

# Cut Apartment Energy Costs with Energy Monitoring

by [Houston Neal](#)

Director of Marketing, Software Advice  
Jun 15, 2011

Pop quiz: how much did you spend on electricity last month? Think you know the answer?

Ok, then how much did you spend on say, lighting? Or what about washing clothes?

Energy monitoring systems are an often overlooked – and under-promoted – way for renters to cut utility costs, energy consumption, and their ecological footprint. They allow renters to track how much electricity they consume in real-time.

According to the American Council for an Energy-Efficient Economy, simply having this information helps consumers reduce energy use by [as much as 12%](#). Other [estimates](#) put the figure closer to 15%. I guess Lord Kelvin was right. If you cannot measure it, you cannot improve it.

This technology is showing up in more and more homes across the country. But, what about apartments? The multi-family housing market has been slow to adopt energy monitoring systems. So have renters.

Blame it on a nascent market, the perceived high cost, or maybe just under promotion. Regardless, these systems help renters reduce energy costs and consumption. Meanwhile, they provide an opportunity for apartment owners to attract a new generation of tech- and green-savvy renters.

## How It Works

An energy monitoring system can be set up in just 15 minutes, and for as little as \$100. It provides detailed information about how much electricity you use on lights, appliances, heating and air conditioning, and more. Most systems allow you to see this information in real time. In other words, you could turn on a lamp and instantly see how much electricity is being used.

Though the main benefit is having access to new, actionable data. For example, you could determine how much it costs to wash and dry a single load of laundry. Or, you could determine how much money you would save by turning off your AC one hour earlier in the morning.

Of course there are several other valuable – and surprising – benefits. For example, several beta testers of Google's [PowerMeter](#) discovered they were paying for unnecessary energy costs.

"I cleaned the coils in my refrigerator (which hadn't been cleaned in 15 years! Yikes!). Before I made these changes, my baseline load was around 360 W, afterwards, it was slightly under 200 W – this will save me about \$150/year."

"After installing Google PowerMeter, I saw very large spikes that I could not correlate with any of my activities. Eventually I realized that my electric meter included the building's washer and dryer – I was paying for all the laundry done in my building! Without Google PowerMeter, I never would have figured this out."

Finally, and most importantly, there are far- and wide-reaching benefits. Cutting back your energy consumption will not only reduce your personal eco footprint, but also reduce your local utility company's environmental impact (i.e. via reduced use of fossil fuels).

## A Promotional Tool for Apartment Owners

Apartment owners should take a lesson from their commercial counterparts. In recent years, many well-known commercial properties have undergone green renovations to attract new tenants. According to [Natural Home and Garden](#), green-certified buildings had higher occupancy rates than other buildings with similar age, size, and location.

Apartment owners could take the same approach and offer energy monitoring as an extra amenity. In a side-by-side apartment comparison, offering a tool to cut utility costs would be a unique selling point.

Of course purchasing several hundred systems for a large apartment building would be expensive. So, owners not willing to make the investment could at least make it easy for tenants to use them. For example, they could negotiate bulk discounts with local sellers; provide free installation for tenants, and; offer detailed instructions on how to use the system.

I think the idea should be introduced during the leasing process. Residents will likely balk at the initial cost, but when presented with the long-term ROI, they may be willing to ante up. Quick napkin math reveals that a renter with a \$50 utility bill could recoup costs in a little over a year:  $(\$50 \times 12) / 15\% = \$90$

Of course there are other ways to get tenant buy-in. For example, apartment owners could create community challenges to cut energy consumption. They could reward the winner with a cash prize, gift certificate to a local home furnishings store, or even offer free rent for a month.

## How to Get Started

To set up an energy monitoring system, you'll need software and hardware. The software part is easy. Google offers a free web application called PowerMeter, and Microsoft offers a free web application called [Hohm](#).

If you're lucky, you may only need this software to track your energy use. Google has partnerships with San Diego Gas & Electric and Blue Ridge Electric. Microsoft has partnerships with Xcel Energy, Seattle City Light, and the Sacramento Municipal Utility District. If you are a current customer with one of these utilities, then you can simply create an online account.

If not, then you'll need to buy hardware, or a physical monitoring device. Google and Microsoft already have partnerships with several monitoring device manufacturers. Google's PowerMeter can be used with nine different devices; Microsoft Hohm works with one, the PowerCost Monitor from Blue Line Innovations.

Choosing the appropriate device will be slightly more challenging. First, you'll need to determine if your unit has a separate power meter. If it does, you can use a device that attaches directly to this (e.g. the PowerCost Monitor). If you live in a larger building with many units, you'll likely need to attach the device to your circuit breaker panel. The TED 5000, the Brultech ECM-1240, and the eGauge system all work this way.

Finally, installation can be handled by savvy do-it-yourself'ers, but most will require the help of apartment maintenance personnel or an electrician.

Have you had experience using an energy monitoring system? Share your story in our comments section below. Oh, and for the record, we don't sell or market energy monitoring systems. We just love technology and get excited about innovative ways to preserve the Earth (eh hem, we're nerds).