

Executive Order 12-06 Report

ACHIEVING ENERGY EFFICIENCY IN STATE BUILDINGS

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Agency Name:	Washington Military Department
Agency Point of Contact:	Bernard Jackson
Point of Contact Title:	Energy Manager
Telephone Number:	253-512-7992
E-mail Address:	Bernard.Jackson@mil.wa.gov

Describe benchmarking, metering, audits, and energy retrofits completed by the agency in 2012 through 2016 to meet the requirements of EO 12-06. What percentage of agency owned square footage has been audited (all systems) and all life-cycle cost effective measures installed, since 2012?

Since 2012, Washington Military Department (WMD) has focused its efforts on energy efficiency, waste reduction, and water management. WMD has installed new, efficient HVAC equipment, lighting systems with advanced controls, water aerating fixtures, and low-flow toilets in most of its buildings. EIFS and envelope improvements are on-going as part of the over-all strategy to reduce consumption and heating loads. As part of the planning process a life-cycle cost analysis is performed to ensure the effectiveness of the project. Conservation measures have been set in place since March 2015 whereby the Agency has switched from a 5-8s schedule to the less energy intensive 4-10s. Reports are provided to upper-management on a quarterly basis. This report is review and suggestions for usage adjustments are made to all building managers statewide. Statewide heating and cooling set-points have been adjusted from the federally regulated 70°/74° to a more modest 68°/76°. To ensure all employees are informed of, and comply with, the guidelines, the Energy Manager (with buy-in from the CFMO) has created a booklet with a summary of Army and State Regulations concerning energy and resource conservation and how each pertains the employee's role. New employees are required to attend orientation in which the Energy Manager and Environmental liaison instruct new employees on the proper use of buildings and natural resources. Every building hosts a building manager that is responsible for ensuring that all occupants comply with policies and regulations surrounding water, waste, and energy use/production. WMD performs energy audits on 25% of all facilities every year, or 100% of facilities every four years.

Describe benchmarking, metering, audits, and energy retrofits that the agency plans to implement in the next 5 years to meet the requirements of EO 12-06. What percentage of agency owned square footage will be audited (all systems) and all life-cycle cost effective measured installed, from 2012 – 2022?

WMD has a federal requirement to house a state Energy Manager. This person is responsible for performing ASHRAE level II audits on all facilities every four years. From these audits the Energy Manager generates ECMs that are rolled into the Master Plan for Facilities. Projects from the Master Plan are assessed by staff architects and project managers to ensure feasibility and cost-effectiveness. Projects are projected 5 years out and then placed into an online database which is reviewed on a regular basis. Projects that are in the database now include a statewide lighting project, generator installation and upgrade, EIFS for buildings with low-level wall insulation, an advanced metering system, and upgraded HVAC controls to name a few. Buildings are constantly being retro-commissioned to ensure equipment is running at its best. Waste, energy, and water

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(surface, sewer, irrigation and potable) are monitored on a daily basis for all 2 million plus square feet of facility across Washington. Regular reports will be handed up to command to inform upper-management of the progress we are making towards achieving EO 12-06 and other state and federal goals. New buildings will be benchmarked in Portfolio Manager as they come online.

Describe how the agency used Energy Star Portfolio Manager benchmarking in lease negotiations for new or renewed leases in 2012 – 2016, and how benchmarking will be used in future leased negotiations:

WMD currently uses Energy Center to track, analyze, and review utility usage. This information is aggregated to perform lease negotiations. All of this data is top loaded into Portfolio Manager and can be accessed by city officials to ensure compliance with a city's energy code ordinance. The lower energy cost is used in negotiating lease renewals for our tenants and for our leased sites. Since the data in Portfolio Manager is public information tenants can request access to Portfolio Manager and view usage/cost data without the trouble of requesting access via the utility. At our recruiting station locations, invoices are sent directly to the landlord. This presents a problem when it comes time to reconcile billings, aggregate energy, waste, and water data for reporting purposes. Landlords, often times, must search for the invoices, and send them to WMD which may take several weeks. Though we have not been able to secure buy-in from our landlords, one way we could solve this issue using Portfolio Manager would be to have the landlord upload utility data via PM. In this way, once the information has been uploaded, the Energy Manager and Contract specialist can see and work with the information nearly instantaneously.

Describe actions that will be taken in 2017 to save energy through operational changes and continuous monitoring using Portfolio Manager. Describe how you will engage occupants and staff to reduce energy use in the next 5 years:

The Energy Manager will continue to monitor progress and savings from implementing the 4-10s schedule. Portfolio Manager will be used to calculate EUIs and track building performances. WMD intends to continue with its implementation of lower/higher set points for all buildings, the 4-10 schedule shift, and new employee training. The Energy Manager will continue to track usage and adjust behaviors using Portfolio Manager and Energy Center. Over the next 5 years, the Agency intends to perform energy competitions and campus-wide, informational events to bring awareness to conservation issues, and change wasteful behavior. Initial conversations have determined that it may be wise to disseminate building status/information through via Portfolio Manager since the EUIs are generated automatically.

Attachment:

A - Agency Progress in Implementing EO 12-06 (by building)

Resources:

Go to the DES Portfolio Manager webpage for a link to EO 12-06, previous reports, RCWs, EPA resources and training, Step by Step Instructions, and Frequently Asked Questions at <http://des.wa.gov/services/facilities-leasing/energy-program/energy-star-portfolio-manager>

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