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STRATEGIES FOR INCREASING RECYCLING AND INTRODUCING USER FEES FOR TRASH (PAY AS YOU THROW / "RECYCLE & SAVE")

What Works in Multifamily Buildings?

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Partially funded by Econservation Grant from EPA Region 9

March 2011

Organization of the Report

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Acknowledgements:

Thanks to Dawn Bement and Dana D'Souza for their assistance – as well as the many solid waste coordinators and others from across the country that assisted in this project.

Skumatz Economic Research Associates, Inc. (SERA) is a research and consulting firm that has been providing assistance in solid waste and energy efficiency program and policy analysis to communities, States and agencies since 1990.
The Econservation Institute, established in 1998, is a non-profit dedicated to research and education on practical resource conservation strategies and policy options in solid waste management, energy efficiency, and other environmental issues. Contact info@ econservationinstitute.org for more information, or www.econservationinstitute.org for publications and studies.

***About the Authors**: Dr. Lisa Skumatz is a "hands-on" economist with The Econservation Institute and the Boulder-based research and consulting firm Skumatz Economic Research Associates, Inc. (SERA) (www.serainc.com). For 20 years, Dr. Skumatz has helped communities across the US analyze practical economic and policy issues in solid waste. Her work concentrates on program evaluation, benchmarking, cost-effectiveness and rates for the variety of solid waste programs. She has published extensively, and is best known for her work in incentive-based rates (Pay as you Throw and "Garbage by the Pound") and for her work on detailed analysis of single stream recycling. Dr. Skumatz has a strong "numbers" orientation – focusing on "what real-world, operating programs tell us". She maintains a database of recycling in more than 1,300 communities across North America, and has analyzed recycling features that increase diversion and cost-effectiveness in different situations. Dr. Skumatz was awarded national lifetime achievement awards in 2001 by the National Recycling Coalition and in 2007 by the International Solid Waste Association of North America (SWANA). She is a board member of NRC, former board member of and Colorado's CAFR and Washington's WSRA, Colorado's SWANA Board, and a member of SWANA and numerous other state and regional recycling associations. Dr. Skumatz attended the University of Wisconsin for her undergraduate work and her Ph.D. in Economics is from The Johns Hopkins University in Baltimore. Mr. Freeman spent 7 years with SERA as a Senior Analyst and Project Manager. He currently manages the Recycling Program at City and County of Denver.*

Suggested Citation:
Skumatz, Lisa A., Ph.D, 2015, "*Pay as you Throw Potential in Guam: White Paper", The Econservation Institute, Superior CO, Prepared for USEPA Region 9, February*.

1. INTRODUCTION

There has been surprisingly little research on large multifamily[1] building recycling and PAYT strategies that work. Pilot studies abound, but after more than 20 years of working with the sector, there are few golden lessons or shining examples. Personal attention, hauler incentives, "on-site champions", and other strategies have been used; some are successful (see below), but others are discontinued over time because of issues of contamination, resident turnover, and underuse.

One of the most interesting examples is a leading community (San Jose, California) that attempted strategy after strategy in the multifamily sector, and finally increased the sector's recycling from about 20% to about 70% by delivering the stream to a "dirty MRF" for sorting and recovery. The sector is challenging, to say the least!

We reviewed the literature, as well as SERA's in-house database of more than 1,300 communities across North America to identify communities and strategies that had been implemented or tested. We also conducted interviews with a number of towns to gather basics about the programs. Short summaries of this research provide the bulk of the paper.
As mentioned in many articles[2], there are a number of common barriers, and these are displayed in Table 1.

Table 1: Challenges in Multifamily Recycling (SERA 1999)

Incentives	Logistics, Quality, Other
• Landlords, not tenant generators, pay garbage bills • Buildings on smallest dumpsters usually can't save money by recycling • Recycling is not always "free" from commercial haulers, so total solid waste management bills may increase with recycling • Landlords include the cost of "average" garbage in the rents, so tenants may get no savings from recycling individually, and rents are not likely to be adjusted for savings • No incentives to recycle "more" even if recycling takes place	• Recycling can be less convenient for residents than taking out the trash • Takes more space – space for recycling is often not planned into the building, or additional dumpsters / containers would take up valuable parking places • Containers are "shared", so it is difficult to see who does and doesn't put out garbage and recyclables • Contamination is difficult to trace • Takes more labor for janitorial staff, etc. • On-site "monitoring" and education are often needed • High tenant turnover requires repeated education and program materials • Illegal dumping and mess

[1] Most of the time, small multifamily buildings – condos, town houses, duplexes, and larger buildings with direct access are commonly treated the same as single family (and are billed, and provided service nearly identically to single-family. In this paper, we are more concerned with the more complicated situations
[2] See, for example, Skumatz & Green, 1999, *Resource Recycling* 10/99, "Reaching for Recycling in Multi-family housing", and others.

Besides tailored approaches to investigate building-specific barriers, basic practices (recycling and trash co-located, outreach, etc.), and recycling champions, past literature has recommended:

- Two tier rates or recycling credits – charging less for TRASH for buildings that recycle for either 1) all multifamily buildings; low use MF customers, or for buildings assigning on-site recycling champions.
- Direct tenant bill incentives / rebates / chits, either administered through trash or through other utility bills tenants pay
- Hauler incentives, and
- Mandates, like building recycling plans, required space for recycling in new and remodeled multifamily buildings, and recycling requirements in leases.

The following sections walk through

- Strategies used to implement PAYT / user pay and additional recycling in the multifamily sector, and
- Case studies of communities with interesting multifamily recycling and PAYT initiatives.

2. COMMON STRATEGIES

In this section, we list the most common strategies used in the multi-family sector.[3]

- **Embedded fees:** A number of cities across the US have recycling services embedded in the trash rates with variable rates for trash collection in themultifamily sector. The rates are paid by the property manager and there is no incentive to the household. Property managers can save hundreds and thousands of dollars a year by encouraging recycling. Under these programs easy access to recycling, outreach, posters/stickers, and other tools are very common. One community in Washington (Seattle) requires that trash bills automatically embed recycling service in the amount of 150% of the trash service – if you subscribe to 1 cubic yard once per week of trash, your trash bill includes the cost of getting 1.5 cubic yards of recycling once a week, too. SERA found successful examples of these programs in CA, NJ, FL, PA, TX, NY, MD, GA, OR, WA, CO, VA, CT, and others.

- **Discounted recycling fees** - Whether through contracts, franchises, or ordinances, other communities incentivize building participation through reduced fees for recycling. In

[3] A few have explored with "hardware options" – special recycling chutes with codes, lazy-susans, and others, but we have not seen a great deal of success.

some communities, an equal amount of single stream recycling as trash service is included in the rate; others have a situation where recycling service is required to be 40% cheaper than trash service, and others the required rate differential is around 20-25%. Under these programs there is still no economic incentive for households to participate but there is an incentive for a property manager to sign-up for service.[4]

- **Mandatory recycling** - A few cities have mandatory multi-family recycling coupled with variable rates for multi-family trash (paid by property managers). The level of enforcement varies. In some places, property managers and/or tenants can be fined; in others there is little-to-no enforcement.

- **Extensive Education** - Some communities (CA, WA, OR, MN) have tried pilots or full-scale programs including block or building leaders, free containers, apartment unit parties/celebrations, posters, door-to-door, etc.

3. EXAMPLES

In this section, we provide more specifics for sample communities across North America.[5]

- **State Law** – One state passed the "Renter's Right to Recycle" Law, which requires that all apartment owners (buildings with 5 or more units) must arrange for recycling services that are appropriate and available for the multifamily dwelling. A number of exemptions are allowed – particularly space, and financial hardship. A multifamily owner may apply for a financial hardship exemption if the cost of providing recycling and trash is 30% more than the cost of providing trash service alone. The financial hardship exemption lasts only 5 years and then must be re-applied for (and at that time, relative costs may have changed).

- **Connecticut** - Property managers can choose dumpster service or Can/Bag service. Under can/bag service each unit is charged $18.25/month and can set out two 30-gallon trash bags/week or one 35-gallon can. Recycling fees are embedded.

- **Large City** - Downtown area of city that removed the dumpsters from the alley and charges all businesses and multi-family units in the area based on the number of bags

[4] Point systems – Besides haulers and others, some cities are working on the application of point systems to small multi-family buildings, encouraging recycling with coupons and the like.
[5] For additional information, like names of community examples, etc., contact the authors.

disposed. Bags are collected multiple times throughout the day to keep the alleys clean and organics and recycling collection are embedding in the costs of the bags. Some others focus mainly on commercial, rather than multi-family buildings.

- **California City** - The city has the costs of recycling embedded in the rates for the multifamily sector with variable rates based on volumes. They tried this for a few years with limited success (the recycling rate was about 18%, which was far less than the single family performance). They decided to build a “dirty” Materials Recovery Facilty (MRF) for the multifamily sector. They are now diverted 60-70% of the materials from the multifamily sector.

- **Canadian Community** - In 2007 the City decided to enact a volume based rate structure for all multifamily units (MFUs). The rate structure was based on the number of units per building, the volume of material collected, and the number of bin lifts per collection. The rate was created to parallel the single-family rate structure where the rates for each unit were based on a certain number of cubic yards per month, and the charges were for an equivalent bin size. (Small, Medium. Large, etc.). This was found to be too complicated. In 2010 they decided to change the rates to $175/unit/year for an equivalent collection of 32-gallons/unit. For anything over that the MFUs are charged a flat fee of $12.81/cubic yard (loose) or $25.63/cubic yard (compacted). At the end of the year the MFUs are rebated the $175/unit. They also provide free recycling containers for MF units (both hard and soft bags), building leader volunteer program, organics diversion, and other efforts. Prior to the volume based pricing the city tried some RFID weight based pilots but they were unsuccessful.

- **Massachusetts Town** - Embedded recycling and a bag program for all residents (single-familyand multifamily) at $1.00/bag. Waiting to learn more.

- **Colorado Community** - Passed an ordinance in 2005 that all haulers must charge all MFUs and commercial establishments using volume based rates with the cost of recycling embedded in the rate.

- **Massachusetts Community** - Every household, SF and MF, is allowed to put out one can per set out for free (included in property taxes). For trash exceeding this limit they must pay $1.75 for bags. Recycling is included and collected every other week (EOW). For MFU, each unit must have a sticker with their name and unit number on it to show that it is paid for. If a can does not have a sticker on it, it is not collected. There are not many MFUs in the community and enforcement/compliance was not reported to be an issue.

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They began the program in 2008 and in the first year they increased recycling from 17% to 34% and decreased the amount of trash going to the landfill by around 35%.

- **Florida community** - Weight based fees for commercial and multi-family accounts. The collection vehicle has an RFID tag on the arm and each collection is weighed. The properties are charged based on 1) the collection charge and 2) the disposal charge.

- **Canadian Region** - Tried a pilot for MFU weight based collection in 2007. Does not seem as if it was adopted at this time. The report issued said that weight based collection/billing seems to be too inaccurate.

4. SUMMARY

There is no one perfect option for multi-family buildings. The split incentive (generators / recyclers don't save on the garbage bill) makes adoption and persistence[6] of the recycling behavior problematic – an economic signal is usually one of the strongest and longest-lasting. Logistical issues and tenant turnover complicate matters further. Perhaps one or more of these strategies will provide useful lessons for your community. And if you hear of successful options, please let us know.

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[6] For additional information on "persistence" or retention of recycling behaviors, contact the authors.