Activity-Based Costing: It’s as Simple as ABC

by Kathy Jesperson
NDWC Staff Writer

Providing the highest quality product and service at the lowest possible price has always been important in the water and wastewater industries. But, in these days of budget crunching, water and wastewater utilities are finding themselves raising rates to pay for regulatory compliance, infrastructure repair, and other essentials—all much to the dismay of their customers, note John L. Eggers and Charles E. Bangert, Jr., financial consultants, in a *Journal of the American Water Works Association* article, “Activity-Based Costing.”

Utility managers know that raising rates is a direct reflection of business operating costs, write Eggers and Bangert. But how much does it really cost to run one of these utilities? Calculating equipment, labor, and supply expenses doesn’t always add up to the actual operational costs. Somehow, there’s still money going out the window.

**ABC Calculates True Costs**

One way to calculate the operating costs is through Activity-Based Costing (ABC), which focuses on the activities associated with running a business. According to Becky Land, sales executive with ABC Technologies, “ABC is more than an accounting tool.”

She says that this technique was originally developed in the manufacturing industry as a tool to calculate the final price of a product. “More than just materials and labor were considered,” says Land. “Overhead and all the activities that went into creating the product were part of the equation.”

“Just as in the water and wastewater industry, there’s more to creating the final product than occupying a building, hiring some employees, and siphoning some water,” says Brad Akright, president of the Akright and Company, Inc. in Olathe, Kansas. “All of the activities that go into bringing water to the system, purifying it, and getting it to its final destination are considered.”

Akright says that utilities can use ABC to calculate the cost of activities, such as installing distribution lines and using treatment techniques, to determine their true cost. “When a crew goes out to install a pipeline, the use of the truck, the backhoe, materials, and labor are all calculated,” he continues. “Measuring what goes into a particular activity gives everyone in the company a better understanding of what the true costs are.”

**Begin By Tracking**

ABC begins by tracking activities. “For example, work orders usually start with a phone call to the office, and can be tracked through to when workers complete the job,” notes Tony Mounts, strategic planning manager, Gresham, Oregon. Each department or division has its own financial records of the completed job. But because of the activities they performed, the true cost is shared by everyone.

“Identifying the resources that are used in each activity, such as labor cost, equipment, and materials, helps determine the cost of each activity,” note Eggers and Bangert. For example, reading meters may require:

- labor, including salary and fringe benefits;
- equipment, including the lease or depreciation costs of the meter reader’s transportation and any recording devices; and
- materials, including the cost of vehicle fuel and other expendable items.

“Next you look at what drives the activity,” says Land. Activity drivers are simply the reason the activity was done, which includes customer requests, purchase orders, work orders, or complaints.

“Once the product costs are determined, then management can act to improve processes and attain better performance, enhanced quality, and reduced costs,” write Eggers and Bangert. They also claim that ABC focuses on the actual activities on which money is spent rather than just how much money was spent, which is typical of traditional accounting methods.

Eggers and Bangert report in their *Journal AWWA* article that ABC can help utility managers:

- contain rate increases because all of their service activities will be far more efficient;
- stave off competitors through better in-house performance; and
- improve customer perceptions of cost, quality, and timeliness with cleaner, leaner processes that yield better results, faster and more economically.

**Measuring Competitiveness**

But just figuring the costs isn’t the only the reason to use ABC. “A lot of water and wastewater utilities are feeling the pressure of privatization,” Mounts observes. “And that sparks a competitiveness that these utilities may not have experienced before.”

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Because of this, drinking water and waste-water systems can use ABC as a part of a cost management strategy to become more efficient. “Using ABC can help a drinking water or waste-water system reduce its costs so it can be more competitive,” says Mounts.

For more information about Activity-Based Costing, the following sources are recommended:

- The ABC Technologies Web site at: http://www.abctech.com/ includes an on-line newsletter, links to experts who offer advice about ABC, and a library of information about ABC. Or call ABC Technologies at (800) 882-3141 for more information.

- University of Pittsburgh instructor Narcyz Roztocki’s homepage http://www.pit.edu/~narst8 includes a printable slide presentation about ABC. Or write Narcyz Roztocki, University of Pittsburgh, 1065 Benedum Hall, Pittsburgh, PA 15261.

- http://www.dtic.mil/c3i/bprcd/mltc002.htm Provides a bibliography of articles about ABC.


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Treatment Technologies Database Now

Online

The National Drinking Water Clearinghouse (NDWC) recently launched an online version of its popular drinking water treatment technologies database.

Known as the Registry of Equipment Suppliers of Treatment Technologies for Small Systems, or RESULTS 3.0, the database is a handy tool for small communities to use when considering different technologies for replacement or upgrade of current treatment systems.

“The database was designed to tackle one of the biggest problems facing small drinking water systems—lack of information regarding treatment alternatives,” said Sanjay Saxena, director of the NDWC. “This free reference tool helps decision makers learn about treatment methods used by other communities so they can make informed decisions about their own technologies.”

Community officials, state regulators, consulting engineers, and others can log on to the database to learn about treatment technologies used by other drinking water plants.

“RESULTS offers valuable first-step information for state design review engineers, small system owners and operators, and others exploring appropriate technologies for their particular water problems,” Saxena added. “Systems that have used specific treatment methods are often the best source of information for others and RESULTS provides those contacts.”

More than 1,000 sites are listed from across the U.S. and Canada, so users are sure to find a site that treats for the same contaminant. Entries include general information about each small system’s technology and its supplier or manufacturers, as well as system contacts.

To search the RESULTS database, log on to the NDWC Web site located at http://www.ndwc.wvu.edu. Diskette versions are also available for those without Web access. The Mac version is

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RCAP Names New Director

The Board of Directors of the national Rural Community Assistance Program (RCAP) is proud to announce the appointment of its new executive director, Randolph A. Adams, Ph.D.

RCAP’s national office is located in Leesburg, Virginia, and there are regional RCAPs with field staff in 49 states, Puerto Rico, and the Virgin Islands. The mission of the national and regional RCAPs is to improve the quality of life of rural people in the U.S. by providing and facilitating rural community development services. RCAP’s services include: potable water systems, wastewater treatment systems, solid waste management, low cost housing, micro and small business development, and environmental justice with a particular emphasis on community capacity building. Work is done in communities with 10,000 or fewer with particular focus on communities with 2,000 or fewer people.

For more information about RCAP’s activities, go to http://www.rcap.org or contact them 722 East Market St., Suite 105, Leesburg, VA 20176. You may also call RCAP at (703) 771-8736 or (888) 321-7227 or contact Adams via e-mail at Randyadams@rcap.org.

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