

## **Submetering: Controlling Expenses and Promoting Conservation** by Mark Jarman

We all know multifamily property owners are business people driven by the bottom line, and you are unlikely to adopt new technologies in your communities without a tangible benefit to your books. The practice of submetering or transferring variable utility costs to individual residents is a proven, reliable and cost-effective way to increase profitability and encourage conservation at multifamily communities.

Submetering is an investment that's generally considered an easy decision because the technology typically pays for itself within five to nine months. For a 250 unit community, a water submetering system would put an average of more than \$5,000 back on the books every month.

As the cost of water continues to rise, implementing a wireless submetering system to recover utility costs becomes a simple way to recoup these ongoing expenses. Future rate increases are inevitable. In fact, majority state utilities across the country are calling for rate increases due to supply shortages and to improve on antiquated infrastructures. In addition to the financial benefits, submetering also encourages water conservation, which is a very hot topic in the United States. Submetering accurately captures each unit's monthly water consumption and residents are billed according to their use.

Residents become much more responsible for their own consumption when they know a bill is going to arrive at the end of the month. Submetering technology can even help owners conserve water by identifying leaks, which according to the American Water Works Association (AWWA) account for 15 percent of indoor water consumption. By pinpointing and fixing these leaks, owners can effectively reduce wasted water and prevent future water damage.

In recent years, most states have adopted and implemented water conservation programs to reduce water use. Submetering at multifamily communities can contribute to the overall reduction of water use in the United States. In the National Multiple Family Submetering and Allocation Billing Program Study, submetering was found to achieve water savings of 15.3% compared to properties at which owners did not separately bill residents for individual water usage.

Aside from the obvious return on investment and conservation benefits, there are growing trends that support a broader implementation of submetering than ever before. Wireless networks, integrated technology and the adaptability of technology all build on the value of a submetering installation.

Wireless networks are everywhere, in our homes, at our workplaces and even in our coffee shops. The proliferation of wireless is for good reason: compared to wired networks they are easier to install which equates to a smaller initial investment and less disruption to residents. The systems are also exceptionally reliable and easy to maintain effectively reducing service costs.

Although this radio frequency (RF) technology differs from Wi-Fi or cellular networks, the fundamentals of the solution and the benefits it delivers are similar. This rapidly growing class of technology, which uses wireless sensors, is creating cost-effective solutions for numerous applications in various industries including the multifamily marketplace.

#### Emerging Submetering Trends

The multifamily marketplace is witnessing the emergence of multiple applications on the same wireless platform. Submetering is often the first application to leverage this type of wireless network because installation is simple and there is an immediate return on investment. Once a wireless submetering network is installed at a property, there is an entire host of other cost-effective applications an owner can integrate into the system. The availability of emerging energy and water conservation tools such as vacant-apartment temperature sensors, humidity sensors and common-area security monitoring, increase a property's efficiency and profitability.

With the increase functionality of the wireless network, in the near future owners will also be able to offer resident retention amenities such as in-unit security. As more residents choose not to establish standard telephone lines in their unit, wireless networks make it possible to utilize a phone line operated by the property to call a central monitoring station to report alarms onsite. These are amenities that otherwise would be difficult and costly to install, but when these applications operate on a single wireless network, owners can leverage the initial investment helping to boost the overall ROI. Keeping up with technological advances has traditionally been expensive due to reoccurring installation costs for systems built on different platforms. One way to reduce these costs is by investing in a single infrastructure that makes plugging in other technologies more affordable and with greater ease. Wireless is the only technology that makes it possible to utilize an existing infrastructure to add other "plug and play" amenities.

When an owner invests in a wireless technology infrastructure, it shouldn't be limited to one application that requires stand-alone infrastructure. Wireless submetering typically pays for itself and the entire wireless infrastructure in approximately nine months, depending on the cost of water. So it only makes sense that other technologies such as security get piggybacked on a wireless network originally installed for submetering. By leveraging a system that is capable of operating multiple applications on a single network, owners can more easily define each application's ROI and offer a variety of resident amenities cost effectively.

Submetering alone is enticing to owners for the mere facts that you accurately and fairly capturing the cost of your residents' water use while encouraging conservation. But, with the enhancements and cost-effectiveness of a wireless submetering installation, combined with the added benefit of affordable resident-retention applications and the "future-proofing" of your community, submetering at multifamily communities is truly an easy decision.

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