

# IEc

## Gaz Métro Cost Allocation

## Overview of IEc Evidence

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# Overview of Cost Allocation Principles

- Avoidance of Economic Cross-Subsidies
  - Allocated costs should be:
    - No less than incremental cost
    - No more than standalone cost
- Cost Causation
- Assign Costs Only for Assets Used
- Direct Assignment Preferable to Allocation
- Stability, Simplicity

# Mains Cost Allocation

- Perfect method does not exist.
  - Simple methods based on demand, throughput or customer count cannot fully reflect specific aspects of the distribution system being evaluated.
- Most precise: Allocate costs by pipe by pipe only to customers downstream.
  - Data intensive, complex.
- Directionally similar methods:
  - Segregate costs by operating pressure
  - Direct assignment or sampling of primary system costs
  - Direct assign costs to large industrial customers
  - Regional cost allocation
- Gaz Métro rejects all these options.
  - Mains segregated only between transmission and distribution/supply.
  - All customers assumed to use all systems - no direct assignment.

# Generic Options

- 100 Percent Demand
  - Mains length is unrelated to customer count.
- Zero-Intercept
  - Customer component assumes mains length is related to customer count regardless of size
  - Demand component implicitly includes mains length effect
  - Model specification, data and statistical uncertainty issues
- Minimum System: Unadjusted
  - Same customer/demand issues as ZI
  - Concerns about load carrying capability
- Minimum System: Adjusted
  - Assumes load carrying capability of the minimum system can be accurately determined and allocated.
  - Requires assumptions regarding treatment of economies of scale for assigning costs for larger pipes to the minimum system.

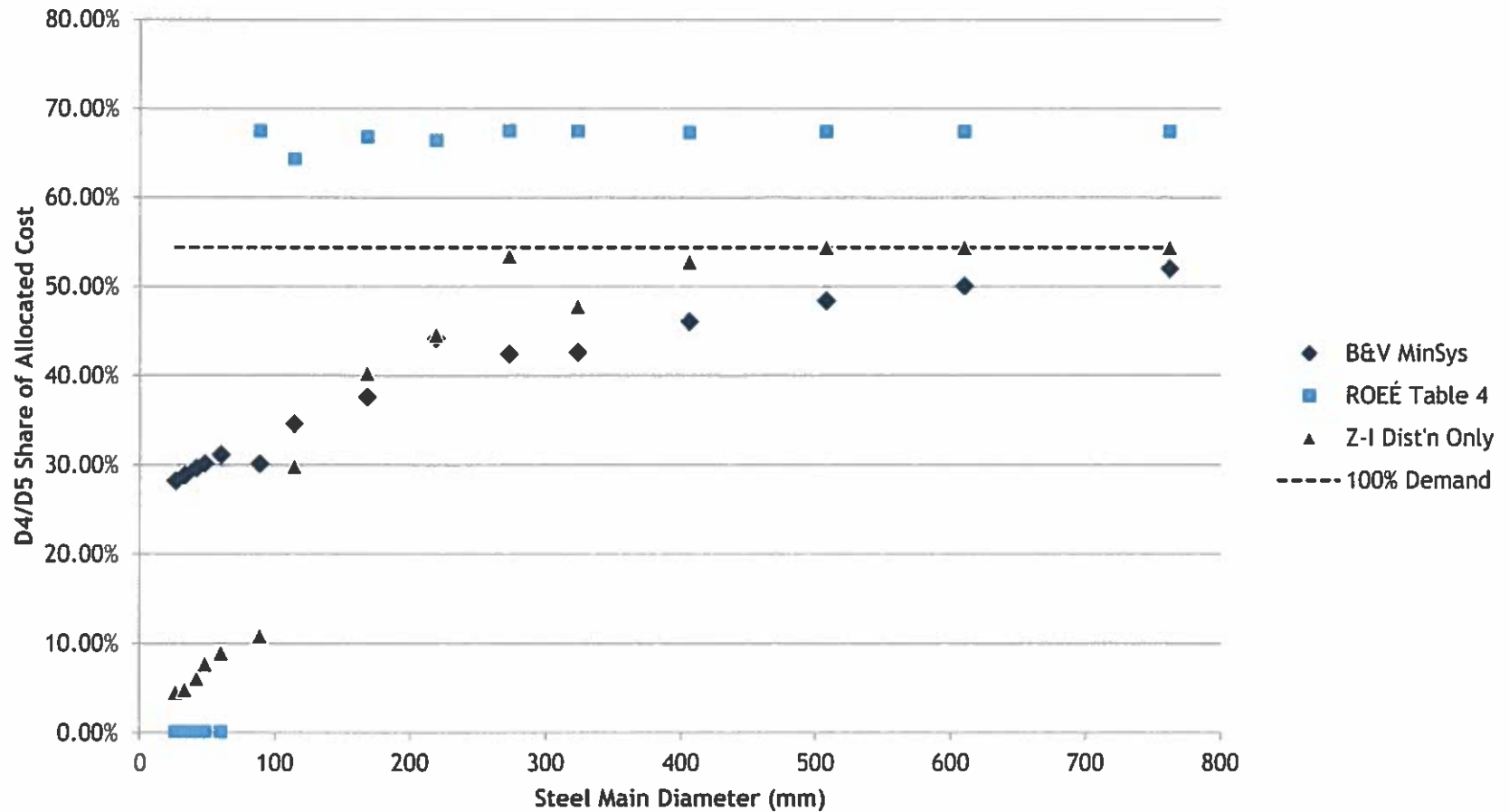
## Allocation of Distribution/Supply Costs to D4/D5

	100% Demand	ROÉ Table 4	ROÉ Table 2	B&V Minimum System	Zero-Intercept Dist. Only	Current GM Zero Intercept	Global Zero-Intercept	Unadj. Minimum System
D4/D5 Share	54.4%	50.7%	49.6%	24.0%	23.3%	22.9%	16.6%	9.7%
Implied Access %	0%	7%	9%	56%	57%	58%	70%	82%

D4/D5: 0.1 % of services count; 54.4% of design day demand.  
 All based on Gaz Métro costs deflated with H-W index.

# Allocation of Steel Mains Costs to D4/D5

D4/D5 Share of Steel Mains Cost  
By Pipe Diameter



# Classification of Supply Mains

- B&V Method
  - Integrate with Distribution mains
  - Apply plastic minimum system
- Alternative Approach: 100% Demand
  - Reasonably consistent with current method
  - Not unreasonable, in conjunction with allocation by operating pressure and technical modifications

## Mains Allocation: Technical Issues

- Demand allocator for interruptible customers
  - Use design day demand for distribution and supply demand-related costs.
  - If transmission system is not expanded to meet design day requirements of interruptible customers, interruptible demand should be excluded from transmission allocator.
  - Fairness issues best addressed in rate design.
- Regional Analysis
  - Better matching of costs to system use.
  - Exhibits statistical problems endemic to ZI method.
- Treatment of Transmission Pressure Customers
  - Exclude from distribution/supply cost allocation.
  - Include costs associated with attaching customers.



## Mains Allocation: Technical Issues (cont'd)

- Inflation Adjustment
  - Affects all cost allocation methods except 100% demand.
  - Objective is to reflect cost of plant in today's dollars, as better reflective of the long-run cost for the equipment.
  - Avoids providing advantage/(disadvantage) to class served disproportionately by old/(new) equipment.
  - Should realistically reflect utility's cost trends.
  - H-W steel index overstates actual GM cost inflation in key period for steel main construction.
  - Understates actual GM cost inflation for significant 1979 data.
- Treatment of Obsolete Equipment
  - Replacement cost is better proxy for long-run cost than inflation-adjusted cost.
  - Particular issue with Gaz Métro “plastic-only” minimum system method.

## Other Cost Allocation Issues

- Meters Costs
  - Adjustment for useful life should reflect both return of and return on investment.
- Design Day Demand Estimation
  - Consistency between classes: hourly vs. daily
  - Validation to actual throughput on near peak days
- Working Capital
  - Reflect payment lag differences (if material)
- General Sales and Advertising Costs
  - In proportion to directly attributable costs
- Utility Network Tax
  - Include all plant subject to tax
- Late Payment Revenues
  - Direct assignment

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