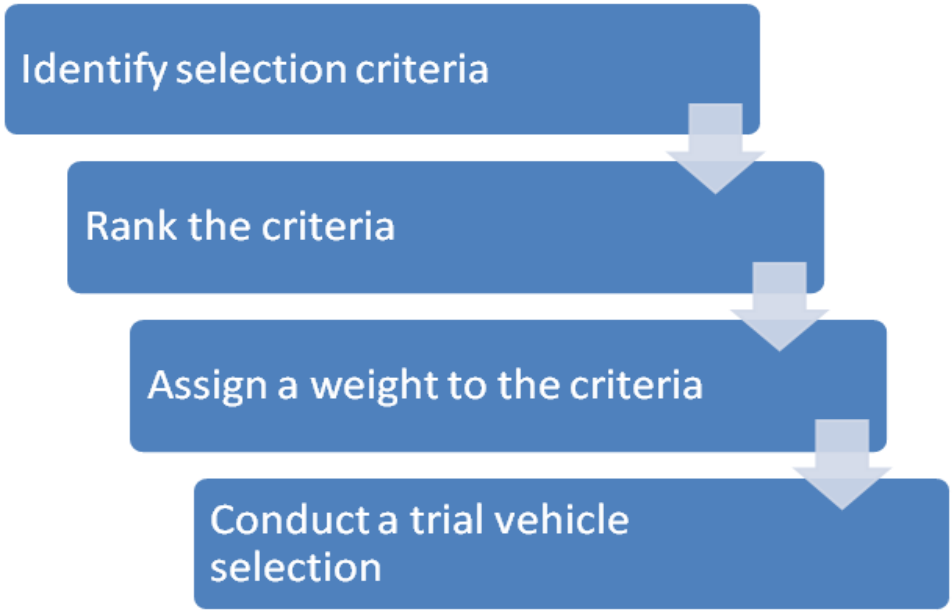
Management Input

Organizational leadership will make the ultimate decision on vehicle selection but they will rely upon the fleet manager's knowledge and expertise. As a part of the fleet manager's data collection process the input of management must be solicited.

Leadership should also provide insight into organizational priorities, cost considerations, "work" vs "perk" criteria, exterior graphic designs, and environmental concerns.

SELECTOR DEVELOPMENT PROCESS

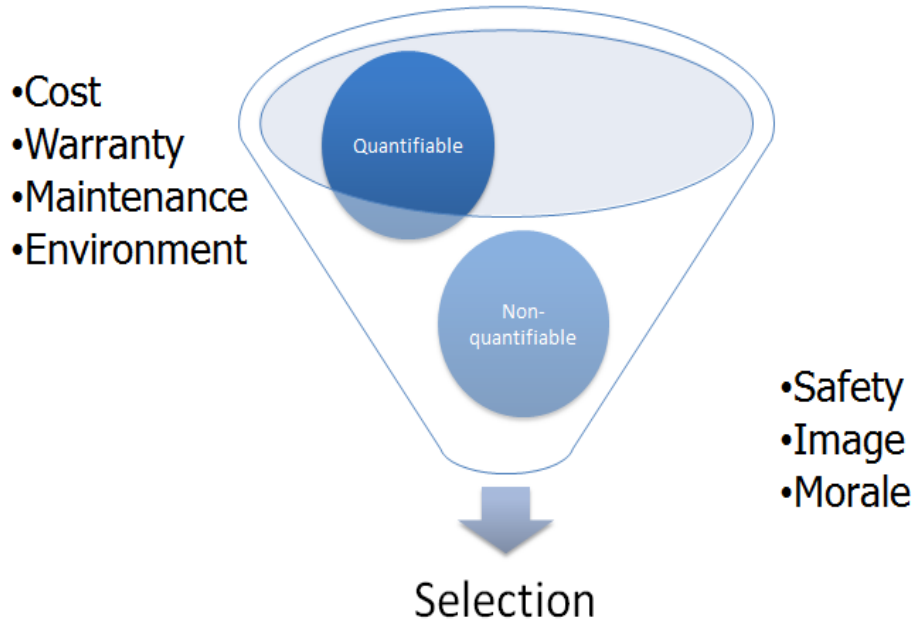
When selecting fleet vehicles, a fleet manager must think of the entire organization as a whole. Consider that leadership may have cost concerns, HR may have relation concerns, the driver may have concerns about safety, and sales management may have concerns about reliability.



Identify selection criteria
First, a fleet manager will need to select criteria for the organization that will bring value to the organization's fleet vehicles. The manager should consider all of the feedback and input from the stakeholders involved, such as the drivers and often staff, customers, and organization leadership.

Additionally, the manager will need to consider all of the factors that will impact the vehicles including the terrain the vehicle will typically travel upon, vehicle duty cycle (8, 10, 12 hour days), environmental factors (snow, heat, dust, etc), cost of purchase, vehicle life cycle costs, and safety.

Managers need to distinguish between quantifiable and non-quantifiable factors. Quantifiable factors, such as cost, warranty, maintenance, and environment, can be measured and tested in non-subjective ways. Non-quantifiable factors are measured through subjective methods and include safety, image, and morale. Both quantifiable and non-quantifiable factors need to be considered by the selecting manager, with weight placed on what is most important to the organization for their fleet vehicles.



Rank the criteria
After the fleet manager has identified the relevant criteria to assist in the vehicle selection process, the manager will need to rank the factors in order of importance. Managers should aim to keep the big picture of the organization in mind when ranking the criteria by knowing what is important to the organization and which criteria will return the most value to the organization.

Weight (Value) the criteria
After ranking the criteria, the fleet manager will assign a weight (value) to each factor (criteria). Assigning a weight to each factor creates a metric to mathematically solve for the best vehicle selection for the organization.

When assigning weights to the criteria, the fleet manager will need to consider the criteria and quantify how much more important each successive factor is to the fleet. The manager will not only determine the difference in weight, but also quantify which criteria have the same relative importance and assign weights accordingly. Where all identified criteria are equally important to an organization, there is no need to weight them.

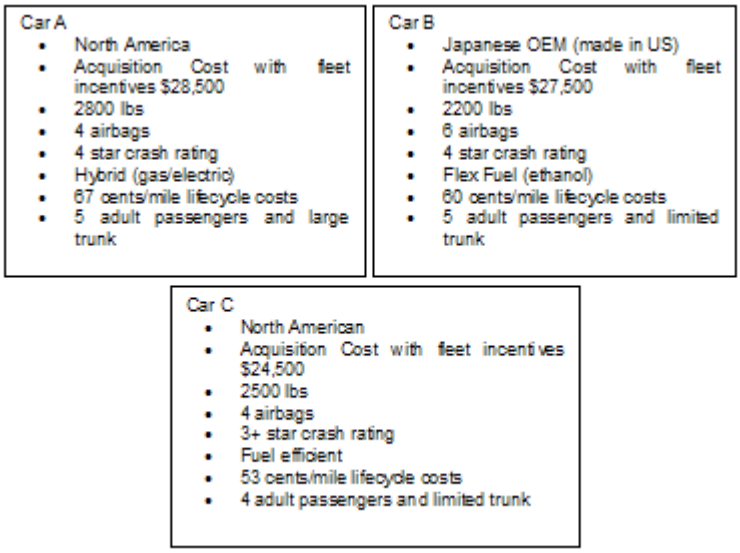
When ranking and assigning weights to the criteria is complete, the fleet manager needs to get management's approval for the assigned values. This ensures that the leadership of the organization supports the fleet manager's assessment of what is important to the organization.

Test options against these criteria
The last step of the selection process is to conduct a trial comparison for the potential vehicles. The fleet manager will need to gather the necessary information by researching each target fleet vehicle. The manager will then need to evaluate a minimum of 2-3 vehicles, score the vehicles

and review the results.

When evaluating 3 vehicles for each criteria they are ranked 1 – 3 with 3 being the best, likewise if evaluating 10 vehicles they are scored 1 – 10 with 10 the best. In any specific category, equal vehicles receive equal ranks. If all vehicles for a single criterion are equal, the criterion should be eliminated as it will not be a useful differentiator.

The example below demonstrates how an organization might use this process to select between three vehicles.



Your company's criteria can be described as follows:

- For your company, safety is paramount. They value a larger vehicle with good safety options and a strong safety rating.
- Next in importance is environmental stewardship. You are environmental leaders and demonstrate this with your vehicle selections.
- You value US manufacturers but will entertain vehicles from other OEM's if built in the US.
- You have to be able to carry 4 adults and small boxes of samples.
- You measure costs in terms of life cycle costs and they are your last considerations.

The fleet manager will need to rank and weigh what is important to the company as in Table 7.

Table 7 - Weighted Criteria

Criteria	Weight (points to award)
Safety	4
Size	3
Environment	3
North American	2
Function	2
LCA Costs	1

The fleet manager then scores each vehicle from 1 to 3 in each of the selection criteria and multiplies that score by the applicable weight to determine a point total. The vehicle with the highest point total, in this case vehicle A is selected. The manager will propose Car A to the management for approval.

		Car A			Car B			Car C		
Criteria	Weight	Description	Score	Points	Description	Score	Points	Description	Score	Points
Safety	4	4 Air Bags, 4 star crash	2	8	6 Air Bags, 4 star crash	3	12	4 Air Bags, 3+ star crash	1	4
Size	3	2800	3	9	2200	1	3	2500	2	6
Environment	3	Hybrid	2	6	Flex-fuel	3	9	Fuel efficient	1	3
North American	2	Yes	3	6	Japanese OEM	1	2	Yes	3	6
Function	2	5 pass, large trunk	3	6	5 pass, limited trunk	2	4	4 pass, limited trunk	1	2
LCA Costs	1	0.67	1	1	0.60	2	2	0.53	3	3
Total				36			32			24

Table 8 - Selection Matrix

If the weights change as shown in Table 9, the end result will also change as demonstrated in Table 10.

Criteria	Weight (points to award)
Safety	1
Size	2
Environment	2
North American	3
Function	1
LCA Costs	5

Table 9 - Criteria - New Weights

		Car A			Car B			Car C		
Criteria	Weight	Description	Score	Points	Description	Score	Points	Description	Score	Points
Safety	1	4 Air Bags, 4 star crash	3	3	6 Air Bags, 4 star crash	3	3	4 Air Bags, 3+ star crash	1	1
Size	2	2800	3	6	2200	1	2	2500	2	4
Environment	2	Hybrid	2	4	Flex-fuel	3	6	Fuel efficient	1	2
North American	3	Yes	3	9	Japanese OEM	1	3	Yes	3	9
Function	1	5 pass, large trunk	3	3	5 pass, limited trunk	2	2	4 pass, limited trunk	1	1
LCA Costs	5	0.67	1	5	0.60	2	10	0.53	3	15
Total				30			26			32

In the second example, changing the weight and ranking of the criteria changed the vehicle that should be selected. This illustrates that while the

process is structured and provides some rigueur to the vehicle selector process, the result is subjective and heavily dependent on the selector criteria and weightings selected.

IMPORTANCE OF USER INPUT

Collecting user input

As earlier mentioned, fleet managers can find value in forming a user input group consisting of drivers, managers, supervisors, and maintenance workers that have the authority to make recommendations. It is important that the user input group has diverse responsibilities throughout the organization to allow for a greater range of input.

User input groups should evaluate the new products and options while keeping clear records of their notes in order to summarize and present for consideration. The user input groups should collect information from various avenues. The input group can use benchmarking or surveying similar organizations to use their successes and failures to improve the outcomes for your organization.

How to reconcile conflicting inputs

The input given by the user input group should be taken seriously and considered by the fleet manager when going through the selection process.

Different user groups often have varying ideas about how a fleet should be run. For example, there may be a sustainability group that lobbies for the fleet to switch entirely to hybrid or electric vehicles. Though these vehicles may benefit the environment and reduce gasoline costs, the upfront costs are extremely high and would result in a much smaller fleet.

When dealing with input groups it is important to remember that though the groups can add valuable suggestions they should not be treated as decision makers. In the end it is the fleet manager who makes the final recommendation on which vehicles to order and what crucial business steps to take. Though input groups may lobby for various causes that benefit themselves or the environment, the first focus of a fleet manager should be to make decisions that will benefit and optimize the fleet.

Once the final decision is made the fleet manager needs to reconnect with the group that provided input. The final decision needs to be explained to ensure that the user group understands their input was considered. Future participation relies upon the group understanding their input was considered and valuable even if the input did not result in a decision they were hoping for.

Keep in mind that obtaining input from all stakeholders is important, but that input may not always be complementary. For example, drivers and

mechanics often have vastly different viewpoints on what is important. While drivers may be focused on comfort and vehicle utility, mechanics will put a premium on existing technology and serviceability. Knowing from experience they will be able to diagnose, repair and maintain vehicles, forgoing some of the driver comfort options for the sake of operability. In a focus group held with a fleet operating in harsh off-road conditions, the drivers stressed the need for rugged suspension in addition to power windows to enable photography that was part of the job. On the other hand, mechanics agreed that the suspension desired by the drivers was not supportable and that power windows would cause excessive maintenance hours and vehicle downtime due to the operating environment.

Example:
Review and understand the following notes on using a decision matrix: You could be given a paragraph that talks about the relative merits of two cars. In this example, the 'T' is an impressive vehicle, and drivers love it but it is hard on fuel and does not retain its value. The 'P' is not pretty to look at or well received by drivers but it is very fuel efficient and retains its value. With that info, fill in the following matrix and tell us what vehicle to buy. (Answer is below)

Criteria		T		P	
	Weight	Score	Points	Score	Points
Company Image	1	2*	2	1	1
Morale	1				
Fuel Efficiency	5				
Resale value	5				
TOTAL					

*2 denotes the best of the vehicles in that category.

Answer:

Criteria		T		P	
	Weight	Score	Points	Score	Points
Company Image	1	2*	2	1	1
Morale	1	2	2	1	1
Fuel Efficiency	5	1	5	2	10
Resale value	5	1	5	2	10
TOTAL			14		22

Buy the P!

Try to walk through this next example. This organization is trying to choose their replacement vehicles and the choice has been narrowed down to four cars. The company has decided that what is important to them is the 5 things on the left. Each vehicle is then rated in each of these categories with 4 being the best and 1 being the worst. If all of the five factors were of equal importance to the company, Vehicle D would be the sure pick.

Information category	Vehicle A	Vehicle B	Vehicle C	Vehicle D
Safety	4	2	1	3
Initial cost	1	3	2	4
Warranty	3	2	1	4
Depreciation	1	2	4	3
Company image	4	3	1	2
Totals	13	12	9	16

But, let's see what happens if the company weights the selection criteria. In the example below, weights are assigned to each of the five criteria reflecting the relative importance that the company assigns to that factor. So, for this company, safety and image are really important – 5 x as important as cost. So the numbers will play out differently:

Information category	Vehicle A	Vehicle B	Vehicle C	Vehicle D
Safety (5)	4 x 5 = 20	2 x 5 = 10	1 x 5 = 5	3 x 5 = 15
Initial cost (1)	1 x 1 = 1	3 x 1 = 3	2 x 1 = 2	4 x 1 = 4
Warranty (1)	3 x 1 = 3	2 x 1 = 2	1 x 1 = 1	4 x 1 = 4
Depreciation (4)	1 x 4 = 4	2 x 4 = 8	4 x 4 = 16	3 x 4 = 12
Company image (5)	4 x 5 = 20	3 x 5 = 15	1 x 5 = 5	2 x 5 = 10
Totals	48	38	29	45

EACH OF THE WEIGHTS IS MULTIPLIED BY THE INITIAL SCORES EACH VEHICLE RECEIVED. THE RESULT – VEHICLE A WOULD BE SELECTED BASED ON THESE CRITERIA AT THESE WEIGHTS.

LIFE CYCLE COST ANALYSIS (AS A CRITERIA IN THE SELECTION PROCESS)

Lifecycle, or total cost of ownership, is a technique used primarily to evaluate bids on a basis other than low purchase cost. Lifecycle cost calculations typically will incorporate evaluation categories for initial cost, operating and maintenance cost (over a specified life) and salvage value (at life end). The basic formula is:

Initial Cost + Operating & Maintenance Costs – Salvage Value = LIFE CYCLE COST

Lifecycle cost calculations were initially used on heavy construction equipment, but are now widely used for all bids. The major advantage of lifecycle analysis is that it accounts for the operating costs of ownership and salvage values, yielding a better picture of the true costs of owning the equipment.

INFORMATION NEEDED FOR AN LCA

As an example, suppose a fleet manager wanted to replace a vehicle in his fleet and he has five vehicles from which to choose. If he went by lowest acquisition cost, his choice would be obvious. But once that vehicle is

in his fleet, he may discover that the gas mileage is terrible, the vehicle breaks down often and incurs high costs to repair, and he cannot sell the vehicle for a fair price when he wants to get rid of it. If he took the same five vehicles and considered not only the acquisition cost, but the cost of fuel over the vehicle's life, its lifetime maintenance and repair costs, and its resale value, he may find that the vehicle with the lowest cost is not the most cost-effective over the long-term use in the fleet

Besides figuring out which vehicle would be the most cost-effective to place in a fleet, a lifecycle analysis can also be used to:

- Determine Replacement Times – While a lifecycle model can help pinpoint which vehicle to place in a fleet, it can also reveal the optimum time to get rid of it, based on various factors and costs.

- Lease vs. Buy – For many companies, purchasing a vehicle may not be the most effective way to acquire the vehicle. A lifecycle model can compare the overall costs of owning versus leasing a vehicle, thereby showing the optimum decision for a particular set of circumstances.

- Employer vs. Employee Provided – Some companies provide a vehicle to their employee in order for the employee to do their job. Other companies reimburse an employee for the use of their personal vehicle. Which is more effective, or the best cost option? A lifecycle analysis can show which option is better for the company or for the employee over time.

- Alternate Fuels – Is placing a CNG truck in a fleet cost effective? Or would an electric vehicle make more sense? A lifecycle model can compare the options and give you a better picture as to which one may give a greater return on investment.

- In-House vs. Outsourcing – Maintaining a vehicle is expensive. For some, having a garage where the vehicles can be maintained is more costly than if the work is outsourced to companies that specialize in this function. Lifecycle analyses can determine if having a garage and its associated costs is better or worse than outsourcing all work.

Before we can look at an actual model, there needs to be a common framework and language for categorizing expenses.

Depreciation, or the value of the asset consumed during its use, is by far the largest vehicle expense. NAFA defines depreciation in equation form as:

Net Acquisition Cost (purchase price plus cost to place into service), MINUS Net Remarketing Revenue (resale price minus cost to remove from service and sell)

However, many companies and government entities do not even consider depreciation because they make purchases based on lowest initial cost. This can be expensive since not all factors are considered. The cost factors are fully discussed in FM Chapter 2.

Since the data gathered and compared for each lifecycle cost analysis is dictated by the type of decision to be made, one should avoid non-discriminating data elements and concentrate on those that make a difference and are based on factual data. Every problem analyzed using these techniques may have different data elements. Do not make the mistake of getting so hung up on checklists and formulae that you do not see the big picture. As with any mathematical model, the most important thing is to set up the problem correctly.

It is important to spend some time hypothesizing about the logically expected outcome, and the data elements that may make a difference. Then, gather the data, run the numbers and apply common sense to the outcome in light of the hypothesis.

There are a number of reasons why a lifecycle cost analysis may not work for an organization. However, if the fleet manager knows the common mistakes when developing the analysis, he/she can avoid all the headaches in trying to ascertain why a model does not give the answer anticipated. Some of these common mistakes are:

- Omission of necessary data
- Lack of a systemic structure or analysis
- Misinterpretation of data
- Wrong or misused estimating techniques
- A concentration on wrong or insignificant facts
- Failure to check all calculations
- Estimation of the wrong items
- Using incorrect or inconsistent escalation data

Remember that a conclusion drawn from a lifecycle cost analysis is only as good as the accuracy of the data and the validity of the assumptions made about the future – in other words: “garbage in, garbage out”. Document data sources as clearly and completely as possible. Many times, the lifecycle analysis is not questioned, but the source data is. The more one can demonstrate that the data came from historical information or from recognized authorities, the more credibility the model will have. Also, any assumptions made must be clearly stated to ensure credibility later if things do not go exactly as expected.

Lifecycle cost models are good tools to use when trying to make an acquisition or remarketing decision. However, it should be noted that the model is only good for that particular moment in time relative to the completed analysis. Lifecycle cost models do not take into consideration

the rates of inflation or the buying power of money in the future. Models can be crafted to take some of this into consideration, but the model will never be "to the penny" perfect. In order to account for this, many fleet managers may use a lifecycle cost model to justify an acquisition, but then they redo the lifecycle model at various points of the vehicle's life in the fleet, either every six months or one year. When the model is redone, they substitute actual costs incurred at that point for that timeframe, and complete the model with the same or amended assumptions. Keeping this in mind, and making sure that it is accounted for in any decision made, will help justify original decisions and help to make more informed decisions down the road.

REGULATIONS (FASB, DOT, STATE/LOCAL, ORGANIZATION)

With the increasing importance of federal, state, and local regulations, compliance is an essential consideration. You must assure that the equipment you buy will be acceptable to all regulatory authorities. If you spell out the applicable rules and regulations in the specification and require compliance, you will not be caught later with a vehicle that you cannot legally deploy.

In public and private organizations alike, contracts are awarded based on a competitive bidding process. Competition ensures that the organization gets the best value for their investment and the best product for their requirement. In public organizations, the competitive bidding process is often strictly legislated to ensure the best use of taxpayer's dollars.

When a public (or private) organization chooses some form of competitive procurement, Whether it is an Invitation to Tender, Request for Proposal or Request For Quotation, they become legally bound to:

- Fully disclose all known information which would potentially influence a Bidder in deciding whether to bid and what price to bid
- Treat all Bidders fairly and equally throughout the process, from qualification through evaluation to final award
- Award a contract which is substantially similar to what was originally sought in the Invitation / Request
- Avoid all undisclosed preferences and potential conflicts of interest between Bidders and evaluators
- Act in good faith to all bidders throughout the competitive bid process
- Reject any bid (no matter how attractive) which is substantially non-compliant ; and
- Negotiate no changes to scope of work, price, or any other major component with any bidder without offering every other bidder the same opportunity.

While this may in fact ensure the most beneficial contract, it may also be very time consuming and expensive.

FASB (Financial Accounting Standards Board)

The FASB is an organization that regulates the financial accounting and reporting aspects of a transaction. They provide standards that investors and financial report users rely upon to help in decision-making. The FASB publishes rules relating to how vehicle purchases and leases are reported on financial statements.

Currently lease accounting standards require leasers to classify the lease as a sales type lease, direct financing lease, leveraged lease, or operating lease. Lease payments are an expense, and depreciation is split between a finance charge and reduction of outstanding liability. Critics of these standards, including the US Securities and Exchange Commission (SEC), claim that these complex rules give assets capitalization on a financial statement and create forecasting confusion. Proposals have been made to modify these standards, and it is important for a fleet manager to be aware if changes are put into action.

Specifically, a fleet manager should be aware of the regulations and how various acquisition strategies impact financial statements. Companies that own vehicles can depreciate that asset and gain tax benefits for the life of the vehicle. Additionally, shorter-term leases result in higher payments but will lessen debt on financial statements. If the decision is not clear, fleet managers should seek legal counsel or consult staff in finance or accounting to make sure all ramifications of either choice are clear.

In addition to abiding by FASB regulations, fleet managers should also consult their Department of Transportation (DOT), state, local, and own organization's standards as well. These groups constantly update their operating principles in order to better address issues, and it is imperative that fleet managers remain up to speed, especially when selecting new vehicles for the fleet.

NAFA
Fleet Management Association

Asset Management Guide

Specification Types and Development

04

INTRODUCTION

For many fleets, the vehicle selection process culminates in developing a set of specifications to accompany a request for bid and then evaluating from the bids received. For others, developing a selector list from a myriad of choices involves many of the same processes even though not as much transparency as solicitation of public bids is required. In either case, determining what is needed is the critical first step requiring technical expertise, market research, and close communication with customers and vendors.

This procurement process is facilitated by a team of fleet professionals who translate the needs of the organization and its operating elements into bid specifications. In addition, procurement professionals execute and monitor bidding and make awards based on joint review. The goal of this team is to acquire vehicles and equipment that meet operational needs at the lowest life cycle cost. Actually acquiring the best vehicle or equipment balancing these two objectives if it doesn't happen to have the lowest net acquisition cost requires establishing purchasing policy groundwork well in advance of bids to be done correctly.

Making purchasing decisions should be done ethically, and justified with everyone's integrity and reputation intact. Baseless product prejudices can't be justified and no attempt to do so should ever be made. Instead, everyone involved needs to commit to the principles of open and honest competition so that the organization's best interests are the sole concern.

SPECIFICATION PROCESS

Identifying the requirement

When specifying a vehicle there are a multitude of factors to consider. The first step in doing so is to identify the requirement for the vehicle. This all starts with asking questions to the current and potential users of vehicles in the fleet. What sorts of tasks will they need to perform? Will the vehicle often be carrying backseat passengers? What sorts of cargo will be carried? What distances will this vehicle drive?

Knowing the requirement is quite crucial before making a purchase and asking each user individually about their requirements can be time consuming. To save time and be more efficient there are a few alternatives. You could first send out a survey to users to identify what they will be doing with the new vehicles you order. You could also sit down and personally interview the primary user of the vehicle.

A vehicle test drive may also help to determine specifications to include. The fleet manager should also identify key users and take them for a test drive of the vehicle. Allowing them to see the actual functionality on the road will give them a much clearer picture of the vehicle.

Roles

As the fleet manager it is your ultimate decision when deciding what specifications each vehicle entering the fleet must have. This takes time and careful consideration and is not a decision that should be made alone. Input is required from others in the organization to find out what would work best for them. Maintenance staff will also be able to assist in the development of quality specifications. Ultimately the final analysis is made by you, the fleet manager, but it is crucial to receive suggestions and hear out the needs from those who will be working with the new vehicles.

Specialty Vehicles

Often a fleet will require specialty vehicles that are used for more than simply transporting people from one place to another. Specialty vehicles can include tow trucks, work trucks, and even garbage trucks to name a few. Some of these specialty vehicles will be built with custom parts to fit your needs and others will be built as is. It is important to take into consideration the specific needs of those using the specialty vehicles entering your fleet.

When purchasing some specialty vehicles, most notably trucks, some common errors and mistakes can often occur. The following are three common mistakes and how to avoid them.

- **Working out of order**

  When starting to write a specification for a work truck it is often better to start with the body rather than the chassis, or framework. The body defines the jobs a work truck will be doing as well as the loads it is able to carry. After deciding on a body design that works for your needs, the chassis can be specified to work with the chosen truck body to allow for the most efficient payload, center of gravity, and weight distribution. Finally, find a powertrain that will meet your needs.

- **Duplicating old units**

  Often it is easiest to simply order the same vehicle that has been used in the past; however, this is not always effective. The current work trucks might not have the power or efficiency to do certain tasks. Rather than taking the easy route and ordering a replication of the current vehicle it is often necessary to design a new one to optimize work performance, especially if you can remember a recent job that was limited due to a truck's power and size. Duplicating old specifications also may result in not acquiring the latest safety or emissions technology.

- **Guessing**

  After a body and chassis are selected a detailed weight distribution analysis is necessary to determine the loadings the individual axles

can take. Sometimes optional axles and other suspension components might be required.

After the foundation is built and selected the proper powertrain, electrical system, fuel tanks, and cab components need to be selected. Do not guess on these specs - perform the necessary horsepower and engine torque demand analysis. To properly calculate your needs the performance criteria needs to be defined and then the actual requirements need to be set.

All of the detailed and properly selected components may come at a higher price but will pay off with better fuel economy, lower maintenance costs, better reliability, increased user satisfaction, and better compatibility with actual work requirements.

Types of Solicitations

There are many common terms for solicitation types or styles used by organizations to procure goods and services from vendors. These solicitations for bids can be grouped into two basic types: A request for quotations (RFQ) and a request for proposals (RFP). The RFQ is most appropriate when the goods or services being procured are clearly defined and information desired from potential vendors is primarily the cost. The RFP is most appropriate when the need fulfilled by the goods or services being procured can be defined but the organization would like to collect creative solutions and price quotes from potential vendors.

- Request for Quotation (RFQ)

Should be used when minimum requirements are clear and vendor innovation is not desired.

Request for quotation (RFQ) is similar to an invitation for bid (IFB) or invitation to bid (ITB) and may be called such. It is a business process used to solicit quotes to provide a product or service through a competitive bidding process. The focus of this type of solicitation is on pricing rather than ideas or concepts.

The purchasing organization tells potential vendors what is needed. Vendors note compliance or take exception to provisions of the specifications or requirements in quoting a price and other evaluated criteria such as those discussed under life cycle costing described in this chapter. It typically also includes information like required delivery schedule, payment terms, quality level, and contract length.

Specifications establish the minimum standards making sure all potential vendors are bidding on the same product or service, and more detailed specifications will yield accurate quotes that are more comparable to other suppliers. Another reason for using detail in an RFQ is

that the specifications could be used as legally binding documentation for the vendors.

Vendors typically have to return their bid by a set date and time to be considered for an award. This may be a sealed bid, and multiple rounds of bidding or even a reverse auction may follow to generate the best market price.

• Request for Proposal (RFP)

Should be used when relative qualitative requirements will be evaluated and vendor innovation is desired.

The request for proposals (RFP) informs potential vendors what needs to be accomplished in the form of deliverables, and they offer alternatives that accomplish it with emphasis on achieving organizational goals (e.g., environmental sustainability, fixed and operating cost reductions, after-the-sale support). RFPs are publicly advertised and suppliers respond with a detailed proposal as well as a price quotation. They typically provide for negotiations after sealed proposals are opened, and the award of contract may not necessarily go to the lowest cost bidder.

The components of an RFP typically include:

a. statement and scope of work
b. specifications
c. schedules or timelines
d. contract type
e. data requirements
f. terms and conditions
g. description of goods and/or services to be procured
h. general criteria used in evaluation procedure
i. special contractual requirements
j. technical goals
k. instructions for preparation of technical, management, and/or cost proposals

An RFP may dictate to varying degrees the exact structure and format of the supplier's response. Likewise, venders are generally expected to follow a structured evaluation and selection procedure which may involve multiple phases and iterations. This structure and process are designed to facilitate an impartial examination of the varied proposals judging each on its relative strengths and weaknesses. What may be subjective criteria, like suitability, function, or even design aesthetics, are thus rendered more objective in accordance with the published evaluation criteria aiding the selection process.

An RFP often requires proposals to include information about the financial solvency, technical expertise, basic corporate history, stock

availability, references and other information upon which to base an evaluation of the vendor itself and its likelihood of successfully providing the service or goods required.

• Request for Information (RFI)

Should be used to develop a pre-qualified vendor list when there are many potential bidders.

When the list of potential bidders is large, the RFP may be sent only to a pre-qualified vendor list (i.e., short list). A Request for Information (RFI) may be sent to all vendors in order to develop the pre-qualified vendor list thereby limiting the number of full proposals which must be fully evaluated by the review team. This is particularly true for complex or high-value purchases involving multiple rounds of proposing, presentation, evaluation, and negotiation culminating in submission of their best technical and financial proposal, commonly referred to as a Best and Final Offer (BAFO). Subsequent changes can be referred to as the Best and Revised Final Offer (BARFO).

The final stage of the RFP process is generally to settle onto an agreed statement of work or description of goods and formal contract signing.

Where the private sector might use an RFP process for major procurements, the government, infrastructure and utility sectors may be required by law to use a similarly structured process called a Request for Tenders (RFT). An RFT is usually expected to conform to some legally standardized structure designed to ensure impartiality. Because the RFT process is specific to the organization required to use it and typical fleet procurements and insufficient in size and scope to require their use, they will not be discussed further in this publication.

• Cooperative Purchasing Contracts

A Cooperative Purchasing Contract is established by one of the processes above and allows other organizations to buy from it without a re-bid (e.g., County buying off a State contract). These agreements are not limited to governmental entities although smaller local governments often benefit greatly from partnering with a larger entity that has resources dedicated to verifying and researching product purchasing to make the best buying decision. Unit costs and shipping cost decreases are often a result of these joint purchasing agreements.

TYPES OF SPECIFICATIONS

Solicitations for quotes or proposals involving vehicles or equipment typically contain specifications that describe what is needed. Performance, design, and proprietary (or name brand) are the three basic types of vehicle specifications. Specifications may be primarily of one type or

hybrids that encompass elements of two or even all three of these. These specification types are described below and illustrated in the examples at the end of this chapter.

Regardless of the type of specification used, they describe the minimum acceptable characteristics of the vehicle or equipment. Quotes or proposals that comply with the specifications are said to be from "responsive bidders" and are evaluated according to the criteria and process described in the solicitation. However, those quotes or proposals that take exceptions to specifications which are not deemed acceptable by the procuring organization are said to be "non-responsive bidders" and their submissions not considered.

Because specification compliance serves as the gatekeeper for further quote or proposal consideration, it is imperative that they be comprehensive in accurately describing all the essential characteristics and capabilities for a vehicle to meet organizational needs. Generally speaking, the lowest quoted life cycle cost or the highest life cycle value proposal of a qualified, responsive bidder is awarded the bid.

Specifications need to have enough detail to avoid confusion. This is especially important when upfitting a vehicle to perform a special purpose. Pay special attention to list preferences for items that are options on ANY competing makes and models that might be bid. However, it shouldn't take 10 pages to specify a standard pickup truck.

Over complicated bid specifications can narrow choices unintentionally or lead to unnecessary mistakes by bidders. They may even lead to apathy in a market where the profit per unit is small if the aggravation level of doing business with an organization is too high.

Performance

Tell vendors what the unit must be able to accomplish and they determine the product and configuration to meet those requirements.

A description of a vehicle's minimum operating requirements can include gross weight, speed, acceleration, minimum grade it must negotiate, passenger/weight/volume carrying capacity, fuel economy, emissions levels, axle loads and distribution, and compliance with industrial or governmental standards and/or statutes such as SAE, OSHA, or DOT.

Performance specifications will likely result in the most competition of the three basic types as vendors are free to select and configure the product able to meet the minimum operating requirements at the lowest cost of those criteria to be used for the evaluation. For this reason, it is essential that all operating requirements that matter be clearly defined.

It is also essential that any important comparative cost elements be clear-

ly defined. Otherwise, the lowest net acquisition cost for the bid offering meeting the minimum standards would be selected even if lower fuel economy, higher maintenance cost, or more downtime might not make it the best life cycle cost choice.

Design

Tell vendors how the unit is to be configured to be able to accomplish what is needed.

Design specifications may include a description of a vehicle's physical dimensions, structural properties (e.g., moments of inertia, resistance to bending, tensile or yield strengths) or other engineering parameters and performance (e.g., power or torque). They may also include the exact size, placement and mounting method for ancillary equipment like a lift winch or storage shelving or compartments.

Design specifications essentially relieve the vendor from the obligation of meeting minimum performance requirements by providing them instead with design criteria which must be met. In so doing, the specification writer assumes responsibility for performance when substituting their engineering prowess for the vendors'.

Design specifications are normally used for specialty/custom vehicles (e.g., fire apparatus) and vehicles built in multiple stages where a body and ancillary equipment are mounted on a cab and chassis (e.g., mass transit bus, dump truck).

Proprietary

Tell vendors what make(s) and model(s) of unit or specific components are acceptable.

A description of a vehicle's required equipment that is specific to a particular manufacturer.

Proprietary specifications may be used when previous competitive bidding has established a fleet standard. They may also be used to establish a known commodity that works for the fleet application but allows comparable products to be bid, thereby ensuring competition but keeping the onus on vendors to justify the performance and design of their products against the one known to be acceptable.

Proprietary specifications are the easiest to write but can be the most difficult to evaluate for bid award if the "or equal" provision is included to allow competition against the known commodity.

It is a grave error to try to use proprietary specifications and disguise them as legitimate performance or design requirements. Vendors of competing products will almost certainly see through this ruse and the re-

sult may well be protests or even litigation of indefensible specifications. Therefore, if proprietary specifications are to be used then do so openly.

Hybrid

Hybrid specifications that combine features of the three distinct types above (performance, design, and proprietary) are common.

Specifications may include a single type but are more commonly a combination of two or even all three types. For example, a performance type specification may adequately define the medium-duty truck needed for a given fleet application when any competing make and model will do given its carrying capacity but a design or even proprietary type specification section may be needed to describe special auxiliary equipment needed in the bed of truck and even the location it should be mounted.

Hybrid specifications are least often used for light-duty, retail-type vehicles with no modification needed. They are the most prevalent for specialty vehicles built in multiple stages where a body and ancillary equipment are mounted on a cab and chassis.

Life cycle Cost Provisions

"Lowest cost" responsive bidder may include objective measures of life cycle cost elements not just purchase price.

Bid quotations are generally awarded to the lowest cost of the responsive offers meeting or exceeding specifications. However, lowest cost doesn't necessarily mean just the initial purchase prices or net acquisition cost of the vehicle.

The American Bar Association (ABA) Model Procurement Code contains recommended wording which is widely adopted particularly by states and local government jurisdictions. The Code and Companion Model Procurement Regulations promote transparency, fairness and competitiveness through adoption of best practices. These principles include obtaining value for money spent through the use of life cycle cost factors which are clearly established as objective criteria in the bid document. These factors may include up front comparisons of fixed (e.g., resale impacting depreciation, guaranteed buyback vs. trade-in) and operating costs (e.g., fuel economy, maintenance costs/extended warranty) including relative risk management costs (e.g., crash rating by National Highway Traffic Safety Administration (NHTSA) and/or Insurance Institute for Highway Safety (IIHS)).

The following wording used by the State of Arizona is typical of those adopting the ABA Model Procurement Code:

> *Bids shall be evaluated to determine which bidder offers the lowest cost to the State in accordance with the evaluation crite-*

> *ria set forth in the Invitation for Bids.* ***Only objectively measurable criteria that are set forth in the Invitation for Bids shall be applied in determining the lowest bidder. Examples of such criteria include…life cycle cost formulae.*** *Evaluation factors need not be precise predictors of actual future costs, but to the extent possible the evaluation factors shall be reasonable estimates based upon information the procurement officer has available concerning future use.*

Include provisions for consideration of life cycle cost elements like historical depreciation/resale performance, operating costs, insurance rates/risk, local parts availability and anything else that can be quantified to ensure the best choice wins. Make vendors compete on more than purchase price when it can be done for legitimate reasons.

Fleet Standardization Provisions

Standardization on makes/models may reduce costs for maintenance (e.g., diagnostic software, specialty tools, technician training) and driver training.

Once a fleet finds something that works it is easier to just require that product year after year. Proprietary specifications are essential if the goal is to standardize on a product line to simplify the fleet and reduce costs. This can be an effective cost control strategy so long as there is competition in bidding the standardized product line. The problem with this strategy is that it may discount the impact of innovation and competition.

If standardization on a vehicle product line is desired but you doubt the ability or willingness of an organization's purchasing professionals to do so, take a look at what and how they are buying other equipment like computers or software. The justification to standardize on brand "X" truck is much more compelling financially than it is for standardizing on brand "B" computer or software suite. Standardizing on one make of chassis, body, equipment and major components can greatly reduce the degree of fleet diversity and many of the problems it brings particularly when centralized maintenance and repair functions are performed in-house by the organization or additional manufacturer incentives are sought.

Advantages

Standardization can produce significant cost savings in several areas. Some are more easily quantified than others. The easy ones include:

- *Improved Maintenance Efficiency* – The complexity of vehicle systems are steadily increasing with the addition of electronic sensors and controls, multiplexing, new emissions technology, and safety devices. This steep learning curve for fleet maintenance technicians can be reduced by limiting the variety of new systems with which they

must contend. Proficiency in the maintenance garage is largely a function of solid training and experience so a standardized fleet can expect quicker repairs and fewer mistakes all other things being equal.

• *Fewer Diagnostic and Specialty Tools* – Test equipment and software updates or subscriptions can be an expensive, recurring cost. To a lesser extent so can unique hand tools. Saving a few thousand dollars a year by reducing the variety of drive trains, transmissions, brake systems, etc. in a tight budget can leave room for something else badly needed.

•*Smaller Parts and Bulk Fluid Inventory* – Obviously, the more variety in a fleet the more spare parts and maybe bulk fluid types will need to be in stock. A bloated parts room takes up valuable shop space that could be better used for another service bay or two. There is also an opportunity cost to the value of parts on the shelves—unless they are on consignment or the parts operation is outsourced. What else could the organization be doing with the cash if it weren't tied up?

Less obvious savings accrue from:

• *Increased Operational Efficiency and Safety* – Vehicle operators become accustomed to the controls, displays and "feel" of a unit. Standardizing fleet segments allows customers greater flexibility in making driver assignments without the loss of productivity or increased safety risk of bouncing between dissimilar units. They also learn the capabilities of a given unit (e.g., how full a dump truck looks when at its maximum rated payload for a given material and how many scoops of what size with the wheel loader it takes to hit that fill point).

• *Closer Vendor Relations* – Fleet organizations and their vendors can become effective partners in delivering services to customers. Good relationships are fostered by long term association and that is certainly more likely if a fleet standardizes.

• *Proven Reliability* – While there is no guarantee that a particular manufacturer's line of products will maintain its quality over the years, it appears to be more likely than trying every new product that hits the market and bids low. Your vehicle replacement schedule is built on expectations that a certain life cycle holding period or meter reading can be predicted. Historical experience is a good indicator upon which to base that prediction all other things being equal.

• *Potentially Less Time Spent on Specifications and Bid Evaluations* - Once segments of a fleet are standardized, the workload for each new purchase is significantly less difficult and time-consuming.

• *Fewer Contracts and Invoices to Process* - Fewer makes of vehicles

means fewer sources of OEM parts, fewer warranty claim processes to qualify for, fewer contracts to award and monitor, and fewer sources of invoices. These seemingly small administrative issues can consume more fleet staff effort than might be expected—large fleets might even be able to eliminate an overhead position.

Disadvantages

While all of the cons discussed below can be mitigated, the risks are very real and need to be both considered up front and monitored for regularly.

• *Potential Loss of Competition* - The foundation of purchasing is to have fair, open competition. The conventional wisdom being that this will ensure judicious use of funds. Standardizing a fleet certainly does eliminate some competition in an effort to ensure wise selections based on life cycle costs rather than lowest acquisition cost. This is the primary hurdle to overcome if a fleet should standardize. Certainly, if not done properly, standardizing can increase costs.

• *Potential Missed Innovation* - There is a risk that one vehicle or equipment manufacturer might make a leap forward in technology while you have standardized on another product line. Truly innovative improvements usually level out amongst competitors within a couple of years.

• *Risk of "Lemons"* – "Putting all your eggs in one basket" by standardizing could result in excessive downtime or even premature replacement of vehicles if a design flaw creeps into the line of products you have selected.

• *Appearance of Collusion* – Any measure that appears to stifle competition will inevitably raise complaints that the process is unfair. It may even result in personal attacks on those who were involved in the standardization process.

Standardizing the Right Way

There are several techniques and considerations for implementing standardization the right way. Writing thinly veiled specifications to arbitrarily eliminate some bidders does NOT fall into this category.

First, EVERYTHING about standardizing the fleet must be done openly, above-board and in full view of the applicable stakeholders. Potential vendors need to be included in the process when the evaluation rules are established and their concerns addressed—but not necessarily acquiesced to. A formal pre-bid conference is a good venue to meet this requirement. This is the best defense against the allegations that might come years down the road that there was somehow wrong doing.

Consider standardization for one segment of the fleet at a time (e.g.,

heavy truck chassis, wheel loaders). Standardization should be based on a demonstrable savings in the life cycle cost. The initial selection should, therefore, be based on a competitive bid which incorporates quantifiable fixed and operating life cycle cost elements for a given operational life expectancy (e.g., depreciation = net acquisition cost – net resale revenue; fuel economy; safety rating; maintenance/extended warranty; average delivery time from order; productivity enhancement features). The bid specifications should be performance-based at this stage of the process.

Establishing a multi-year procurement agreement based on this competitive bid outcome, when permitted, simplifies the standardization process. A multi-year agreement would include a cost escalation clause, take advantage of all new incentives, and have an easy-out provision for both parties.

When a multi-year procurement agreement may not be established, a proprietary bid specification can be used to implement the standardization for a pre-determined number of years. It is important to have the intention to do this published up-front when the initial performance-based specification is bid to establish standardization. It is also important that bids of this type not be awarded unless at least two separate vendors can and do bid to guarantee some competition.

The pros in favor of standardizing are significant enough to pursue if the cons can be avoided. Visit the issues with procurement officials and executives to see if standardization may be implemented in all or, at least, some segments of a fleet where it makes sense.

BID REVIEW AND SELECTION

Pre-bid Meetings

Pre-bid meetings may be either mandatory or non-mandatory when procuring vehicles. In the case of a non-mandatory meeting often the material is mostly covered in the specification or on paper elsewhere. For mandatory or face-to-face meetings there are a number of steps to take to ensure the meeting goes well.

- Find a member of your team to take written notes during the meeting to ensure proper documentation and recording of all necessary information.
- Set up a time and place for the bid opening.
- Create an attendance record for attendees of the meeting.

The purchasing officer will often facilitate the meeting to cover the different specifications and come to a consensus between the buying party and selling party. All clarifications, charges, and the scope of the purchase are important to include in the discussion.

Site Visits and Test-drives

Before purchasing a vehicle it is beneficial to visit the site and vendor. This gives you an opportunity to really understand the source of your purchase as well as getting a real feel for the vehicle. When at the site you will be able to inspect the manufacturing plant or sale lot to identify if the vendor will be able to meet your future needs for vehicle purchases. It also gives you the opportunity to test drive the vehicles. When test-driving a potential purchase it is important for both the fleet manager and the primary user to get behind the wheel.

Test-drives can be done in a number of fashions. There may be OEM ride and drives where customers can drive new models on a closed course provided by the manufacturer. There is also the option to test drive vehicles at different association meetings and industry conferences where a multitude of fleet managers, manufacturers, and other important members of the industry will convene together. There are also situations where vendors will provide a demo vehicle for a select period of time to ensure that multiple users can get a feel for this new vehicle.

Post-bid Evaluation

After making a decision, prepare a Bid Evaluation Report and spell out reasons for rejecting each bid you did not take. Give a reason for rejection (i.e. “received after bid opening”, “incomplete”, “non-responsive”) and evaluate their commercial responsiveness in terms of delivery, completion date, payment terms and warranty. Additionally, include qualifications, alternatives, technical comparisons, and responsive bid comparison. For further information, reference the NAFA Professional Development Guide or NAFA Fleet Law guide concerning challenges, civil court actions, or ethical considerations.

Performance Bond

A performance bond is a financial guarantee up-front protecting the buyer from vendor non-compliance. Performance bonds may be short in length or long and complicated. A performance bond typically raises cost by 1-2% of the contract price, so if it is not necessary, avoid the extra cost.

Sample specs

A shorter specification is typically 3-6 pages and includes some of the following items: Evaluators will check “comply” or “exception” for the following sections and parts/systems included in each respective section. Specs may include, but are not limited to: Cab, Engine & Transmission, Electrical, Fuel, Brake System, Axles, Tires and Wheels, General (safety standards, cylinder removal process, vehicle camera), Body Dimensions, Body Construction, Hopper, Packing/Ejecting Mechanism, Lifting Arms, Controls, Hydraulics, Paint, Mounting, Warranty, and Optional Equipment.

A longer specification can range anywhere from 10 to more than 50 pages and is similar to the shorter spec sheets in format. Some items that may

be included, in addition to the sections listed above, are Standard Specifications, Vendor Preparation of Tandem Snow Removal Trucks, and any Optional Equipment that may be required.

(Sample short specification)

START

(BUSINESS NAME) has provided the following Scope of Work document in order to provide each bidder with specific and relevant background information related to this bid document.

1. **Description of the Goods or Services Sought:**

   i. Vehicle bids furnished under this specification shall be the latest model, standard production units, offered to the general trade, equal in every respect to the construction and performance characteristics shown in the manufacturer's specifications and descriptive literature for this type of vehicle as manufactured and advertised for delivery in the continental (United States or Canada) and including all equipment normally offered and installed at the factory.

   ii. All vehicles offered must meet or exceed the following minimum specifications. It is intended the manufacturer will build the vehicle to these specifications and the selling or servicing dealer will be required only to perform the normal pre-delivery service and not be required to modify, alter, exchange, assemble, install or paint various components to meet these specifications?

2. **Acceptable Models:**

   a. Acceptable models are on the bid proposal page. Do not bid models not listed, unless an addendum has been issued making the model acceptable. Requests for model acceptance addenda should be addressed to the buyer, **(FIRST NAME, LAST NAME, PHONE NUMBER, EMAIL ADDRESS)**

3. **Delivery:**

   a. Between 8:00 AM and 4:00 PM, daily except Saturday, Sunday and holidays, AFTER SERVICING AND READY TO DRIVE, with not less than five gallons of fuel. Deliveries desired prior to 120 days after receipt of order; quoted deliveries beyond 120 days are an award consideration. The vehicles shall not have over 200 miles on the odometer at the time it is officially accepted.

4. **Factory Installation:**

   a. All components must be FACTORY-INSTALLED; if factory-installation is not available, then it must be noted as a dealer-installation option and an exception.

b. Vehicle shall be guaranteed to include all the latest engineering developments adopted by the company applying to transmissions, fuel systems, engines, and accessories, and to possess the capability of operating on lead-free gasoline and gasohol/ethanol.

c. All vehicles shall comply with all current provisions of the National Traffic and Motor Vehicles Safety Act, and applicable provisions of the USEPA Emission Standards.

d. All items listed are required. If there is an exception, a detailed explanation must be provided.

e. All standard options must be included in bid proposal. **Fleet only deducts shall not be utilized and all standard options must be included in bid proposal.**

f. Bidders shall clearly state on their response, or on a separate page, all exceptions or deviations from the bid specifications; otherwise, they will be held responsible for compliance to the detail of all specifications. The **(BUSINESS NAME)** reserves the right to analyze exceptions in detail.

g. **BIDDER IS REQUIRED TO INITIAL NEXT TO EACH ITEM TO CONFIRM BID PROPOSAL INCLUDES SPECIFIED ITEMS. FAILURE TO CONFIRM INCLUSION OF ALL SPECIFIED ITEMS WILL RESULT IN REJECTION OF BID PROPOSAL.**

5. **BODY, ALL VEHICLES:**

a. **Color**: Body color and interior trim will be selected from manufacturer's standard colors.

i. Please provide listing of standard colors for each model bid.

ii. **Note: (NAME SPECIFIC COLOR) must be included as a standard color.**

b. **Doors:**

1. Sedans require 4 doors.
2. Seven passenger vehicles require right and left sliding side doors and lift gate hatch or 4 doors and lift gate hatch.
3. Eight passenger vehicles require 4 doors and lift gate hatch.
4. Full size vans require right side sliding door and center opening rear doors.
5. Eight passenger sport utility vehicles require 4 doors and center opening rear doors.
6. Regular Cab pickups require 2 full size doors.
7. Extended Cab Pickups require 2 full size and 2 half doors.
8. Crew Cab Pickups require 4 full size doors.

c. **Pickup Box Length**: Standard box length for model bid. Regular cab pickup requires box with approximate 8 foot box length, extended cab and crew cab pickup require box with approximate 6 foot 5 inch box length.

d. **Glass**: Approved tinted safety glass shall be required in all doors, windows, and windshields. Dark tinted glass required for full size vans.

e. **Power Package**: Power windows and door locks required with keyless entry.

f. **Insulation**: Standard production heat and sound insulation to be provided.
   i. Full-length headliner to be furnished

g. **Seats**: All seats are to have foam rubber cushions, cloth with vinyl trim.

h. **Arm Rests**: Required on both left and right-hand sides of each seat.

i. **Sun Visors**: Dual, padded

j. **Mirrors**: Interior adjustable, day and night tab (selector type, non-glare). Outside rearview mirrors of remote control type mounted on left and right sides of vehicle.

k. **Power Outlet:** Required.

l. **Seat Belts**: Individual lap/shoulder for all seats as applicable per seat occupancy with standard automatic retractors.

m. **Horn**: factory horn required.

n. **Windshield Wipers and Washer**: Multiple-speed electric with washer and intermittent or delay capability. Minivans require factory installed rear wiper.

o. **Air Conditioner**: Best grade factory installed air-conditioning, manually controlled, to include all items normally included in the factory package. Seven passenger vehicles, eight passenger vehicles, passenger vans, and SUV's require front and rear air conditioner.

p. **Heater**: A fresh air type heater with windshield defrosters shall be installed. Seven passenger vehicles, passenger vans, and SUV's require front and rear heater.

q. **Rear Window Defroster:** Required for all vehicles.

r. **Backup Camera**: Factory backup camera required for all vehicles.

s. **Radio**: Manufacturer's standard factory installed AM/FM/CD stereo radio.

t. **Lights**: Halogen high beam headlights with low beam; back up lights; dome light. Directional signals to be complete with front and rear lights, self-canceling control lever on the steering column. Hazard lights

u. **Floor Coverings**: Carpeting and floor mats, both front and rear required for passenger sedans, seven and eight passenger vehicles. Vinyl floor covering (no floor mats) required for full size passenger vans, full size SUV's, and pickups.

v. **Hood Release**: Inside.

w. **Automatic Speed control with tilt wheel**: Required.

x. **Airbag**: Driver and passenger side required.

y. **Fuel Tank**: Standard fuel capacity

6. **ENGINE AND DRIVE TRAIN, ALL VEHICLES:**

a. **Engine**: Engine size specified with each vehicle model.

b. **Transmission**: Multiple speed automatic transmission with lock up torque converter

c. **Air Cleaner**: Dry type.

d. **Oil Filter**: Full flow throwaway types.

e. **Thermostat**: Required as recommended for permanent-type anti-freeze.

f. **Radiator**: Heaviest duty cooling available, with coolant recovery system.

g. **Axle Ratio**: Ratio to be recommended by manufacturer.

h. **Differential**: All rear wheel drive or four wheel drive vehicles require limited slip or electronic traction control.

i. **Trailer tow package**: Pickups and full size SUV's require factory trailer tow package with receiver hitch, extended power camper style mirrors, integral brake controller & associated options.

7. **SUSPENSION AND RUNNING GEAR, ALL VEHICLES:**

a. **Wheelbase**: standard for model

b. **Steering**: Power.

c. **Steering Wheel**: Regular production model or approved deluxe wheel. Tilt steering wheel required.

d. **Wheels**: standard for model, wheel covers required if styled wheels not provided.

e. **Tires**: Standard size all weather for model

f. **Spare Tire**: Sedans or seven passenger vehicles, compact spare tire and wheel acceptable. Full size vans, and SUV's require full size tire and wheel.

g. **Brakes**: Standard, antilock must be provided if available from factory.

h. **Suspension**: Must be designed to handle passenger and cargo requirements. Twelve passenger vans and SUV's require electronic stability control.

i. **GVWR**: Pickups must have heaviest GVWR available for ½ ton pickup bid, or ¾ ton pickup bid, or 1 ton pickup bid.

8. **ELECTRICAL SYSTEM:**

a. **Ignition system**: 12-volt, solid state.

b. **Battery**: Heaviest duty available from factory.

c. **Alternator**: Standard, required.

d. **Voltage Regulator**: Standard, transistorized and sealed.

9. **MISCELLANEOUS**:

a. All vehicles shall be protected to 34 degrees below zero Fahrenheit by permanent type ethylene glycol base antifreeze of the brand normally furnished by the manufacturer. The radiator shall be tagged or marked to indicate the type, brand and degree of protection.
b. All vehicles shall be delivered with **three (3) sets of keys, and power locks with two (2) key fobs.**
c. Each unit shall be delivered to the purchaser with all wheels balanced and the front end aligned.
d. Manufacturer's standard complement of tools, bumper jack, wheel wrench, and jack handle shall be provided, together with facilities for storage

10. **DELIVERY**:

a. All vehicles shall be delivered FOB destination at **(ADDRESS CITY STATE)** and/or in accordance with the Delivery Schedule shown on the purchase order. Vehicles are to be road ready, fully equipped, serviced, and washed with a minimum of five (5) gallons of fuel in the tank. Vehicles showing lack of proper dealer pre-delivery service shall be subject to rejection until the vehicle is properly serviced. Factory pre-delivery service is not acceptable. Dealer nameplates, decals, etc., shall not be affixed. A signed copy of the completed manufacturer's "New Vehicle Preparation-Inspection and Road Test" form must accompany each vehicle at time of delivery.

b. **After the car has been fully serviced, the dealer may deliver it by rail freight, truck transport or by driving to the destination.** IMPORTANT: The motor vehicle shall not have over 400 miles on the odometer at the time the motor vehicle is officially accepted and signed for by the purchaser. **Deliveries shall be made between the hours of 8:00 AM and 4:00 PM daily, except Saturday, Sunday, and holidays. All deliveries must be scheduled with Transportation Services Management.**

c. **The original manufacturer's statement of origin, a service authorization card, window sticker and a properly executed service and warranty policy shall accompany each vehicle when delivered.**

d. Each vehicle shall be completely checked by the vendor to ensure conformance with the manufacturer's specifications and the **(BUSINESS NAME)** requirements as stated herein.

e. Invoices shall describe the vehicle, including vehicle identification number (VIN), key number and **(BUSINESS NAME)** purchase order number.

f. **Motor vehicles that have been wrecked or sustained more than minor nicks and scratches will not be accepted.** The vendor should not attempt to deliver a unit until minor nicks and scratches have been repaired. Failure to comply with the above may result in the dealer not being allowed to bid on future motor vehicles contracts.

11. **WARRANTY**:

a. The manufacturer's standard warranty shall apply to each vehicle (refer to item B below). Mechanical or body repair required under manufacturer's warranty, prior to use of the vehicle by the State, shall be the responsibility of the selling dealer, including the transportation thereof. **Warranty to be effective from date of issuance of first assignment and the mileage warranty will begin from the mileage on the odometer on the date of assignment. The selling dealer will provide warranty activation cards, or similar information, in order to properly activate said warranty.**

b. A minimum warranty of 3 years, 36,000 miles or the manufacturer's standard warranty, whichever is greater, is required. A minimum of 5 years, 100,000 miles rust warranty is required. The manufacturer's standard warranty shall be stated on the bid proposal page.

END

NAFA
Fleet Management Association

Asset Management Guide

Vehicle Procurement

05

INTRODUCTION

Vehicle procurement is not as simple as driving to the nearest dealership, selecting the first sedan they see and driving it home. One must realize that the vehicle must meet the needs of the organization, the driver, and the mechanic; must be cost effective; must be reliable; must be safe; all while being environmentally sustainable. Vehicle procurement could involve finding an alternative to acquiring an asset, such as reimbursing the driver for person vehicle use or using public transportation or one of many other opportunities.

The lease or purchase or reimburse or alternative method is a difficult decision and requires a thorough understanding of the various options and the needs of the respective organization. There is no single definitive answer to this question, and the best option for company A likely will not be the best option for company B.

EMPLOYEE REIMBURSEMENT ALTERNATIVES

Companies will often utilize vehicles provided by employees in order for them to meet specified needs when transporting people, goods, and services. When an employee uses their own vehicle they are compensated in either taxable or non-taxable methods.

A well run organization will take into account the need for employee provided vehicles as part of their VAM (vehicle allocation methodology). The fleet manager's role in all of this will be to oversee employer and employee provided vehicles to optimally control costs as well as providing the best possible transportation.

Monthly Allowance

In the United States, vehicle reimbursement programs, sometimes referred to as "advances" or "allowances", are all governed by the Accountable Plan Rules developed by the IRS and found in Publication 463 – Travel, Entertainment, Gift and Car Expenses. Therefore, in order to fully understand the impact of various vehicle reimbursement programs on both the organization and the driver, it is important to have a general idea of how Accountable Plans work.

Since reimbursements paid under Accountable Plans are excluded from gross income and are not reported on an employee's W-2, they are usually the most desirable type of program from both the company's and driver's standpoints. Reimbursements paid under a Non-Accountable plan are included in an employee's gross income and must be reported as compensation on their W-2.

Accountable Plans

So what does it take to have an Accountable Plan? There are three rules that must be followed.

1. The expenses must have a business connection. Therefore, the driver must be incurring expenses while performing services as an employee of the employer, and no payments can be made for a driver's personal use
2. The driver must provide adequate accounting for their expenses within a reasonable period of time (generally, within 120 days is considered "reasonable"). This is simply documentary evidence of the expenses supported by a statement, account book or mileage log, etc. The information generally required is date, place, business purpose, mileage and amount. Another way of describing this rule is "substantiation".
3. "Excess Payments" must be returned. An excess payment is any payment or advance that is greater than the expense substantiated by the driver.

Examples of Accountable Plans:

- Flat rate
  - -Company pays a driver $800 to cover their vehicle expenses
  - -Driver has $600 in substantiated business expense and returns the excess $200
- Cents per mile
  - -Company pays driver at or under the current IRS Optional Standard Mileage Rate
- Qualifying Fixed and Variable Rate (FAVR) Plans

Non-Accountable Plans

These are plans that don't meet one or more of the criteria required to be a tax-free reimbursement, with the most common being "flat rate" vehicle reimbursement programs. Flat rates usually pay drivers a weekly, bi-weekly or monthly amount (for example: $500 per month) and do not require substantiation of specific vehicle-related expenses. Sometimes companies will pay a flat rate for fixed expenses and a cents-per-mile rate to cover gas and other variable expenses.

Example of Non-Accountable Plan:

- Flat rate
- Company pays a driver $800 to cover their vehicle expenses
- Driver does not substantiate their expense or return any excess fund

Plan Type	Employer Reports on W-2	AND Employee Reports on 2106 (Employee Business Expenses)
Actual expense reimbursement. Adequate accounting and excess returned.	No Amount.	No Amount.
Actual expense reimbursement. Adequate accounting and excess returned.	The excess amount as wages in box 1.	No Amount.
Per diem or mileage allowance up to federal rate. Adequate accounting and excess returned.	No Amount.	No Amount.
Per diem or mileage allowance up to federal rate. Adequate accounting and excess required but excess is ***NOT*** returned.	The excess amount as wages in box 1. Amount up to the federal rate in box 12 only.	No Amount.
Per diem or mileage allowance up to federal rate. Adequate accounting and excess required but excess is ***NOT*** returned.	The excess amount as wages in box 1. Amount up to the federal rate in box 12 only.	All expenses and reimbursements if excess expenses are claimed. Otherwise form is not filed.
Either adequate accounting or return of excess, or both, not required by the plan.	The entire amount as wages in box 1.	All expenses.
No reimbursement plan.	The entire amount as wages in box 1.	All expenses.

Table 11 - Reimbursement Plans

Per-mile reimbursement

Pros

- Easy to administer
- Tax-free (if under the IRS Optional Standard Mileage Rate)
- Is a government approved rate

Cons

- Is not geographically sensitive
- Does not properly account for mileage (depreciation)
- Under-pays low mileage drivers
- Over-pays high mileage drivers
- Provides an incentive to report miles
- Lags the marketplace by a year
- Not intended as an accurate reimbursement for business use of a personal vehicle

Although companies use many different rates, most stick pretty close to the IRS's Optional Standard Mileage Rate for Business (IRS rate) which is updated each year with a new Revenue Procedure number. Each year the IRS also publishes a series of Optional Standard Mileage rates that are used for travel related to medical expenses, charitable activities and relocation.

Somewhere along the line companies have gotten the impression that

since the government publishes this rate, it makes sense to pay it to their drivers. In actuality, the IRS rate is a safe harbor that can be used by taxpayers to deduct un-reimbursed vehicle expenses in cases where they are not writing-off their actual expenses – a significantly different application than attempting to pay someone for their business expense associated with driving their personal vehicle on company business.

The IRS rate suffers from many of the same flaws as flat rates, although has the distinct advantage of being tax-free. It is easy to administer and explain, and takes some of the "randomness" out of the reimbursement program. After all, it is established by the IRS. However, take a look at two drivers who both put on 10,000 miles but, again, one lives in Philadelphia and the other in Wichita. Even though their costs are significantly different, they each get the same reimbursement.

Because the IRS rate blends together ownership (fixed) and operating (variable) costs, the fixed costs are not accounted for accurately. For example, license and registration does not change based on how many miles driven. As a result, at lower annual mileages, the IRS rate underpays drivers and at higher mileages, since it keeps paying for fixed costs that have already been properly accounted for, it overpays drivers. Using the 2015 rate of $0.56 per mile, if the intention of your reimbursement program is to accurately pay for the costs of driving a personally owned vehicle on company business, then your 5,000 mile a year driver would get $2,800 and your 50,000 mile a year road warrior would get $28,000. Neither amount is close to their actual costs.
The other reality about using the IRS rate is the temptation to over-report miles. At $1.68 for every three miles driven, a few extra miles here and there can really add up and cost the company a fair sum of money.

Keep in mind that when a personal vehicle is driven on company business, the drivers insurance in primary and the company's insurance is secondary. Regular use of a personal vehicle on company business may result in higher insurance rates for the driver. Additionally a poorly maintained or underinsured vehicle may result in a greater risk for the company.

Combination of both
Sometimes a combination of both the monthly allowance and per-mile reimbursement is appropriate depending on the situation and tasks.

PERSONAL VEHICLE REIMBURSEMENT

What factors to consider?
There are circumstances where it is preferable to have employees provide their own transportation and be reimbursed by the employer. These include:

- Temporary or intermittent requirements

- Low-mileage drivers
- Lack of infrastructure to support an employer provided pool
- Strong employee preference

There are also situations where the provision of vehicles by employees should not be considered:

- The type of vehicle required is other than those normally owned by employees. For example, the requirement for off-road travel or transportation of heavy or oversized loads would usually preclude the use of employee provided vehicles.
- Seeing employees taking the vehicles they use for business home at night would negatively impact public perception and the image of the organization.

In the circumstances where employee provided vehicles are an option, further exploration of this option is warranted. Temporary or intermittent requirements can typically be filled with a rental vehicle, loaner from a pool, or driver reimbursement. The vehicle pool option should only be selected when there are a sufficient number of employees in one location to make running a pool cost-effective. Where a critical mass of employees does not exist to fully utilize pool vehicles, mileage reimbursement is the most common solution used. Reimbursement for some peak demand may be necessary even when pools are established to avoid having surplus vehicles depreciating in valuable parking space when not needed.

Low annual official miles driven may also result in reimbursement being the most cost-effective option. Every fleet manager should establish the "break-even" mileage/kilometers/hours point for his or her fleet vehicles. By using life cycle cost techniques explained later in other modules, the fleet manager can compare the cost of operating an employer provided vehicle with the cost of reimbursing employees for vehicles they provide and determine this "break-even" point. As long as the work can be performed in a typical employee owned vehicle, those drivers who operate a vehicle at less than the "break-even" amount are good candidates for reimbursement in lieu of having an employer provided vehicle assigned.

There are some circumstances when reimbursement may be preferred even when it is less expensive for the employer to provide a vehicle. These situations include:

a. The organization has limited funds available for purchase and does not want to lease vehicles.
b. Public perception may prevent an organization from allowing employees to commute with their employer provided vehicles.
c. Parking space or overnight security restrictions may prevent overnight and partial day storage of the employer's vehicles. In this case, the employer may opt to eliminate its fleet vehicles and reimburse

employees for the business use of theirs.
d. Strong employee preference may dictate the use of a reimbursement program as employees may wish to drive a specific vehicle for comfort or image reasons that are simply not acceptable for purchase as a fleet vehicle. The reimbursement program may provide an incentive for that employee to continue working for the organization without the organization having to make exceptions to policy. In this case reimbursement should be at a rate equivalent to the cost of an employer provided vehicle with the employee paying the difference to drive their preferred vehicle within reasonable guidelines established by the employer.

Personal Reimbursement case study

A seed company in a Midwestern state hires about 100 temporary employees every summer to supervise their de-tasseling crews. De-tasseling involves removing the tassel of one variety of corn to ensure that two different strains cross breed with another. The de-tasseling season lasts about 6 weeks in the late summer. The area supervisor drives from field to field across a multi-county area checking to see if the fields are ready to be de-tasseled, ensuing that the independent contractors crews show up when required and that the task is being performed satisfactorily. The roads being travelled are back country roads, mostly dirt and/or gravel. The fields are in very rural areas and the closest town or city of any size is typically over 100 miles away.

The fleet manager for this seed company has been tasked with deciding the most economical transportation method for the area supervisors.

One thought was to re-assign company vehicles that are assigned to managers and sales representatives to the area supervisors during the de-tasseling season. However, it was decided that the reduced productivity of the full-time staff for this length of time was not feasible. .

Another idea that was explored was short-term rentals of vehicles from a national provider located in the state capitol. Upon further exploration, the logistics of delivering the rental vehicles to the area supervisors all across the state and then picking them up at the end of the season, designing a fueling program and dealing with the inevitable break downs was too onerous for the short time the vehicles would be used. Additionally, the Fleet Manager was not sure the rental company would be willing to waive the standard clause in their contract prohibiting the use of the rental vehicles on un-paved roads.

Another option was a personal reimbursement plan. Since the functions of the area managers are confined to mostly rural areas, the seed company was not concerned with the appearance of the vehicles being driven by their temp employees. Additionally, since the vehicles were not owed

by the seed company, they would not be responsible for any preventative maintenance or repair expenses. Also, since the vehicles were owned by the employees, the employee's insurance would be primary in the event of an accident. Of course this would not absolve the seed company from all liability, but it provides a cushion to all but the largest of lawsuits. The seed company also realized that since the temporary employees were hired from the local area, they would possess vehicles suitable for the local driving conditions

Some concerns about a personal reimbursement plan also arose. One concern was the level of reimbursement to establish. Should the seed company pay the federal reimbursement rate or some other amount? Another was should the company base the reimbursement rate on the type of vehicle used by the temp employee? What about the terrain travelled by the employee; should those who travel in geographically flat areas be reimbursed the same as those who drive in areas with more hills?

After discussion with in the company the decision was made to proceed with a reimbursement plan based on a percentage of the federal reimbursement rate. Since the cost of living in this area was below average compared to the rest of the country the company decided to base their reimbursement plan on 80% of the federal reimbursement rate. The company also decided that they would not pay different rates based on different types of vehicles. Their thought was a flat rate encouraged the temp employees to use the most economical vehicle thereby supporting the seed company's environmental goals. It was also decided that the same rate would be paid no matter the geographical conditions. The geography across the State was similar enough that the reimbursement rate should not be adjusted.

Short-term supplemental rental vehicles

In some cases your fleet may not have the number of vehicles or the right vehicles required to fulfill certain tasks. In these special cases it might be wise to rent a vehicle. For example your fleet may have six 15 passenger vans. There may be a busy weekend in the spring where all six of these vans are rented out and there is demand for more vans. Rather than turning away customers it may be time to short-term lease a vehicle.

Short-term leasing comes in a variety of options from two month leases to seasonal leases to annual leases many agencies will have a plan to fit your needs. An example may be that during the summer months the demand for work trucks goes up but storing all of these work trucks during the winter may be a hassle. In this case you could contract a seasonal lease for work trucks during the busy summer months rather than take on the expense of having to buy more of them and store them 9 months out of the year.

PURCHASE

The purchase of vehicles requires a considerable capital outlay as well as extra focus on a variety of administrative tasks to manage the acquisition, initial licensing and renewals, personal property tax payments, title retention and remarketing of vehicles. Purchasing can be accomplished either by using the company's own capital, or through a variety of financing arrangements which, of course, is considered debt. Most business savvy investors agree that if the net profit margin is greater than the cost of borrowing, the revenue produced by the business is best reinvested in the business and not tied to a depreciating item.

While ownership affects a company's balance sheet and its financial profile in terms of debt to equity, purchasing has its advantages in the form of tax relief on depreciation, pricing leverage with dealers, and maximization of resale proceeds. Retaining the salvage value is one of the key advantages of ownership.

If a fleet is owned and the vehicles are purchased with borrowed money, the ownership costs consist of the down payment (if any), interest cost and principal payment. Since no additional administrative service fees are associated with a purchase arrangement, the net present value cost of ownership can be less than other types of arrangements that add the cost of services (see below).

Advantages and Disadvantages

There may be some unexpected disadvantages when it comes to purchasing vehicles from dealer stock. For instance it may seem that ordering a vehicle from the factory would be more expensive if it is specified to your fleet needs, however ordering from the dealer can actually be more expensive due to dealer markup. When buying from dealer stock it is important to take advantage of the best sales deals and do a comparable analysis of cost from factory vs cost from stock. When it comes down to timing issues however stock will be the best bet.

Some other considerations when it comes to dealer stock are that there may be more "perks" that come with the vehicle. Dealerships want to sell their vehicles to customers by making them attractive with add-ons such as heated seats, satellite radios, and unneeded warranty and package options. These additional perks may be attractive to individual customers, but fleet managers often want basic packages and trim models. If the dealership does not have a basic model without the expensive additions in stock the best bet may be to order from the factory and accept the wait for the sake of cost.

Available Capital

Another consideration in the purchasing decision is the availability of capital. Money is a finite resource and may be better invested in other assets such as hiring staff, advertising, or paying down debt.

Return on Investment for Organization

The decision to use internal funds for vehicle acquisition depends on the organizations profit margin. If the profit margin is greater than the cost of capital then it makes more sense to use internal funds to generate additional revenue and borrow the money for vehicles. For a non-profit entity such as a government agency the comparison should be between the organizations internal rate of return (IRR) and the cost of capital. If the organizations IRR is greater than its cost of capital then borrow the money. Affecting the non-profit entities decision to borrow is the agency's bond rating, dept ratio, and funding source(s).

Consider True Cost of Capital

The cost of capital is dependent on how the organization finances its assets (vehicles).

Does the organization finance the fleet internally using retained earnings, or does the organization finance the fleet through debt (borrowing or leasing vehicles). Organizations may use both debt and internal capital to finance their fleet, in which case their overall cost of capital is a weighted average of all sources. Since an organization must consider its overall ROI, it must consider which method will provide the greater return. Influences on this decision are operating available internal capital, investments, rate of return, history, credit worthiness, bond rating, etc. The organizations true cost of capital is based on the weighted average of these costs.

Sales Tax implications of Purchase vs. Lease

Consider that when purchasing a vehicle any sales tax must be paid at the time of the sale. When leasing most states charge sales tax on the monthly lease payment. So you are only paying tax on the value of the lease payment, not the entire vehicle value. Over the life of the lease this will be lower than tax payment on a purchase.

Property tax/License and Titling Administration

If property tax needs to be paid on a vehicle the owner must pay. In the case of a leased vehicle that is the leaser. The leaser will probably build that into your monthly lease payment or as an annual fee. As for licensing and titles the leaser will pay for licensing and the title will stay with the leaser.

Finance Funding Source

There are multiple ways to fund fleet vehicle purchases – internal funds, several types of borrowing, leasing – but there are also some opportunities for free money. Depending on your location, you may be eligible for grants from Federal, State, or local governments and philanthropic organizations. This type of funding is typically available for purchasing or modifying vehicles to mitigate environmental impact. These funds can also be offered as a competitive grant to fund the best proposal(s) or as a formulaic grant distributed among applicants based on an established formula or criteria.

The Department of Energy, the Department of Transportation, the Environmental Protection Agency, and the USDA are federal agencies that have previously awarded grants. To find these grants, Fleet Managers should monitor the agency websites, network with State Clean Cities Coalitions, and listen to vendors. Vendors can be a good source for where to obtain grant money as they monitor the funding agencies in order to increase their sales.

Clean air vehicle grant funding is more prevalent at the state level in recent years. Each state has its own grant funding sources, but the National Association of State Energy Officials (NASEO) releases a directory of State Energy Offices (SEOs) for clarity. However, SEOs are not the only funding programs and there may also be additional EPA funding from specific regions.

Local grant funding is another option – typically the application is streamlined and often fleet managers can find community members that are more willing to fund programs in their own vicinity.

Lien requirements/administrative challenges

Fleet Managers who finance their vehicle purchases are familiar with vehicle liens. The vehicle may not be sold until the lender is paid off and the lien released. Liens can also result from lawsuits, bankruptcy, or back taxes. Liens can be very expensive and time-consuming to resolve.

However, many Fleet Managers may soon become familiar with a similar process, registration blocking or suspension. Several states (Ohio, Texas, North Carolina, Virginia) are increasing their enforcement activities by blocking registrations of vehicles that have unpaid tolls, red-light camera or speeding camera violations or unpaid parking tickets. If these obligations are not resolved in a timely manner the vehicle may not be able to be registered, therefore driven, until the situation is resolved. The longer the fines or tolls are not paid, the higher the interest and administrative costs.

Most companies and governments require that the driver that incurred these fines be responsible for paying them. However, in order to resolve a registration block the vehicle owner or lessee may decide to pay the fine with the intent of collecting from the offending driver. However, if the driver is no longer employed, this may end up as a fleet expense.

LEASE

A lease is a rental that, by contract, is clearly defined as to length, cost and stipulations.

Leasing is popular because it enables businesses to obtain needed resources and preserves capital that can be applied to otherwise more profitable investments. A lease is basically a longer-term rental agreement that comes in a variety of forms which all involve incurring debt.

Budget constraints and aging fleets opened a vast frontier to leasing for both public and private business sectors. Organizations also select leasing as their means to acquire and manage assets because they consider the associated vehicle management activities such as maintenance management and crash management to be outside their core competencies.

Cost Differences

It is clear that purchasing is typically less expensive in the long-term than leasing. However, leasing companies can provide many services that would otherwise need to be performed in house. As leasing companies manage thousands of vehicles they may be able to perform these services less expensive than hiring someone in your own organization. Additionally, staff at leasing companies become experts in their function and that is all they do. In-house staff may not perform these functions enough to be experts.

Lease Types

Many names are associated with the types and subtypes of leases. However, for accounting purposes, leases are strictly categorized as being either capital leases or operating leases. The classification of a lease affects how it is reported in the financial statements. The appropriate category depends on the answers to four questions:

- Does the ownership (title) transfer at the end of the lease?
- Does the lease contain an option to purchase the asset at a bargain price?
- Is the term of the lease at least 75% of the estimated economic life of the asset?
- Is the present value of the future minimum lease payments at least 90% of the fair market value of the asset?

Operating Lease

An operating lease is particularly attractive to organizations that continually update or replace equipment, want to use equipment without ownership and want to return equipment at lease-end to avoid technological obsolescence. An operating lease usually results in the lowest payment of any financing alternative and is an excellent strategy for bypassing capital budgeting restraints.

Operating leases include a cancellation clause and they may, or may not, include vehicle maintenance. Under an operating lease, the leased asset is not considered an asset of the lessee; the lessee records the asset as an operating expense. This qualification for off-balance sheet treatment can result in improved return on asset (ROA or ROI) due to a lower asset base. It can also result in higher reported earnings in the early years of the lease. Consumers, governmental jurisdictions and commercial organizations that lease vehicles almost exclusively use operating leases as their

leasing method. Operating leases are further defined by the assumption of the risk associated with the residual value in the leasing equation, either by the lessor or the lessee.

The broader operating lease categories are identified as either closed-end or open- end, determined by whom assumes the risk for the asset, lessor or lessee. The owner (lessor) bears the risk in a closed-end lease and the borrower (lessee) bears the risk of the residual value in an open-end lease. In either case, the owner receives payment for the use of an asset for a predetermined time period after which the asset is returned to the owner.

Capital Lease

A capital lease is classified and accounted for by the lessee as a purchase and by the lessor as a sale or financing transaction. Earlier, we listed four questions; if you can answer yes to any of those four questions then the lease must be capitalized. If all four questions can be answered "no," the lease is considered to be an operating lease and lease payments are expensed.

Capital leases do not include maintenance and cannot be cancelled. They must be capitalized and the leased assets shown on the lessee's balance sheet. A capital lease may also be known as a finance lease or direct lease. Unless a leasing transaction is a true Capital lease, the lessee does not retain the rights to tax depreciation. The Lessee is also responsible for vehicle maintenance and insurance.

The following are types of capital leases:

- Finance Lease – Finance leases are full-payout, non-cancellable agreements in which the lessee is responsible for vehicle maintenance, taxes and insurance. Sometimes referred to as a "lease-purchase," the financial lease is most attractive in cases where the lessee wants the tax benefits of ownership or expects the equipment's residual value to be high.

Finance leases are typically structured as equipment financing agreements with residuals up to 10%. The lessee purchases the equipment upon lease termination at a pre-agreed amount, usually $1. The term of a finance lease tends to be longer, nearly covering the useful life of the equipment.

- Direct Financing Lease (Direct Lease) – A non-leveraged lease by a lessor in which the lease meets any of the defined criteria of a capital lease, plus certain additional criteria. A direct lease is a financial arrangement and contract through which the lessor (a financial institution, a leasing company or similar entity other than a manufacturer or

dealer) agrees to furnish, and the lessee agrees to hold assets for a set period of time, at an agreed upon price, and in accordance with specified terms and conditions.

Open-end vs. closed-end

Following are various operating lease types:

• Closed-End Lease – Closed-end leases are based on the concept that the number of miles driven annually is fairly predictable and that its value at the end of the lease (the residual) is therefore somewhat predictable. Closed-end leases are written for a fixed term, perhaps three years, providing for a flat monthly payment, a predetermined mileage limit and set penalties for exceeding the mileage limit, and for any excessive wear and tear.

Clearly defining "fair wear and tear" at the outset of the lease is a critical point of agreement to avoid costly differences in perception at lease termination. At the time of the lease, the leasing company estimates the vehicle's lease-end residual value and, at the end of the term, provided all terms are met satisfactorily, the lessee (borrower) returns the unit to the owner (lessor) without further obligation. The lessor assumes full risk for the remarketing of the vehicle. Closed-end leases are also known as "walk-away leases" or "net leases" and may also include vehicle maintenance and/or insurance clauses. The organization never takes ownership of vehicles under this financing arrangement.

• Open-End Lease – Open-end leases account for 95% of all leases used in fleet acquisitions. The open-end lease usually has a short minimum term of one to two years and continues thereafter on a month-to-month basis until the agreement is terminated. Open-end leases are often erroneously referred to as a "finance lease". However, it is a financing method in which the amount owed at the end of the lease term is based on the difference between the leased unit's residual value (resale value) and its realized value (depreciation.) Open-end lease costs are generally lower than closed-end leases because, unlike the closed-end lease, the lessee accepts the risk for the residual value of a vehicle when sold at lease termination. Similar to closed-end lease arrangements, the organization does not take ownership of the vehicle when the lease terminates. Most open-end leases contain a "step-down" payment scheduled wherein payments decline annually with no limits on mileage or wear and tear.

• Terminal Rental Adjustment Clause, (TRAC) – Most open-end leases also contain what is known as a TRAC clause that ties the lessee to whatever difference may exist between the book and selling values of the unit upon remarketing. TRAC leases are an Internal Revenue Code defined variation on traditional open-end leases, combining all the advantages of leasing while keeping the option to purchase the

equipment at the end of the lease term at a price set according to the amortization schedule when the lease term began. The primary difference between TRAC and most open-end leases is how the difference between the projected residual value and the actual sale proceeds may be treated. In a traditional open-end lease this difference is shown as a loss or gain to the lessee. In a TRAC lease this difference may be used to adjust the lease rate, ensuring any variation from the projected residual value is accounted for as an operating expense. This type of open-end lease may have significant tax advantages for non-public lessees.

Lease term should not dictate business use

When looking to lease a vehicle, it is important to not let the lease term dictate business use. For example mileage limits should not preclude pursuing your business as aggressively as possible. Design the lease term as accurately as possible to reflect the actual area of the vehicle even if the cost increases.

Certainty of annual miles driven

In most cases, accurate mileage forecasts should be relatively easy to estimate based off the mileage of similar vehicles doing similar jobs. If there is not a vehicle on which to base an accurate comparison then discuss with the user and his/her management to try and be as accurate as possible. The penalty for under estimating will be significant at the end of a closed-end lease. The penalty for overestimating is paid in an accurate monthly rate in a close-end lease. In an open end lease, the penalty occurs in an inaccurate depreciation rate.

Funding alternatives

There are two types of financing available in the US - floating and fixed financing. With floating rate financing, base rates are set each billing cycle, based on the prevailing rates at the time. As interest rates fluctuate, so do monthly lease payments. Companies choose floating rate financing if they are comfortable with the risk of potential interest rate increases, since interest rate fees are generally lower than with fixed rate financing. Floating rate leases can often be converted to fixed rate leases, according to the lessor's rules. A shorter-term lease may be an instrument to take advantage of variable rate financing as the rates would not be expected to change significantly over the short-term of the lease.

Leases with fixed rate financing set the interest rate at time of lease inception, and do not vary it throughout the lease term. The benefits of this kind of lease are that the lessee is protected against future interest rate increases, and lease payments remain constant and are easier to budget. The downside to fixed rate financing are the higher lease fees,

(generally they have a larger interest added than floating rates), and the inability to convert to floating rate financing if interest rates drop in the market. Within these types there are several debt instruments that you may be offered to set the base interest rate.

There is another choice in interest rates indexes called Market Basket Rates. These are rates set internally by the lender which cannot be verified by an independent publication, (such as the Wall Street Journal). Because you are unable to verify the true base rate, it is impossible to audit the actual fees charged by the lender.

On/off balance sheet accounting

The main difference between on or off balance sheet accounting is how assets are treated. Are they considered an asset and financially depreciated, or are they considered an operating expense. Another way of looking at this is considering the organizations financial profile and its debt to capital ratio. With on balance sheet accounting the organization is depreciating the asset and the asset holds a residual value (it could be sold to raise capital). With off balance sheet accounting, the asset is recorded as an operating expense and has the potential for an improved return-on-investment due to fewer owned assets.

Operating expense treatment encourages regular replacements instead of running vehicles until they are no longer operable.

When performing a financial analysis of leasing options, there are many details that can affect your cost structure. It is important to read the fine print from each funding source when considering a lender. Not all cost items will be itemized on sample quotes, for example. You may not see some of the hidden charges until you review an actual contract. Lease fees to take note of include:

- Administrative Fee
- Interest Markup
- Issuance Fees
- Interest Rounding
- Interim Interest
- Interim Rent – Front end of lease
- Interim Rent – Back end of lease
- Fully depreciated lease admin fee – generally a flat dollar amount that is billed as long as the asset remains on the books, after it has been fully depreciated.
- Variable interest rates based on conditions that may have nothing to do with leasing (for example, lease rates may spike if you cancel use of a maintenance program).

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Asset Management Guide

Active Fleet Management

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The majority of time managing a fleet involves active fleet management. Active fleet management is managing vehicles, drivers and staff that are required to keep vehicles operational. Once a vehicle is procured fleet management is responsible for title & license, decals, insurance, upfitting, classification, maintenance, fuel, pooling, assignment, record keeping, ongoing evaluation, utilization, risk, warranty, and much more. Additionally vehicles are useless without drivers, which require Motor Vehicle Record monitoring and driver approval. All of this could not be completed without a staff to complete these and other tasks.

COMMISSIONING VEHICLES

Receiving, licensing, decaling, entering in FMIS

In simple terms commissioning means "to put into working order.". This is what fleet managers must do when they acquire new vehicles for their fleet. Many of the commissioning activities are common to all fleets. These activities will be discussed prior to looking at commissioning practices that may be unique to public, private, law enforcement, utility, and other industry fleets.

Common commissioning activities

(1) Licensing. Where required, fleet managers must make the necessary arrangements to license the newly acquired vehicle in the State, Province, or Country in which it is to operate. Fleet managers should first consider whether licensing is essential. Some equipment may only operate on private property or in a warehouse and will not require licensing. Bigger pieces of equipment, like excavators, may be listed as off-road equipment and therefore not subject to licensing in certain states. Other vehicles or equipment may be scheduled for disposal or will not be used during the licensing period. In larger fleets, careful management of licensing fees can result in substantial savings. For dispersed fleets licensing fees should be paid centrally where possible to minimize administrative charges.

(2) Titling. Titling involves changing the legal ownership of the vehicle. It may be part of the licensing process or a separate activity, especially for vehicles that change ownership but which will not be licensed. For those who buy their equipment new, titling will involve using the MSO (manufacturer's certificate/statement of origin) to obtain a new title for the equipment. These MSOs may look like titles, but are, in effect, statements that the manufacturer has built the new vehicle and is assigning its ownership to an entity for monetary consideration.

(3) Decaling. Fleet managers must arrange for appropriate decals and marking in accordance with organizational policy. When determining decaling policies, fleet managers should balance the need to project company image and marketing with the extra costs of decal applica-

tion and removal.

(4) Information System Input. Before a vehicle can be effectively put to work it needs to be entered into the information system used by the fleet manager to manage the fleet. There may be several systems where vehicle information may need to be entered including Fleet Management information systems, internal fuel system, fuel credit card system, telematic systems, insurance systems, etc. which will track the vehicle throughout its life. Some vendors may be able to provide vehicle information prior to delivery so these can be completed before the vehicle is delivered.

(5) Asset tagging. Organizations may have an asset identification system that includes fleet assets. Tagging is defined as the application of a unique identifier to an asset of an organization. It may be a simple metal sticker or decal, or a complicated barcoding system.

(6) Inspection. On receipt, and prior to being assigned to a driver or a task, all vehicles should be thoroughly inspected. Inspection worksheets, specific to vehicle type, should be developed for this purpose so that no detail is missed. Any discrepancies should be immediately flagged to the appropriate authorities so that corrective action can be taken before the vehicle is officially commissioned into fleet service.

(7) Warranty Registration. Where applicable, the fleet manager must register the vehicle warranty with the originator prior to entering the vehicle into service. This is important to ensure that the warranty provider cannot later avoid liability for work and repairs.

Public fleet commissioning

Government fleets may have specific requirements imposed by central policy or law. Some of the unique requirements common to government fleets are:

(1) Environmental testing. In order to meet State, Provincial or Federal greenhouse gas emission targets, government fleets may be subject to strict environmental guidelines. Emissions testing should be part of the commissioning process to ensure that guidelines are met.

(2) Licensing. There may be exceptions to provincial or state vehicle licensing requirements for government fleets. For example, the Canadian Federal Government plates all their own vehicles.

Private fleet commissioning

Many private sector fleets employ the services of a leasing company. Usually, the leasing company offers licensing and titling services where they handle all paperwork directly with each individual state, or with the assistance of the driver specifically assigned the vehicle. Unique require-

ments common to leased private sector fleets include:

(1) Driver Assignment. Before a vehicle can be licensed and titled in a particular area, the leasing company needs to know who the driver or the responsible party is for the vehicle. In many cases, the driver's name and address will be the point of contact for any licensing renewal applications, however, this is not always the case. Leasing companies may sign up for automatic renewal with a particular state as long as the driver information has not changed.

(2) Up Front Fees. In some County or City areas in the United States, property taxes must be paid up front on the new vehicle. For private sector fleets, this may be listed on an invoice each month from the leasing company, with a special one-time invoice on a newly commissioned vehicle to pay these taxes up front for either the first month or the first year. In other cases, the up front fee may be a parking fee associated with parking in a certain geographic area, or a fee for driving a vehicle over a certain weight or a certain length.

(3) Inspections. Private sector fleets that employ the services of a leasing company for the commissioning of a vehicle usually have the leasing company make an inspection of the vehicle before delivery to the driver. This may be in the form of a written statement from the delivery dealer, or may involve the driver going over the vehicle with a preprinted checklist to make sure the vehicle is delivered as ordered. If the driver or leasing company refuses delivery of a vehicle, it may be due to paint scratched during shipping, paid options not on the vehicle, or that the paperwork does not match the VIN on the vehicle. Usually, the leasing company that is used by the private sector fleet takes care of these administrative hassles for the fleet manager, freeing up their time to concentrate on other issues.

(4) Customized Invoices. To accurately track costs associated with a private sector fleet, the leasing company employed usually delineates information about the unit on a customized invoice. Many private sector fleets then enter the same information into their company cost allocation software and track costs by allocation centers or project codes. However, many companies that now receive their billing statements electronically can have the information directly downloaded into their allocation software without the errors that double entry sometimes creates.

(5) Fuel Management. When placing a new vehicle in service, many fleets employ the services of a fuel management company through the use of a co-branded fuel card that may function like a credit card or a direct bill fuel card (issued directly by a fuel company.) The fleet manager needs to set this up with the fuel management company prior to the driver taking delivery of a vehicle so that the driver has

access to fuel immediately.

Utility fleet commissioning

Utility fleets also conduct most of the common commissioning activities such as registration, titling, insurance, and records maintenance. Specific attention should be paid to the following additional activities:

(1) Permits. Necessary operating permits must be obtained. Due to the nature of utility equipment, state or provincial permits may be required.
(2) Regulatory compliance. Determine Federal, State and Provincial regulatory requirements and ensure compliance.

Law Enforcement Fleet Commissioning

Law Enforcement fleets may have specific requirements imposed by central policy or law. Some of the unique requirements common to law enforcement fleets are:

(1) The Life Cycle specific law enforcement vehicle equipment. Each piece of equipment mounted in or on a law enforcement vehicle has its own life cycle. Equipment to be considered includes such items as light bars, jail partitions, prisoner restraint systems, gun mounts, power supplies, push bars, radios, Unitrol, radar, video systems, siren speakers, amplifiers, MST or MCT systems, and trunk equipment (fire extinguishers, shovels, jacks, investigation kits, etc.)

(2) Upfitting. A decision as to whether the transfer of life cycle equipment from the decommissioned vehicle should be done in-house or by an outside vendor will need to be determined based on a cost benefit analysis. Due to the sensitivity of the onboard equipment, security is a significant issue. In addition, the installation of specific equipment should be in accordance with the manufacturer recommended airbag deployment area inside the vehicle. Special care must be taken to ensure installed equipment does not become a flying projectile in case of an accident and airbag deployment. Care should be taken to ensure that the planned transfer of upfit equipment will work in the new vehicle. Even the same model will have changes from year-to-year with the result that old equipment may not fit in the new vehicle.

(3) Specific Department needs. Each law enforcement agency may have unique requirements for their department vehicles. Such things as tape recorders, door lock mechanisms, key chimes, anti-theft devices, emergency activation devices, may be items that departments have specific for these types of vehicles.

(4) Vehicle Codes. Local and State vehicle codes for law enforcement vehicles must be complied with. Specific requirements for light bar

set-up and siren output must be complied with to meet State requirements.

(5) License plates. Exempt license plates or undercover license plates are an option that each law enforcement agency has for new vehicles. In addition, specific agencies may have the capability to transfer exempt plates between vehicles. In any case, the fleet management information system will need to record the proper plate with each vehicle.

UPFITTING

Upfitting is the process of optimizing vehicle design for the most effective overall productivity and cost. An example of upfitting in order to help understand the process is adding medical equipment to an ambulance or adding a computer station in a law enforcement vehicle.

Before a vehicle can be sold in the United States, the vehicle manufacturer must certify that it is in compliance with the Federal Motor Vehicle Safety Standards. When dealing with a car, van, or small truck, this is an easy process. These vehicles are normally manufactured as a complete unit that requires no further equipment. When dealing with more complex fleet vehicles such as chassis-cabs, cutaway vans, stripped chassis and other similar vehicles, additional equipment will need to be installed on the vehicle before it can be placed in service.

Before purchase

Before upfitting a vehicle, it's important to know what the intended application of the vehicle is going to consist of. The end user of the vehicle will be the best person to give you information on what will be needed in the upfitting for the vehicle. It's possible that the fleet manager will realize that the end user has overstated or understated the payload requirements or that the fleet manager was given inaccurate numbers or dimensions for equipment requirements. Upfit decision and analysis need to be completed before the vehicle is purchased to ensure that the upfit required will fit on the selected vehicle.

End users are a great starting point to obtain information on what will be required in the upfitting of the fleet vehicles. However, failure to research the specifics and metrics for the requirements of the upfitting equipment may result in purchasing wrong equipment and spending unnecessary resources.

Care should be taken when performing upfitting activities, particularly if the upfit equipment will be removed when the vehicle is decommissioned. Drilling holes in body parts can allow moisture to enter resulting in rust. Passenger area installation of radios, brackets, lights, and other equipment should be performed in a manner to minimize visible damage

to preserve resale value.

Even when all of the people involved have the best intentions, mistakes happen and upfitting can have errors in the upfit process resulting in delays. Possible considerations for error:

- A chassis arrives to the upfitter with the wrong specs adding 1 inch to the height of the vehicle which forces a change in the body specs.
- A cargo van is delivered without the proper shelving system and fails to meet the driver's requirements for performance.
- A liftgate is installed with a platform too small to safely handle the load it was intended to carry.

After purchase

After purchasing upfitting for fleet vehicles, a fleet manager needs to set up an "early alert" system to recognized problems for the upfitting. The fleet manager will need to build relationships with upfitters in a way that they serve as your partner who provides early warnings when the chassis does not fit the proper specs when installing.

When the vehicle arrives, an inspector needs to ensure that the upfit items specified have been installed, they were installed correctly, and they operate. During this inspection, the quality of the installation needs to be verified also. Have the wires been bundled correctly, are wires spliced to perform as specified in the bed, are wires routed away from exhaust to protect melting, are hydraulic lines routed to prevent kinks and are metal hydraulic lines secured to prevent vibration, are there any leaks, etc.

UTILIZATION MANAGEMENT

Fleet right sizing

There are two aspects to fleet right-sizing. The first relates to utilization discussed in the next section. The second aspect is sizing a vehicle appropriately. Are the engines large enough to perform the recurring tasks but not oversized. Can the task be accomplished with a two-wheel drive vehicle instead of a 4-wheel drive vehicle, can we get by with 4 radio speakers instead of 6, can we use the treadplate platform on the liftgate instead of the extruded aluminum, etc. Right sizing means upfitting enough of the vehicle to do the job and no more.

Utilization thresholds

Every fleet should establish utilization thresholds that determine if a vehicle is needed. There cannot be the same threshold for every fleet. A utility company in Wyoming will have a vastly different utilization profile than a utility company in Rhode Island. That does not diminish the need to establish utilization thresholds for each fleet. Those thresholds may be miles/month or year, as is common for something like engine hoses, days of use, number of rental vehicles needed over a time point, etc.

One must keep in mind that a vehicle is a fleet asset, and the asset is depreciating even when it is setting idle. Fleet utilization can be measured in miles or hours or days or trips completed or jobs completed, or any combination of these measurements. Additionally the fleet manager must keep in mind productivity. A plumber who drives 200 miles each day, but is actually on the job site 3 hours a day is not productive, even though the vehicle provides the illusion it is highly utilized. Likewise, a plumber who drives 20 miles each day, and is on the job site 7 hours a day can be considered productive, but the vehicle gives the illusion it is not utilized.

Utilization thresholds should be designed around the vehicles mission. Be it transporting plumber's tools to a job site, or transporting a pharmaceutical rep to multiple sales appointments. An understanding of the organization objectives is necessary in developing utilization minimums and maximums.

Controls

Utilization needs to be monitored as over-utilization can be as bad as under-utilization. Compare the utilization thresholds with established standards and analyze the results. Over-utilization may indicate the fleet size needs to be increased or it may mean that some vehicles are being used too much and others not enough indicating a possible reliability issue for the under-utilized vehicle or it may mean that the under-utilized vehicle can't do the job and staff don't want to use it. Over-utilization of assets may require early replacement. Under-utilization can mean that the asset can be reassigned or remarketed and the proceeds reinvested to a more productive purpose.

Some examples of controls which can be implemented or modified to change vehicle utilization include vehicle pooling or sharing, automated vehicle dispatch, seasonal assignment, improving or limiting vehicle access, modifying worker responsibilities, etc. When considering implementing controls one must keep in mind the organizations culture. Resistance to change is common reaction to implementing a vehicle pool or automating vehicle dispatch. Drivers often consider an asset their personal tool and are hesitant to let others operate the vehicle. Additional items to consider when implementing or changing controls are; vehicle necessity (is the vehicle critical to meet the organization objectives and goals); geographic location (pooling is not always possible); maintenance and funding (will changes in utilization decrease/increase maintenance cost and can the organization finance new vehicles).

POOLING RESOURCES

In some instances, an organization will need a vehicle for a specific job that is not frequently needed. When these instances occur, a fleet manager will need to consider pooling resources with other organizations to share the cost and timeshare of a vehicle. For example, a small town

may need to purchase a street sweeper for $100,000 that will be used 12 times per year. In this circumstance, the small town may pool resources with nearby neighboring towns to purchase the street sweeper together and share its use.

Pooling resources in certain circumstances can serve as a better alternative than outright acquisition by a single organization when the cost for the usage frequency is not feasible. By pooling resources, organizations can offset costs and better serve a larger range of functions than if organizations do not pool together their resources.

Another alternative to fleet acquisition for a temporary need or low frequency job is to create an employee pool/sharing program. This is a helpful alternative when employees with temporary needs are centrally located and have the capacity and necessary equipment for the organization's needs.

Access and control

When pooling your organization's resources with another, it is important to consider how frequently your organization will need access to the fleet vehicle or equipment. Due to the fact that multiple organizations may be pooling their resources for the same fleet vehicle, it is important to create a schedule for usage to ensure that each organization is getting their fair amount of usage. Put pool controls into place to establish guidelines for maintenance and inspection to ensure proper upkeep and safety checks of the vehicle.

Monitoring

Monitoring the usage of an organization's fleet vehicles is one of the most important aspects of a fleet manager's job. It's important that the manager checks usage of fleet vehicles both quarterly and annually to monitor how regularly fleet vehicles are being used. If you, as the manager, notice that a vehicle is not being used frequently during certain periods of the year or is not being used to its full potential, then you should consider pooling or sharing the vehicle that is being underutilized. The manager needs to always consider that vehicles not being used are not bringing in revenues for the organization and therefore are not a revenue-driving asset.

Various methods of collecting vehicle information for evaluation include, but are limited to: mileage logs (paper or electronic); online reporting (odometer and/or days use); GPS; WiFi data loggers; fuel records; and maintenance records. The fleet manager must keep in mind the need to select the proper monitoring method for the class of vehicle and correctly evaluate vehicles. As an example, if the fleet manager is using distance traveled as the only monitoring method, a vehicle that is driven 2 days a month at 500 miles per trip will meet the same standard as a vehicle that is driven 20 days a month at 50 miles per trip. Fleet managers must keep

in mind the need to use various criteria in monitoring vehicle utilization.

FACILITY CONSIDERATIONS

Public fleets have facilities that Fleet Managers must help plan and maintain. When designing the facility, consider the layout's ability to handle alternative fuels; pay attention to exterior location, ventilation, spacing, fire codes and other regulations before building. If you are managing a private fleet, it is likely that you will not be responsible for a facility.

Since many vehicles will be traveling to and from the facility, work to acquire a facility that is large enough but not too far removed from commonly used roads or cities. It may help to collaborate with other state departments (e.g. airport or police) to get the location or price point that your fleet desires. Additionally, before making a large investment in facility construction, contemplate the future of your facility and what major changes may take place. Leave room for improvement but utilize the space with the most efficient energy source currently available given your budget. Many facilities work with natural gas today, but that may be replaced in the future with another (better) way to power your facility.

Equipment

Another area a fleet manager must oversee is the equipment in the facility or shop that they oversee. Similar to upfitting a truck with the correct body and functions, the equipment in your shop largely depends on the type of vehicles in your fleet. However, owning the correct equipment is only half of the task. As a fleet manager, it is also your responsibility to uphold safety plans and training. Good housekeeping is a proactive way to establish expectations for the facility. Proper training of employees on the use of cleaning supplies, signage, and personal protective equipment will also combat work related injuries or accidents.

OPERATOR CONSIDERATIONS

When hiring drivers, it is important to conduct Motor Vehicle Record (MVR) checks. Not all companies require MVR checks, but it is a good idea to manage risk and maintain the integrity of your fleet through hiring safe and trustworthy drivers. If your fleet does conduct MVR checks, you must provide intent for obtaining such records from drivers and drivers must comply with submitting such information. It is a good idea to include your intent within a company policy or regulation in order to demonstrate the importance and necessity to have the information before hiring a driver to your fleet.

Hiring qualified and defensive drivers can avoid costly accidents or driving mistakes in the future, but proper and complete driver training is also an important step to managing driving risk. Allow proper time between hiring and beginning fleet duties for the driver to be on-board and evaluated regarding your fleet's specific driving practices and efficiencies. Lastly, ensure that your driver has the appropriate license before beginning work.

Each state's regulations are different, and the easiest way to double-check licensing qualifications is by visiting your state's Department of Transportation website. Choosing and training good drivers will help your fleet take strides in the right direction.

HUMAN RESOURCES

Human resources is able to play many important roles in active fleet management. Some responsibilities that fall under HR are proper staffing, recruitment and reward systems and incentives.

The first step to properly staffing your fleet is having the right tools, or employees, to fill your toolbox. Consider all tasks needing completion and how many people and what skills are necessary. Hire what you need, not what you want and keep a clear goal in mind.

The next step is to advertise the positions truly and effectively. Make sure your employment area on your website is up-to-date and user-friendly, so that when you visit vocational schools, job fairs, or are speaking to a potential driver in any setting you can easily point them in your fleet's direction. Having information clear and readily available makes your fleet more attractive and your intentions and expectations for your employees transparent. You don't want a driver that's not interested in the job, so be honest about the work he or she will be doing regarding your fleet. During times of recruitment, use the tools you already have and emphasize using a referral system. Potential employees are much more likely to seek employment with an organization where a they have a connection with an existing employee who has had a good experience. Additionally, this allows your employees to help choose who they will work with every day, which can make work more enjoyable for everyone.

Employee retention is a tough but essential final step in the staffing process. Different employees will be motivated by different incentives, but set-up a reward system that allows employees to benefit and be recognized for good work they are doing. Some ideas include pay incentives while others prefer promotions within the fleet – it is important to get feedback from your employees to see what they value most. Outside of the job, keep in mind some ideas from other fleets and companies – would your employees appreciate a campaign to improve driver health? Do drivers prefer time off rather than pay increases? Again, every fleet's preferences will be different but if you attend to issues promptly and listen to your employees wants, you are taking steps in the right direction to maintain your valued fleet employees.

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Asset Management Guide

Vehicle Remarketing

07

As discussed previously in their module and more in depth in other modules, life cycle cost analysis can be used to determine the optimum time for asset disposal.

While a lifecycle model can help pinpoint which vehicle to place in a fleet, it can also reveal the optimum time to remarket it, based on various factors and costs. However, it should be noted that the model is only good for that particular moment in time relative to the completed analysis. Lifecycle cost models do not take into consideration the rates of inflation or the buying power of money in the future. Models can be crafted to take some of this into consideration, but the model will never be perfect to the penny. In order to account for this, many fleet managers may use a lifecycle cost model to justify an acquisition, but then they redo the lifecycle model at various points of the vehicle's life in the fleet, either every six months or one year. When the model is redone, they substitute actual costs incurred at that point for that timeframe, and complete the model with the same or amended assumptions. Keeping this in mind, and making sure that it is accounted for in any decision made, will help justify original decisions and help to make more informed decisions down the road.

When looking at setting up a lifecycle model to determine replacement of a vehicle, several factors need to be considered. One is extending the replacement, as there are some definite benefits to keeping vehicles in service longer.

Since depreciation is higher in the first couple of years of a vehicle's life, spreading that peak cost out over lower depreciation years reduces the cost of depreciation per month, per year. Remember, depreciation is the largest category of vehicle expense, so this becomes important in the analysis. We can temporarily avoid vehicle price increases. Keeping older vehicles reduces the amount of money an organization has tied up in these assets. This can be an important element in fiscal matters such as tax rates, stock valuation and even bond ratings for public entities. Of course, totaling a $1,000 pickup in a collision is less costly than totaling a $10,000 pickup. But, there is a downside to keeping older vehicles. We expect higher maintenance and downtime for older vehicles.

Replacing a fleet at longer intervals means that it takes longer to switch over to new technologies. Those technologies make vehicles safer, cleaner burning, and more fuel-efficient. And, let's not forget factors such as morale and organizational image that are difficult to quantify. There are a couple of hard facts that are at the crux of the optimum replacement decision. Firstly, because depreciation is such a large cost relative to the others, it will decline faster than maintenance costs increase. This may go contrary to conventional wisdom because most people remember the $2,000 depreciation loss they drove it off the dealer's lot. The

second is the unquantifiable factor. Company image and employee morale may actually factor into the replacement decision, even though these items have no direct financial impact.

As with the lifecycle model to select a vehicle, the optimum replacement model requires information to be collected or determined before the analysis can be done.

- Annual Miles Driven – Estimated or actual number of miles driven
- Annual Shifts – Number of 8-hour shifts a vehicle is used per year. Typically, a vehicle used by one person puts in 256 shifts per year.
- Maximum Replacement Years – Number of years vehicle is estimated to be in the fleet
- Maximum Replacement Miles – Number of miles vehicle is estimated to be driven before replacement
- Net Acquisition Cost – Acquisition cost of vehicle and all make-ready costs
- Interest Rate (or Return on Investment) – Interest rate on money borrowed to acquire the vehicle, or return on investment if money had been used for something other than an asset purchase Miles Per Gallon
- Fuel Cost Per Gallon
- Loaner Vehicle Cost (per mile) – Cost of a loaner vehicle when the main vehicle is down for maintenance/repairs

An example of how these items may be set up in an optimum replacement model:

Variable Data	
Model:	Vehicle A
Vehicles in Fleet:	300
Annual Miles Driven:	22,000
Annual Shifts:	256
Maximum Replacement Years:	7
Maximum Replacement Miles:	175,000
Net Acquisition Cost:	$22,500.00
Return on Investment:	5.30%
Fuel Miles-per-Gallon:	12.0
Fuel Cost-per-Gallon:	$2.50
Pool Loaner Cost-per-Mile:	$0.35

Once these items have been gathered, it is time to look at the maintenance estimate. While all maintenance and repair costs for a vehicle were lumped together for the vehicle selection model, it is more advantageous to break out these costs in a line-by-line model, as the costs themselves are not the only item being considered. It is also appropriate to consider the cost of a rental or pool vehicle every time the maintenance demands it.

Typically, the maintenance and repair items are listed according to the manufacturer's recommended maintenance schedule. They are also listed with the relevant mileage or time intervals for the service. They can be listed as a grouped service (such as an annual service), or they can be broken out by each item contained in the grouped service (oil change, tire rotation, brake check, etc.).
Once these items are listed, an estimated cost for each of the services should be listed as well. These costs and the frequency with which they occur are at the heart of the maintenance and repair calculations.

Lastly, the time for each of the repairs needs to be calculated. If the time necessitates a rental vehicle, then the cost of the rental vehicle for that service needs to be included in the overall maintenance costs. After all, if a service were not performed, then there would be no need for a rental in the first place.

An example of how this may be set up:

Service/Repair	Mileage Interval	Parts & Labor Cost	Shifts Down per Incident
PM A with safety inspection	3,000	$60	0.0
PM B (A + transmission service)	21,000	$70	0.5
PM C (A + tune up)	63,000	$55	0.5
air conditioning	60,000	$450	1.0
auxilary - lights, siren, radio	40,000	$150	0.5
battery	50,000	$55	0.0
brake - pads, disc, drum	10,000	$120	0.5
brakes - master cylinder, calipers, ABS	60,000	$400	1.0
cooling system	50,000	$140	1.0
engine	150,000	$4,500	5.0
exhuast	75,000	$70	0.5
front end/suspension	30,000	$120	1.0
tires	15,000	$280	0.3
transmission	130,000	$1,100	1.0
miscellaneous	20,000	$250	0.3

DECOMMISSIONING

Just as important as an efficient commissioning process is a thorough decommissioning process to ensure all loose ends are tied up and the vehicle or equipment is properly removed from active service. The most common decommissioning activities will be covered before discussing those activities that may be unique to specific industries.

Common decommissioning activities

The most common activities required in removing a vehicle from fleet service are:
(1) Title transfer. The title to the vehicle must either be transferred to the new owner or destroyed in accordance with State, Provincial or Federal

legislation.

(2) Equipment removal. Fleet Managers should have a policy that governs what equipment should be removed from a vehicle or will stay with that vehicle upon disposal. A primary consideration is if the equipment will be used again within the organization or if it has security or proprietary interest for the organization. For example, military vehicle will have radios removed and mobile office fleets may have all electronics removed. Another consideration is whether the cost of removal warrants it. Finally, the fleet manager should consider the effect of removal on the resale value of the equipment.

(3) Fuel system. If a vehicle has been equipped with a fuel system (i.e. card lock) adapted to local fuel pumps this must be removed.

(4) Certification. Some Provinces and States require safety or environmental certification of vehicles prior to disposal. Fleet Managers must be aware of local requirements and ensure they are met.

(5) Inspecting. The inspection on decommissioning is as important as on acquisition. The purpose of the inspection may be twofold. First, to ensure the vehicle is in safe operating condition if it is being remarketed. Second, to determine if there has been driver neglect or abuse that may warrant administrative action.

(6) Information System. On decommissioning, information systems should be updated to reflect the latest information and remove the vehicle from the active part of the database.

Public fleet decommissioning

While the generic decommissioning policies certainly apply to public fleets, specific consideration should be given to the following points:

(1) Public image. Identifying decals, license plates and other markings should be completely removed. This can avoid embarrassment to a government organization caused by the use of an identifiable previously government-owned vehicle engaged in illegal or inappropriate activities. Make sure that the area covered by the decal has not left a residual image on the vehicle body. If so, a detailer should be able to polish out the image.

(2) Liability. The government has a legal and moral obligation to use utmost care in identifying assets which should not be resold to the public and should be sold for salvage or destroyed.

Private fleet decommissioning.

For private sector fleets, decommissioning may be completed on their behalf by a fleet management, asset recovery, auction house, or leasing

company. However, there are some unique factors:

(1) Vehicles being decommissioned may be dropped off at the dealer delivering the new vehicle. This dealer is being paid a nominal fee by the leasing company to accept the vehicle (with the fee being passed on to the fleet).

(2) The vehicle being decommissioned will go through an inspection process by the driver of the vehicle on behalf of the disposing entity. Using a preprinted checklist, the driver will record the condition of the unit so that any discrepancies the driver notes in the condition can be compared to a similar visual inspection completed by the dealer. Once this inspection is completed, the disposing entity will be able to ascertain what the vehicle is likely to bring at auction or other means of sale.

(3) Many times, the decommissioned vehicle may be dropped directly at an auction by the driver, with the same visual inspections being completed.

(4) Decommissioned vehicles may go through a detailing (to clean the vehicle for sale) or small repairs may be completed if the repair itself is not too expensive and will bring the vehicle a higher resale price than without the repair.

(5) Decommissioned vehicles may be offered for sale by the disposal entity to the driver of the vehicle. This would be an arm's-length transaction not involving the fleet and may result in a faster turn-around time if the driver is interested in purchasing the vehicle. All other steps involved in the decommissioning will still apply.

Utility fleet decommissioning.
Decommissioning activities for utility fleets should include the following specific requirements:

(1) Testing. Vehicles with aerial devices should be tested to ensure compliance with Federal, State and Provincial standards. Vehicles not meeting these standards should be repaired before disposal or destroyed and not resold.

(2) Maintenance records. On decommissioning, maintenance records of the vehicle should be copied and stored to prove that all necessary maintenance was performed during the life of the vehicle.

(3) Warning labels. A final check should be done during decommissioning to ensure that adequate warning labels are still affixed to any vehicles being remarketed.

Law enforcement fleet decommissioning.
Law Enforcement fleets may have specific requirements imposed by central policy or law. Some of the unique requirements common to law enforcement fleets are:

(1) Equipment Life cycles: Life cycle of specific law enforcement vehicle equipment. Each piece of equipment mounted in or on a law enforcement vehicle has its own life cycle. Equipment such as lightbars, jail partitions, prisoner restraint systems, gun mounts, skid plates, power supplies, push bars, radios, Unitrol, radar, video systems, siren speakers, amplifiers, MST or MCT systems, and trunk equipment (fire extinguishers, shovels, jacks, investigation kits, etc.) may require reuse.

(2) Stripping: A decision as to whether the transfer of life cycle equipment from the decommissioned vehicle should be done in-house or by an outside vendor will need to be determined based on a cost benefit analysis. Due to the sensitivity of the on board equipment, security is a significant issue. In addition, department decals will need to be removed.

(3) License plates: Exempt license or undercover license plates are assigned to each law enforcement agency by the State DMV. Disposal of specific law enforcement agency license plates requires special care and consideration. Security of license plates by law enforcement agencies requires a special procedure to ensure no compromise. Some agencies may have the capability to transfer exempt plates between vehicles. In any case, the fleet management information system will need to record the proper plate with each vehicle.

(4) Preparation for disposal: Law enforcement vehicles may require the re-installation of factory equipment (airbag systems, rear seats, rear door locks, key chimes, overhead dome lights, etc.) before the vehicle can be legally sold on the commercial market. In addition, State requirements may call for specific markings (black X) on the doors of old black & white patrol cars to preclude the appearance of an active police vehicle.

RECONDITIONING
Reconditioning can be anything from simply washing a car to performing major mechanical and body work. A general rule is that the reconditioning work must return at least 3 times the cost of reconditioning. Therefore for every $1 of reconditioning you should expect to receive $3 in return.

When it comes to adding value it is easiest to do appearance reconditioning. The buyer will see the external and visual parts of a vehicle first and formulate an impression based on that. In-service reconditioning can also

be a good investment.

REMARKETING POLICY

For those entities that allow employees to purchase vehicles, remarketing policy should be developed. It should address pricing of vehicles sold to employees, sales to employee's immediate family, approval of repairs for a certain period prior to sale, time to pick up after sale, and other entity specific consideration. Of particular importance is the provision detailing repairs prior to sale. If an employee is planning on purchasing his or her company vehicle that employee may try to get a new battery, tires, or brakes installed just prior to sale.

REMARKETING METHODS

The ultimate goal of a remarketing policy is to maximize profits from the sale of each vehicle.

Employee sales

This remarketing method is one of the least expensive methods, offering an average of about $500 more than other channels. This is due to the lack of needing to move vehicles around or registering them through a sales channel.

There are some things to be cautious about when selling to employees. First as the vehicle gets close to sale there is an incentive for the driver to try and address wear and tear items like the battery, tires, wiper blades, brake pads, etc. near the sale date. Then the eventual buyer, (like the driver) will not have the expense of replacing these types of items in the near term.

Additionally, a formal policy should be established for the process of selling vehicles to employees. Of particular concern is setting the price of the vehicle. Setting the price too low reduces the company's return but setting it too high can delay the sale and be perceived as trying to "gouge" employees. Other items to consider in the policy are: are the prices negotiable? How long can a vehicle be stored on company property before the employees pays for the vehicle? Is there any warranty on the vehicle? What is the recourse for a dis-satisfied buyer? Does the driver have first right of refusal before the vehicle is offered to other employees? What is the policy for approving repairs in the last month to six weeks of the vehicles life?

Additionally, documentation should be maintained to as evidence that the price paid was the agreed upon, the buyer was a qualified buyer according to the company policies, etc. it is good to remember that documentation is the solution to any question an auditor may ask. Employee sales are a valuable disposal channel but developing and following a policy can reduce difficulties in the future.

Auctions (on-site and virtual)
There are multiple types of auctions in which to sell vehicles.

On-site: This requires setting up your fleet location to be a sales point for both your own vehicles and those of other sellers. This sales channel requires significant space as well as accepting the liability of storing other company's vehicles on your property. The fleet manager would also need to account for the additional traffic and parking on sale days as well as the liability of the public on your property.

Off-site: This requires moving your vehicles and registering them in the auction. This method reduces the fleet manager's liability for hosting an on-site auction but increases the risk and effort of delivering vehicles to another location.

Virtual: This could be an easier way of listing vehicles by posting them on-line and waiting for bidders. Virtual auctions may come with higher listing fees and the need to transport the sold vehicles farther than anticipated.

Trade
Older or used vehicles can often times be traded in to the dealer to subsidize the purchase of newer vehicles. This practice is used by most dealers anywhere for both fleet managers and the general public buying new cars and trading in their old ones.

When using this disposal method it is always a good idea to break the transaction into two pieces. One piece of the transaction would include the purchase of the new vehicle and second piece of the transaction can include the sale of the old vehicle. Presented with one price for the entire transaction, it is difficult for the Fleet Manager to determine if both the purchase price of the new vehicle and the trade in price of the old vehicle are fair. One advantage of using this channel is that use of space is minimized as one vehicle is removed from the lot and one is added for a net gain of 0. Additionally, the transaction time is very short and can be accomplished the same day the new vehicle is delivered.

Retail
Retail can allow for higher proceeds as it works similar to most dealerships with car lots. Prices can be raised and negotiated and the vehicles are directed to a broad audience. Retail however takes up a lot of time to find buyers, negotiate deals, show off the vehicles, test drive them, and finally finish the sale. These different tasks require special employee training for sales which can be an added expense. There also needs to be an office suitable for customer negotiations. Additionally, some states may require special licenses to sell vehicles retail.
Though retail can bring in higher revenues it does require added time, costs, and expertise.

Direct
Direct sales involves finding a certain target whether it be an organization, demographic, or individual. It is important to develop a list of target markets and then begin directly selling vehicles to these targets.

Third Party
Third party is one of the easiest ways of selling vehicles however it may give the lowest return. A third party will do all of the work from collecting the vehicles, filing the paperwork, and finding buyers for the vehicles.

Selling through a third party is the best option when vehicles need to be moved quickly or you do not have time to sell them.

Internet
Internet sales can be done fairly easily. Vehicles can be listed on your fleet's website, a separate auction website, or on another sales medium. The internet can also be used in conjunction with other methods. For example your third party salesperson can list your vehicle online and sell it in person. Retail sales could also be listed online as well.

A significant advantage of this method is that the market is expanded globally. Anyone with an internet connection is a potential buyer. The expanded market may only extend to the surrounding states, but that is a significant increase in potential buyers over an in-person auction. Specialty or customized equipment such as snow plows, drill rigs, garbage packers, bucket trucks, etc. are types of equipment that benefit from internet remarketing.

Upstream
This involves selling vehicles as a dealer or while still in service. This method requires coordination and the vehicle needs to be in similar condition when removed from service or when the upstream buyer agrees to purchase it.

These types of sales are usually developed over time as the buyer and seller gain knowledge of each other's business. The buyer becomes familiar with the types of vehicles the fleet has to offer, and becomes comfortable with the quality of the product the fleet offers. The Fleet Manager begins to know when the buyer is looking for vehicles, and can target the vehicles to this buyer to maximize revenue. The Fleet Manager may also begin to add specifications and options confident that the upstream buyer will pay for those options.

Below is a chart that summarizes the characteristics of various remarketing strategies for a Midwestern, university fleet. This is a diverse fleet (compact sedans, police vehicles, utility body trucks, garbage trucks, etc.) that are State owned, and subject to laws regarding disposal of State

property. The vehicles are centrally located and the buyers at auctions in the past have been University staff and members of the community.

Disposal Channel Evaluation Chart

Remarketing Method	Permitted (Y/N) 1/0	Effort (L/M/H) 1/2/3	Return (L/M/H) 1/2/3	Out of Service to Sale (L/M/H) 3/2/1	Vehicle Storage Required (Y/N) 0/1	Risk (L/M/H) 3/2/1	Total
Employee sales	0	3	3	3	1	3	13
On-Site Auction	1	1	3	2	0	3	10
Off-Site Auction	1	1	3	2	1	2	10
Virtual Auction	1	2	2	3	0	3	11
Trade	1	3	1	3	1	2	11
Retail	0	1	2	1	0	1	5
Direct	0	1	1	1	0	3	6
Third Party	0	2	2	1	1	2	8
Internet	0	1	2	1	0	3	7
Upstream	1	2	3	3	1	3	13

(Y/N = Yes/No, L/M/H = Low/Medium/High)

Each disposal channel is rated on whether the fleet is permitted to use the channel, the effort in using the channel, the expected return of the channel compared to the other channels, how long it would take to dispose of the vehicle using this channel, the requirement of storing the vehicle after it is taken out of service and before it is remarketed and the overall risk.

A value was assigned for each characteristic; a higher value is better **(Note: Low does not always equal 1 nor does high always equal 3).** This scale is for this particular fleet's circumstances. It may be different for a fleet in a different circumstance. For example, this fleet is not permitted to sell directly to employees, which is not typical for most private fleets. Another example is that in this case it is low effort to conduct an on-site auction. In a fleet that is more geographically diverse, it may be more difficult to gather all of the vehicles in one place and the effort would be greater. The greater effort results in a lower score, leading to a lower total score.

From this example, you can see that even though the employee sale channel has the highest score, this channel cannot be considered because it is not permitted by regulation, policy or law. The next highest score suggests using upstream disposal taking advantage of the high returns and low time from out-of-service to sale.

Also realize that channels can be saturated if too many vehicles are disposed of in too short a period of time. Selling thirty sedans through the upstream channel may result in too much supply for the demand in this channel. So, it may be beneficial to choose another channel for a certain population of vehicles resulting over a greater overall return. For

example, using the chart above for this fleet, a virtual auction may be an additional channel to utilize. This channel would typically attract a different population of buyers. Additionally by splitting the number of vehicles between the two channels the reduced supply in each channel would hopefully increase the total return.

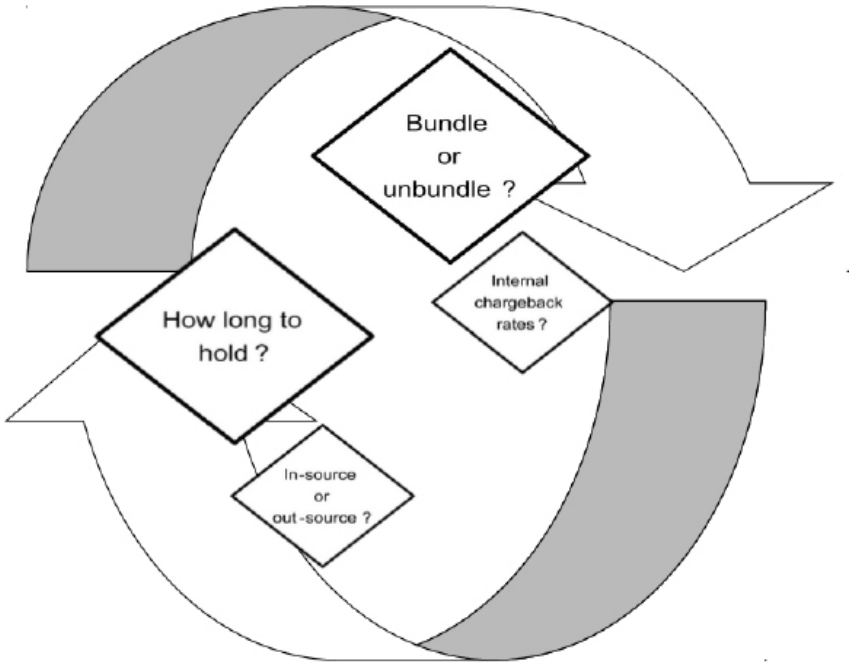
Another consideration is that the chart above may be different for different types of vehicles in your fleet. For example, in the chart above there is a medium score for the effort it takes to use the upstream channel. That may be true for a compact sedan, but not true for a garbage truck. It may be much more difficult to build a relationship with an upstream buyer if you only sell garbage trucks once every three or four years.

CONCLUSION

ACQUISITION AND DISPOSAL IS A SYSTEM

Fleet managers must make many critical decisions throughout the vehicle acquisition and disposal process. What to acquire and how to do it receives much of the attention because that portion of the system dictates whether or not fleet customer needs are met. The back-end remarketing and disposal receive far less attention in some organizations but as the materials in this Guide have illustrated, this portion of the system is no less important in meeting customer needs at the lowest cost.

There are also some critical decisions to be made between these two processes including how long to hold vehicles, whether to insource or outsource acquisition and disposal activities and expertise, whether to bundle or unbundled those services. (note below graphic needs in-source & out-source corrected)



The problem is that acquisition decisions impact disposal decisions, disposal decisions reciprocate by impacting acquisition decisions, and intermediate decisions are also impacted by both ends of the life cycle. How does a fleet manager address these challenges? The answer is to always keep the big picture in mind as individual processes are tackled, watching for the cause and effect results of decisions on interrelated processes. Go through these steps repeatedly, gradually zeroing in on the optimum solution. About the time the optimum solution is discovered, the organization, mission, or technology will likely have changed sufficiently to force changes in fleet policies and procedures. If being a professional fleet manager was easy, anyone could do it.

MANAGING DEPRECIATION

Because depreciation is the largest single cost component of a fleet which is directly under the fleet manager's control, it is fitting that this Guide concludes with a discussion of strategies for managing it.

Effective depreciation, the actual value of the vehicle consumed in use, is the difference between the net acquisition cost and the net resale value. This should not be confused with book depreciation rates used as part of lease payment determination.

Book depreciation is the estimated residual value of the vehicle at replacement subtracted from the total acquisition cost. This value is then converted into a factor that represents the monthly straight-line book depreciation. Two percent is the most common factor used by fleet managers today resulting in full depreciation of a vehicle on the lessor's books in 50 months.

agers today resulting in full depreciation of a vehicle on the lessor's books in 50 months.

The factor used should vary based on the expected functional life of the vehicle in question— the longer the service, the lower the factor. Lower monthly book depreciation factors result in depreciation and interest being spread over a longer period of time. Setting a depreciation factor too low will result in a deficiency at lease end. Setting a depreciation factor too high produces a credit to the lease.

There are many dynamics that affect depreciation, including vehicle type, replacement cycle, geographic location, and remarketing options.

IMPLEMENTING DEPRECIATION CONTROL STRATEGIES

All elements in a fleet policy from the front-end to the back-end affect depreciation, as discussed in this Guide. The following are basic strategies that will help control the depreciation of your fleet vehicles:

Vehicle Selection

Controlling depreciation begins when you select your fleet vehicles. Cost should be taken into account but should not be THE determining factor as mentioned above. Make sure to analyze:

- o Makes and models so they suit your specific fleet needs
- o Vehicle operating expense
- o The vehicle's safety factor
- o Resale value, which is discussed in detail below

Life cycle costing is a vital part of vehicle selection and controlling depreciation. It helps track all operating costs, including fuel, maintenance, etc. The ultimate goal of a fleet manager is to buy a vehicle that does the job, has the highest resale value, and has the lowest operating cost.

The Depreciation Factor

As discussed in the Introduction above, when setting the depreciation factor, the two most important elements to consider are the expected "useful" life of the vehicle and the approximate market value of the vehicle at lease-end. Remember that one factor does not fit all vehicles and uses. Make sure to also consider vehicle specifications, job assignment, mileage, and added equipment into the equation.

Determining the depreciation factor for your fleet is a crucial step in preparing your budget. Calculate the number of months it will take to write off vehicle acquisition costs. For private fleets that own vehicles, 36 months is the average period, for public fleets this period may be longer. This shorter time frame helps company profits since taxes for this period will decrease. For leased fleets, a longer write off period is the norm, since it will help lower payments. For executive vehicles, a 36- or 40-month lease is typical. The goal is for the fair market value to match

40-month lease is typical. The goal is for the fair market value to match the residual on the lease at the time it will be sold.

Managers also need to decide whether to capitalize the costs of upfits to the lease cost of the vehicle. An important factor to consider when making this decision is to look at whether the upfitted equipment will have a longer useful life than the vehicle. Also consider if the equipment can be transferred to another vehicle after the original vehicle's useful life has been exhausted. In most cases, the cost of the transfer is minor compared to ordering new equipment, and the transfer cost can be capitalized to the cost of the new vehicle. Sharing the upfit equipment between two vehicles will result in a lower sell depreciation cost for both vehicles.

Factors to Consider at Resale

When examining the resale process, fleet managers should consider a vehicle's age, mileage, condition, time of year, regional differences, etc., in order to optimize value and, thus, minimize depreciation. For the most part, these are controllable variables by the fleet manager, the management of which needs to be included as part of their remarketing program.

Be aware of price swings. For instance, compact cars tend to have a wider seasonal swing in prices than do mid-sized cars. Over the past few years, luxury cars exhibit the greatest price stability. Vans and minivan prices represent one of the weakest segments in the used-vehicle markets since the late 1990s. Examining each vehicle segment's resale performance history will help you get a bigger "depreciation" picture. Use your own history as an indication of future resale performance.

Also determine which resale method makes the most sense: auction, employee/driver sales, or wholesalers/brokers. See the Remarketing Methods (page 88) for comprehensive review of each remarketing option.

Market Awareness and Policy Updating

Educate yourself as much as possible on the trends in the automotive industry. Research what is happening with the manufacturers, upfitters, and interest rates. Also, continuously examine your fleet operation costs, as well as your current fleet vehicle resale values to determine if your lease factor or term needs adjusting.

Read industry publications and guidebooks to keep updated on market trends. Ask your lessor questions, if necessary. All of these strategies will help you determine the right depreciation factor for your fleet vehicles and monitor the process as it goes along.

SUMMARY

When managing depreciation, it is critical to look at the front end and back end equally. Both weigh heavily on the impact of depreciation. Life cycle costing should be used, but decisions should not be based solely on life cycle costing; look at this process as one large piece of a puzzle.

GLOSSARY

AFTR – Automated Fuel and Tax Reporting

Available Capital – Money that is allocated for specific purchases

B4A – Before Advertisement

BAFO – Best and Final Offer

BARFO – Best and Revised Final Offer

Benchmarking – The comparison of performance of one organization to other organizations

Bid Document Boilerplate - lists the rules of a proposal or contract

Bulk Incentive structures - The purchase at one time, and often at a reduced price, of a large quantity of a particular commodity

Component Rebate - discount given for special equipment added to vehicle orders

Cost-benefit analysis – This is the analysis of the costs and benefits associated with a particular course of action or a choice of actions (such as purchasing a vehicle.)

Dealer Invoice – The invoice amount the dealer pays the manufacturer for a specific vehicle, not to be confused with the dealer's "actual" cost for the vehicle

Direct Dealer Stock – vehicles that are available on a lot or from a dealer

Factory Stock – vehicles that are ordered directly from the manufacturer, bypassing a dealer

FASB – Financial Accounting Standards Board; regulates accounting and reporting aspects of a transaction

Fleet Manager – The fleet manager is responsible for the fleet during its full life cycle

Holdback – An amount paid from the factory to the dealership to offset normal costs of doing business

Lease – A lease is a rental that, by contract, is clearly defined as to length, cost and stipulations

Lien - the right to keep possession of property belonging to another person until a debt owed by that person is paid

MSRP – Manufacturer's suggested retail price

OEM – Original equipment manufacturer

Open-end lease - generally one to two years minimum term but can be extended until the agreement is terminated

Performance Bond - financial guarantee up-front protecting the buyer from vendor non-compliance

RFI – A Request for Information is an open enquiry that spans the market seeking broad data and understanding

RFP – A Request for Proposal is a business requirements-based request for specific solutions

RFQ – A Request for Quotation is a business process inviting suppliers to join the bidding process on a specific product or service

RFT – A Request for Tender is an opportunity for potential supplies to submit an offer to supply goods or services against a detailed tender

Single Purchase Incentive structures - To buy a product or service.

Strategic Sourcing – Sourcing strategy meant to engage suppliers that align with the strategic business and operational goals of the organization

TRAC - Terminal Rental Adjustment Clauses are usually included in open-ended leases, tying the lessee to whatever difference may exist between the book and selling values of a unit upon remarketing.

Threshold incentive structures - Minimum or maximum value which serves as a benchmark for comparison or guidance and any breach of which may call for a complete review of the situation or the redesign of a system

Triple Net Cost – Manufacturer-to-dealer invoice price less holdback less advertising & financing. (Invoice – Holdback – Advertising – Financing = Triple Net Cost)

True Cost of Capital – The cost of funds used for financing a business or function of business

Volume Rebate - Discount given for ordering a number of vehicles/units at the same time. Sometimes this discount is available even if you don't

take all of the vehicles at once.

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