

OIL HEDGING COMMENTARY

A hedge is a financial arrangement designed to provide a degree of price certainty associated with a related business transaction. For example, referring to Appendix A attached, in September 1999, we could have entered into a hedging arrangement whereby the price for a shipment of 40,000 barrels of fuel oil could have been capped at \$23.95. In other words, as long as the actual price came in at less than \$23.95, we would pay the actual price, but if it came in at more than \$23.95 we would pay no more than \$23.95. We would have paid a price for that cap of 15 cents per barrel or \$6,000. As it turns out, the actual price was \$18.65, so the hedge expired worthless, and we incurred an additional hedge cost in connection with that particular shipment of \$6,000, or \$.15/bbl. The effective price paid was therefore \$18.80/bbl.

In reviewing the feasibility of implementing an oil hedging program at Hydro, the Company has concluded that it would be difficult to say with certainty that the implementation of such a program would necessarily result in lower oil costs, and hence lower rates for consumers. Instead, the more balanced objectives of such a program are:

1. to protect Hydro's customers from adverse, unexpected and random price fluctuations that are short term in nature; and
2. to minimize the costs associated with providing a degree of price certainty.

The Company considered various matters under the general heading of oil price hedging, and these included:

The Importance of a Proper Matching of the Hedge to the Oil Purchase Transaction

In simplified terms, there are a number of factors that can contribute to a mismatch between the hedge position and the actual cost of the oil shipment. These include:

1. Variations between expected and actual timing of delivery
2. Variations between expected and actual quantity delivered
3. Variations between the pricing convention used in connection with the oil versus that used in the hedge; e.g. actual shipment based on prices on a particular day versus a hedge price based on a monthly average.

4. Variations between the type of oil on which the hedge is based and the actual type of oil being purchased. We have been informed by advisors, that the market for hedge instruments in No. 6 2.2% Fuel Oil is not as robust as say the market for instruments tied to crude. Should trading in the 2.2% fuel oil derivatives market become too thin, then consideration would have to be given to an alternate base that we could use for hedging purposes. The price movements of this alternate base would have to be closely correlated with movements in No. 6 2.2% Sulphur content fuel oil in order for us to have a proper hedge.

Each of these factors must be considered when placing a hedge. To do otherwise is to risk a mismatch between the hedge and the underlying purchase transaction, thus exposing the Company to unnecessary risk.

The Importance of Having a View as to Future Oil Prices

While a hedge strategy contemplates the provision of protection against unforeseen and/or random price movements, the decision as to the appropriate hedge instruments to use, is influenced by the Company's expectations as to the future price of oil. Such an approach can be referred to as a form of "active" hedging. Our view of future oil prices is based on regular world oil market intelligence updates, price forecasts received from independent advisors, and a review of the historical statistical positioning of current spot prices.

There is some question as to whether a hedge program, based on a market view of future prices, constitutes speculation. The alternative is a "passive" approach to hedging (e.g. a fixing of prices for future shipments based on a budgeted price). While such an approach provides price certainty, it can result in significant opportunity costs, and hence greater costs to the consumer, since there is no consideration of the "likelihood of risk occurrence". A program that is too much profit motivated, and one which is conducted in a manner that does not have clearly defined operating parameters, as approved by the Company's Board of Directors and the regulator, could be considered as "speculative" in nature.

As an example of how a view as to future oil prices is important in the selection of the type of hedge instrument to use, consider a situation where we are at a historical high in oil prices. In such a circumstance, it might not be advisable to enter into a transaction that fixes our price (a Swap or Collar hedge). In such a case, there would be a statistical likelihood that prices would drop in the future. Prices could of course rise, but a more cost effective and prudent protection mechanism, given the likelihood of price decline, might be the purchase of a price cap. A cap approach allows Hydro full access to the lower prices, while simultaneously capping its exposure in the event that prices unexpectedly rise. In addition, the premium (cost) associated with the purchase of the cap is a set amount. On the other hand, the opportunity costs associated with a fixed price

arrangement such as a swap or collar, can be substantial, especially in a situation where prices are expected to fall (Hydro is locked into the higher price).

Consequently, the Company must be wary before entering into transactions that fix the price that will be paid for the oil. This is not to say that such instruments should not be used, but only that their use should be within clearly defined guidelines as established by the Company.

The Company entered into some “phantom” transactions (see Appendix A) as a means by which an active approach could be evaluated. Basically, we simulated an actual hedge program under two different approaches: the first, which we called a “More liberal use of Swap and Collar Transactions”, and the second, a “More Conservative use of Swap and Collar Transactions”. The significance of these two approaches relates to the discussion above; i.e. the significant opportunity costs that can result from being locked into a fixed price.

Under the “liberal” approach, hedges that involve “fixing” the price can be utilized in situations where there is either a modest or strong view to an upward trend in fuel prices. The more conservative approach dictates that the use of such instruments can only be authorized, if there is a view to a strong upward trend with a high likelihood of occurrence.

Recent Developments

Having examined the various aspects of this topic, the Company discussed the concepts with certain of its advisors connected with the oil hedging business. While they generally were in agreement with the “active” approach, it was also indicated that a hedge program may in fact result in a net additional cost over time, either directly or indirectly. Their research indicates that hedging generally costs \$.05 - \$.10 USD/bbl and that the value of hedging has to be measured from a stability or insurance perspective.

Our customers are already afforded a degree of rate stability by virtue of the Rate Stabilization Plan. However as noted above, the primary objective of an oil hedge program is “to protect the customers from adverse, unexpected and random price fluctuations that are short term in nature”. The Company believes there is some merit in a continued monitoring of an “active” approach to oil price hedging, to assess whether the additional risks are worth the benefits to consumers in terms of protection from market volatility. It is expected that a final determination as to the appropriateness of such a program could be reached in advance of Hydro’s next rate application.

APPENDIX A
Newfoundland and Labrador Hydro
Summary of Phantom Hedges Performance
More Liberal Use of Swap and Collar Transactions

<u>Date Set</u>	<u>Applicable Period</u>	<u>Hedge Quant. (barrels)</u>	<u>Market View*</u>	<u>Hedge Instrument</u>	<u>Floor Price (\$USD)</u>	<u>Ceiling Price (\$USD)</u>	<u>Actual Price (\$USD)</u>	<u>Hedge Savings (Cost) \$USD</u>	<u>Hedge Savings (Cost) \$CAD</u>
Sep 98	Dec 98	250,000	MUT	Collar	12.10	13.80	8.85	(812,500)	(1,253,038)
Sep 98	Feb 99	250,000	MUT	Collar	12.35	14.73	8.11	(1,060,000)	(1,587,138)
Sep 98	Q4 99	250,000	MUT	Collar	13.40	15.05	18.70	912,500	1,343,839
Totals for hedges set Sep 98								(960,000)	(1,496,337)
Feb 99	Mar 99	125,000	MUT	Collar	8.75	9.95	10.32	46,250	70,184
Feb 99	Q1 00	125,000	MUT	Collar	10.50	12.90	20.65	968,750	1,407,788
Totals for hedges set Feb 99								1,015,000	1,477,972
Sep 99	Oct 99	40,000	MUT	Call Option (Cap)	N/A	23.95	18.65	(6,000)	(8,864)
Sep 99	Nov 99	70,000	MUT	Call Option (Cap)	N/A	22.03	18.85	(26,600)	(39,034)
Sep 99	Dec 99	100,000	MUT	Call Option (Cap)	N/A	22.03	18.55	(38,000)	(55,984)
Sep 99	Feb 00	100,000	SWDB	Call Option (Cap)	N/A	23.19	21.10	(57,000)	(82,707)
Totals for hedges set Sep 99								(127,600)	(186,588)
Total Phantom Hedges Savings (Cost) =>								(72,600)	(204,953)

* MUT - Modest Upward Trend; SWDT - Stable with Downward Bias

APPENDIX A
Newfoundland and Labrador Hydro
Summary of Phantom Hedges Performance
More Conservative use of Swap and Collar Transactions

<u>Date Set</u>	<u>Applicable Period</u>	<u>Hedge Quant. (barrels)</u>	<u>Market View*</u>	<u>Hedge Instrument</u>	<u>Floor Price (\$USD)</u>	<u>Ceiling Price (\$USD)</u>	<u>Actual Price (\$USD)</u>	<u>Hedge Savings (Cost) \$USD</u>	<u>Hedge Savings (Cost) \$CAD</u>
Sep 98	Dec 98	250,000	MUT	Call Option (Cap)	N/A	14.72	8.85	(75,000)	(115,665)
Sep 98	Feb 99	250,000	MUT	Call Option (Cap)	N/A	14.95	8.11	(137,500)	(205,879)
Sep 98	Q4 99	250,000	MUT	Call Option (Cap)	N/A	16.16	18.70	397,500	585,398
Totals for hedges set Sep 98								185,000	263,855
Feb 99	Mar 99	125,000	MUT	Call Option (Cap)	N/A	10.64	10.32	(50,000)	(75,875)
Feb 99	Q1 00	125,000	MUT	Call Option (Cap)	N/A	13.23	20.65	796,250	1,157,111
Totals for hedges set Feb 99								746,250	1,081,236
Sep 99	Oct 99	40,000	MUT	Call Option (Cap)	N/A	23.95	18.65	(6,000)	(8,864)
Sep 99	Nov 99	70,000	MUT	Call Option (Cap)	N/A	22.03	18.85	(26,600)	(39,034)
Sep 99	Dec 99	100,000	MUT	Call Option (Cap)	N/A	22.03	18.55	(38,000)	(55,984)
Sep 99	Feb 00	100,000	SWDB	Call Option (Cap)	N/A	23.19	21.10	(57,000)	(82,707)
Totals for hedges set Sep 99								(127,600)	(186,588)
Total Phantom Hedges Savings (Cost) =>								803,650	1,158,502

* MUT - Modest Upward Trend; SWDT - Stable with Downward Bias