

A Bright Idea: Purchasing Longer-Lasting, Higher Quality Bulbs to Reduce Costs

Environmental and Human Health Impact: New bulbs contain 72 percent less mercury and will reduce Kaiser Permanente's greenhouse gas emissions by 20 percent reduction and universal hazardous waste by 33 percent.

Business Impact: Program-wide purchasing of new standard extra long lasting T8 bulb will yield 23 percent or \$2 million savings in operating costs per year.

Challenge

Due to Kaiser Permanente's regional organizational structure, items purchased for maintenance, repair, and operations (MRO) can become decentralized and more costly than necessary. Items are often purchased at the last minute from a multitude of distributors.

In an attempt to identify savings and standardization opportunities, Procurement & Supply (PS) worked to organize and analyze purchasing trends in various MRO categories. It was discovered that our most common type of bulb is the T8, of which we were purchasing many different varieties. Findings also showed that longer-lasting, higher luminescent quality, and lower energy using T8s would enable Kaiser Permanente to capture deep savings and streamline re-lamping, the process of replacing light bulbs.

Aim/Goal

- To select and gain approval for a single type of T8 bulb that would serve the needs of all facilities, and reduce environmental impact and operational costs.

Team

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Larry Mandel, Facilities Service Director, Northern California
Facility Service Directors, Operational Accountability
National Facilities Services, Strategy Planning and Design
Support Services Assistant Administrators, Fiscal Accountability
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Actions Taken

- ✓ PS performed a life cycle analysis for T8 bulbs, from purchase to end-of-life, to uncover disposal, energy, and installation costs as well light quality differentials and climate change factors.
- ✓ A total cost of ownership model that compared an "as-is" cost scenario to a potential future state with alternative bulbs found that the best-in-class bulb would generate a 23 percent annual cost savings over our current purchasing trends.

- ✓ PS convened a team of facility leaders to develop and execute a plan to "sell" the new re-lamping concept to stakeholders.
- ✓ Pilot tests were performed in various facilities to compare lighting quality and output.
- ✓ A distributor was selected that had on-line and on the ground capabilities, with service technicians available to address individual facility needs.

Results



New T8 Alto XLL Bulb:

- 54 percent longer life
- 72 percent less mercury content
- 34 percent cost reduction for disposal
- 7 watts less for same light output

23 percent savings on total annual operating costs

Lessons Learned

- ✓ It is important to evaluate the total cost of ownership for products. In the case of light bulbs, the best light bulb generates cost savings and environmental benefits that far outweigh the nominally higher up-front purchase cost.
- ✓ Obtaining early support from regional and operational leaders is critical to reducing opposition to decisions in a decentralized organization.

Next Steps

- ✓ Continue to spread the adoption of new T8 bulb standards by having regional facilities leaders communicate with their peers and staff.