Municipal Solid Waste Utility Funding Models

Solid Waste Association of America (SWANA) Northern Lights Chapter (NLC)
Our Topic

Solid Waste Utilities operate within a dynamic, multi-market world – their financial plans and funding models aught to match

External Challenges & Disrupters

Operating Model Implications

Funding Model Considerations
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10+ years working with a variety of Western Canadian municipal solid waste utilities

Focus on strategy, performance improvement, governance, cost of service, rate making, and fiscal policy
Our Service Offerings

**Strategy**
- Strategic and Business Planning
- Feasibility Assessment
- Business Model Design
- Funding Model Design & Sustainability
- Stakeholder Engagement & Facilitation

**Organizational Development**
- Organizational Transformation
- Organization Design & Implementation
- Change Management
- Culture Assessment & Transformation
- Process Assessment & Redesign

**Operational Performance**
- Cost of Service & Rate Design
- Service Delivery Model & Program Review
- Operating Model Design
- Performance Improvement & Cost Reduction
- Performance Measurement & Reporting

**Governance**
- Governance Model Review & Development
- Rate Regulatory Advisory
- Regional Services Cooperative Model Design
- Amalgamation & Business Integration
- Strategic Portfolio & Program Management
Funding Model Considerations for Municipal Waste Management Systems
SUSTAINABILITY

What does it mean for a municipal utility to be sustainable?

Typical characteristics include...

a) Supporting community environment & social priorities
b) Selecting investments based on full life-cycle cost analysis
c) Ensuring sufficient, reliable funding for investments, ongoing costs, and risks
EXTERNAL CHALLENGES & DISRUPTERS

Political:
- Manage Rate Increases
- Support for Local Economic Development / Private Sector
- Push for Extended Producer Responsibility

Environmental:
- Desire for More Waste Diversion / Less Landfilling
- Increased Regulatory Standards
- Protection of Air, Land, and Water

Customer:
- Heightened Customer Experience
- Increased Rate Equity

Technology:
- Resource Recovery
- RFID, GPS, AI, Social Media, etc.

Markets:
- Unstable Commodity Markets
OPERATING MODEL IMPLICATIONS

Diversion Programming
- More Tonnes Diverted
- Fewer Tonnes Landfilled
- Higher Waste Mgmt Facility Complexity

Environmental Outcomes
- Residential – ICI Waste Diversion
- Climate Change
- Groundwater & Toxins Mgmt

Customer Experience
- Customer Service
- Community Programs
- Increased Transparency

Focus on Risk Management
- P3 & Outsourcing Agreements
- Operational Variability
- Revenue & Cost Risks
FUNDING MODEL DEPENDENCIES

A preferred funding model (and financial plan) ideally is dependent on how a Municipal Solid Waste Utility answers the following series of questions:

1. What are your strategic mandate and priority objectives?
2. What business are you in?
3. What services do you provide and to whom?
4. What investments are required & how will they impact cost structure?
5. What financial obligations and risks do you face?
STRATEGIC MANDATE & OBJECTIVES

Answering these questions will provide the basis for prioritizing Funding Model Objectives

**Strategic Questions**

- What Triple-Bottom-Line Community Outcomes are desired?
- What Role Should the Utility Play?
- What are the Utility’s Targeted Program Results?
- What Trade-Offs are required when Prioritizing Competing Objectives?
- What are the Shareholder’s Expectations?

**Funding Model Priorities**

- Waste Diversion
- Customer Equity
- Ease of Administration
- Funding Sufficiency
- Customer Impact / Rate Stability
- Affordability
- Economic Development
- Others
BUSINESS MODEL

Your business model defines what you do to create value for your customers and your stakeholders

Defining / Rethinking Your Business Model

1. What business are you in?
2. Who are your customers?
3. How do you generate revenue?
4. What drives your costs?
SERVICES

An inventory of your solid waste and diversion services needs consider both external and internal factors.

Who Are Your Customers?  
What are Market Dynamics?  
What is Your Cost of Service?
WHO ARE YOUR CUSTOMERS

Too often business owners don’t critically know who their customers are or what they want.

Who Are Your Customers?

Customer Insight:
- Understand how big is the market
- What are their needs and wants?
- Why do your customers choose you?

Market
MARKET DYNAMICS

Each type of service needs to consider its end-users and type of market it operates in.

<table>
<thead>
<tr>
<th>Type of Service</th>
<th>Example End-Users</th>
<th>Market</th>
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<tbody>
<tr>
<td>Residential Collections</td>
<td>• Residential Customers</td>
<td>Monopoly</td>
</tr>
<tr>
<td>Community Programs</td>
<td>• SF &amp; MF Residents</td>
<td>Government</td>
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<td></td>
<td>• Small Businesses</td>
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<tr>
<td>Commercial Collections</td>
<td>• Non-Residential Premises</td>
<td>Competitive</td>
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<tr>
<td>Landfill / Waste Facility</td>
<td>• Residential Customers</td>
<td>Oligopoly</td>
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<td></td>
<td>• Non-Residential Customers</td>
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EXAMPLE: COMPETITIVE & ELASTICITY ANALYSIS

Elements Impacting Disposal Service Quality:

**Non-Financial**
- Site Operations (*i.e.* Hours of Operation, Days of the Week)
- Diversion Requirements (*Acceptability, Separation & Enforcement*)
- Access (*i.e.* Exclusivity)
- Services Provided (*Core vs. Peripheral*)
- Proximity

**Financial**
- Tipping Fee
- Additional Fees (*e.g.* Specific materials rate)

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Disposal Services

- Private Transfer Station Haulers
- Medium Haulers Contracts with Private Transfer Station
- City WMF (Clean Loads)
- City WMF (Loads including DM)
- Regional WMF’s

Service Quality
- Poor
- Excellent

Service Fee
- $0
- $50
- $100
- $200

*i.e.* Tipping Fee / Tonne
COST OF SERVICE

1. Revenue Requirements
   Identifies all funding requirements, including capital, operating, financing, reserve contributions, dividend, etc.

2. Cost of Service for Unique Customer Classes
   Allocates "Cradle-to-Grave" revenue requirements to various customer classes in a fair & equitable manner

3. Rate Design
   Considers both the level & structure of the rate design to collect revenue from each class of service
CAPITAL INVESTMENTS

Sustainability isn’t just about looking at today – it’s about having a portfolio view of investments to support tomorrow

Key Investment Drivers:

1. **Growth**: what net-new infrastructure and operational capacity is needed?

2. **Regulatory**: what do we need to do to maintain compliance?

3. **Enhancements**: what is required to meet ongoing service level expectations?

4. **Asset Management**: what do we need to do to maintain infrastructure performance?
WHAT DRIVES YOUR OPERATING COST STRUCTURE?

Understanding what drives your costs will help you make investment and pricing decisions.

**Cost Analysis**

1. **Fixed costs** remain constant as tonnes / HH’s are managed.
2. **Variable costs** change as tonnes / HH’s increase / decrease.
3. **Break-even** is the point where revenue and expenses are equal (no profit or loss).
OBLIGATIONS & RISKS

A financial plan and funding model has to address how liabilities will be addressed and how risks will be managed.

<table>
<thead>
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<th>Liabilities &amp; Obligations</th>
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<tbody>
<tr>
<td>• Long-Term Debt</td>
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<td>• Landfill Closure</td>
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<td>• Monitoring &amp; Remediation of Closed Landfills</td>
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<tr>
<td>• Current Liabilities</td>
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<tr>
<td>• Minimum Contractual Obligations</td>
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<td>• Shareholder Dividend Requirements</td>
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<table>
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<th>Financial Risks</th>
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<tr>
<td>• Fronting Growth Investments</td>
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<td>• Declining Landfill Tipping Fee Revenues</td>
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<td>• Minimum Tonnage Requirements for P3 Facilities</td>
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<td>• Capital Contingencies</td>
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<td>• Access to Recyclables Markets</td>
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<td>• Year-to-Year Variation in Customer Demand</td>
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KEY LEVERS OF A UTILITY FINANCIAL PLAN & FUNDING MODEL

1. Sources vs. Uses of Funds
2. Capital Planning
3. Financing Tools
4. Reserve Management
5. Rate Design
6. Risk Management
7. Utility Fiscal Policies
8. Performance Measurement
Questions for Discussion

Thank you for your time!