



MEMORANDUM

EUGENE WATER & ELECTRIC BOARD

Rely on us.

TO: Commissioners Carlson, Mital, Helgeson, Schlossberg and Brown
FROM: Rod Price, Chief Operating Officer; Gary Lentsch, Fleet Operations Supervisor
DATE: August 6, 2019
SUBJECT: Maintaining a Cost Effective Fleet Replacement Program
OBJECTIVE: Information Only

Issue

Having a sound vehicle and equipment replacement program is important to utilities and municipal agencies of all size. EWEB owns and maintains a large, specialized and varied fleet which includes over 370 assets. Fleet Services acquires, maintains, and dispose of vehicles and equipment in a manner that is financially and environmentally sustainable. At the July 2019 Board meeting, Commissioners requested staff to provide more back ground on how replacement decisions are made for our vehicles.

Background

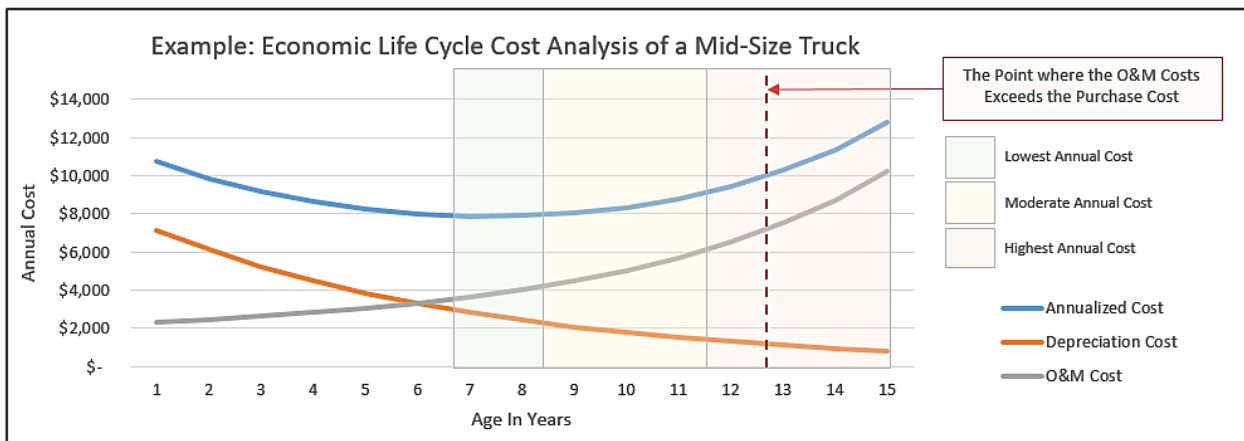
Currently the capitalized value of the fleet is over \$21.4 million, with an estimated replacement value of \$29.2 million. Maintaining the current fleet requires about \$2.4 million per year in O&M cost, and around \$1.5 million a year in Capital replacement costs. The average age of the fleet is currently 9.2 years old.

Discussion

Eventually, all vehicles and equipment wear out due to age or excessive use. For the most part, utilities and municipal agencies across the country have relied on using fixed replacement intervals to manage their fleets. However, using the conventional fixed replacement interval doesn't always work. That's mainly because we find that mileage, utilization and our type of work varies greatly across the organization. Therefore various lifecycle costs are looked at to determine when to replace a vehicle. Those lifecycle cost elements include:

- Acquisition costs
- Age, miles and/or hours to date.
- Fuel costs
- Preventable Maintenance (PM) and repair costs
- Estimated salvage value
- Downtime cost and obsolescence cost

Following is an example chart of how these elements are modeled.



This orange curve on the chart indicates how capital and resale values decline, while the gray curve shows how vehicle operation and maintenance cost increases over time. The combination of these two trends produces a U-shaped total annualized cost. Once we have reached the flat portion of the u-shaped blue annualized cost curve (green zone), we tend to experience the lowest annual cost of ownership. Replacing vehicles and equipment before they reach this point in the curve be likely to be unnecessary, so any replacement at this point, needs to be heavily scrutinized to why and how the asset is being replaced.

Once we move into the moderate area of the curve (yellow zone), we can evaluate the vehicle’s condition and determine how long we can defer replacement by extending its useful life cycle. Depending on how a vehicle is being used (e.g. first responder, server duty use, etc.), the Utility may start looking at replacing certain vehicles during this part of the curve.

At some point in the cost curve (red zone), we move to having the highest annual cost of ownership as the vehicle starts to wear out. This is often when we experience a higher frequency of break-downs, which is having a dramatic effect on crew-down time. This is also the point of the curve is where we often see where the total O&M cost has exceeded the original purchase cost of the vehicle.

These curves are built using EWEB specific details and nationally collected data, and along with operating needs and professional judgement, are used to drive decisions about individual vehicle replacements. The same tools are used to determine overall fleet capital and maintenance needs for long term financial planning.

After we determine a vehicle is to be surplus, processes are in place to maximize the resale value. Since we normally dispose our vehicles and equipment through a local municipal-agency surplus auction, maintaining our reputation of selling our assets before there literally run-to-failure is crucial for maintaining future resale values of our surplus equipment. Our current auction process allows local municipal fleets to be able to bid on our surplus vehicles and equipment before they are offered to the public. We find that the majority of our buyers are the smaller municipal fleets that are experiencing budget shortfalls while maintaining a level of service to our community. Because of this process, we have been able to maintain a 15 to 20% salvage value at the time of disposal.

TBL Assessment

When we are replacing our vehicles and equipment, we also look at the environmental and regulatory considerations that have led EWEB to implement “Green Fleet” initiatives. Having a

sustainable fleet replacement program can provide opportunities for the Utility to comply with regulatory emissions and improve the environmental impact of EWEB's fleet, while reducing greenhouse emissions for the community.

Requested Board Action

None at this time.

If you have any questions please contact Rod Price Rod.price@eweb.org or 541-685-7122.