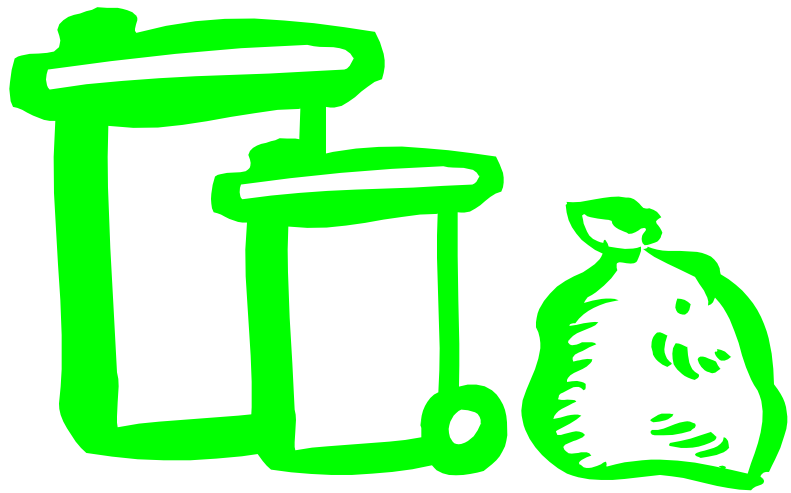
“Pay-As-You-Throw”

Unit Pricing of Municipal Solid Waste



MSW Hierarchy Pyramid

Potential Benefits

- **Encourages the Three Rs:**
  - **Reduce**
  - **Reuse**
  - **Recycle**

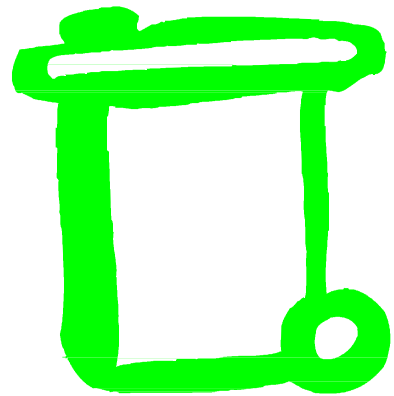
Gato

Potential Benefits

- **Encourages the Three Es:**
  - **Environment**
  - **Economics**
  - **Equity**

Waste Reduction Results

- Perkasie, PA — 54%
- MN Town 1 — 60%
- MN Town 2 — 37%
- Duke University Study of 14 cities — 44%

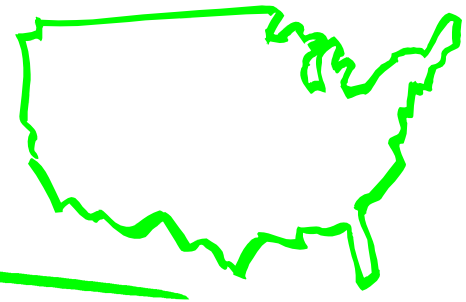


6 MA Cities

- Before Unit Pricing — 1.5 - 4.5 ppd
- After Unit Pricing — 0.89 - 1.09 ppd

- Cornell University, Tompkins County, NY — 76% of residents reduced waste

Different Unit Pricing Programs



Community	Population	Type of Program	Change in MSW	Change in recycling
Plantation, FL	64,000	Bags	*	+21%
Perkasie, PA	7,900	Bags	-54%	+50%
High Bridge, NY	4,000	Stickers	*	+18%
Illion, NY	9,500	Bags	-51%	+41%
Pasadena, CA	119,374	Can	-21%	*
Loveland, CO	31,000	Stamp	-62%	*
Austin, TX	450,000	Can	-40%	*
Dupage County, IL	668,000	Bags	-53%	*

* Data not avalilable

Deciding Whether to Use Pay-As-You-Throw

- Will the program meet our MSW goals?
- Will residents support the program?
- Will costs and revenues balance?

Pay-As-You-Throw Goals (Examples)

- Raise sufficient revenues
- Encourage MSW reduction through price signals
- Convey a better understanding of social costs to citizens
- Charge for recycling and other complementary programs
- Allow for the needs of special groups
- Keep the program simple to use and run

Education and Outreach

- Need the support of residents!
- Build consensus with an outreach campaign
- Citizens' advisory council can help:
  - Set goals
  - Build consensus

HIGH GRADE
LOW GRADE
CARDBOARD
GLASS
ALUMINUM
I'm a Recycler.

Building Consensus

- Explain current MSW issues
- Present community's MSW goals
- Explain how Pay-As-You-Throw can meet these goals
- Residents more likely to support program when they see tangible benefits

Techniques for Building Consensus

- Hold public meetings
- Issue press releases/outreach to local media
- Prepare briefs for elected officials
- Work with retailers
- Enclose information with utility bills/other mailings to residents

BE EARTH
PAY
YOU

Rate Structure Container Options

- Tags
- Bags
- Cans

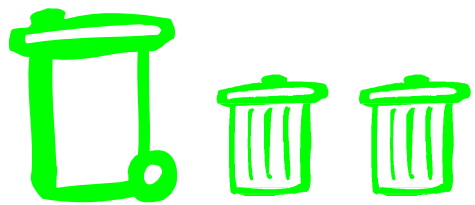
HEIL

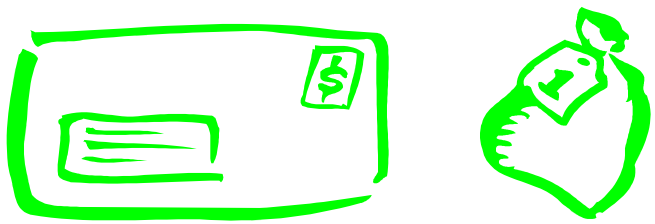
CCC

Rate Structure Systems for Unit Pricing

- **Proportional (linear)**

- **Variable Container**





- **Two-tiered/ Multi-tiered**

RECYCLE

Complementary Programs

- Recycling collections
- Yard trimmings collections for composting
- Bulky items pickups

Designing a Rate Structure

- **Costs**
  - **Estimate Demand:**
    _____ cubic yards/tons MSW
  - **Determine Services**
    (curbside recycling, low-income assistance, etc.)
  - **Estimate Costs:**
    $ _____ fixed and variable costs

Designing a Rate Structure

- **Revenues**
  - **Develop Rates: $ _____ per unit**
  - **Calculate Revenues:**
    _____ units MSW x $ _____ per unit = $ _____

Designing a Rate Structure

- **Balance**
  - **Weigh costs against revenues**
  - **Adjust costs and/or revenues as needed**

$ _____
Costs

$ _____
Revenues

Challenges and Solutions

Illegal dumping	Education, legal diversions, enforcement
Multi-family housing	Include charges in rent, bar code chutes
Low-income groups	Rebates, discounts
Covering costs & revenue stability	Two-tiered billing
Regressivity & hidden tax issues	Appropriate pricing and refunds