

Looking for energy savings under the street lamp

*The drunk kept stumbling around the street lamp, intently muttering at the cobblestones.
“Are you looking for something?” asked the traveler.
“My wallet.” The drunk clutched at the pillar for support.
“Where did you lose it?”
The drunk pointed into the darkness. “Over there.”
“Then,” said the traveler cautiously, “Why not look over there?”
The drunk drew himself up to his full height. “The light’s better here.”*

Imagine that we are all drunks, circling our own street lamps. That will tell you the state of energy performance data and energy conservation decision-making today. As Recap Real Estate Advisors reports in a new white paper, *Multifamily Utility Usage Data: Issues and Opportunities*, owners and operators of affordable housing make energy conservation decisions based on the data that we have, which is not the data that we or others need.

Commissioned by Living Cities, an innovative philanthropic combination of 22 of the world's largest financial institutions, this 65-page paper is a must-read documenting the haphazard nature of utility data collection in the multifamily housing industry. And a sorry state it is, given the opportunity and urgency. Consider:

For a copy of the paper, go to <http://tinyurl.com/3wc9kkt>, or send me an email request

1. Multifamily and retrofits are the next frontier in energy conservation. Multifamily housing structures with capable professional management ought to be the most fertile ground for energy conservation. Unlike office buildings, homes have high usage for cooking and bathing, with large populations of elderly and children – all big energy consumers. Yet building systems’ complexity, “dumb metering,” and privacy/confidentiality laws conspire to make it incredibly difficult to gain good granular data on utility consumption (not just monthly cost) and on energy conservation opportunities.



David A. Smith

- 2. Lack of good whole-building data is a principal blockage to underwriting energy conservation.** At the level of an individual property, nobody knows for sure just how much any given set of energy efficiency improvements will save vis-à-vis the “but-for” baseline. These savings can be projected only by detailed Green Capital Needs Assessments (like those provided by our affiliate On-site Insight). Yet even GCNAs, market-leading though they are, provide no ironclad guarantee of savings. Thus the financing field today is dominated by Energy Service Companies (ESCOs), which effectively lend you the money to buy their technology and finance your payments for their gadgets from the projected energy cost savings (but at a high rate on a limited menu of upgrades through supplemental financing that your partnership or existing mortgage lender might find unacceptable).
- 3. If you don't know why someone wants data, you compile the wrong data.** Data could be relevant for:
- Policy change, such as design of incentives, where we need high-level aggregates.
 - Building more efficient new structures, where we need comparatives based on configuration and tenancy.

Guru, continued on page 17

- c. Conserving energy and water in existing structures, where we want real-time consumption and retrofit payback/NPV analyses.
- d. Obtaining new financing, where we need reliable but-for and if-done projections of future energy usage.

The data that we want for each of these purposes is different. And any effort to collect all of the data that everybody wants is doomed to failure.

4. **"Don't ask, don't tell" dominates utility reporting.** There are few current opportunities for peer-to-peer exchange of verifiable energy usage data. The databases assembled so far are club-oriented (members-only), self-selected, non-public, and limited (maybe 3% of all multifamily utility information is captured anywhere). Meanwhile, privacy concerns – real or imagined – inhibit sharing of consumption data by utility companies.
5. **Lost in the crowd: Neither utility companies nor the U.S. Department of Energy see multifamily housing as a distinct consumption type.** Within DoE, multifamily is a red-headed stepchild. DoE's Residential Energy Consumption Survey (RECS) emphasizes single-family housing; its Commercial Building ECS, offices and retail. Multifamily residential is an invisible minority, and the data collected on it is of very little value to anyone in the apartment industry.
6. **Tech is sexy; sludge is not.** Perhaps because it is engineers who invent energy conservation gadgets, most conservation research has been for glitzy new electronics – much less devoted to the mundane business of controlling water and sewer usage. Yet when it comes to both sustainability and cost containment, crud may be where the action is.
7. **America trails the rest of the world.** Nations like the U.K. and Denmark are way ahead of us in standards,

tools, and practice of detail, transparency, analytics, and engineering of energy conservation. Even with the Kyoto Treaty dead and buried in America, international green building standards will likely influence U.S. green building codes.

8. **We won't get there in baby steps.** Data standards, like networks, benefit from scale and universality – one standard, to which everyone subscribes. The pre-scale era is characterized by balkanization and impenetrable internecine squabbles. That is where we are with energy and water data reporting today; the federal government has vacated the multifamily space (see DoE above), and city/state efforts are sporadic and geographically bounded. California does one interesting thing; ConEd in Chicago another. New York City, Seattle, and Austin all have promising initiatives. None are likely to go viral.

9. Smart meters will create smart pricing and incentivize smart consumers. If airlines, hotels, gas stations, and vegetable growers can dynamically adjust their prices based on supply and demand, why can't utility providers? If we are to have truly effi-

cient and energy-conserving structures and systems, the end game will be transparent real-time reporting tied to variable demand-based pricing. That will reward the savers, penalize the wasters, and drive down America's aggregate energy consumption in multifamily.

You can't really have finance without reliable projections, and you can't really have reliable projections without reliable data. If we're serious about conserving energy in multifamily housing buildings, we need to get serious about standardizing, collecting, and publishing data. **TCA**

David A. Smith is Chairman of Recap Real Estate Advisors, a Boston-based real estate services firm that optimizes the value of clients' financial assets in multifamily residential properties, particularly affordable housing. He also writes Recap's free monthly essay State of the Market, available by emailing dsmith@recapadvisors.com.

The data that we want for each of these purposes is different. And any effort to collect all of the data that everybody wants is doomed to failure.