

Hydro Québec Distribution Rate Strategy

R-3492-2002 Phase 2

Presentation by

Robert D. Knecht
Industrial Economics, Incorporated (IEc)

on behalf of

L'Association québécoise des consommateurs
industriels d'électricité (AQCIE)

Conseil de l'industrie forestières du Québec (CIFQ)

November 2003

Régie de l'énergie
DOSSIER: R-3492-2002
DATE DE DÉPÔT: 24 novembre 2003
TITRE: ASSCIE/CIFQ

dec. 1.4

Cross-Subsidization: Areas of Agreement between HQD and IEC

- At each hearing, a starting "base" point for cross-subsidization is needed.
- Cross-subsidies should be measured in a scenario with revenues equal to the full allowed return.
- The method of adjusting for cross-subsidization should preclude intervenors from "gaming the system."
- Increases in costs caused by specific rate classes should theoretically be passed on in rates on a dollar for dollar basis.

Adjusting for Cost Allocation Methodology Changes

- Cross-subsidies in the base period must be adjusted for methodology changes.
- IEc report proposes to adjust the historical base COSS for methodological changes *not* related to cost causation changes.
- A similar effect can be achieved in the HQD proposal by adjusting the fixed dollar class cross-subsidy levels in each filing for methodological changes.
 - In each filing, simulate COSS under present methodology and proposed methodology.
 - Cross-subsidies for base period adjusted for difference.

Cross-Subsidization: Areas of Potential Disagreement

- Initial period for establishment of cross-subsidization.
- Fixed or "rolling" cross-subsidy values.
- Treatment of changes in costs prior to achievement of approved rate of return.

Initial Period for Measuring Cross-Subsidization

- HQD Proposal: No fixed reference period.
- IEc Report: Issue is legal, not economic.
 - Does the Act intend that changes in cross-subsidization that result from cost and volume changes occurring between enactment of the legislation and the current filing be permitted to flow into rates?
 - Does the Act establish that cross-subsidy changes prior to the achievement of the allowed rate of return be treated differently than subsequent cost changes?
 - AQCIIE/AIFQ legal interpretation is that cross-subsidies should be established at the date the Act came into effect.

Fixed or "Rolling" Cross-Subsidy Base

- If each hearing produces the same cross-subsidy value as the base, there is no difference between the methodologies.
- If the Régie allows the base cross-subsidy to change from year to year, the "rolling" method can result in cross-subsidy "creep" (i.e., trend increases or decreases in cross-subsidy levels).

Cross-Subsidization Example: HQD Proposal With Full Allowed Return

	Revenue Req't	Rate Increase	Revenues	Cross-Subsidy	Revenue-Cost Ratio
<i>Case 1: HQD Proposal after Allowed Return is Achieved (\$mm)</i>					
A: Actual Results from Previous Test Year					
Residential	4,400		3,500	900	80%
General	3,800		4,700	(900)	124%
Total	8,200		8,200	-	100%
B: Results from Current Case Before Revenue Requirement Adjustment					
Residential	4,400		3,500	900	80%
General	3,876		4,935	(1,059)	127%
Total	8,276		8,435	(159)	102%
C: Results from Current Case After Revenue Requirement Adjustment					
Residential	4,400	0.0%	3,500	900	80%
General	3,876	-3.2%	4,776	(900)	123%
Total	8,276	-1.9%	8,276	-	100%
					Scenario assumes 5 percent increase in G volume; 2 percent increase in G cost.
					Cross-subsidies set to base dollar value levels.

Cross-Subsidization Example: HQD Proposal with Return Shortfall

	Revenue Req't	Rate Increase	Revenues	Cross-Subsidy	Revenue-Cost Ratio
<i>Case 2: HQD Proposal before Allowed Return is Achieved (\$mm)</i>					
A: Actual Results from Previous Test Year					
Residential	4,400		3,200	1,200	73%
General	3,800		4,300	(500)	113%
Total	8,200		7,500	700	91%
B: Results from Current Case Before Revenue Requirement Adjustment					
Residential	4,400		3,200	1,200	73%
General	3,876		4,515	(639)	116%
Total	8,276		7,715	561	93%
C: Results from Current Case After Revenue Requirement Adjustment; Reduced Return					
Residential	4,400	0.0%	3,200	1,200	73%
General	3,876	0.0%	4,515	(639)	116%
Total	8,276	0.0%	7,715	561	93%
					Scenario assumes 5 percent increase in G volume; 2 percent increase in G cost.
					No adjustment proposed;
					Over-contribution to improved return from general class.

Cross-Subsidization Example: IEC Proposal with Return Shortfall

	Revenue Req't	Rate Increase	Revenues	Cross-Subsidy	Revenue-Cost Ratio
<i>Case 3: IEC Proposal before Allowed Return is Achieved (Revenue Adjustment Method, \$mm)</i>					
A0: Results from Base Period					
Residential	4,400		3,200	1,200	73%
General	3,800		4,300	(500)	113%
Total	8,200		7,500	700	51%
A1: Results from Base Period; Adjusted for Return Shortfall					
Residential	4,400		3,500	900	80% Revenues adjusted upward to match revenue requirement.
General	3,800		4,700	(900)	124%
Total	8,200		8,200	-	100%
B: Results from Current Case Before Revenue Requirement Adjustment					
Residential	4,400		3,200	1,200	73% Scenario assumes 5 percent increase in G volume; 2 percent increase in G cost.
General	3,876		4,515	(639)	116%
Total	8,276		7,715	561	93%
C0: Results from Current Case After Revenue Requirement Adjustment; Full Return					
Residential	4,400	9.4%	3,500	900	80% Cross-subsidies set to base dollar value levels at full revenue requirement.
General	3,876	5.8%	4,776	(900)	123%
Total	8,276	7.3%	8,276	-	100%
C1: Results from Current Case After Revenue Requirement Adjustment; Reduced Return					
Residential	4,400	2.0%	3,263	1,137	74% Revenues scaled back proportionately to produce desired overall revenue level.
General	3,876	-1.4%	4,452	(576)	115%
Total	8,276	0.0%	7,715	561	93%

Cross-Subsidization Example: HQD Proposal, More Realistic Cost Effect

	Revenue Req'mt	Rate Increase	Revenues	Cross-Subsidy	Revenue-Cost Ratio
Case 1A: HQD Proposal after Allowed Return is Achieved (\$mm)					
A: Actual Results from Previous Test Year					
Residential	4,400		3,500	900	80%
General	3,800		4,700	(900)	124%
Total	8,200		8,200	-	100%
B: Results from Current Case Before Revenue Requirement Adjustment					
Residential	4,350		3,500	850	80%
General	3,926		4,935	(1,009)	126%
Total	8,276		8,435	(159)	102%
C: Results from Current Case After Revenue Requirement Adjustment					
Residential	4,350	-1.4%	3,450	900	79%
General	3,926	-2.2%	4,826	(900)	123%
Total	8,276	-1.9%	8,276	-	100%
					5 percent increase in G volume; overall costs increase by 2% of G; reduction for residential
					Cross-subsidies set to base dollar value levels.

Summary of Cross-Subsidization Recommendations

- Cross-subsidization base levels should be established and maintained on a fixed dollar basis.
- Base cross-subsidization levels must be measured under the conditions that revenues equal full revenue requirement (full allowed return).
- Base cross-subsidization levels should be adjusted for cost allocation *methodology* changes.
- A parallel methodology for setting target class revenues should be applied both before and after HQD achieves its allowed rate of return.
- A fixed historical base year for measuring cross-subsidies will provide a safeguard against cross-subsidy "creep."