

Cable Distribution Undertakings Methodology

The Ministry's independent contractor supplied the year over year construction cost changes based on the typical cable distribution undertakings configurations. For each category (i.e. 500 P3 Distribution 550 Mhz) the independent contractor supplied a cost change per kilometer (see attachment 2006 CCC Calculation).

The construction cost change was calculated by averaging the nine individual category percent changes together.

The 0.813% construction cost change was used to calculate the 2006 AYM for cable distribution undertakings.

**Estimate of Percentage Change of Materials and Labor For CATV Plant
From July 4, 2005 to June 30, 2006**

Introduction

A) Methods Used For 2003 – 2004 Estimates

The July 1, 2003 pricing was not known since the last comprehensive cost analysis was done for July 1, 2001; however, some coaxial cable pricing was available for July 8, 2003.

The known 2003 coaxial cable pricing was compared to the known 2001 pricing and the difference compared with the US/Canadian exchange rate for the period.

The exchange rate used in the 2001 model was 1.5145 and the July 8, 2003 exchange rate was 1.3644, which indicated a 10% reduction of costs.

The actual average costs indicate a 9% reduction over the same period, which is evidence that the exchange rate is a good indicator for materials costing.

Since there was good correlation between actual pricing and the exchange rate it was decided to use the exchange rates for estimating the materials cost change for July of 2004.

The July 2, 2004 exchange rate was 1.3242, which equates to an approximate 3% reduction compared to July 8, 2003 and the 3% reduction was used to determine 2004 materials costs.

The labor costs over the 2003 to 2004 period were obtained from discussions with a cable contractor and was found to have increased by about 6.5%

B) Methods Used For The 2004 – 2005 Estimates

Using the data for the 2003 – 2004 percent changes and the 2001 labor and materials percentages, the estimated 2004 materials and labor percentages were calculated.

The exchange rate on July 4, 2005 was 1.2405, therefore, there was a 6.3% reduction compared with the July 2, 2004 exchange rate of 1.3242.

Assuming that there still is a good correlation between the cost of materials and the US/Canadian exchange rate, the cost of materials has been estimated to have decreased by 6.3% over the past year.

The labor cost increases over the 2004 – 2005 period was obtained from the same cable contractor contacted in 2004. The contractor was found to have increased rates by about 8% over the past year. These cost increases were largely due to increased wages to attract new staff and retain experienced staff in the competitive Alberta labor market and to offset rising fuel costs.

C) Methods Used For The July 4, 2005 to June 30, 2006 Estimates

Using the data for the 2004 – 2005 percent changes and the 2001 labor and materials percentages, the estimated 2005 materials and labor percentages were calculated.

The exchange rate on June 30, 2006 was 1.1162, therefore, there was a 10.02% reduction compared with the July 4, 2005 exchange rate of 1.2405.

Assuming that there still is a good correlation between the cost of materials and the US/Canadian exchange rate, the cost of materials has been estimated to have decreased by 10.02% over the period from July 4, 2005 to June 30, 2006.

The labor cost increases over this same period was obtained from the same cable contractor contacted in 2004 and 2005. The contractor was found to have increased rates by about 9.64% over this period. These cost increases were largely due to increased wages to attract new staff and retain experienced staff in the competitive Alberta labor market and to offset rising fuel costs.

Analysis

The following items were calculated from the 2001 CATV asset model and modified as shown to reflect the estimated percent change of costs for the 2004 to 2005 period and extended to June 30, 2006.

The percent Labor and percent Materials were obtained from the 2001 CATV asset model and was assumed to be valid for the 2003 to 2005 time period. This data was modified to reflect the estimated cost adjustments for the June 30, 2006 study.

The June 30, 2006 estimates for percent change in the Cost Per KM are shown below and are calculated using the same methods and assumption used for the 2003 – 2005 analysis.

500 P3 Distribution (550 Mhz)

	Estimated 2005 <u>% Labor</u>	Estimated 2005 <u>% Materials</u>	<u>% Change Labor</u>	<u>% Change Materials</u>	Estimated June 30, 2006 <u>% Change Cost Per KM</u>
2-Way Aerial Plant	49.47	50.53	9.64	-10.02	-0.29
2-Way Joint Use	77.21	22.79	9.64	-10.02	4.54

750 P3 Trunking (550 Mhz)

	Estimated 2005 <u>% Labor</u>	Estimated 2005 <u>% Materials</u>	<u>% Change Labor</u>	<u>% Change Materials</u>	Estimated June 30, 2006 <u>% Change Cost Per KM</u>
2-Way Aerial Plant	13.13	86.87	9.64	-10.02	-7.44
2-Way Joint Use	48.58	51.42	9.64	-10.02	-0.47

4 Fiber Cable

	Estimated 2005 <u>% Labor</u>	Estimated 2005 <u>% Materials</u>	<u>% Change Labor</u>	<u>% Change Materials</u>	Estimated March 31, 2006 <u>% Change Cost Per KM</u>
2-Way Aerial Plant	31.41	68.59	9.64	-10.02	-3.85
2-Way Joint Use	73.72	26.28	9.64	-10.02	4.47

Subscriber Drops

	Estimated 2005 <u>% Labor</u>	Estimated 2005 <u>% Materials</u>	<u>% Change Labor</u>	<u>% Change Materials</u>	Estimated June 30, 2006 <u>% Change Cost Per Drop</u>
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Aerial	41.71	58.29	9.64	-10.02	- 1.82
Underground	89.41	10.59	9.64	-10.02	7.56

Headend

	Estimated 2005 <u>% Labor</u>	Estimated 2005 <u>% Materials</u>	% Change <u>Labor</u>	% Change <u>Materials</u>	Estimated March 31, 2006 % Change <u>Cost Per Channel</u>
	N/A	N/A	N/A	-10.02	-10.02

It should be noted that the 2003 – 2004, the 2004 – 2005 and the June 30, 2006 cost change studies are simplistic in nature and should only be used as a rough guide for estimating the cost changes over these time periods.

Prepared by:

06-August-06

Documentation Of Procedures Used For The CATV Construction Cost Changes

A) Methods Used For 2003 - 2004 Estimates

The July 1, 2003 pricing was not known since the last comprehensive costs analysis was done for July 1, 2001; however, some coaxial cable pricing was available for July 8, 2003.

The known 2003 coaxial cable pricing was compared the known 2001 pricing and the difference compared with the US/Canadian exchange rate for the period.

The exchange rate used in the 2001 model was 1.5145 and the July 8, 2003 exchange rate was 1.3644, which indicates a 10% reduction of costs.

The actual average costs indicated a 9% reduction over the same period, which is evidence that the exchange rate is a good indicator for materials costing.

Since there was good correlation between actual pricing and the exchange rate it was decided to use the exchange rates for estimating the materials cost change for July 2004.

The July 2, 2004 exchange rate was 1.3242, which equates to an approximate 3% reduction compared to July 8, 2003 and the 3% reduction was used to determine 2004 materials costs.

The labor costs over the 2003 to 2004 period were obtained from discussions with a cable contractor and found to have increased by about 6.5%.

B) Methods Used For 2004 - 2005 Estimates

Using the data for the 2003 - 2004 percent changes and the 2001 labor and materials percentages, the estimated 2004 materials and labor percentages were calculated.

The exchange rate on July 4, 2005 was 1.2405, therefore, there was 6.3% reduction compared to the July 2, 2004 exchange rate of 1.3242 resulting in a 6.3% materials cost reduction.

The labor cost increases over the 2004 to 2005 period were obtained from the same cable contractor contacted in 2004. They estimate that they have increased their rates by about 8% over the last year. The increase was largely due to increased wage demands and increased fuel costs.

C) Methods Used For 2005 - 2006 Estimates (July 4, 2005 to March 31, 2006)

Using the same methods as outlined in B) above, the materials and labor percentages were calculated for July 4, 2005.

The exchange rate on March 31, 2006 was 1.168 giving a 5.84% reduction in materials costs compared to the exchange rate of 1.2405 on July 4, 2005.

The Labor cost increase over this period of time was 7.6%. The increase was due to wage increases and rising fuel costs.

D) Methods Used For March 31, 2006 - June 30, 2006 Estimates

Using the same methods as outlined in B) above, the materials and labor percentages were calculated for March 31, 2006.

The exchange rate on June 30, 2006 was 1.1162 giving a 4.43% reduction in materials costs compared to the exchange rate of 1.168 on March 31, 2006.

The Labor cost increase calculated over this period of time was 1.9%. The increase was due to wage increases and rising fuel and operating costs.

E) Other Comments

The only variables used in the cost analysis were the US/Canadian exchange rate and a cable contractor's price increases. The percentages of costs per kilometer (i.e. Labor and Materials) of various key plant components were updated for each successive analysis. The updated variables were then applied to the model to determine the new percentage changes for the plant components.

The same contractor was used for all the labor data and should be applicable for the Calgary and Edmonton area.

The original, comprehensive cost analysis completed in 2001 used data obtained from:

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- A number of Canadian distributors of products manufactured in the USA. The materials pricing used in the CATV model at that time reflected changes in all economic factors including exchange rates, market demand, commodity prices and volume discounts.
 - Several contractors operating within the Province Of Alberta provided labor cost data.
 - Actual design data was used to determine the quantity of materials used for cable plant construction of various bandwidth plant configurations.
 - Major construction methodology variances were modeled.

Prepared By:

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2006 CCC Calculation - Cable System

500 P3 Distribution (550 Mhz)

	Estimated 2005 % Labor	Estimated 2005 % Materials	% Change Labor	% Change Materials	Estimated June 30, 2006 % Change Cost Per KM
2-Way Aerial Plant	49.47	50.53	9.64	-10.02	-0.29
2-Way Joint Use	77.21	22.79	9.64	-10.02	4.54

750 P3 Trunking (550 Mhz)

	Estimated 2005 % Labor	Estimated 2005 % Materials	% Change Labor	% Change Materials	Estimated June 30, 2006 % Change Cost Per KM
2-Way Aerial Plant	13.13	86.87	9.64	-10.02	-7.44
2-Way Joint Use	48.58	51.42	9.64	-10.02	-0.47

4 Fiber Cable

	Estimated 2005 % Labor	Estimated 2005 % Materials	% Change Labor	% Change Materials	Estimated June 30, 2006 % Change Cost Per KM
2-Way Aerial Plant	31.41	68.59	9.64	-10.02	-3.85
2-Way Joint Use	73.72	26.28	9.64	-10.02	4.47

Subscriber Drops

	Estimated 2005 % Labor	Estimated 2005 % Materials	% Change Labor	% Change Materials	Estimated June 30, 2006 % Change Cost Per KM
Aerial	41.71	58.29	9.64	-10.02	-1.82
Underground	89.41	10.59	9.64	-10.02	7.56

Headend

	Estimated 2005 % Labor	Estimated 2005 % Materials	% Change Labor	% Change Materials	Estimated June 30, 2006 % Change Cost Per KM
	N/A	N/A	N/A	-10.02	-10.02

Total	-7.32
2006 CCC	-0.813