PAY-AS-YOU-THROW / VARIABLE RATES FOR TRASH COLLECTION

2014 Update
Results from EPA9 Grant

Webinar Given by
Econservation Institute
Superior CO

Lisa A. Skumatz, Ph.D., Dana D’Souza,
Dawn BeMent, Juri Freeman, Allison Fraley
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Sponsored by EPA Region 9 under grant
SPEAKERS

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- Dawn BeMent, Senior Analyst
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NEXT SPEAKER
ABOUT THE ECONSERVATION / REGION 9 PROGRAM

- Open webinars
  - Website assistance / materials [www.paytnow.org](http://www.paytnow.org)
  - Peer match, “Ask the Experts”, other materials

- Hands-on help – Region 9
  - Targeted information, materials, peer match
  - Detailed assistance to design, develop, implement PAYT
  - Hands-on Assistance to Kauai, Maui, Tribes in Region 9, Chandler, Sedona, Reno-Sparks, and Guam.
ABOUT THE ECONSERVATION / REGION 9 PROGRAM

- Report in 2 volumes
  - Volume 1: PAYT background FAQs, PAYT counts in Region 9 and beyond, Legislation, Commercial PAYT, Rate design / pricing, Small Haulers, other incentives; White papers
  - Volume 2: Webinars, surveys, plans, rate calculations, and implementation plans for pilot communities; workshop for tribal audience.
  - Separate white papers (MF, Small haulers, Other incentives).

- See [www.paytnow.org](http://www.paytnow.org) for materials
WHAT IF SOMEONE TRIED TO SELL YOU A PROGRAM THAT...

☐ Almost doubles diversion?
☐ Leads to no increase in costs for 2/3 of towns?
☐ Significantly reduces greenhouse gas?
☐ Is demonstrated in thousands of towns nationwide in all types of communities?
☐ ... and is preferred after the fact by more than 90% of the residents where it is in place...?
☐ Minimal or no impact on town budget...

⇒ This is Pay As You Throw (PAYT)...
WHAT IS PAY AS YOU THROW (PAYT)?

Pay more for More trash... Less for less.

Measured by bags or cans
Equity and incentive
Part of making Cost-Effective Choices...

Save as you throw (NY), Recycle & Save, Variable Rates, Unit based pricing...
PAYT - EFFECTIVE AND COST-EFFECTIVE

- Effectiveness:
  - R, Y, SR; cost-effective
  - Top 3 drivers in leading states
    - Goals/measurement, $, PAYT
  - Curbside & drop-off
  - Demonstrated, flexible
  - Biggest impact*
    - DOUBLES recycling
    - Diverts ~1/5-1/6 from landfill

- Strengths & weaknesses-political will
- Why towns, haulers should favor
- BMPs; and include Com’l PAYT

Source for graphs and figures: Skumatz Economic Research Associates,©
PAY-AS-YOU-THRÖW / RECYCLE & $AVE
PAYT - EFFECTIVE & COST-EFFECTIVE

Cost-effective:
- 1/3 of the effect costs ZERO (SR)
- PAYT needs NO SEPARATE FUNDING – paid by users (more equitably)
- No increase in costs for 2/3 communities (IA, WI)*
- Cheap for reduction of both GHG and Landfills

*Iowa survey by Frable
PAYT - EFFECTIVE AND COST-EFFECTIVE

- Inexpensively diverts recyclables & top materials
  - Compositions similar...
  - Low cost/ton computations

Source for graphs and figures: Skumatz Economic Research Associates ©
# PAYT COST, ACCEPTANCE

- Cost and workload impacts – 2/3 no increase (IA, WI)
- Preferred by households
- Strengths / weaknesses

- **Key Advantages**
  - Rewards all diversion activities
  - No new trucks down street (&wear/tear)
  - Behavior / reminder; choice
  - Utility; equity
  - Works in variety of systems, tailor
  - NEEDS NO SEPARATE FUNDING!

- **Disadvantages**
  - Concerns about illegal dumping, equity (low income, large families), MF (see FAQs), change…
  - More complex rate study, outreach
  - Costs & savings - “Net” depends on local conditions

Source: SERA ©2008; Iowa State Survey by Frable.
PAYT – BASIC SYSTEM TYPES

☐ Variable cans/subscription
☐ Bags
☐ Tags/stickers
☐ Hybrid
☐ Weight-based (GBTP – technology adopted by RecycleBank™)
☐ Drop-off variations

☐ Pros and cons –
  ■ Variations by region

Bag / Tag photos courtesy Resourceful Bag & Tag
PAYT– HOW THE BASIC SYSTEM TYPES WORK

- **Variable cans/subscription**
  - Purchase new “sized” cans OR use existing cans with decals or stickers
  - Billed by number / size of cans – recurring charge on water or other bill
  - “Extras” via bags or tags
  - Smallest can size helps pay fixed costs
  - Incentives…

- **Bags, tags, stickers**
  - 32 gallon increments
  - Weight limits & must close
  - Purchase at convenience stores, or from community or hauler; invoice stores
  - Generator fee / 2 part bill (taxes or bill)
  - Concerns about animals, etc.; incentives…
  - Some provide recycling bags too

Bag / Tag photos courtesy Resourceful Bag & Tag
PAYT—HOW THE BASIC SYSTEM TYPES WORK

- **Hybrid**
  - Part current system; append bag / tag
  - No new billing system
  - Minimal collection changes, investment
  - Often used as transition to another system, but also stand “as is”

- **Weight-based**
  - Weigh containers on retrofitted truck and charge by pound. Not used in US; comparisons option

- **Drop-off variations**
  - Bags at transfer stations or drop-off stations
  - Purchase at convenience stores, etc., vending, other (staffed or not)

- **Commercial & MF**

- **Other approaches—Recycling rebates, points**
  - Less successful but can help get recycling funded

Bag / Tag photos courtesy Resourceful Bag & Tag
PAYT– METERED USING BAGS AND CANS

- Collected / charged many ways
- Bags, cans, bags in cans
- Tags, stickers, decals
- Drop-off variations
- Pros and cons
  - Variations by region

Bag / Tag photos courtesy Resourceful Bag & Tag
PAYT WORKING ACROSS US IN ALL COMMUNITY SITUATIONS

In Region 9 and all geographic regions of US – everywhere is “special”

- Large, small, urban, rural
- Tourist / student / mountain
- Isolated / island / self-haul
- Single or multiple haulers
- Collection method – fully automated, semi-, and manual examples
- Ethnic diversity
- Climate extremes
- Curbside and drop-off recycling
BMP FOR MOST SUCCESSFUL PAYT PROGRAM

☐ Level playing field
  ■ Haulers willing if…

☐ Recycling
  ■ Service definition, embedded fee, parallel containerization

☐ Incentive:
  ■ Small container option (32 gallon)
  ■ Price incentive (80%)
  ■ Reporting & access for compliance

☐ Do-able at city, county, state level
  ■ Several states mandate, or mandate if…

Sample Ordinances & case studies on web site www.paytwest.org, Paytnow.org, paytinfo.org

map from © SERA all rights reserved
PAYT BEST PRACTICES

- More tons diverted if...
  - Aggressive PAYT differentials – up to a point! Balancing revenue risk
    - 80%, no less than 50% differential*
    - Rates vs. bills
  - Small container option
  - Large recycling container available
  - Embedded fees (with a caveat)
  - A bit more from bag than can programs

Results from published work by Skumatz Economic Research Associates, Inc., Superior, CO
SPECIAL TOPICS
PAYT MORE TONS, LESS COST THAN OTHER INCENTIVE OPTIONS

Incentives for recycling ONLY – <1/3 of PAYT’s impact

RecycleBank™ incentive (also towns & haulers)
- Towns considering because: Hauler partnerships, “turnkey”, jumpstart stalled recycling, no new billing (HOAs like it), strong marketing; having trouble getting recycling or PAYT in place... other
- Impacts – tons BEYOND single stream / containers; fees; rebates; cost per ton; redemptions
- See if it pencils out... can have both as well...

Source: First graph from figures from EPA newsletter, 2009; 2nd graph from Skumatz study.
MULTI-FAMILY PAYT

Challenges:
Space
Anonymity
Generator not bill payer
Turnover, ESL
Illegal dumping
SUCCESSES IN MF

- MF Trash is paid for based on volume
- Embedded recycling fees and/or mandatory MF recycling (multiple examples)
- Discounted recycling fees – contract, franchises, or ordinances (less common)
- A few bag programs
- Extensive education
- Mixed waste MRF
- Don’t delay SF due to MF
COMMERCIAL PAYT

- Like MF, Commercial is a volume based system
- Bag programs exist (as does weight) but very rare in the US
- Key is recycling embedded in trash rate (50-150%, min opts too)
TRIBAL ISSUES

- Volume 2 includes handouts from special workshop for Region 9 tribes (Reno-Sparks area)
PAYT FAILURES?

- Relatively few; once in, it is preferred...
  - A few discontinuations with changes in haulers – from muni or local / small to firm that “doesn’t do PAYT”
  - A couple changed to property tax

- Recent Maine example
  - 61% to defeat in election
  - “divisive”, “punish not reward”
  - Trash had fallen from 7800 T to 3400 T (!!) – goal!

- Number 1 issue – education

- Change name from PAYT?!
PAYT NUMBERS AND PATTERNS
PAY-AS-YOU-THROW (PAYT)/VARIABLE RATES COMMUNITIES

SERA’s 2011 survey found almost **9,000** PAYT/VR communities and only 1 state without programs

Superior, CO, 2011 survey © SERA, all rights reserved, may be used with permission of author
PERCENT OF STATE POPULATION WITH ACCESS TO PAYT

SERA’s 2011 survey found almost **9,000** PAYT/VR communities and only 1 state without programs

But, as you will see, not all PAYT Programs are created equal…

2015 survey results coming soon

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Superior, CO, 2011 survey © SERA, all rights reserved, may be used with permission of author
PAY AS YOU THROW IN
EPA REGION 9 IN-DEPTH

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DEFINITIONS OF PAYT PROGRAMS

Strong Program

**Fully variable** -- 32, 64, and 96gal cans; more than one combination of bag, tag, & can options

**Variable** - 64gal can or 96gal can option with more than $5 price differential; 96gal can & additional bag / tag options

Weak Program

**Limited** - 96gal can & pay double for 2nd 96gal can per month; 96gal & 64gal with only $1 difference in pricing per month; more than $5 for 2nd can per month

**Extremely limited** - 2nd 96gal can for extra $5 or less per month
CONTAINER OPTIONS IN R9

Trends

Automated or not

Whose cart
PERCENTAGE OF COMMUNITIES WITH PAYT PROGRAMS IN ARIZONA

Source: Econservation Institute
PAYT PROGRAMS IN ARIZONA

- Increased % Communities – 15% to 27%
  Updated
- 2 large cities have good variable progs
- Most of state has access to PAYT, but weak progs
- Cart / can provided by hauler – 53% of programs
- No Bag, tag, or hybrids
- Recycling – majority embedded, some no curbside
- Missed opportunities–Statewide Percentage points of recycling & source reduction from PAYT
  - 4% from existing PAYT without strongest BMPs
  - ~6% from communities without PAYT Statewide

Source: Econservation Institute and SERA
PERCENTAGE OF COMMUNITIES WITH PAYT PROGRAMS IN NEVADA

Source: Econservation Institute
PAYT PROGRAMS IN NEVADA

- Increased % Communities – 6% to 34% Updated
- Largest County and City have weak progs
- Cart / can provided by hauler – 33% of programs
- Own can – 26%
- Tag – 4%
- Recycling – most embedded, some no curbside collection
- Missed opportunities–Statewide Percentage points of recycling & source reduction from PAYT
  - 5% from existing PAYT without strongest BMPs
  - ~6% from PAYT Statewide

Source: Econservation Institute and SERA (CA)
PERCENTAGE OF COMMUNITIES WITH PAYT PROGRAMS IN HAWAII

- 2006 – 0 communities with access to PAYT
- Today – 1 community has access to variable PAYT program – starts with one community

Source: Econservation Institute
PERCENTAGE OF COMMUNITIES WITH PAYT PROGRAMS IN CALIFORNIA

Source: Econservation Institute and SERA
PAYT IN CALIFORNIA

- State reporting
- Growth in number of programs since 2006
- Some extremely good examples
- Variety of container types

27% of communities not FV
15% of communities have weak programs
23% of CA communities have no access to PAYT
Missed opportunity to improve state diversion

<table>
<thead>
<tr>
<th>Cart</th>
<th>Own Can</th>
<th>Bag/Tag</th>
<th>Hybrid</th>
<th>Other or No Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>81%</td>
<td>12%</td>
<td>3%</td>
<td>10%</td>
<td>5%</td>
</tr>
</tbody>
</table>

Source: Econservation Institute and SERA
PAYT LEGISLATION

Oregon
Rate structure per average weight
Requires mini can
Multi-unit pricing

Washington
Incentives for source separation
Establishes recycling, could include organics

Minnesota
Rates based on volume or weight
  Weight – Unit sizing
Mult-unit pricing
PAYT LEGISLATION

New Vermont Legislation

Increased diversion
Multi Stream
PAYT Definition
Compliance
### SUMMARY REGION 9

<table>
<thead>
<tr>
<th>State</th>
<th>2006 % Communities with PAYT</th>
<th>Updated % Communities with PAYT</th>
</tr>
</thead>
<tbody>
<tr>
<td>AZ</td>
<td>15%</td>
<td>27%</td>
</tr>
<tr>
<td>NV</td>
<td>6%</td>
<td>34%</td>
</tr>
<tr>
<td>HI</td>
<td>0%</td>
<td>16%</td>
</tr>
<tr>
<td>CA</td>
<td>50%</td>
<td>77%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>State</th>
<th>% Communities with <strong>Fully Variable</strong> Progs</th>
<th>% Communities with <strong>Variable</strong> Progs</th>
<th>% Communities with <strong>Limited</strong> Progs</th>
<th>% Communities with <strong>Extremely Limited</strong> Progs</th>
</tr>
</thead>
<tbody>
<tr>
<td>AZ</td>
<td>0</td>
<td>1</td>
<td>8</td>
<td>17</td>
</tr>
<tr>
<td>NV</td>
<td>0</td>
<td>16</td>
<td>2</td>
<td>16</td>
</tr>
<tr>
<td>HI</td>
<td>0</td>
<td>16</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>CA</td>
<td>42</td>
<td>16</td>
<td>9</td>
<td>6</td>
</tr>
</tbody>
</table>

Source: Econservation Institute and SERA (CA)
PAYT CONCERNS: ILLEGAL DUMPING AND BEYOND

Photos: Skumatz, 1999
MAJOR CONCERNS – ILLEGAL DUMPING

- Surveys of 1000 communities - Bigger fear than reality
- Multiple surveys showed issues in 10-30% of communities; solved after 3 months. Some communities showed improvements!

Illegal Dumping Pre-post PAYT

Most Non-res NEED Bulky option
3 month issue

Illegal Dumping in PAYT and Non-PAYT Towns

Average grade 2.6 PAYT, 2.3 non-PAYT

Source: SERA surveys – all rights reserved
MAJOR CONCERNS ABOUT PAYT

- Illegal dumping - Minority of dumped waste; NEED Bulky item program
- Large families / poor families
  - Turn argument around. Unfair for small families, poor families to subsidize large disposers under current system – behavior affects bill now – control!
- Containers
- Haulers and small hauler concerns
  - Business opportunity for haulers – recycling usually required
  - Revenue risk a concern
  - Consider involving them in design; evolve
- Cheating
- MF
- Workload (State surveys find 2/3 have NO increase)
- Confusion, resistance to change – wait 6 months!
  - 89-95% prefer, Keep rates SIMPLE
- Local economics / cost-effectiveness of recycling

Survey shows fears much greater than reality! – FAQs on website
PAYT CONCERNS / TIPS / SUMMARY

- Technical issues rarely the problem ➔ performs
  - Pilot test / phase in
  - Strong diversion (all types), speedy, attitudes, retention, track record, flexible / tailorable ➔ local

- Public process, public education. Good customer education / understanding crucial
  - Education / why, how it works, how to make it work for me, packages for move-ins

- Politics, political will is the key stumbling block
  - Suggestions from communities; & champion
  - Negatives manageable if political will
  - Can’t get there? Consider running for office!
GETTING PAYT & DIVERSION PROGRAMS IN PLACE

State, County, Local Level…
Legislation, ordinance, contract, muni…
HOW TO GET PAYT IN PLACE

☐ Municipalization
  ■ Do it yourself, local decision-making, local action

☐ Ordinance
  ■ If multiple haulers servicing area and want minimal disruption in service providers

☐ Contracting / districting / franchising
  ■ If multiple haulers servicing area and want economies of scale, single provider
GETTING PAYT IN PLACE: ORDINANCE VS. CONTRACT - COMMUNITY PERSPECTIVE

<table>
<thead>
<tr>
<th>Ordinance Pros</th>
<th>Contract Pros (similar for munic)</th>
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<tbody>
<tr>
<td>❑ Fewer Hauler (“Taking”) &amp; Citizen Complaints (“Choice”)</td>
<td>❑ Lower Cost / bills</td>
</tr>
<tr>
<td>❑ Maintains competition</td>
<td>❑ Fewer trucks, “cleaner” set outs, reduced wear/tear on streets</td>
</tr>
<tr>
<td>❑ No need for “notice”</td>
<td>❑ One hauler to contact if problems arise.</td>
</tr>
<tr>
<td>❑ Quick</td>
<td>❑ City “control” including rates/setting; revenues</td>
</tr>
<tr>
<td>❑ Can specify rate “structure”</td>
<td>❑ More flexible / easier to enforce penalties than ordinance</td>
</tr>
<tr>
<td>❑ Minimal City effort (RFP, etc.)</td>
<td>❑ Can “designate” facility destinations for materials</td>
</tr>
<tr>
<td>❑ Retains “level playing field” for haulers – each implements the program and provides services knowing others will be operating under same rules.</td>
<td>❑ Potential revenue source</td>
</tr>
<tr>
<td></td>
<td>❑ (Similar for franchise / district EXCEPT may not get lower bills if multiple awardees)</td>
</tr>
</tbody>
</table>

Sample language available for State legislation, contracts, ordinances, etc. at www.paytnow.org; paytwest.org; www.paytinfo.org

Source: SERA publications
# GETTING PAYT IN PLACE: ORDINANCE VS. CONTRACT – HAULER PERSPECTIVE

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<th>Contract Pros (similar for munic)</th>
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<tr>
<td>Fewer Hauler (“Taking”) &amp; Citizen Complaints (“Choice”)</td>
<td>Good for winner / customer expansion and guarantee (high risk to others of loss of customers)</td>
</tr>
<tr>
<td>Maintains competition</td>
<td>City may opt to help with billing / bad debt; customer service</td>
</tr>
<tr>
<td>Only specify rate “structure”</td>
<td>Negatives:</td>
</tr>
<tr>
<td>(contract has much greater involvement)</td>
<td></td>
</tr>
<tr>
<td>Minimal City involvement</td>
<td>customer retention, facility designation; rates; liquidated damages</td>
</tr>
<tr>
<td>“Level playing field” and flexibility for haulers –</td>
<td></td>
</tr>
<tr>
<td>each implements the program and provides services knowing others will be operating under same rules (less flexibility in contracting).</td>
<td></td>
</tr>
</tbody>
</table>

Sample language available for State legislation, contracts, ordinances, etc. at www.paytnow.org; paytwest.org; www.paytinfo.org

Source: SERA publications
IMPLEMENTATION OPPORTUNITIES

- Contracts, franchises, rates or billing system being changed
- Landfill or disposal problems
- New or modified programs
- Existing system perceived as unfair
- Tight budgets, need to free up tax authority

PAYT may not be right for a community now, but almost ALWAYS worth investigating to see.
# WHY CITIES / HAULERS SHOULD LIKE PAYT

<table>
<thead>
<tr>
<th>Cities</th>
<th>Haulers</th>
</tr>
</thead>
<tbody>
<tr>
<td>✅ Meet recycling goals</td>
<td>✅ Business opportunity – more revenues – REQUIRE more services and reimbursed for it</td>
</tr>
<tr>
<td>✅ Easy to remove from taxes / bill</td>
<td>✅ Distinguishes from competitors – extra service to customer</td>
</tr>
<tr>
<td>✅ Equity / “utility”</td>
<td>✅ Learn PAYT “skill” that may help expansion elsewhere</td>
</tr>
<tr>
<td>✅ Options for customers to save</td>
<td>✅ Options / not all can-based ($)</td>
</tr>
<tr>
<td>✅ Satisfies green customers</td>
<td>✅ Options that don’t require “single hauler” (contracting) issue</td>
</tr>
<tr>
<td>✅ Self-funding</td>
<td>✅ Growth, positive perception from customers &amp; cities</td>
</tr>
<tr>
<td>✅ Keep city “clean”</td>
<td>✅ Vertically integrated haulers may like recycling; recycling not limited like Landfills</td>
</tr>
<tr>
<td>✅ Lower bills for residents like HOAs</td>
<td>✅ Don’t have a choice / get on the band wagon?</td>
</tr>
</tbody>
</table>

Source: SERA publications
## “SELLING” PAYT – GETTING APPROVAL - POLITICIANS

<table>
<thead>
<tr>
<th>Political Pros</th>
<th>Motivating</th>
</tr>
</thead>
<tbody>
<tr>
<td>☐ Equity</td>
<td>☐ Make sure enviro council-member / champion brings in others...</td>
</tr>
<tr>
<td>☐ Environ citizen group rec’m</td>
<td>☐ Get enviros (and others) to your meetings – ALL the meetings</td>
</tr>
<tr>
<td>☐ Meeting goals; link to ultimate goal (recy, econ, enviro, jobs...)</td>
<td>☐ Have information on myths ready – naysayer comments to expect and be honest</td>
</tr>
<tr>
<td>☐ Underperforming recycling-improve cost-effectiveness</td>
<td>☐ Note hauler opportunities; small hauler case studies</td>
</tr>
<tr>
<td>☐ Citizens demanding / moved from other places</td>
<td>☐ Speaker from successful town</td>
</tr>
<tr>
<td>☐ Reduce costs (landfills)</td>
<td>☐ If planning a rate change...</td>
</tr>
<tr>
<td>☐ Overconsumption / “buffet”; reduce tax burden; lasts</td>
<td>☐ (Maybe enviro; depends)</td>
</tr>
<tr>
<td>☐ No one wants to waste</td>
<td>☐ Can sometimes be driven by outside factors (YW bans at LF, etc.)</td>
</tr>
</tbody>
</table>

Source: Skumatz publications
“SELLING” PAYT

Citizens
- Control over bill / equity / ability to save
- Less waste
- Packaging with new programs and options
- Green message
- Rename without “Pay” in the name

Haulers
- Business opportunity – more revenues
- Recurring bill
- Options / not all can-based ($)
- Learn PAYT “skill” that may help expansion elsewhere
- Not bundling with “single hauler” (contracting) issue

Source: SERA publications
**SMALL HAULER CONCERNS**

<table>
<thead>
<tr>
<th>Concerns</th>
<th>Addressing concerns</th>
</tr>
</thead>
<tbody>
<tr>
<td>Containers ($, options for ownership)</td>
<td>Options – and WHAT, not how</td>
</tr>
<tr>
<td>Billing</td>
<td>Containers: lease, loan, grant, use labels / decals /lid color; bags/tags, EOW</td>
</tr>
<tr>
<td>Revenues</td>
<td>One on one meetings</td>
</tr>
<tr>
<td>Payments</td>
<td>Who is the bad guy</td>
</tr>
<tr>
<td>Big guys know how</td>
<td>Billing options</td>
</tr>
<tr>
<td>No recycling service</td>
<td>Other haulers say – “EVOLVE or die…”</td>
</tr>
<tr>
<td>Going out of business Risk – large haulers-vertical integration</td>
<td></td>
</tr>
</tbody>
</table>

Competing against next “commodity” man & a truck without “hook “is tough battle. Level playing field
TYPES OF NAYSAYER
ISSUES TO ADDRESS

- Too costly
- Doesn’t work
- Taking away my hauler
- Government stay out of trash / works fine
- Don’t charge more for more kids in school...
- Large families / poor families
- Recycling goes to China (or landfill)
- Put folks out of business
- Benefits big haulers...
- Many others...

Source: SERA publications
CASE STUDIES – FLEXIBILITY IN PAYT

Juri Freeman
Recycling Program Manager
City and County of Denver
Juri.freeman@denvergov.org
# Flexibility in Implementation

<table>
<thead>
<tr>
<th>Location</th>
<th>Type</th>
<th>Area Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vail, CO</td>
<td>Ordinance</td>
<td>Small resort town</td>
</tr>
<tr>
<td>Edgewater, CO</td>
<td>Contract</td>
<td>Urban area</td>
</tr>
<tr>
<td>Grand Lake, CO</td>
<td>City run program</td>
<td>Rural drop-off</td>
</tr>
</tbody>
</table>
CASE STUDY: VAIL – “ORDINANCE”

- Resort community located in Central Mountains of CO
- Population of 5K year round, swells to about 45K during peak times, 335” of snow a year
- Open-hauler system
- Low recycling rate for a number of reasons
THE ORDINANCE

- Began a series of stakeholder meetings in 2010
- Questions that were raised:
  - Why implement?
  - Who will it cover?
  - What about bears, education?
- Passed ordinance in March 2014, went into effect 7/1/2014
THE ORDINANCE

- Licenses all haulers operating in the town
- Bi-annual reporting and audit option
- Sets base level at 32-gallons
- Embeds rates
- Min. default 64-gallons
- Sets rate differentials, 80% of base unit

Goes well beyond residential:
- Embeds recycling in commercial and MF
- Requires source separation all sectors
- Must contract for recycling
- Addresses restaurants, bars, hotels, HOAs

CONTACT: Kristen Bertuglia, Town of Vail kbertuglia@vailgov.com
EDGEGWATER, CO

- Small urban community (2,000 HH)
- Municipal collection, no curbside recycling, unlimited trash
- Diversion rate around 6-7%
- Trash rates at $12.50/hh/month
WHAT HAPPENED?

- Recycling committee with concerned citizens
- Citizens worked with City leaders
- Studied residential trash behaviors, opinions, etc.
Took two years but the city decided to switch to a single contract with PAYT

No loss of jobs for City staff

EOW Super Saver - $8, 32-gallon $10, 64-gallon $15, 95-gallon $20

All prices include embedded recycling

Recycling rates tripled in the first three months! (Around 20% today)
GRAND LAKE, CO

- Small rural town (population ~500)
- Large tourist population, second home owners

Issues:
- Illegal dumping
- Human wildlife interactions
- Funding recycling
- Appearance of town
GRAND LAKE, CO
WHAT HAPPENED?

- Ad-hoc committee to study the issue
- Went out to bid with three options
  - Build their own facility (drop-off)
  - Lease a facility and town runs program
  - Contract with a hauler
- Chose to build, run their own facility
WHAT HAPPENED?

- Charge $4.00 per bag ($.50 to vendor, rest to town)
- Implementation was easy - some illegal dumping at the start
- Town getting cash flow for the program
- Very popular, very positive feedback (citizens and vendors)
- Planning on using revenues to set up recycling program
DENVER AND PAYT?

- Municipal service provided to 174K households
- No direct fee for service
- 75% of households ‘participate’ in the Denver Recycles program
- Denver Composts service is limited by budget
- Gaining political and community support is BY FAR the largest barrier.
CONVERSION TO CARTS
RECOMMENDATIONS

- Work with the haulers and consider their position(s)
- Develop advocates among elected officials
- Do your research on ‘why’
- Know the barriers- and know there are lots of ways to overcome them
- Be prepared to wait
- Get your marketing plan ready early
CASE STUDY
COUNTY OF KAUAA’I
PAY AS YOU THROW
(PAYT)

Allison Fraley
County of Kaua’i
Department of Public Works,
Solid Waste Division

May 21, 2015
ALOHA FROM KAUAʻI
HISTORY OF SOLID WASTE MANAGEMENT ON KAUA‘I

- County provides refuse collection & manages a single landfill
- Until 2012, manual refuse collection. No fees for refuse service or limits on set outs
- Initiated a flat fee for refuse service and phase in of automated in 2012.
- First Recycling Coordinator hired in 2000
- County has significantly grown programs over the last decade. Recycling rate is 43%
RECYCLING SUCCESSES & CHALLENGES

- Businesses, residents, and visitors show a strong interest in recycling
- Administrative and Council support
- Small population that is geographically isolated
- Cost of recycling is high with limited infrastructure on island
- Available services for hauling and processing are limited
- No MRF - no curbside recycling
Initially declined assistance

Wanted to wait until curbside recycling was in effect

Accepted assistance for information purposes and future reference

Plan was drafted and presented to Council in September 2012

Phase 1 of PAYT plan introduced to Kaua‘i County Council in 2014
PROPOSED PAYT PLAN FOR KAUAI

- Phase 1: Introduce 64 gallon option in conjunction with the completion of automated refuse collection

- Phase 2: Once MRF is operating, introduce curbside recycling (96 gal) & curbside yard waste (96 gal). Add option for 32 gallon trash

- Phase 3: Adjust rates to move toward self sufficiency
## Proposed Rate Structure in PAYT Plan

<table>
<thead>
<tr>
<th></th>
<th>Current</th>
<th>Phase 1</th>
<th>Phase 2</th>
<th>Phase 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Base Fee</td>
<td>$6</td>
<td>$6</td>
<td>$6</td>
<td>$9</td>
</tr>
<tr>
<td><strong>32 gal</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(base + collection)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>$12</td>
<td>$16</td>
<td></td>
</tr>
<tr>
<td><strong>64 gal</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(base + collection)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>$12</td>
<td>$21</td>
<td>$28</td>
</tr>
<tr>
<td><strong>96 gal</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(base + collection)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>$12</td>
<td>$21</td>
<td>$36</td>
<td>$49</td>
</tr>
</tbody>
</table>

- Phase 1 fee differential 75%
- Program revenues projected to increase by $777,600 if 55% select large cart and 35% select large cart
- Current cost of service is $56 per month
OUR EXPERIENCE INTRODUCING PHASE 1 PAYT LEGISLATION

- Originally proposed Phase 1 rates in plan
- Property taxes had just increased, so there was a concern about fees. Refuse assessment collected on tax bill.
- Concern with illegal dumping
- Rumor that we would charge at the transfer station and landfill gate
- Philosophical debate on whether revenue should come from fees or general fund. Concern about “double taxing”
Trash by the pound

Darin Moriki - The Garden Island | 21 comments

LIHUE — Residents may soon be feeling a new kind of crunch when it comes to throwing away their trash.

A measure now being considered before the Kauai County Council, Bill 2551, would implement a new waste management program, called pay as you throw, which aims to divert some waste from the Kekaha landfill and bolster recycling practices. It would charge residential and commercial customers incremental rates based upon how much they choose to throw away.

But the change being considered today could also mean residential users may pay the same amount for smaller bins than they have now, and higher fees if they want to throw away even more.

“Pay as you throw provides an economic incentive for waste reduction,” said County Council Chair Bill船头。
## LEGISLATIVE CHANGES TO RATES PHASE 1

<table>
<thead>
<tr>
<th>Current RRCA Program</th>
<th>Original Rates PAYT Plan</th>
<th>Ordinance 975</th>
</tr>
</thead>
<tbody>
<tr>
<td>Base Assessment</td>
<td>$6</td>
<td>$6</td>
</tr>
<tr>
<td>64 Gal. Base + Collection</td>
<td>$12</td>
<td>$10</td>
</tr>
<tr>
<td>96 Gal. Base + Collection</td>
<td>$12</td>
<td>$18</td>
</tr>
</tbody>
</table>
PAYT ORDINANCE 975 PASSES

- October 8, 2014
- Council Vote: 5 yes, 1 no, and 1 excused
- First PAYT law in Hawai`i
- Program goes into effect July 1, 2015
- Program to start at the same time we complete island-wide automation of refuse collection. 9,000 new automated customers.
IMPLEMENTATION TASKS

- Conduct survey for cart size order
- Order carts
- Revise billing system for new fee structure
- Notify 20,000 customers and obtain cart size choice
- Receive and distribute carts
- Switch out carts for existing customers
IMPLEMENTATION CHALLENGES PAYT

- Assuring we order the correct number of 64 gallon and 96 gallon carts – cart survey
- Problems getting customer responses
- Confusion about what Pay As You Throw means and whether there will now be fees at the Transfer Stations
- Logistics of switching out carts
- Staffing shortages
CHALLENGE HIGHLIGHT: CART SURVEY

- Conducted survey internally
- Internet search found 377 returned surveys would produce a 95% confidence level for customer base of 20,0000
- Mailed survey to 750 randomly selected property owners; also sent news release and asked employees to take online survey
- Received 421 non-duplicate responses
  - 64 gallon carts = 56%
  - 96 gallon carts = 26%
  - opt out = 18%
CHALLENGE HIGHLIGHT: ESTABLISHING DEFAULT CART SIZE

- “Default”: cart size that will be delivered if we do not hear from customers
- PAYT plan recommended 64 gal. default for new customers because that is the desired behavior; and 96 gal. for old customers who all had that size cart
- We felt having 2 defaults would be bad PR since customers would not be treated equally
- Went with 96 gal. default so we don’t have to handle carts for non-responsive customers who already have service
2015 Residential Refuse Collection Assessment

REGARDING TMK # x17
1. x9 Base Assessment on your benefitted properties (dwelling unit) @ $x8 per month = $x7
2. x9 Refuse Collection Assessment @ $x9 per month = $x10
3. x9 Additional Collections @ $x12 per month = $x13

6 MONTH ASSESSMENT $x15 ANNUAL ASSESSMENT $x16

Note: Low income exemption will apply for a 50% reduction in assessment Yes/No [x14] ONLY PRINTED IF YES

AS OF JULY 2015, HOUSEHOLDS THAT SUBSCRIBE TO CURBSIDE REFUSE COLLECTION SERVICE WILL BE ISSUED THE COUNTY OF KAUA’I REFUSE CART SIZED AS SELECTED BY OWNER. MANUAL REFUSE COLLECTION SERVICE WILL BE DISCONTINUED AS OF JULY 2015.

YOU MUST COMPLETE AND RETURN THE FORM BELOW IF YOU WANT TO STOP RECEIVING COLLECTION SERVICE OR CHANGE TO A 64 GALLON CART. THIS FORM MUST BE SUBMITTED PRIOR TO MARCH 15, 2016 CALL (808) 241-4840 w QUESTIONS

BE ADVISED: IF A COMPLETED FORM IS NOT SUBMITTED AND YOU CURRENTLY RECEIVE CURBSIDE REFUSE COLLECTION SERVICE, YOU WILL CONTINUE TO RECEIVE REFUSE SERVICE AT THE NEW RATE OF $18 / MONTH (INCLUDING BASE FEE) PER BENEFITED PROPERTY

Homeowner is requesting (Please place “X” next to appropriate item):
___ Cancellation of refuse collection (note that base fee of $6 per month will still apply)
___ 64 gallon cart at $10 per month (price includes base fee)
___ Change number of refuse collections at my property: __________

(Enter total number of refuse collections requested)

Address of Benefitted Property:


Owner Name (printed):________________________ Phone:________________________
Owner Signature:________________________ Date:________________________

By signing this document, you verify that you are the owner and information contained herein is true.

THIS FORM IS DUE ON MARCH 15, 2015 (NO EXCEPTIONS)
Please detach and hand deliver, mail, or email
Attention: Billing County Solid Waste Division
4444 Rice St., Suite 295
Lihue, HI 96766
E-mail PDF to: jokuhara@kauai.gov
Call for assistance: (808) 241-4840

For Official Use Only
Date Received:
Received By:
Approved:
Developed second notice with staff input.

Good response.
IMPLEMENTATION CHALLENGES: AUTOMATED ROLLOUT

- Public confusing PAYT with automated rollout. Automation challenging in rural areas
- Concerns about automated carts
- RFID tags
- Manual modification of routes
- Distributing carts months before service
CHALLENGE
HIGHLIGHT: Refuse carts

- Elderly concerned about maneuvering
- Brochure picture
CHALLENGE HIGHLIGHT: EARLY CART DELIVERY

Placed notification sticker and property address on carts
THE GOOD NEWS

- We are getting there! Home stretch....
- We passed the deadline for customer choice May 15
- Need to do final tabulation of cart size choice – close to survey numbers
- Public recognition of rate equity
- A lot of people “get it” and are making changes. Considering waste diversion options: backyard composting and recycling
RECOMMENDATIONS

- Staff up
- Professional cart delivery
- Adding automation at same time you introduce PAYT is challenging
- Allow enough time between legislation and implementation
QUESTIONS

Allison Fraley
Solid Waste Program Coordinator
County of Kaua‘i
Department of Public Works
(808) 241-4837
afraley@kauai.gov
www.kauai.gov/payt
PAYT WRAP-UP
IMPLEMENTATION
DECISIONS

☐ Service delivery
  ■ Muni, contract (bid or RFP), franchise, district, ordinance

☐ PAYT system type
  ■ Can, bag, tag, hybrid, etc.
  ■ Existing... future plan
  ■ Capabilities & resources (billing, containers)

☐ ➔ Affect Implementation steps

<table>
<thead>
<tr>
<th>Ordinance Pros</th>
<th>Contract Pros (similar for munic)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fewer Hauler (“Taking”) &amp; Citizen Complaints (“Choice”)</td>
<td>Lower Cost / bills</td>
</tr>
<tr>
<td>Maintains competition</td>
<td>Fewer trucks, “cleaner” set outs, reduced wear/tear on streets</td>
</tr>
<tr>
<td>No need for “notice”</td>
<td>One hauler to contact if problems arise.</td>
</tr>
<tr>
<td>Quick</td>
<td>City “control” including rates/setting; revenues</td>
</tr>
<tr>
<td>Can specify rate “structure”</td>
<td>Can “designate” facility destinations for materials.</td>
</tr>
<tr>
<td>Minimal City effort (RFP, etc.)</td>
<td></td>
</tr>
<tr>
<td>Retains “level playing field” for haulers – each implements the program and</td>
<td></td>
</tr>
<tr>
<td>provides services knowing others will be operating under same rules.</td>
<td></td>
</tr>
</tbody>
</table>

Bag / Tag photos courtesy Resourceful Bag & Tag
RATE SETTING & DESIGN

- Number of “revenue items” is key
  - Prediction challenges, data

- Revenue risk
  - System type
  - Customer charge, per capita charges
  - Set Outs are KEY

- 3 x30g historically – often down to 1 or 1.5 x 30 gal.
IMPLEMENTATION SCHEDULE – BAG EXAMPLE

Month 1:
Initial meeting with consultant, Manager, and PW staff to discuss Possible bag system

Month 3-4:
Consultant prepares recycling / SW Plan

Month 4-6:
Discussion of bag approach with PW committee

Month 6:
Work session on bag fee With PW and local politicians

Month 6-7:
Evaluate / finalize Price of bags

Month 8:
Final ordinance Passed.

Month 10:
Public meetings Order bags

Month 11:
Bag system implemented

This example is a year (with a solid waste plan); Have seen bag / tag programs implemented in 3 months.
“TOP 5” - WHAT A COMMUNITY OR COUNTY CAN DO TO INCREASE DIVERSION... NOW!

☐ #5 Citizen sustainability committee
   ■ Activist/ involvement; access; options; grants

☐ #4 Measurement and goal-setting
   ■ Baseline/status quo/gaps, plan, goal, buy-in

☐ #3 Basic programs & ordinances
   ■ Ordinances for space for recycling; residential drop-offs, commercial programs (plans, lease, ABC, access) ➔ opportunity

☐ #2 Education
   ■ Variety (incl. translating) ➔ awareness

☐ #1 PAYT / Embedded recycling ordinance or contract ➔ Number 1 thing you can do

handout available on web
SERA publication
SUMMARY

- PAYT effective, cost-effective, flexible, demonstrated
- Negatives manageable with political will (and possible renaming to get past “pay”!)
- Quickest, least expensive, most effective approach to achieve diversion, equity, and environmental goals
- Resources available to all (paytnow.org) and EXTRA resources for Region 9 communities and tribes
  - Go to EPA website or www.paytnow.org or call 303/494-1178 or 866/758-6289; final uploaded soon.
QUESTIONS / ASSISTANCE:

Lisa A. Skumatz, Ph.D.
Econservation Institute
762 Eldorado Drive, Superior, CO 80027
Phone: 866-758-6289, 303/494-1178
email: skumatz@econservationinstitute.org
skumatz@serainc.com

Project website – www.paytnow.org