



In The News

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IN DEPTH: RESIDENTIAL REAL ESTATE

New study verifies that submetering results in water conservation

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When it comes to paying the water bill, apartment owners split into two groups. Traditionally, most pay the bill and raise rents to cover the costs. But essentially all new apartment complexes built in Houston for the past several years have been submetered, and a growing number of owners of older complexes are also opting to submeter their properties -- hiring a third-party to bill the residents for an amount tied to their measured consumption.

If the family in 3A uses a lot of water, their bill is higher. If the traveling salesman in 3B uses less, his bill will also be less.

The benefits of submetering are now well documented in a long-awaited study, released in August, that was sponsored in part by the Environmental Protection Agency and a handful of utilities. The study concludes what many apartment owners already know -- that submetering results in significant water conservation -- 15.3 percent on average -- when compared to water consumption where residents pay for water "in-rent."

COSTLY WATER

This, of course, comes as no surprise to apartment managers like Joe Pryzant of Pryzant Management Inc.



SUBMETERING
Wade Smtih

For years, high water consumption was a problem at the Alexander House Apartments, one of five Houston-area apartment communities managed by Pryzant.

A number of factors contributed to Alexander House's high water consumption, including large

units with high occupancy, residents unconcerned with water conservation and a high number of bathrooms and toilets per apartment. Flush mechanisms frequently malfunctioned, and residents rarely reported problems because they weren't paying for water associated with leaky toilets.

Few owners appreciate that a single "running" toilet can easily waste 1,000



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gallons in a single day -- as much water as some apartments use in a month. With approximately 500 toilets at Alexander House, and with water and sewer rates costing approximately \$5 per 1,000 gallons, the situation was spiraling out of control.

Even when the manager or maintenance technician searched door by door for leaks (a time-consuming job for a 234-unit complex), the problems were not always discovered because many leaks were intermittent.

In 2001, Alexander House's water bill averaged \$462 per day, or \$60 per unit, per month.

In late 2001, Pryzant agreed to purchase a wireless submetering system, an investment of approximately \$60,000. Pryzant's motivations were twofold; first, by identifying leaks electronically (especially on toilets), consumption could be reduced without constant, invasive searching by management. Second, by identifying wasteful consumption, resident behavior could be altered.

Initially, residents with high consumption could be identified and encouraged to conserve. Eventually, the system would directly charge residents for their water consumption.

"The results exceeded my expectations," Pryzant says.

After the system became operational, consumption dropped to \$356 per day. After Alexander House began billing residents for water consumption in late 2002, consumption fell to an average of \$266 per day. The payback on the investment was achieved in less than one year.

In addition to direct savings on water bills, there were other benefits. First, maintenance personnel could

detect and fix leaks without going door to door. Also, residents pay only for the water consumption in their own apartment. Properties that are not submetered charge residents on an allocation method based on formulas instead of consumption, thwarting a conservation incentive whether these average costs are included in the rent or billed separately.

With the success of the submetering at Alexander House, Pryzant decided to install another wireless system at Sharpstown Apartments, a 396-unit complex in southwest Houston. In early 2002, before the system was installed, the water bill averaged \$563 per day; in 2003, it dropped \$413.

In addition to reduced water bills, natural gas expenses also decline. When residents use less hot water, less energy is needed to heat the water. With savings of approximately \$150 per day on water and sewer alone, Pryzant's investment at Sharpstown paid for itself in 20 months -- without billing the residents and without considering the energy saved, and without consideration of the intangible savings of maintenance time and marketing incentives.

SHIFTING EXPENSES

Perhaps the greatest benefit of submetering is driven by the valuation leverage of daily and monthly savings in water consumption. Submetering directly impacts property value.

For example, if an apartment owner improves net income after expenses by \$100,000, valuation rises accordingly. At a 10 percent cap, he

just increased his building's valuation by \$1 million -- not bad for a \$60,000 investment.

In this era of rising utility costs and flat rents, there is nothing multifamily owners can do to provide more capitalized value to their assets than shift utility expenses to the resident.

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