Tennessee Valley Authority
FY 2017 FLEET MANAGEMENT PLAN AND BUDGET NARRATIVE

(A) Introduction that describes the agency mission, organization, and overview of the role of the fleet in serving agency missions.

(1) Briefly, what is the agency's primary/core mission and how is the fleet configured to support it?

The Tennessee Valley Authority is a corporate agency of the United States that provides electricity for business customers and local power distributors serving more than 9 million people in parts of seven southeastern states. TVA receives no taxpayer funding, deriving virtually all of its revenues from sales of electricity. In addition to operating and investing its revenues in its electric system, TVA provides flood control, navigation and land management for the Tennessee River system and assists local power companies and state and local governments with economic development and job creation. TVA's Mission to "serve the people to make life better" is achieved through work in three main areas: energy, environment and economic development.

TVA's Fleet Management team utilizes a diverse inventory of light and medium-duty assets ranging from sedans to 1 1/2 ton trucks to support the company's vision. All of TVA's medium-duty assets are utilized for mission critical work, as well as some of the light-duty assets. TVA's sedan fleet is used to provide support for critical activities. Presently, agency-owned vehicles are used in various roles ranging from administrative travel and facilities groundwork to transmission line support and plant operations. Due to the decentralization of TVA's service territory, vehicles are dispersed valley wide in an effort to provide outstanding reliability and satisfy the requirements of TVA's mission. TVA's vehicle fleet is regulated by a centralized Fleet Management team that assesses business unit operational needs to meet changing business requirements and properly equip the vehicle assets.

(2) Please describe the organizational structure and geographic dispersion of your fleet.

Executive management resides within seven strategic business units identified as operations, external relations, shared services, HR & communications, financial services, communications & marketing and the general counsel. TVA's service area extends into seven southeastern states including Tennessee, Alabama, Georgia, Kentucky, Mississippi, North Carolina, and Virginia. Employees are based in many locations across the service area regardless of strategic business unit. TVA facilities and customers are located in metropolitan and remote rural areas creating diverse business travel needs.

(3) What are the ancillary missions, such as administrative functions, and how are they supported?

TVA is a decentralized company operating across several states as mentioned above. Because of the nature of work as a utility company, TVA's employees serve several roles that range in operations and mission support. Functions include but are not limited to: plant operations, transmission line support, facilities management, administrative support, site security, equipment towing, and facility groundwork. These functions are supported through a central fleet management team that works with business units to determine proper specifications of each vehicle and ongoing support in reliability, maintenance and repair.

(4) How are vehicles primarily used, and how do mission requirements translate into the need for particular vehicle quantities and types?

The majority of our vehicles are justified in serving the overall mission of TVA. Quantity and vehicle type is determined by the operational need of the vehicle and is reviewed as joint effort between fleet management, operational user, and the business unit upper management. Once justification is validated and vehicle specifications are developed, fleet management determines vehicle make and model meets the employees needs.

(B) Description of vehicle acquisition/replacement strategies.

(1) Describe your agency's vehicle sourcing strategy and decision(s) for purchasing/owning vehicles compared with leasing vehicles through GSA Fleet or commercially. When comparing the cost of owned vehicles to leased vehicles, you should compare all direct and indirect costs projected for the lifecycle of owned vehicles to the total lease costs over an identical lifecycle. Include a rationale for acquiring vehicles from other than the most cost effective source. Note: Information on calculating indirect cost is contained in FMR Bulletin B-38, Indirect Costs of Motor Vehicle Fleet Operations.

TVA sources vehicle transportation through the most cost-effective method available. This includes a cost analysis of whether a vehicle should be owned, leased, or rented. However, TVA has acquired vehicles that were not considered the most cost-effective source. In rare cases, vehicles are sometimes purchased through a dealership if an urgent need for a vehicle is identified. Fleet Management has also acquired more expensive vehicles in an effort to diversify the portfolio of vehicles within our fleet and demonstrate environmental stewardship towards sustainability efforts and petroleum reduction initiatives. Presently, we have diversified the fleet with acquisition of alternative fuel vehicles (AFV's), electric vehicles (EV's), plug-in hybrid vehicles (PHEV's), gasoline-dedicated hybrids, diesel-engine vehicles, and standard gasoline vehicles.

Vehicle sourcing is determined by business justification, vehicle usage, and cost. Vehicles are acquired from the most cost effective source unless it jeopardizes the assigned driver's ability to carry out the necessary job function to support TVA's mission. An evaluation of the GSA leasing program for light-duty vehicles will be conducted in 2017 to determine if the program will meet TVA's business requirements. TVA also has a contracted with a national car rental company to provide necessary services to TVA employees.

(2) Describe your agency's plans and schedules for locating AFVs in proximity to AFV fueling stations.

TVA will purchase only AFVs for all non-exempt vehicles after initially determining if a low-GHG vehicle meets functional requirements. An applicable low-GHG vehicle will be purchased over an AFV to comply with the statutory requirements of EISA 141.

(3) Describe your agency's approach to areas where alternative fuels are not available and whether qualifying low greenhouse gas (LGHG) vehicles or ZEVs are being placed in such areas.

In areas where alternative fuel is not available, TVA will place a low-GHG vehicle if one is available to meet the required business objective.

(4) EO13693 requires agencies to reduce greenhouse gas (GHG) emissions as compared to a 2014 baseline. Describe your agency's plans to meet this goal. If funding is required to comply with this mandate, do you have documentation that it has been requested?

Budget constraints and compliant vehicles which meet TVA's functional specifications are problematic with acquiring EISA 141 low-GHG emissions vehicles. In past situations, cost was the overriding factor in determining which vehicle would be most beneficial to TVA. To address this

issue, vehicles with a GVWR >8,500 are exempt from the executive order. However, TVA still operates smaller trucks, vans, and SUV's that play a significant role in supporting mission-critical activities and assets. TVA will initially seek to purchase low GHG-emitting vehicles before purchasing a noncompliant vehicle. Additional focus will also be placed on reductions in petroleum consumption and travel, but these practices cannot be applied to all vehicles currently classified as non-exempt.

(5) EO13693 requires agencies to acquire zero emission vehicles (ZEVs) as an increasing percentage of passenger vehicle acquisitions. Describe your agency's plans to meet this goal. If funding is required to comply with this mandate, do you have documentation that it has been requested?

TVA is reviewing the potential of establishing a cross-functional team to develop a best use case recommendation for the deployment of ZEV/PHEV vehicles and the associated charging infrastructure. Once justification is validated and vehicle specifications are developed, Fleet Management determines if commercially available ZEVs will meet the business requirement. Any recommendations will be presented to TVA's management for guidance and funding. Fleet Management continually engages the end-user to ascertain the business requirement and place ZEVs if appropriate.

(C) Description of Telematics related acquisition strategies.

(1) Where appropriate, are telematics now being added to all new passenger, light duty vehicle and medium duty vehicle acquisitions?

No

(2) If not, please explain if there are security or service availability concerns, lack of return on investment, or other issues that make the installation inappropriate for certain vehicles.

Executive manage determined it was in the best interest of TVA to pause the planned implementation for reevaluation. Telematics is currently being installed in TVA's over-the-road trucking operation and the results will be analyzed to assist with future decisions for the light duty vehicles.

(3) If telematics is not yet installed but will be installed in the future, please describe your plans.

See #2

(4) Approximately how many vehicles currently have telematics installed?

(5) Has the agency acquired telematics through GSA, directly from a vendor, or both? For telematics not acquired through GSA contracts, please list the name of the product and company.

TVA is currently conducting a proof of concept to determine the type of functionality that will generate the best overall value. GSA's vendor is included in the assessment.

(6) Are the data produced through telematics captured by your agency's fleet management information system (FMIS)?

N/A

(7) Please share the types of telematics technology and features installed, successes, benefits and

lessons learned that you have realized through the use of telematics.

Cellular technology will primarily be installed. Satellite may be used in select geographic areas.

Type of telematics features are installed in your vehicles. Check all that apply from the list below:

- ☑ ***GPS tracking*** *- Fleet managers can monitor the location of their vehicles in real-time by logging on to a user accessible website.*
- ☑ ***Engine diagnostics*** *- Fleet managers can have engine diagnostics reports delivered to their email showing the current condition of the vehicle, odometer readings, idle time, emissions information and speed data.*
- ☐ ***Vehicle monitoring and driver identification*** *- Fleet managers can track a driver of every vehicle via the usage of key fobs for the drivers or in-vehicle devices and can track who is, or was, driving any given vehicle at any particular time, as well as limit who can operate which vehicles.*
- ☐ ***In-vehicle recording*** *– This solution uses inward and outward facing cameras to record the driver's behavior as well as the vehicle's surroundings. The device saves the footage from several seconds before and after a sudden movement occurs, such as sudden stop or hard turn.*
- ☐ ***Instant driver feedback*** *– This system provides an immediate, private, in cabin indication via light activation within the driver's line of sight. The feedback device is designed to track and report harsh breaking, sudden acceleration, cornering/high speed turns, unsafe lane changes and speeding (with a pre-determined speeding threshold).*
- ☐ ***Other*** *– Describe other service*
- ☑ ***Fuel Usage -*** *Information on gallons of fuel and subsequent MPG calculations.*

(D) Description of efforts to control fleet size and cost.

(1) Provide an explanation for any measurable change in your agency's fleet size, composition, and/or cost or if you are not meeting optimal fleet goals (based on agency VAM study results).

Fleet management has demonstrated commitment in improving data analysis to identify opportunities to improve the fleet. Fleet management employees have also increased engagement with assigned drivers to understand the true needs of each organization. TVA as a company has been dealing with higher O&M expenses and less revenue creating budget constraints across all areas of TVA. This has challenged each business unit to work smarter with less financial support. These constraints are not projected to change in the near future, so fleet management will continue to identify ways to reduce fleet size, composition, and overall cost of employee travel.

(2) Describe the factors that hinder attainment of your optimal fleet (e.g., budgetary, other resource issues, mission changes, etc.).

TVA has effectively optimized the fleet since 2005. The number of vehicles has been reduced by 23% while rightsizing the type vehicle assigned to support TVA's mission. A totally optimized fleet based upon all federal fleet requirements is impacted by TVA's varied mission and the availability of products that meet functional requirements and budgetary constraints.

(3) Discuss any trends toward larger, less fuel-efficient vehicles and the justifications for such moves.

TVA is not showing a trend of increasing ownership of larger, less fuel-efficient vehicles. In all cases of replacements, fleet management challenges the asset type in an effort to promote

smaller, more fuel-efficient vehicles that can satisfy the requirements of our end user. All vehicles, regardless of upsizing or downsizing, require a business justification.

(4) Discuss the basis used for your future cost projections (published inflation estimates, historical trends, flat across-the-board percentage increases, mission changes, etc.)

Cost projections are based upon the most recent fiscal year purchases and forecasted inflationary factors.

(5) Does your agency document/monitor the additional cost of home-to-work (HTW) use of Federal vehicles? If so, please briefly describe how these additional costs are determined.

No

Other Information:

- *TVA maintains a small pool of mission worthy vehicles to support emergent and project based requirements. In addition, TVA has a rental agreement in place to support employee administrative travel requirements.*
- *Cost projections are based upon the most recent fiscal year purchases and forecasted inflationary factors.*

(E) Description of Vehicle Assignments and Vehicle Sharing.

(1) Describe how vehicles are assigned at your agency (i.e., individuals, offices, job classifications, motor pools).

TVA considers several factors when determining whether or not a customer has a need for an assigned vehicle:

1. *Does this vehicle have a business justification?*
2. *How often is the vehicle used to support TVA's mission? Mileage and days of use are considered.*
3. *What is the job function of the vehicle and what are the necessary upfits to effectively perform its duties?*
4. *What are the available sourcing options based on need and which one can provide the most cost-effective approach?*

(2) Describe your agency's efforts to reduce vehicles assigned to a single person wherever possible.

Managers and/or assigned drivers use their discretion when it comes to internal vehicle sharing. Each assigned driver is responsible for determining vehicle availability and whether or not the asset should be limited to the individual, group, or further expansion of internal organizations.

(3) Describe pooling, car sharing, and shuttle bus consolidation initiatives as well as efforts to share vehicles internally or with other Federal activities.

TVA supports a Rideshare Program that is open to employees and contractors. Business units are also encouraged to carpool with agency-owned vehicles when possible. Fleet management maintains a pool of vehicles to support a short term rental program.

(4) Describe how home-to-work (HTW) vehicles are justified, assigned, and reported, as well as what steps are taken by your agency to limit HTW use.

TVA employees are not allowed to drive a vehicle from home-to-work if it is considered commuter travel. TVA employees are only permitted to drive an agency-owned vehicle from home-to-work if it facilitates more efficient and effective performance of their work. Circumstances may include a travel route that could lessen windshield time, unconventional commuting hours for business justified travel, or hazardous weather conditions. Home-to-work travel is currently regulated by the employee's supervisor and allowable exceptions, whether routine or periodic, are enforced at the discretion of their manager.

(5) Does your agency document/monitor the additional cost of HTW use of Federal vehicles? If so, please describe how.

N/A

(F) Evidence of Vehicle Allocation Methodology (VAM) Planning.

Provide information on the methods used to determine your agency's VAM targets/optimal inventory. (Recommendation #2 from GAO report: GAO-13-659. See FMR Bulletin B-30 for guidance on conducting a VAM study and developing VAM targets).

(1) What is the date of your agency's most recent VAM study? Please describe the results (Add/Reduce/Change vehicle types, sizes, etc.). Have all bureaus been studied?

TVA's most recent VAM study was completed April 2016. All drivers of TVA vehicles were surveyed, and the final completion ratio was 93.8%. While the results indicated on average the majority of vehicles in service are the appropriate size for the user's needs, several hundred vehicles were identified that would be able to be downsized and still allow the user to complete their mission. Additionally two hundred drivers indicated their need for a vehicle would come to an end over the next two years.

(2) From your most recent VAM study, please describe/provide the specific utilization criteria (miles, hours, vehicle age, or other measures) used to determine whether to retain or dispose of a vehicle? If different criteria were used in different bureaus or program areas, provide the criteria for each.

In regards to vehicle retention within each business unit, vehicles are evaluated based on 13,000 miles a year. Various sourcing options such as vehicle rentals or car sharing are considered alternative options for individuals or groups that do not meet the following criteria. Vehicles considered mission-critical are not subject to the mileage requirements, but rather a business justification. For lifetime replacements, vehicles were assessed on a vehicle specific lifecycle and 125,000 miles. Retention was also determined based on the type of repairs, frequency of repairs, and vehicle downtime. Based on a ranking system that supports the criteria for the fleet, these factors helped determine an order of vehicle replacements that aligns with our budget constraints for that fiscal year.

(3) From your most recent VAM study, what were the questions used to conduct the VAM survey (see FMR Bulletin B-30(6)(C)) (if lengthy, provide as an attachment)? If different questions were used by different bureaus or program areas, provide the questions for each. If a VAM survey was not conducted, please describe the methods used to apply utilization **criteria to each** vehicle in your agency's fleet and collect subjective information about each vehicle that potentially could provide valuable insights/explanations into the objective criteria.

TVA's survey questions are provide in the Appendix of this document.

(G) Description of the agency-wide Vehicle Management Information System (See FMR 102-34.340)

Federal agencies are to begin collecting asset level data (ALD) beginning October 1, 2016 in order to be able to report ALD in the October-December 2017 FAST data call. To comply, your agency will need a management information system (MIS) capable of reporting inventory, cost, usage, and other information on a "per vehicle" basis.

(1) Does your agency have a vehicle management information system (MIS) at the Department or Agency level that identifies and collects accurate inventory, cost, and use data that cover the complete lifecycle of each motor vehicle (acquisition, operation, maintenance, and disposal), as well as provides the information necessary to satisfy both internal and external reporting requirements?

TVA does have a vehicle management information system that satisfies the requirements specified above. TVA uses an automotive fleet management system operated by Automotive Resources International (ARI) that collects inventory, cost, fuel, and maintenance. The system also has the support and capability to produce information that satisfies both internal and external reporting.

(2) Will your agency be able to report ALD beginning in October of this year (2017)?

Yes, TVA will utilize FedFMS to meet the ALD data element requirement.

Other Information:

- *TVA will implement FedFMS to meet the vehicle level detail requirement by October 1, 2016.*
- *Upon the implementation of telematics into the TVA's fleet, all reported data elements will be integrated into TVA's current MIS.*

(H) Justification for restricted vehicles.

(1) If your agency uses vehicles larger than class III (midsize), is the justification for each one documented?

All agency-owned vehicles contain a documented justification as part of the light-duty vehicle sourcing methodology.

(2) Does your agency use the law enforcement (LE) vehicle classification system described in GSA Bulletin FMR B-33? If not, why not?

Yes

(3) If your agency reports limousines in its inventory, do they comply with the definition in GSA Bulletin FMR B-29?

N/A

(4) For armored vehicles, do you use the ballistic resistance classification system of National Institute of Justice (NIJ) Standard 0108.01, and restrict armor to the defined types?

N/A

(5) Are armored vehicles authorized by appropriation?

N/A

(I) Impediments to optimal fleet management.

(1) Please describe the obstacles your agency faces in optimizing its fleet.

TVA relies on the information reported from our employee-based fuel card to determine mileage information on vehicles. User errors make it difficult to assess the validity of these figures. There is also no technology in the vehicles that can determine the frequency of vehicle usage in order to assess vehicle necessity. This also makes efficient oversight of vehicle maintenance and service needs a challenge.

(2) Please describe the ways in which your agency finds it hard to make the fleet what it should be, operating at maximum efficiency.

The decentralization of the fleet and the inability to accurately capture vehicle use in frequency and mileage creates difficulty in operating the fleet at maximum efficiency. To address these challenges, Fleet Management is conducting a telematics proof of concept analysis to determine the best valued solution for TVA.

(3) If additional resources are needed, (such as to fund management information system implementation or upgrades, or to acquire ZEVs, or LGHG vehicles, or install alternative fuel infrastructure) have they been documented and requested? Do you have a copy of this documentation? (do not attach or furnish unless requested).

N/A

(4) Describe what specific laws, Executive Orders, GSA's government-wide regulations or internal agency regulations, budget issues, or organizational obstacles you feel constrain your ability to manage your fleet. Be specific and include examples. If you have a solution, describe it and indicate whether we can share the solution with other agencies as a potential best practice.

The terrain and environment where TVA's vehicles operate make it difficult to implement the recommendations of the federal fleet requirement. Budget constraints and the availability of functional solutions (vehicles and charging infrastructure) are problematic in achieving compliance with EO 13693 and EISA 141.

(J) Anomalies and possible errors.

(1) Explain any real or apparent problems with agency data reported in FAST.

TVA's fuel card is employee-based rather than asset-based. Each cardholder is responsible for keying in the appropriate odometer reading and the vehicle number. User errors are problematic when reporting fuel consumption in FAST.

(2) Discuss any data fields highlighted by FAST as possible errors that you chose to override rather than correct. Examples would be extremely high annual operating costs or an abnormal change in inventory that FAST considers outside the normal range, or erroneous data in prior years causing an apparent discrepancy in the current year.

N/A

(3) Explain any unresolved flagged, highlighted, or unusual-appearing data within FAST.

N/A

(K) Summary and contact information.

(1) Who should be contacted with questions about this agency fleet plan?

Phil Essary
Fleet Manager
(423) 751-4596
rpessary@tva.gov

(2) Indicate whether the budget officer participated in the VAM and A-11 processes. (Provide the name and contact information for the budget office reviewing official).

The budget officer participates in TVA's fleet budget approval but not in the VAM and A-11 processes.

Diane J. Shenk
Financial Consultant III
(865) 632-6341
dshenk@tva.gov

(3) Indicate whether the Chief Sustainability Officer participated in the VAM, vehicle planning, and vehicle approval processes. (Provide the name and contact information for the CSO reviewing official).

The Chief Sustainability Officer did not participate in the VAM, vehicle planning, and vehicle approval process.

Brenda Brickhouse
Chief Sustainability Officer
(423) 751-6481
bebrickhouse@tva.gov

Appendix

Survey Questions

Note that question numbers listed below are not numerical due to logic that was used within the survey.

The letters “TV” were followed by the 5-digit number of the vehicle in question for which the respondent was completing the survey.

Please note that no additional questions appeared after Q38 (the feedback request question). The question was worded this was to direct the user to the final screen that would complete the survey.

1. What is the primary use of TV#
   - Travel
   - Plant Vehicle
   - Law Enforcement/Security
   - Transmission (on-road)
   - Transmission (off-road)
   - Project Support
   - A combination of the above
   - Other (please be specific) _____

2. How much longer will TV# be needed?
   - 1 to 6 months
   - 7 to 12 months
   - 1 to 2 years
   - more than 2 years

3. Would you be able to do your job using an electric vehicle (EV) assuming there was a charging station at every TVA facility? An example of an EV is the Nissan LEAF, which has a range of 50-75 miles.
   - No
   - Yes

4. On average, how many days per week is TV used?
   - 0 - 1
   - 2 - 3
   - 4 - 5
   - 6 or more

5. Because TV# is not used frequently, could your business unit's mission be supported by borrowing a vehicle when one is needed?

- No
- Yes

6. Please contact Fleet Services to discuss. Returning TV# will eliminate the monthly rent payment, which will reduce your business unit's annual expenditures.

7. You indicated that TV# is only used about once a week. Why does your business unit pay a full monthly rent payment for a vehicle that is used only 4 times a month?

- This is an emergency response vehicle that must be ready at a moment's notice.
- This is a pooled vehicle, and it's shared with several other drivers in our business unit.
- Nobody in our business unit has a vehicle they could lend us when we need one.
- We want to have a vehicle available to us whenever we need it.
- We did not know that we could borrow a vehicle from someone else in our business unit.

8. How many people in your business unit drive TV#?

- 1 (I am the only person who drives TV#)
- 2
- 3
- 4 or more

9. Why is TV# not driven by any other people in your business unit?

- Everyone in my business unit already has their own assigned vehicle.
- We are not able to share TV because it needs to be ready at a moment's notice for us to use.
- No one else in my business unit needs a vehicle like TV.
- TV has specialty equipment that is too time-consuming to transfer to another vehicle.
- We have not researched the possibility of sharing TV with others in our business unit.

10. How many people does TV# generally transport per trip? A "trip" begins when the vehicle starts moving and ends when the vehicle’s ignition is turned off.

- 1 (only the driver)
- 2
- 3
- 4

11. Could you perform your job with a vehicle that is smaller than TV#?

- No
- Yes

12. Please contact Fleet Services to discuss whether a vehicle size swap is possible for your business unit. Exchanging TV# for a smaller vehicle may lower its monthly rent, which could reduce your business unit's annual expenditures.

13. Describe why a smaller vehicle is unable to support your business unit's mission. Please be specific.

- ☐ TV# has specialty equipment.
- ☐ I regularly move large/heavy objects that won't fit in a smaller vehicle.
- ☐ A larger vehicle is needed to transport multiple people.
- ☐ Extra ground clearance is needed for off-road areas.
- ☐ Other (please be specific) _____

14. TV is a four-wheel drive vehicle. How often is four-wheel drive used in TV?

- ☐ Never
- ☐ Sparingly (maybe once a month)
- ☐ Frequently (at least once a week)
- ☐ Constantly (at least once a day)
- ☐ During inclement weather only

15. Since the four-wheel drive in TV# is used so infrequently, could you do your job and support your business unit's mission by borrowing a four-wheel drive vehicle when one is needed?

- ☐ No
- ☐ Yes

16. Please contact Fleet Services to discuss whether switching to a two-wheel drive vehicle would be beneficial for your business unit. If you exchanged TV# for a two-wheel drive vehicle you might be able to lower the monthly rent, which could help reduce your business unit's annual expenditures.

17. Describe why a two-wheel drive vehicle would prevent you from doing your job (fulfilling your business unit's mission). Please be specific.

- ☐ Four-wheel drive is needed because TV# is used off-road most of the time.
- ☐ Four-wheel drive is required because of the possibility of inclement weather (snow, flooding, etc.).
- ☐ Other (please be specific) _____

18. TV is a flex-fuel vehicle that is able to use E85 fuel. Is E85 used to fuel TV#?

- ☐ No
- ☐ Yes

19. Please detail why E85 is not used to fuel TV#.

- ☐ I did not know that E85 was supposed to be used in TVA's flex-fuel vehicles.
- ☐ I am aware of the requirement, but I choose not to fuel TV with E85.
- ☐ E85 is not available in the areas where I travel.