



Guidelines for District Vehicle Selection

Purpose

To establish criteria that results in vehicles meeting the District's operational and business requirements, and being consistent with District organizational goals and values.

Policy Guidance

In keeping with TVWD's sustainability culture, the TVWD Board encourages the use of alternative fuels for District vehicles and equipment when such alternatives are consistent with the requirements and business needs of the District.

Process

When the need for a vehicle is identified, the Field Operations Manager or designee will, within the context of the budget, review requirements with the user, evaluate those requirements in light of the criteria listed herein and establish specifications. The specifications shall be reviewed with the end user to confirm suitability for the application, followed by procurement consistent with the District's Local Contract Review Board Rules.

General Considerations

A vehicle is a tool used to complete tasks deemed to be necessary for the District to carry out its mission. Therefore the design, configuration, and features selected for District vehicles shall begin with the business task(s) or activities which they are intended in mind as the foundation upon which other decisions are built.

Vehicles are assets of the District and as such will be selected and configured consistent with District overall asset management objectives and in concert with District sustainability policies.

Within the context of business objectives, a vehicle selected by the District shall consider:

- **Economics:** Deliver the best life cycle value feasible in light of the required business purpose, which may include acquisition cost, operations & maintenance expense, supporting infrastructure costs, training, and residual value.
- **Community:** Consider the effect on the community as a whole, which may include aspects such as noise, physical footprint, impact on trip counts & road miles required, resiliency (ability to perform under adverse or emergency circumstances), and reliability in support of the District's water system.
- **Environment:** Consider environmental impacts of operation. Where feasible within the vehicle's role in support of the District mission, vehicle selection shall consider viable alternative

approaches to fuel, drive trains, fleet infrastructure, and other related technologies which could reasonably be expected to reduce adverse impacts to the environment. The District will consider budgeting and paying reasonable premiums for vehicles, fuel, or fleet related infrastructure when doing so could be expected to reduce adverse impacts of fleet operation relative to traditional approaches.

Specific Considerations

Because complex interrelationships exist between many of these items, this list is not in a prioritized order.

- **Capacity:** Optimized for cargo in defined business application, including subsystems. Includes cargo storage, weight capacity (GVWR), towing capacity (GCWR), fuel storage, subsystem stowage.
- **Compatibility with Existing Equipment:** When there is a business advantage, interchangeable components will be considered. (i.e., would there be significant end user training requirements which differ from existing equipment that could lead to user restriction, operator confusion, or worker hazards?)
- **Configurability:** Configured to meet the work requirements (e.g., engine/transmission combination is PTO capable; sufficient clear frame; sufficient passenger space; sufficient subsystem component space, etc). Length, width, height, weight, and other clearances meet work requirements.
- **Cost:** Evaluate acquisition and life cycle cost within the approved budget.
- **Critical Mass:** Consider whether there is a business case to have a “one-off” or unique vehicle.
- **Environmental Advantage:** Consider whether the configuration presents opportunity for environmental advantage (e.g., noise mitigation, exhaust reduction, fewer waste products per unit of work, fewer trips).
- **Ergonomics (near term & life cycle costs):** Effective access/egress. Ability to access controls and oversee processes and equipment operation. Convenient and efficient loading and unloading of cargo and tools. Mitigation of repetitive motion issues where feasible. Practical access to frequent maintenance points.
- **Fuel (Including “Alternative Fuels”):** In light of the District vehicle performance and configuration requirements, evaluate whether a particular fuel type provides an advantage. Considerations may include environmental, social (community), economic, and/or resiliency opportunities and advantages.
 - Fuel optimized for work done (e.g., energy consumed/unit of work).
 - The technology (e.g., engine) should have a product support base likely to span the life of the vehicle.

- The product (fuel) will likely be available for the life of the vehicle (as opposed to an intermediate step to some other technology which could render the vehicle prematurely obsolete).
 - To the degree discernible, evaluate the viability of the OEM. (Manufacturer appears financially viable.)
 - In light of the overall operation of vehicle, the product is affordable. Life cycle cost is weighed against initial cost.
 - If a non-conventional fuel is available in the application, the product will provide a meaningful benefit over traditional mainstream products. Consider holistic benefits as well as work application specific benefits.
 - Evaluate whether a potential product will create too much maintenance diversity. (i.e., Does it create complexity beyond what a fleet the District's size can reasonably support?)
 - Evaluate whether special infrastructure is required including the infrastructure cost and longevity.
 - Evaluate whether maintenance and repair of the technology exists locally sufficient to meet District resiliency and maintainability requirements.
 - Consider whether the product will create vehicle warranty risk which cannot be reasonably mitigated.
- **Infrastructure Requirements:** Cost of new infrastructure will be considered when it is required to support a new or different type of vehicle. (e.g., new shop components, tools, different fueling infrastructure, special repair outsourcing).
 - **Maneuverability:** Vehicle size and agility appropriate to typical work zone.
 - **Operation & Maintenance Requirements:** When appropriate, the vehicle will match existing vehicles to facilitate fleet training and maintenance familiarity. Consideration will be given to commonality of frequently used parts and tools. (Common technologies).
 - **Outsourcing Requirements:** The vehicle should be capable of being maintained and repaired locally. To the extent possible, systems and/or subsystems shall be selected that avoid potential long down times, exotic repairs or exorbitant expenses.
 - **Performance:** Horsepower requirements, gradeability, fuel burn rate, reach, lift, subsystem power requirements, work cycles.
 - **Product Quality:** Product demonstrates quality workmanship; quality materials used in manufacture; positive fit & feel; and expected performance. Aesthetically, the configuration should reflect well on the District's public image.
 - **Regulatory impacts:** Evaluate special regulatory requirements associated with maintenance due to OEM product approach. (e.g., problematic disposal of by-products after use).
 - **Resiliency:** Among equal options, consider how particular configurations support improved water system resiliency, particularly under emergency conditions. (e.g., parts commonality, fuel, service availability).

- **Safety:** The vehicle will meet DOT regulatory requirements for the type of vehicle. The vehicle will comply with established OSHA requirements for operators working on or around the vehicle including mitigation for mechanical hazards. General considerations depending on the application may include: driver visibility, warning systems (e.g., warning lights, alarms), access/egress, fall protection, traction surfaces, load securing mechanisms, controls, and engineered safety design (e.g., sharp point, moving part, and hot surface mitigation).