

Resource Conservation Manager Program: Shared RCMs Showcase Savings in Washington State

Shared RCM Program

The Shared RCM Program developed by the Washington State University (WSU) Extension Energy Program in cooperation with the Washington State Department of Commerce was started to help public facilities reduce energy and resource use, save money, and establish strategies to enhance energy efficiency in the long-term.

Many local governments would like to have a resource conservation management program but may not feel that they can support a Resource Conservation Manager (RCM) position. The Shared RCM Program was developed to address this need.

With funds from the American Recovery and Reinvestment Act, this program helped create Shared RCM positions in seven locales across Washington. An existing program in Skagit County, which has also received assistance from the Shared RCM Program, is helping the other locales with the benefit of their experience.

The 39 public agencies in these locales – including cities, counties, public school districts, and ports – teamed up to address their mutual commitment to save energy and resources.

Shared RCMs are solving problems, saving money and freeing up staff time

Washington State's Shared RCMs have been busy assessing, tracking and analyzing the resources used in facilities that are owned and operated by these public agencies. The program is still young, but the Shared RCMs have already helped the agencies in these partnerships reduce energy and water use, solid waste expenses, waste and pollution.

These measures save money and free up time so facilities' staff can focus on preventive maintenance and other tasks that keep the facilities safe and comfortable.

Shared RCMs are always looking for ways to:

- **Reduce energy, water and waste disposal costs**
Low-cost projects and operational changes can reduce resource costs by 10 percent or more. Some of the funds that once went to pay for energy, garbage disposal, water and sewer can be redirected to deferred maintenance programs, capital projects, the RCM's salary and other needs.



Equipped with energy usage interval data recorded at the Burlington Public Library, Ric Boge – Shared RCM for nine agencies in Skagit County – spotted a spike in energy use that occurred at 4 a.m. every day. This spike caused high demand charges, which are expensive.

When the facility manager scaled back early morning startup of the library's heating and cooling systems, demand charges dropped, usage dropped and the library saved about \$2,300 in one year.

- **Itemize and track resource use in all areas of an organization**

Using resource accounting software, Shared RCMs analyze billing data to identify billing errors, select better rate schedules, track down inefficient equipment, locate hidden water leaks, and institute efficient operational procedures.

- **Stimulate interest in resource conservation among facility staff and occupants**

Efficiency thrives on good communication. Shared RCMs work to heighten resource conservation awareness among operations staff, management and occupants of a facility. This often includes promoting policies about resource use, developing recognition programs that encourage resource-saving actions and supporting teams that help implement the conservation plan.

- **Identify capital projects that will help save even more**

Shared RCMs identify cost-effective capital projects through resource tracking, facility audits and a good understanding of each facility's operations. By calculating anticipated savings in advance of these improvements, Shared RCMs can also help simplify budget forecasting.

- **Demonstrate responsible resource use**

As budgets get tighter, Shared RCMs have a crucial role in showing stakeholders that they are getting a great return on their investment. By

documenting the progress of efficiency efforts, Shared RCMs demonstrate that an organization is carefully – and successfully – managing public resources.

- **Create, update and implement resource conservation plans**

The resource conservation plans developed by Shared RCMs are living documents that are reviewed and adjusted regularly so that they closely match real conditions. Cultivating relationships with facility operators and maintenance staff is crucial; a resource conservation plan will not work without the support and expertise of these staff.

Shared RCMs also:

- Keep managers in each of the partnerships' agencies informed,
- Provide staff training so everybody knows how their actions affect resource conservation, and
- Make sure each facility is poised to take advantage of the tools, services and funding available to support resource conservation.



Brian Goldstein (on right) working with Russ Hendricks, facilities manager at Fort Worden State Park.

Brian Goldstein, Shared RCM for five agencies in Jefferson County, used data loggers to measure the temperature in rental houses at Fort Worden. The furnaces were turned on at midnight so the houses would be warm by the 3 p.m. check-in time. Using the data loggers, Brian found that it took only 8 hours – not 15 hours – to warm the houses.

By starting the furnaces at 6 a.m. instead of midnight, staff found that they could dramatically reduce energy use without compromising the comfort of the occupants.

Shared RCMs rely on support from managers

A resource conservation program will succeed only if agency managers support it. By backing a strong policy that outlines program goals and highlights management's commitment, managers shepherd RCM efforts through administrative channels. When staff sees management's support of the program, they know that resource conservation is an integral part of their daily operations.

Sustained effort is necessary to maintain and grow savings

Washington's Shared RCMs are already reporting savings after only about a year on the job. Shared RCMs pick the low-hanging fruit first then look for more ways to conserve resources and sustain the savings that have already been achieved. The Shared RCM's role continues to evolve as new staff is hired, building uses change and technology improves.

To maintain a resource conservation program, Shared RCMs must continue to:

- Monitor resource conservation program components to make sure facilities are operating as efficiently and cost-effectively as possible.
- Look for opportunities to replace inefficient equipment so savings continue to grow. Rebates and incentives are available, but someone needs to keep these opportunities in focus so public agencies can benefit from them.
- Promote the program and renew encouragement and training programs so that everyone is on board to help meet resource conservation goals.

Without this minimum level of effort, the efficiencies gained by the Shared RCM Program could easily be lost as staff reverts to the old way of doing things, energy use goes back up, and resource conservation drops from view.

For more information

For more information about the Shared RCM Program, see the WSU Extension Energy Program's RCM Network website: <http://www.energy.wsu.edu/PublicFacilitiesSupport/ResourceConservation.aspx> or contact Karen Messmer, messmerk@energy.wsu.edu, at (360) 956-2000.

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During a walkthrough of a 1980s-era elementary school in Bonney Lake, Jay Donnaway – Shared RCM for four agencies in Pierce County – heard the urinals flushing as he approached the restrooms even though nobody was using the facilities. When the school was built, the urinals were programmed to flush automatically every few minutes all day, all night, all year!

To remedy this, Jay worked with school staff to program the flushing mechanism so it is in sync with the school schedule and does not keep flushing when the building is unoccupied.

Jay calculated that the urinals were flushing unnecessarily for 5,610 hours per year, wasting 201,960 gallons of water per year and incurring costly sewer charges. In addition to eliminating unnecessary wear on the equipment, the school district now has an extra \$1,162 per year to spend on more important things.

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Brian Goldstein, Shared RCM for five agencies in Jefferson County, learned that the Chimacum School District's computer-based control system was normally managed by a contractor, who had not entered the holiday schedules in the system.

Using Energy Interval Service (provided by Puget Sound Energy), Brian noticed that the contractor did not reduce the heating at the middle school and high school over winter break, so he recommended that the contractor train the operations staff on how to enter holidays into the control system. Now the staff has added holidays to the schedule, beginning with spring break in March 2011.

The impact was immediate. By adjusting the building heating schedules, the school district saved 4,200 kWh per day – or \$400 per day – totaling \$2,000 saved during spring break week!

Now that the operations staff is adjusting the heating schedule for all of the school-year vacations, Brian estimates that the school district will save \$9,600 per year.

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