Solid Waste Management and Municipal Finance

PREPARED FOR CONNECTICUT
GOVERNOR'S RECYCLING WORKING GROUP
PREPARED BY
DSM ENVIRONMENTAL SERVICES, INC.

PRESENTED JULY 24, 2012

Municipal Responsibility for Solid Waste Management in CT

- Conn. Gen. Stat. § 22a-220(a) and (f) state:
  - Each municipal authority shall make provision for the safe and sanitary disposal of all solid wastes which are generated within its boundaries
  - Each municipality shall, consistent with the requirements of section 22a-241b, make provisions for the separation, collection, processing and marketing of items generated within its boundaries as solid waste and designated for recycling by the commissioner

Ways to Manage that Responsibility

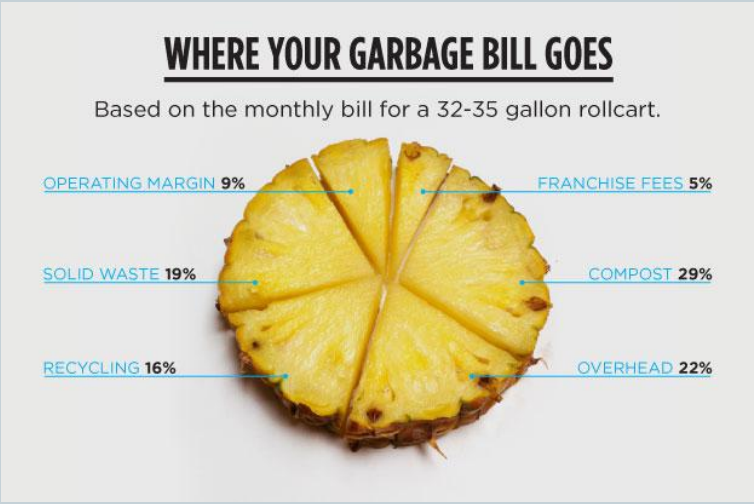
- Municipal landfill (just one MSW landfill in CT-Windsor)
- Contract with CRRA , other regional authority, or private vendor for energy recovery or transfer to disposal facility
- Recyclables processing contract

- Provide for collection of MSW and recyclables through:
  - Free market subscription collection
  - Non exclusive franchise for curbside collection
  - Exclusive franchise for curbside collection
  - Municipal contract for collection
  - Municipal collection crews
  - Agreement with transfer station for drop-off
  - Operation of transfer station for drop-off

Allocation of System Costs

- The old rule of thumb was that collection cost roughly 60 – 70 percent of total system costs with disposal representing the remainder
- As we have added higher levels of diversion we have changed that calculation.
  - For example, collection costs for recyclables (depending on collection method) may be an even higher percent of total costs
- The move toward higher diversion of more materials, including organics, shifts the costs even more substantially.

Seattle Public Utilities Chart



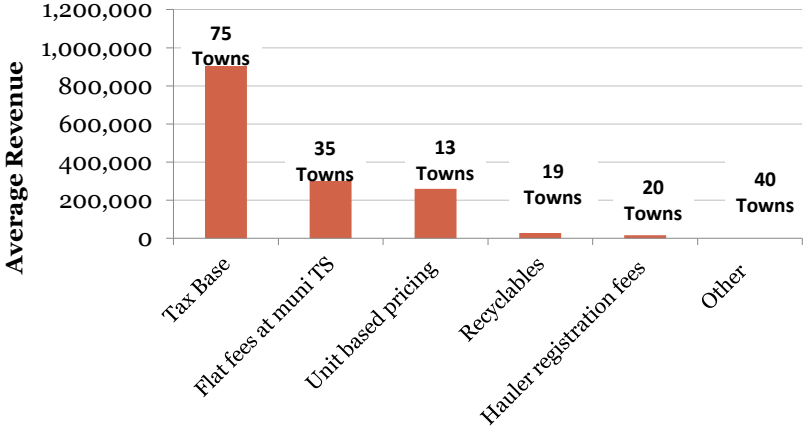
Revenues, Costs, Prices

- Ultimately all of the costs of the system must be covered
- Many of the costs are borne by private waste haulers and recovered in the prices they charge for subscription collection of household and business waste
- Municipalities who collect waste/recyclables directly or contract for waste/recyclables collection may pay for these costs through property taxes and/or user fees
- The State also collects revenues through the Solid Waste Assessment Fee and through escheats on non-returned deposit containers
- Retailers and beverage distributors recover their costs through increased prices for beverage containers
- The following slides illustrate various ways that costs are recovered by all of the service providers

Ways to Finance the Collection, Processing and Disposal Infrastructure

- No involvement by municipality
  - Financed entirely by private sector through subscription fees billed directly to households and businesses
- Financed entirely by property tax
- Financed through transfer station permits and/or user fees
- Financed in whole or in part by volume-based user fees
- Service level-based user fees
- Surcharge on tipping fees
- Deposit systems
- Extended producer responsibility schemes
- Packaging taxes

FY 2008 Annual Revenue Sources for MSW and Recycling Programs to Cover Municipal Costs



113 municipalities (out of the 161 surveys received) responded to this question. Multiple responses allowed.

Financed Entirely by Private Sector

- Benefits
  - No involvement by municipality
  - No impact on property tax
  - Typically volume based
- Drawbacks
  - Unorganized subscription service tends to be most costly form of residential collection
  - Private sector must incorporate non-payment in fees to all users
  - Typically not aggressive volume based fee because marginal cost of service is low compared to fixed cost
  - Other costs to municipal infrastructure and public health & safety due to traffic (multiple trucks on the same road)

Property Taxes

- Benefits
  - Guaranteed collection of fees through threat of liens on property
  - Predictable source of revenue
  - Deductable from income taxes
  - Can shift residential costs to commercial properties
- Drawbacks
  - Socialization of costs dulls incentive to reduce at individual level
  - Little relation between waste generation and cost
  - May be done without creating enterprise fund
  - Competes with other critical municipal needs
  - Difficult to create incentives to recycle or reduce
  - Difficult to add new services because of pressure on taxes

Financed Though Transfer Station Fees

- Benefits
  - Can be user fees based on volume or a combination of permit and user fees
  - Only those who choose to deliver to the transfer station pay
  - Transfer stations typically offer a wide array of disposal and recycling options (e.g., MSW, yard waste, bulky and C&D, recyclables, electronics, hard to handle materials, metals)
- Drawbacks
  - Typically residential users drive many more miles than if their waste were picked up curbside
  - If flat permit fees are primary revenue source, then users do not have an incentive to increase diversion though recycling
  - User fees typically cannot be paid directly to attendant to avoid cash transactions at site

Volume-Based User Fees

- Often called "Pay As You Throw" (PAYT) or "Save Money As You Reduce Trash" (SMART), or "Unit Based Pricing"
- Benefits
  - Proven way to increase recycling
  - Takes cost off of property tax
  - Links disposal costs to diversion
- Drawbacks
  - Can be politically difficult to adopt
  - Lower level of certainty of revenue in early years
  - Must address potential diversion to other disposal options – commercial dumpsters

Service-Based User Fees

- Typical billing mechanism for private contractors
  - Customer charged for collection frequency and maximum or peak volume they might use
- Benefits
  - Easy to administer
  - Customer has sufficient waste storage capacity in most cases
- Drawbacks
  - Less incentive than PAYT to increase recycling
  - Often requires subscription and increased cost for recycling
  - Private hauler takes non-payment risk

Surcharge on Tipping Fees

- Typically used to fund "desirable" materials management programs
  - HHW, YW composting, special waste collections, subsidize recycling collection
- Benefits
  - Large throughput facilities can generate significant revenues with low surcharge
  - Increases cost of *less desirable* waste disposal
- Drawbacks
  - Declining tonnage at disposal facilities reduces revenue to fund programs contributing to declines
  - Legislatures may usurp funds for other purposes – the case in Connecticut

Deposits

- Bottle bill is best example
  - Another example is lead acid batteries
- Revenues only accrue to government if escheats confiscated through legislation
  - This is the case in CT where escheats going to general fund
  - Massachusetts captures escheats as well – originally all of the escheats were used to fund recycling programs but eventually moved to general fund
- Benefits
  - High material recovery rates
  - Higher quality materials recovered
  - Is effectively Extended Producer Responsibility for beverage container packaging
- Drawbacks
  - Results in dual system for recycling
  - Requires citizens to return material outside of blue bin (at cost to citizens)
  - High handling costs to distributors and retailers
  - Significant fraud potential

Product Stewardship

- Common in Canada and Europe
- Currently adopted for special wastes in U.S. in many states, but not for packaging
  - E-waste and paint are in place in CT
- Benefits
  - Producers responsible for cost of recovery
  - Cost passed to consumers to reduce externalities
  - Can achieve high material recovery rates
- Drawbacks
  - Initial implementation costs will be high
  - Difficult to integrate existing materials management systems
  - Administration costs high
  - May change who owns materials
  - Requires legislature to enact

Packaging Tax

- Has been discussed but not implemented in U.S.
- Benefits
  - Small tax can raise significant revenue
  - Begins to address externalities of packaging waste
  - Can be adjusted to reward environmentally preferable packaging or penalize difficult to manage packaging
- Drawbacks
  - Tax insufficient to change behavior
  - Can be usurped by Legislature
  - Requires detailed reporting by manufacturers and first importers
  - Requires legislature to enact

Examples of Municipal Systems

- San Francisco – Regulated, exclusive franchise with fees set high enough to provide for broad range of services to households and businesses – organics, recycling and residual collection
- Seattle, WA and Portland, OR – Multiple, regulated franchises, with requirement for separate organics, materials and MSW collection
- Chittenden (VT) Solid Waste District – Non-exclusive franchise, subscription service with minimum specifications for embedded recycling cost
- Hartford, CT – Municipal collection of MSW and recyclables with RecycleBank rewards program
- Concord, NH – Municipal contracts for collection of MSW and recyclables and full cost unit-based pricing
- Middletown, RI – Unit-based pricing and a $150 per year sticker fee
- Worcester, MA – Municipal collection of MSW with unit-based pricing funding part of cost and municipal contract for recycling collection

Discussion

- Different systems for different demographics, goals and needs
- For discussion in Systems and Infrastructure Sub-Committee
  - Is it possible to move from municipal revenue collection system to a revenue system that is regional or statewide given current patchwork approach common in New England?