

ATTACHMENT

5

CAPTS response to CRTC
Interrogatory 700 (a), (b)

INFORMATION REQUESTED BY
CANADIAN RADIO-TELEVISION AND
TELECOMMUNICATIONS COMMISSION

Q. 700 Refer to paragraph 11 of Public Notice 2001-61, where the Commission determined that the TSR would consist of the following four basic components:

- (i) the use of a national weighted average monthly residential PES rate;
- (ii) the use of national average monthly residential PES costs (based on HCSAs of the large ILECs) as a Phase II proxy for the cost component, taking into account the tax-exempt status of certain companies;
- (iii) a 15% mark-up on the PES cost component; and
- (iv) a fixed monthly amount of \$5 per residential NAS as an implicit contribution amount generated by other local services.

Refer also to Attachment 2 of the Canadian ITC Joint Task Force proposal and to Appendix Q entitled "Conceptual Equations for calculating NPV" of Bell Canada's Procedures Manual for Economic Studies of New Services, July 1986 (Appendix Q), which has been provided electronically.

- (a) Confirm that the proposed adjustment to the proxy subsidy rates of tax exempt SILECs set out in Decision CRTC 2001-756 is based on accounting data. Explain how this adjustment removes the capital-related Phase II income tax costs for the tax-exempt SILECs in a manner that is consistent with Phase II costing principles (refer to Present Worth of Annual Costs (PWAC) calculation specified in the ILECs' Phase II Procedures manuals (e.g., Appendix Q of Bell Canada's 1986 Procedures Manual)).
- (b) Using the Phase II methodology as set out in Appendix Q of Bell Canada's Procedures Manual, which calculates the PWAC estimates that includes the associated capital-related Phase II income tax cost, calculate the PWAC for a one-time capital expenditure of \$1000, for a tax-paying company under the following scenario.

Income Tax Rate	40%
Debt Ratio	45%
Effective Annual Cost of Debt	8%
Effective Annual Cost of Capital	10%
CCA Rate	5%
Life Estimate	20 Years

For the purpose of this calculation, ignore salvage as well as other expenses as shown in the equation in the 1986 Bell Canada Procedures Manual (Appendix Q).

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- (c) Re-calculate the PWAC under the scenario specified in question 700 (b) above, but assuming that the company is a tax-exempt company, and where the formula assumes that income tax rate equals zero.
- (d) Comment, with supporting rationale, on the use of an adjustment for a tax-exempt company that removes the capital-related Phase II income tax costs based on the Phase II PWAC results comparison between responses to questions 700 (b) and (c) above.
- A.700 (a) Attachment 2 was based upon accounting practices used by accounting professionals to calculate income tax expense. To remove the related income tax cost (expense), which is a derivative of operating income, CAPTS assumed that the operating income was equal to the rate of return allowed for CAPTS companies. Therefore, CAPTS applied the income tax rate per the income tax act as it pertains to the large LEC's. Specific accounting data was not used in Attachment 2.

The appropriate calculation of the expense no matter what methodology used should create similar results for the cost / expense of the tax to be recovered. Based upon this premise CAPTS companies believe that the PHASE II cost methodology should produce similar results.

CAPTS found it difficult to do a comparison without the original calculations used by the Commission in CRTC Decision 2001-756 in determining the subsidy. In Bell Canada Appendix Q, PWAC is stated as PW expenses and denotes the present worth of items such as miscellaneous taxes (calculated under the revenue assumption). CAPTS assumes that this confirms the current tax is calculated for the period as it relates to revenue fully recovering costs of tax as well rate of return for the capital investment portion of the PHASE II costs. Again the position of CAPTS is, that no matter which calculation used, the tax in total should be similar.

- (b) and (c)

The calculations of the PWAC are provided in Attachment 1 page 1 of 1.

- (d) The calculations for PWAC calculated for CRTC 700 (b) and (c) attached, imply that the cost of the capital portion of a tax for investment of \$1,000 is \$1,283 and the cost for a non-tax paying company is \$1,000. The PWAC addresses the capital cost of portion of PHASE II costs but there are operational costs that are incurred year after year as

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part of any costing model.. To calculate the appropriate amount of total tax the taxable income has a specific tax rate applied against it. This amount takes into consideration the impact of Capital Cost Allowance and all other costs as well as the subsequent income tax implications for total revenues.

The CAPTS companies maintain that they do not have the resources or present expertise to undertake a full PHASE II costing exercise, and therefore will approach this from a different perspective. CAPTS agrees with the finding of Decision 2001-756 that recognizes that a subsidy received by a tax-exempt company impacts the bottom line differently than it would for a tax paying company.

The PES costs for a tax paying company would include a component for tax that would not be present for a non-tax paying company. The intent obviously was to equalize the benefit to be received by each respective company. Therefore, everything else being equal we can assume that the differential would be reflected in the respective PES costs.

In Decision 2001-756 the PES costs for band E (0-1500 NAS), was established at \$44.32 for a tax-paying company and \$36.77 for a tax-exempt company. This represents a 21% difference in costs. It is noted that the percentage does vary between bands; however a 20% differential appears to be average.

The attached chart utilizes a basic income statement format to show the relationship between costs and taxes that would generate comparable net incomes. In the following example with a 30% tax rate presumed, a 10% shift in costs would be required to neutralize the tax benefit received by the tax –exempt company. If the imputed tax rate was 40% the differential in costs would increase to 13%. The tax is applied to “taxable income” and not to the revenue. In order to negate the tax impact the expenses have been adjusted to compare the net incomes.

This simplified example focuses attention to the relationship between costs, indicating that a differential of 10% to 13% provides equity. The PES costs used to arrive at the subsidies in Decision 2001-756 are in the 20% range and do not reflect the costs associated with tax nor do they meet their intended purpose of bringing equity to the subsidies.

If the PES costs for a tax-paying company are deemed to be \$44.32 a PES costs in the \$40.00 range (11%) would provide equity and translate into a subsidy of \$12.25 per NAS versus \$8.98.

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	TAX-PAYING CITC	TAX-EXEMPT CITC
Revenue	\$100.00	\$100.00
Operating Costs	\$75.00	\$82.50
Taxable Income	\$25.00	\$17.50
Tax @ 30%	\$7.50	\$0.00
Net Income	\$17.50	\$17.50

Considering our approach to calculate the appropriate cost of tax, CAPTS still is of the same view that the calculation and impact presented in our initial submission is still appropriate.

A. 700 (b) (c)

Input Data	
Income Tax Rate	40.00%
Debt Ratio	45.00%
Effective Annual Cost of Debt	8.00%
Effective Annual Cost of Capital	10.00%
CCA Rate	5.00%
Life Estimate (Years)	20
Capital Expenditure	\$1,000
Salvage Value	\$0

LE	=	Life estimate of plant purchased by FC.	20
i	=	Bell Canada effective annual cost of capital rate.	10.00%
j	=	Bell Canada nominal annual cost of capital rate = $\ln(1+i)$ = natural Logarithm of (1+i)	9.53%
e	=	the base for natural Logarithms = 2.7182818.	
t	=	Bell Canada's Composite (Fed & Prov) income tax rate.	40.00%
r	=	Bell Canada – debt ratio.	45.00%
jd	=	Bell Canada nominal cost of debt	7.70%
id	=	Bell Canada effective annual cost of debt ratio.	8.00%
C	=	CCA rate for the class of capital in question.	5.00%
Year of Investment			0
P/A	=	Present worth of a continuous annuity factor. $\frac{((1+i)^n - 1)}{i(1+i)^n}$	0.0000

Calculation of the PWAC per Appendix Q of the Bell Canada Procedures Manual

$$PWAC = FC * (a - (b * S)) + PW \text{ Expenses}$$

Based upon Input Data,

$$\begin{aligned} FC &= \$1,000 \\ S &= \$0 \\ PW \text{ Expen:} &= \$0 \end{aligned}$$

therefore

$$PWAC = 1000 * a \quad \$1,283$$

$$a = \left(\left(1 + O - \frac{C}{C+i} \times \frac{i}{j} \times O_A \times \left(\frac{1+.5i}{1+i} \right) + \frac{P/A}{LE} \times (O_A - O) \right) \right) \quad 1.2827$$

$$O = \frac{t}{1-t} \left(1 - \frac{Rjd}{j} \right) \quad 0.4244$$

$$O_A = \left(\frac{t}{1-t} \right) \left(1 - \frac{trjd}{t} \right) = t(1+O) \quad 0.5698$$

Calculated Value of PWAC **\$1,283**

Results:	
Tax Rate	PWAC
40.00%	\$1,283
0.00%	\$1,000