

Win-Win Deals: How to Use Economies of Scale to Your Small Utility's Advantage

William B. Ziebertz and Mihaela Coopersmith

Managers of small utilities know that they operate at a distinct disadvantage relative to their larger neighbors. The water industry (including both water and wastewater utilities) is highly capital intensive, and large facilities are able to take advantage of economies of scale not available to small systems. Yet, growth is not always possible, nor necessarily desirable, so managers need another way to benefit from these potential benefits. For a utility with nearby utilities potentially able to partner in capacity utilization, the answer may lie in wholesale service, capacity sharing, or consolidation.

This article offers some key factors a manager should consider before cooperating or consolidating with another utility. While each scenario will be unique, the article focuses on some general guidelines to look at when considering cooperation or consolidation, and the benefits of undertaking these steps.

Cooperation and consolidation between

utilities can take many forms. Cooperation can include implementing wholesale contracts between two or more utilities, holding manager roundtables, and forming multi-utility problem-solving teams. Consolidation can include a range of options as well, including single facility consolidation, full and partial utility mergers, and the formation of new entities. There are many in-between alternatives as well, such as forming special-purpose entities to handle a specific purpose or purchasing capacity from a neighboring utility with excess capacity.

Cooperation or consolidation can offer numerous advantages to those undertaking one of these alternatives, such as providing economies of scale, allowing for efficient use of resources. On the other hand, cooperation or consolidation can also have disadvantages, such as a possible loss or reduction of identity and control, inequities in cost sharing, and complexity associated with growth and economic development efforts.

William B. Ziebertz is director of financial consulting services for the civil engineering firm Jacobs/JJG in Atlanta. Mihaela Coopersmith is a financial analyst for Jacobs/JJG in the firm's Charleston, South Carolina, office. This article was presented as a technical paper at the 2009 South Carolina Environmental Conference.

Analyzing an opportunity to consolidate or cooperate with neighboring utilities requires an understanding of each utility's objectives, the proposed organizational structure and associated decision-making authority, and the proposed cost-sharing mechanism. Achieving a "win-win" deal requires that these factors be considered and that the parties jointly understand, appreciate, and receive the mutual benefits available from the partnering arrangement.

Advantages & Disadvantages of Cooperation & Consolidation

Taking advantage of economies of scale can prove very beneficial for small utilities. Smaller utilities do not always have the customer base or financial resources to take advantage of large modernization efforts that are needed to maintain or improve service levels. Similarly, it is not uncommon for smaller utilities to struggle to meet new regulatory requirements or to provide capacity for new customers (regarding the regulatory compliance angle, see Lee and Braden, "Examining Mergers in Small CWSs: The Role of Regulatory Compliance", AWWA Journal, November 2008).

To continue this particular aspect, all water systems are mandated by the Safe Drinking Water Act (SDWA) to meet certain regulatory requirements, and the lack of economies of scale for small utilities is an important reason why these small utilities can have a harder time achieving compliance. Recent studies have focused on the merger between two systems as a possible solution for meeting regulatory compliance, and whether the benefits of one, such as cost savings, can outweigh the potential costs of connecting two or more small systems.

For some utilities, the outcome of a successful merger depends on the physical and political costs of completing a merger, whether the systems are located close to a potential partner,

and whether the systems are located in poor areas that may not be able to afford to invest in infrastructure to reduce SDWA violations.

In general, it is fair to characterize most of the potential advantages as related to cost savings. Many specific forms are possible, including better access to technology, staff, improved tools, or methods, but the common thread is the ability to do the work of the utility at lower cost than would otherwise be possible.

There are two types of potential disadvantages of consolidation or cooperation: costs and everything else. On the cost side, it may be obvious but it is important to say that a consolidated utility or a cooperative deal does not provide a guarantee of a cost benefit. Inefficiencies can occur anywhere, mistakes can be made, conditions can change, and a poor decision can mislead decision makers.

Potential non-cost disadvantages include the political challenges of dealing with neighboring entities, efforts potentially required to manage complex relationships where none previously existed, and potential “psychic” costs associated with a loss of local control related to utility systems and services.

Statistically speaking, it is possible to generalize certain characteristics of utilities that tend to contribute to a potential benefit from a consolidation or partnering effort. In general:

- ◆ Small systems were more likely to be acquired than larger systems.
- ◆ Both monitoring and quality violations existing in a system increase the probability of a merger, as the merger is used as a compliance mechanism by water systems with lower capabilities of providing safe drinking water.
- ◆ Systems that already have interconnected infrastructure can merge at a lower cost than systems that must pay for the infrastructure to be built between the two systems.
- ◆ Publicly owned firms were less likely to merge or be acquired than private ones—perhaps because of the high political costs involved with selling government assets.
- ◆ Rural systems were less likely to merge or be acquired.

The lesson from these observations lies in the interpretation of the reasons for the findings. Small systems simply can't take advantage of economies of scale on their own. Systems that have trouble meeting their regulations are clearly in need of technical and perhaps managerial support. Connected systems have an obvious advantage, and rural systems have an obvious disadvantage.

Structure

Once a decision has been made to examine cooperation or consolidation, further decisions regarding which structure to use, how

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to engage in achieving economies of scale, who will run what, how costs will be shared, and who will have the ultimate authority over decision-making need to be made. Explicit discussions are critical at this point because unstated objectives or concerns have led to the abandonment of many deals late in the process after much investment has been made.

It is very important for both utilities to consider the human resource aspect of the potential relationship, and whether the people on both sides and their talents will be complementary. Technical drivers can carry a relationship only so far; it is ultimately the responsibility of people to find a way to work together and cooperate within the new structure. As a result, it could easily be a better decision for a manager to seek a cooperative program with a moderate-sized entity with strong management than with a larger regional utility with a huge customer base but with inadequate managerial talent.

Many structures can be used to cooperate or consolidate, including:

- ◆ Joint authority – fully staffed
- ◆ Joint agency for contract administration
- ◆ Special purpose company
- ◆ Purchase of capacity
- ◆ Wholesale rate with lease of capacity
- ◆ Cooperative contracts for service

Clearly, some of these options are significantly more expensive to implement than others, and this simple insight can help a manager begin to evaluate potential options. As a general rule, the less complex the partnering agreement is, the faster and less expensive it will be to implement.

Joint Authorities can provide a powerful solution to capacity and cost management problems, if the policy, political, managerial, and institutional environments are right and supportive of the creation of a new entity. Short of the huge investment of time and resources this would require, less complex options potentially could provide similar benefits—and potentially a greater return on the reduced investment required.

The key for a current utility manager is an honest evaluation of the legitimate potential for mutually beneficial agreements. In the absence of hyperbole, “salesmanship,” or game-playing, the manager must develop reasonable and transparent estimates of the potential benefit to his or her existing and future customers.

Engineering estimates should be verified by independent reviewers, and detailed financial estimates should be developed, reviewed, and analyzed carefully. “Rules of thumb” can be of great benefit to managers in some situations, but in this type of evaluation they are potentially dangerous. Generalized estimates of costs per gallon or linear foot, staff members per mgd, and rate revenue per customer are insufficient to support an adequate finan-

cial analysis of any but the simplest options.

Regardless of which structure is chosen, if a new organization is created, it must be guided by a board of directors or commissioners whose members are selected from both entities that form the new structure. Creating a new organization could give the two utilities an opportunity to engage in new programs that were hard to achieve before—including establishing new rates and rate structures. A new entity has the advantage of a “fresh start,” which can avoid old institutional roadblocks that have impeded progress for many years.

Cost Sharing

Decisions regarding cost sharing are fundamental to any evaluation of cooperative or consolidation efforts. Such decisions can overcome other factors in determining whether or not to consolidate or cooperate. Improving customer service, meeting regulatory requirements, taking advantage of technical talent, or just regional cooperation are oft-cited reasons for consolidation or cooperation, but there is virtually no case in which the parties did not expect to benefit from economies of scale.

It is critical that managers are explicit and methodical regarding the allocation of the benefits of the economies of scale being achieved. Logically, each party should benefit according to its contributions to the undertaking, with neither party profiting at the expense of the other. A successful cooperation or consolidation arrangement will treat both utilities entering into the arrangement fairly and establish guidelines to promote ongoing fairness in the future.

The cost allocation decisions should differentiate between capital and O&M costs, as well as reflect the customer classes that will be served by each participating utility. Also, the decisions should anticipate any future capacity expansions and explicitly indicate how the costs of such expansions will be allocated to each utility.

Reserved capacity often is a useful tool for allocating costs and benefits because utility costs frequently are driven by the capacity of the facilities being built or operated. The utility with a need to reserve a larger portion of any jointly owned or operated facilities logically should be charged with a proportionate share of the relevant costs. A utility with little growth potential has no need to invest in excess capacity, and as such, can limit its involvement and purchases to the amounts required to serve the existing customer base.

Capacity utilization is also important, and potential partners should determine whether or not they are similar in this important regard. Utilities with high peaks make less frequent use of the shared resources, so in the absence of capacity charges, they may fail to pay their fair share of the costs of the system in question.

Wholesale contracts or other agreements with a simplistic cost allocation on the basis of flows or sales often fail the equity test in this regard.

All these plans and projections must be made explicit and ultimately must be communicated in the form of pro-forma financial statements for the participating parties. Clearly financial statements are required for any new organization, but even in the case of a cooperative agreement, it is important that the participants understand the projected financial implications for their utilities.

A financial statement is the ultimate tool to express projections of future demands, revenues, operating costs, capital expenditures, debt service requirements, and fund balance requirements. These projections and adjustment factors should be explicit, documented, and public. Board members, employees, potential participants, and the interested public should be able to see for themselves that the projections are reasonable and that they do not rest on unrealistic sales (high) or cost (low) projections.

Summary

Opportunities to consolidate and cooperate are many and diverse. These opportunities can lead to substantial savings if the supporting logic is sound. Economies of scale can be obtained through the creation of new entities or sometimes through the establishment of contracts for service. The economies of scale can help small utilities provide safe drinking water, and meet all the demands places on their system. A cooperation or consolidation arrangement can help a small utility achieve economies of scale that might otherwise have been unattainable.

The best organizational structure is not the same in every case, and every option from full-scale consolidation to deliberate communication and cooperation can be appropriate in some circumstances. Managers must analyze any opportunity with care and should pay particular attention to future cost allocation plans of any alliance opportunity.

Utility managers should bear in mind that achieving economies of scale through cooperation or consolidation can be very powerful, and can change both utilities involved. A weak utility could be in a position of losing talent to a regional entity or to neighboring utilities, just as a strong utility can gain in a multitude of ways.

Any nontrivial interaction with neighboring utilities is an opportunity to learn new techniques to improve organizational effectiveness. For a manager, the bottom line is that cooperation and consolidation with neighboring utilities can broaden horizons, enlighten staff members, and provide cost savings to support future success. When properly crafted, all consolidation efforts or cooperative agreements should result in win-win opportunities for all parties involved. ◊