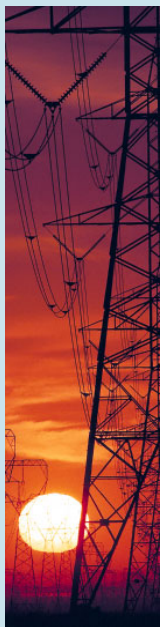
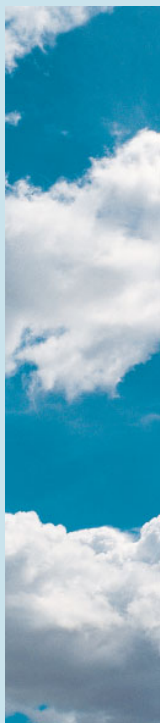


Resource Conservation Management



This effort to promote the use of Resource Conservation Management practices is brought to you by:



OREGON
DEPARTMENT OF
ENERGY

COOPERATIVE EXTENSION
WASHINGTON STATE UNIVERSITY
ENERGY PROGRAM

RCM

Resource Conservation Management

WHAT IS RCM?

Resource Conservation Management (RCM) is a management tool that gives you more control over the operating costs of your facilities. It helps you to reduce operating costs, increase efficiency, prepare for deregulated energy purchases and promote environmentally friendly and sustainable operations.

An RCM program is a well-coordinated effort to manage the resources and services used, and the waste generated, by your facilities. It involves careful tracking of resources and attention to operational efficiency. The program focuses on occupant comfort, cost-effectiveness and assuring that equipment is used only when needed. Operational savings are gained through organization, analysis and communication.

With a comprehensive RCM program in place, you can expect to see quantifiable results in the first one to six months. Most RCM programs achieve 10 to 15 percent savings on utility bills after the first year – depending on the number of facilities involved and level of management commitment.


RCM strategies have been used in industry and large corporations for many years. As markets become more competitive and public-

sector budgets shrink, RCM programs are cropping up in many organizations – both large and small.

More than 40 Resource Conservation Managers in Oregon, Washington and Idaho are already gathering savings in schools and government facilities. This booklet shows how you, too, can begin reaping the benefits of Resource Conservation Management.

WHAT ARE THE BENEFITS OF AN RCM PROGRAM?

Resource Conservation Management can offer your organization numerous benefits, both in the short- and long-term. A successful RCM program will:



A school district discovered that a middle school athletic field was being billed for enough irrigation to submerge it under 40 feet of water each year. The Resource Conservation Manager was able to get the error corrected and negotiated a refund, too.

Reduce energy, water and solid waste costs through low- or no-cost measures

The RCM program will save money for your organization. Operations changes and low-cost projects resulting from resource conservation management have proven to reduce resource costs

10 to 15 percent. Some of the funds that once went to pay for garbage disposal, energy, water and sewer can be redirected to deferred maintenance projects, capital projects, efficiency incentive programs and other needs.

Track resource use, costs and revenues promptly

A primary responsibility of the Resource Conservation Manager is to itemize and track resource use in all aspects of your organization. Using resource accounting software, your Resource Conservation Manager can analyze billing data to identify billing errors, select better rate schedules, track down inefficient equipment, locate hidden water leaks and institute efficient operational procedures. Once established, resource accounting can also be used to set savings goals for your organization and forecast resource budgets.

The Resource Conservation Manager for a small school district saved hundreds of dollars annually by establishing a total-building shutdown policy for vacations and holidays.



Stimulate resource efficiency interest among staff and occupants

Efficiency thrives on good communication. Resource Conservation Managers use proven in-house communication and education strategies to heighten efficiency awareness among operations staff, management and occupants.

Identify cost-effective and efficient capital projects

Through resource tracking, facility audits and gaining a good understanding of each facility's operations, a Resource Conservation Manager can help to identify cost-effective capital projects. RCM can also simplify your budget forecasting because anticipated savings can be calculated in advance and documented during post-project operations.

Prepare for purchasing electricity and gas in the deregulated energy market

Low-cost deregulated purchases of gas and electricity will be options for organizations that understand their operating

characteristics and load demands. Resource tracking and RCM-directed efficiency efforts will help position your organization to take advantage of the economies of the deregulated energy market.



The Resource Conservation Manager for a city government learned that the city was unknowingly paying for water being used by a non-city organization.

Demonstrate responsible resource use to the public

Almost everyone can use some good public relations.

When budgets get tight, show your constituents some examples of how your organization is carefully and successfully managing resources efficiently. Resource tracking will document the progress of your efficiency efforts. You can show how the improvements benefit the general public, too.

Leverage human resources

Utilities, local government services, state government and federal agencies all have tools, services and, in some cases, funding that can be used in your RCM program efforts.

WHAT IS REQUIRED FOR AN EFFECTIVE RCM PROGRAM?

As RCM programs have evolved, some key elements for success have revealed themselves. The applicability of these elements varies according to the need and culture of the particular organization. The following should be considered flexible, but significant.

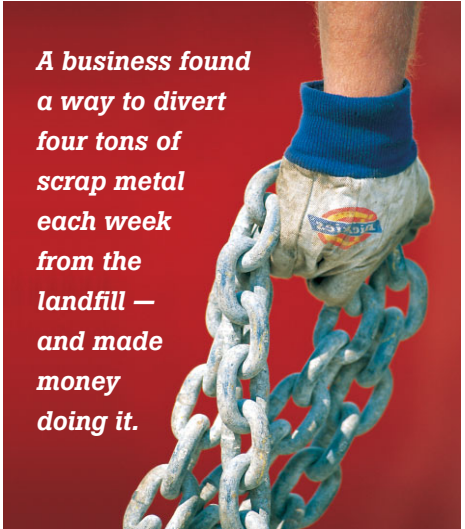
Management Commitment

The willingness of management to invest in and persevere with an RCM program is vital to its success. Commitment may be shown in a policy statement and implementation plan supporting the goals and strategies for the program (See samples on pages 17-8). The policy should be combined with a management “champion” who shepherds the Resource Conservation Manager’s efforts through administrative channels.

Resource Conservation Manager

A qualified Resource Conservation Manager is self-motivated and a good organizer and communicator. Knowledge of your organization and broad credibility increase the Resource Conservation Manager’s effectiveness. Successful Resource Conservation Managers include engineers, teachers, administrators, maintenance staff, lead custodians or consultants. Above all, the

A business found a way to divert four tons of scrap metal each week from the landfill — and made money doing it.



Resource Conservation Manager should be observant, thoughtful and have the ability to communicate effectively.

The Resource Conservation Manager needs adequate tools and a structure to work within. These may include:

- An explicit schedule and authority for doing RCM tasks
- A computer to write reports, build spreadsheets and operate resource accounting software
- Communications tools including telephone and internet and/or e-mail access
- Access to tools for measuring performance of facility systems
- Freedom to move throughout all buildings
- Access to billing records and building architectural plans

COMMON CHARACTERISTICS OF A SUCCESSFUL RCM PROGRAM

- Strong policy outlining RCM goals and responsibilities and highlighting management commitment
- Qualified person, properly equipped to act as the Resource Conservation Manager
- An administrator or manager who helps navigate the RCM program through policy/management channels – a “champion” for the program
- Buy-in support by facilities and maintenance staff and occupants
- A recognition program with awards for occupants and staff who contribute the most
- Patience by all – to allow the work to be done correctly and consistently

Clear task assignments and time allocations are no less important for a Resource Conservation Manager than for any other staff in your organization. The Resource Conservation Manager's responsibility, especially during the first year, is enormous, and the need for the freedom and the tools to fulfill the goals is critical.

A sample classified ad and description of responsibilities for a Resource Conservation Manager can be drawn from the example on pages 14–15.

Custodian and Maintenance Staff Involvement

The RCM program cannot succeed without custodian and maintenance staff involvement. The value of their presence and experience cannot be overstated. Allocating a share of the savings to be used for deferred maintenance projects, tools and training is one good way to give them a stake in the program's success.

Recognition of Achievements



It's amazing to see what people will do for a \$5 coffee mug that they won't do for a \$5 bill. The difference is that it's not just a mug, but an award for good work. The Resource Conservation Manager should work with management to establish a recognition program to reward good savings and results. When presented with appropriate fanfare, such awards are powerful motivators. Another powerful incentive is to share a portion of the savings with those responsible for achieving them.

and . . . Patience

All good things come to those who wait. Sufficient preparation, organization and research are fundamental to a successful start. As

preparation phases into action, savings become possible. Depending on the size of your facilities and your commitment to the RCM program, preparation could take anywhere from one to six months. After that, you can begin to reap the rewards.

HOW LONG WILL IT TAKE?

A full-time Resource Conservation Manager will stay plenty busy for two years in an organization that spends \$1 million/year on utility costs. That level of involvement may decline naturally after the resource accounting system is fully operational, facility audits and reports are completed and facility operating guidelines are instituted. Capital efficiency projects could be scheduled beyond the two-year period.



After three years or so, the Resource Conservation Manager's workload may reduce significantly. By then, the work will consist of data entry and analysis, periodic routine reports, facility surveys, and training/education refreshers. On-going occupant and management feedback is crucial throughout the life of the RCM program, as is recognition for continued or maintained improvements.

WHAT WILL IT COST?

The annual salary of a full-time Resource Conservation Manager can range from \$35,000 to \$75,000, depending on experience and qualifications. Experience shows that the salary can be paid for by the first year's savings. By the end of the second year, savings will likely approach two to three times the cost of the RCM program.

After that, savings can be maintained with limited involvement, freeing your budget of avoidable resource expenditures.

Additional costs include:

- Resource accounting software – \$500-\$4,000 (depending on your organization’s size and complexity)
- Computer and printer – \$2,000
- Light meter and miscellaneous tools – \$300
- Incentives and recognition
- Staff training

WHAT IS NEEDED TO SUSTAIN THE RCM PROGRAM?

A sustained effort will maintain savings and the viability of the program. At a minimum, a sustained program should include:

- Consistent tracking and analysis of resource consumption and services
- Monitoring deregulated energy purchases and facility operations
- Monthly/quarterly monitoring of program components (recycling efforts and facility surveys)
- Semi-annual or annual awareness training for facility operators and occupants
- Promotion and communication of program status (newsletters, bulletin boards, presentations, reports to facility operators and administrators)
- Recognition of efforts (awards, certificates of achievement, acknowledgment in newsletters, etc.)

Without this minimum level of effort, the efficiencies gained by the RCM program could soon be lost. Changes in key personnel as well as reorganization or changes in management can also greatly impact an RCM program.

You will find that a successful RCM program will eventually evolve into simply maintaining the savings. It's a lot like riding a bike – a little work at first, with big rewards once you get going.

WHAT IS THE NEXT STEP?

For more information, contact your state's RCM program coordinator at:

Oregon Department of Energy
625 Marion Street NE, Salem, OR 97301-3737
www.energy.state.or.us
1-800-221-8035 • (503) 378-4040

Washington State University Energy Program
925 Plum St. SE, Bldg. 4, Olympia, WA 98504-3165
www.energy.wsu.edu • 1-360-956-2000 •

We will answer any questions you may have, help get you started, identify the potential opportunities in your facilities, support your hiring process and assist your RCM program throughout its life.

We offer, in part:

- Presentations to interested groups
- Program and technical support
- Comprehensive RCM guidebook
- Quarterly RCM network meetings
- Leadership experience

RCM
DOCUMENT
SAMPLES

CLASSIFIED POSITION OPEN

[Release date] Position closes [date] or until filled

POSITION: Resource Conservation Manager

LOCATION: Administrative Center

HOURS: 40 Hrs/Wk

ENTRY LEVEL SALARY: Depends on Qualifications and Experience

POSITION OVERVIEW: Under the general direction of the [executive office] the Resource Conservation Manager will:

- Develop and implement resource conservation programs;
- Monitor and report resource use at each district facility;
- Promote a strong resource conservation ethic within [organization] and the community;
- Provide appropriate training; and
- Coordinate/communicate with [organization].

QUALIFICATIONS:

- Experience in business, education or technical fields
- Strong interest in operational resource management
- Experience coordinating and conducting workshop presentations
- Strong interpersonal communication skills, flexibility and creativity
- Computer and analysis skills

PERFORMANCE RESPONSIBILITIES:

- I. Monitor and report resource use habits and trends:
 - Establish a resource accounting database using compatible software
 - Coordinate with the facility operator to identify conservation opportunities
 - Complete walk-through surveys of each facility during and after normal operating hours using standardized survey forms
- II. Report base year consumption data to management and building staff. Direct development and implementation of Resource Conservation Management plans.
- III. Prepare monthly status reports that include an assessment of conservation savings for review by management, building staff and occupants.
- IV. Coordinate with management to provide resource efficiency information and training for all staff and occupants through such means as newsletters, presentations and workshops.
- V. Develop a recognition program that encourages actions toward savings goals and provides financial rewards for each building when goals are met.
- VI. Coordinate with interested staff to develop conservation teams to assist with implementation of RCM program initiatives in their building.
- VII. Work closely with representatives of local utilities.

RESOURCE CONSERVATION MANAGEMENT PROGRAM IMPLEMENTATION PLAN

Task 1. Gain top-level management commitment and support

- Establish a Resource Conservation Management policy
- Prepare a shared savings plan

Task 2. Contact utility reps (water, gas and electric)

- Review incentive program offerings and rate schedules

Task 3. Organize resource accounting data

- Select resource accounting software
- Input billing data and analyze for billing errors and anomalies
- Establish base year consumption for each facility
- Determine facilities with greatest savings potential

Task 4. Contact recyclers and county recycling coordinators

- Determine what can be recycled and prices paid

Task 5. Cultivate the support of facility operations and maintenance staff

- Arrange introductory meetings
- Develop facility operation guidelines through a brainstorm process with staff
- Schedule periodic meetings to help with program implementation

Task 6. Develop RCM teams.

- Establish RCM teams (kitchen, maintenance, and grounds staff, occupants and management)
- Use teams to develop and implement facility operations guidelines and other activities

Task 7. Conduct resource conservation audits of facilities

- Target facilities with greatest savings potential
- Perform pre-audit interviews with facility operators
- Perform audits and develop a recommendations report

Task 8. Provide training for all staff

- Provide resource conservation awareness training to all staff

Task 9. Set facility-specific goals

- Set new goals annually based on audits performed and the resource accounting data

Task 10. Develop and conduct facility efficiency surveys

- Check operation of the facility during normal operation, in the evening of an operation day during cleanup (partial setback), and during a weekend or holiday period (total setback)

Task 11. Provide incentives and recognition

- Establish methods of recognition (awards, newsletter announcements, etc.)

Task 12. Communicate program status

- Develop strategies to involve and inform the public and staff to keep the program visible
- Provide monthly or quarterly reports to facility operators, administrators and others

**RESOLUTION OF COMMITMENT
IN SUPPORT OF A RESOURCE
CONSERVATION PROGRAM**

Whereas, the _____ Governing Board recognizes the responsibility of the District to reduce the waste of energy and other resources to as low a level as possible with a focus on occupant comfort, cost effectiveness, and assuring that equipment is used only as needed without compromising the basic mission of the District; and

Whereas, the Board desires to help students, staff and members of the community understand the need for the wise use of resources and recycling; to promote an understanding of the relationship between resource conservation program efforts and the quality of our environment; and

Whereas, the Board recognizes that a portion of the funds saved as a result of a resource conservation program should be reallocated to further support such efforts and the remainder can be used in support of other District needs; and

Whereas, the Board recognizes that resource conservation programs are best accomplished when resource conservation management is coordinated with education and training.

Sample School RCM Policy

Now, therefore, be it resolved that the Board allocate sufficient resources to implement a program of effective Resource Conservation Management and education. That the Superintendent be directed to formulate and maintain a District Resource Conservation Management Plan that includes resource reduction and recycling goals, a strategy to increase resource conservation, enhance recycling awareness among staff, teachers and students, and development of a shared savings plan. Develop procedures to conserve resources and increase recycling, and initiate and maintain a system to monitor resource consumption and recycling. Progress in carrying out this plan shall be reported to the Board at least on an annual basis.

PASSED AND ADOPTED

by the Governing Board of the _____ School District of _____ County, Oregon on _____.

AYE's: _____ NO's: _____ ABSENT:

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