

Discovery on Knecht Evidence

1. Source: R-3867-2013, phase 1, C-ACIG-0028, p. 2, lines, 16–18

- a. Please provide the basis for Mr. Knecht’s statement that “it is long-established” that “subsidy-free prices exceed the incremental cost and fall below the stand-alone cost.”
- b. Please provide the cited passages of Baumol and Sidak, footnote 4.
- c. Please explain whether Mr. Knecht considers the opinion of Baumol and Sidak in 1995 to constitute a “long-established” consensus.

2. Source: R-3867-2013, phase 1, C-ACIG-0028, p. 2, lines, 27-28

- a. Please provide a list of all the Gaz Métro “large industrial customers [that] are located in reasonably close proximity to gas transmission lines and require only a minimum of investment by the gas distributor.”
- b. Please explain whether Mr. Knecht has investigated whether the transmission lines were extended to reach these customers.
- c. If so, please provide any data Mr. Knecht was able to obtain on that issue.
- d. If not, does Mr. Knecht agree that such customers (or their classes) should be assigned the cost of transmission extensions to serve them?

3. Source: R-3867-2013, phase 1, C-ACIG-0028, p. 2, lines, 29-30; p.3, line 10 and p. 10, lines14-16

- a. Please explain whether Mr. Knecht accepts the “postage-stamp” pricing principle that all customers taking similar service should pay the same rates.
- b. If so, please explain how the setting of rates for individual customers based on their location is consistent with that principle.

- c. If not, please explain why Mr. Knecht rejects the “postage-stamp” pricing principle.

4. Source: R-3867-2013, phase 1, C-ACIG-0028, p. 3, lines 18–20

- a. Please explain whether Mr. Knecht believes that, if a customer locates near the existing lower-pressure system, but requires high-pressure supply for its operations, the customer’s choice of high-pressure service would be reduce Gaz Métro’s costs.
- b. If so, please provide the evidence supporting that opinion.
- c. If not, please explain whether Mr. Knecht proposes that customers served at high pressure pay less than customers served at lower pressure.

5. Source: R-3867-2013, phase 1, C-ACIG-0028, p. 3, lines 18–21

- a. If all Gaz Métro customers had always required high-pressure service, but otherwise used the same amount of gas and had the same peak demand as they have historically, would Gaz Métro’s costs be higher or lower than they actually are?
- b. If higher, please provide Mr. Knecht’s estimate of the appropriate surcharge for high-pressure service.
- c. If lower, please explain why.

6. Source: R-3867-2013, phase 1, C-ACIG-0028, p. 3, lines 26–27

- a. Please provide the sources that demonstrate that “there is...general agreement among cost allocation analysts that it is preferable to directly assign costs than to allocate costs.”

7. Source: R-3867-2013, phase 1, C-ACIG-0028, p. 5, line 20

- a. Please clarify what Mr. Knecht means by “the total mains system *must* be extended to interconnect all customers.”
- b. Does this mean that Gaz Métro is required to pay for mains extensions to interconnect all Quebec facilities that desire access to gas, at Gaz Métro’s expense?

- c. Does this mean that Gaz Métro is required to pay for mains extensions to interconnect all Quebec facilities that desire access to gas, at the potential customer's expense, net of a Gaz Métro contribution based on the customer's projected revenues?
- d. Please provide any information available to Mr. Knecht regarding the distances that Gaz Métro has been willing to extend a main for a single residential customer.
- e. Please provide any information available to Mr. Knecht regarding the distances that Gaz Métro has been willing to extend a main for a single industrial customer.

8. Source: R-3867-2013, phase 1, C-ACIG-0028, p. 5, line 22

- a. Please clarify whether Mr. Knecht's use of the phrase "number of customers (length of pipe)" indicates that he believes that the number of customers directly determines the length of mains.
- b. If so, please provide the data demonstrating that adding a customer always requires lengthening a main.
- c. Please provide any data available to Mr. Knecht on the number of customers per kilometer of main by division or municipality.

9. Source: R-3867-2013, phase 1, C-ACIG-0028, p. 9, lines 22–26

Regarding the assertion that "if Gaz Métro's entire distribution system were replaced with 2-inch plastic pipe, that system would presumably not have the capacity to serve all Rate D₁ customers with less than 36,500 m³ of annual load. Where 6-inch or 8-inch steel supply mains serve thousands of small customers, a single 2-inch plastic main would not have sufficient capacity to meet the needs of the downstream customers":

- a. Please provide the data and computations that lead to Mr. Knecht's presumption.
- b. Please provide the maximum pressure at which Mr. Knecht assumes a 2-inch plastic main could operate, and the basis for that estimate.

- c. Please provide Mr. Knecht's estimate of the potential capacity of a 2-inch plastic main, and the basis for that estimate.
- d. Please provide Mr. Knecht's estimate of the percentage of main length that would need to be 2-inch steel mains to supply all Rate D1 customers with less than 36,500 m³ of annual load, and the basis for that estimate.
- e. Please provide Mr. Knecht's estimate of the percentage of main length that would need to be larger than 2-inch steel mains to supply all Rate D1 customers with less than 36,500 m³ of annual load, and the basis for that estimate.

10. Source: R-3867-2013, phase 1, C-ACIG-0028, p. 10, lines 1–2

Regarding the statement that “all customers could be partially served by the minimum system”:

- a. Please provide Mr. Knecht's estimate of the percentage of the load of each customer group larger than 36,500 m³ per annum that would be served by the minimum system.
- b. Does Mr. Knecht agree that the minimum system would serve a higher percentage of the load of small customers (e.g., Rate D1 customers with more than 36,500 m³ of annual load) than large customers (e.g., Rate D4)?

11. Source: R-3867-2013, phase 1, C-ACIG-0028, p. 10, lines 14–16

Regarding the statement that “In...an ideal detailed method, the cost for each segment of pipe would be allocated to customers downstream of that pipe segment, based on each customer's design demand served by that pipe segment.”

- a. Does Mr. Knecht believe that the causation and justification of main extension is relevant to allocation of the cost of mains?
- b. How does Mr. Knecht propose that the cost of a main be recovered, if it was built to serve a large Rate D5 customer, a few small Rate D1 customers connected to the line several years after

the main was built, and the Rate D5 customer subsequently shuts down?

12. Source: R-3867-2013, phase 1, C-ACIG-0028 p. 15, line 16:

- a. Please provide the basis for the statement that “mains installed before 1979 are almost fully depreciated at present.”
- b. Please provide the depreciation rate that Gaz Métro has used for mains, for as far back as Mr. Knecht has that information.

13. Source: R-3867-2013, phase 1, C-ACIG-0028 p. 15, note 27:

- a. Please provide the basis for the statement that “the system in place in 1979 consisted almost entirely of steel mains.”

14. Source: R-3867-2013, phase 1, C-ACIG-0028 p. 15, note 27:

- a. Please provide the basis for the statement that “A significant share of the mains footage was 2-inch pipe.”

15. Source: R-3867-2013, phase 1, C-ACIG-0028 p. 15, note 27:

- a. Please provide the basis for the statement that “virtually all of [the pre-1979 2-inch pipe] would be replaced by plastic if installed today.”
- b. Does Mr. Knecht believe that this 2-inch steel pipe is operated at low pressure?

16. Source: R-3867-2013, phase 1, C-ACIG-0028 p. 15, line 22 through p. 16, line 4:

- a. Please explain whether Mr. Knecht is suggesting that Gaz Métro should treat the steel distribution mains as if they were actually plastic.
- b. If so, please explain why the costs of steel pipe should be allocated as if the pipe were plastic.

- c. Please explain whether Mr. Knecht also believes that Gaz Métro should only be allowed to recover the portion of the cost of steel mains that would be equivalent to the cost of plastic mains of the same vintage.
- d. Please provide the workpapers supporting the estimate that “factoring mains replacement into the minimum system calculation would increase the customer component for distribution mains (excluding supply mains) from 74.2 percent to 80.7 percent.”

17. Source: R-3867-2013, phase 1, C-ACIG-0028 p. 16, lines 19–30:

- a. Please provide the data, computations and workpapers for the calculations described in this passage.
- b. Please provide the data values shown in Figure IEc-1.
- c. Please explain how Mr. Knecht selected the “sample” shown in Figure IEc-1.
- d. Please explain why Figure IEc-1 is terminated at 1999, rather than continuing through 2011.

18. Source: R-3867-2013, phase 1, C-ACIG-0028 p. 17, lines 1–2:

- a. Please describe the mix of construction conditions for the mains installed in 1980–1985, compared to 1990–2000, including the percentage in urban environments, the depth to bedrock, soil conditions, coordination of mains installation with road resurfacing or reconstruction, and any other factors that Mr. Knecht believes would be relevant to determining the cost of mains per metre.

19. Source: R-3867-2013, phase 1, C-ACIG-0028 p. 18, lines 11-12:

- a. Please provide “the analysis that I have” regarding “the actual deflated costs of the plastic inserts” compared to new construction.

20. Source: R-3867-2013, phase 1, C-ACIG-0028 p. 22, line 9:

- a.** Please provide the evidence supporting Mr. Knecht's claims that "Interruptible customers do not cause Gaz Métro to incur transmission costs."
- b.** Would Mr. Knecht agree that Gaz Métro considers interruptible revenues in determining the financial feasibility of transmission-line extensions?

21. Source: R-3867-2013, phase 1, C-ACIG-0028 p. 24, Table IEC-2:

- a.** Please provide the Excel spreadsheet underlying this table, with all data and computations.
- b.** Does Mr. Knecht agree that the cost of the replacement meters for Meter A should be increased for inflation?