

1    Q.    Provide the economic analysis completed that supports Hydro's decision to  
2           prepay the Government of Canada Debt originally due on March 31, 2014.  
3           (IC-166)

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6    A.    Please see attached.

**Refinancing Proposal**  
**Government of Canada Loans**  
**April 2005**

**Recommendation**

That we proceed immediately with prepayment of the \$13.8 million balance of the Government of Canada Loans through issuance of promissory notes.

The present balance of the Government of Canada loans on Hydro's books is \$13.8 million, bearing interest rates ranging from 5.25% to 7.75% and maturities ranging from 2009 to 2014. The average remaining life of the loans at March 31, 2005, with annual principal payments factored in, is 3.28 years and the average cost is 6.39%.

Based on current and forecast interest rates, and statistical analysis of historical rates, refinancing of these loans through successive issuance of Hydro promissory notes should achieve interest savings of approximately \$1 million over the remaining life of the loans.

**Background**

These loans were obtained through the Atlantic Provinces Power Development Act, (APPDA) between the years 1963 - 1973, primarily to finance the construction of various generation and transmission infrastructure. The aggregate original proceeds of the loans was \$101.7 million, bearing interest rates ranging from 5.25% to 7.90% with maturities ranging from 2003 to 2014. Terms of the loans require fixed annual repayments on March 31 each year. Details of the various loans are summarized in the table below.

| <b><u>Advance<br/>Date</u></b> | <b><u>Original<br/>Amount<br/>(\$000,000)</u></b> | <b><u>Interest<br/>Rate</u></b> | <b><u>Maturity<br/>Date</u></b> |
|--------------------------------|---|---------------------------------|---------------------------------|
| 1963                           | \$ 0.5  | 5.250%                          | 2003                            |
| 1969                           | 0.4   | 7.375                           | 2009                            |
| 1969                           | 26.9  | 5.250                           | 2009                            |
| 1971                           | 5.2   | 7.750                           | 2011                            |
| 1973                           | 14.8  | 5.875                           | 2012                            |
| 1973                           | 49.4  | 7.900                           | 2003                            |
| 1973                           | 4.5   | 7.450                           | 2014                            |

### **Current Status**

The current outstanding balance of the loans, as of March 31, 2005, is \$13.8 million, summarized as follows:

| <b><u>Advance<br/>Date</u></b> | <b><u>Balance<br/>Outstanding<br/>(\$000,000)</u></b> | <b><u>Interest<br/>Rate</u></b> | <b><u>Maturity<br/>Date</u></b> |
|--------------------------------|---|---------------------------------|---------------------------------|
| 1969                           | \$0.1   | 7.375%                          | 2009                            |
| 1969                           | 5.7   | 5.250                           | 2009                            |
| 1971                           | 2.0   | 7.750                           | 2011                            |
| 1973                           | 3.7   | 5.875                           | 2012                            |
| 1973                           | 2.3   | 7.450                           | 2014                            |

The interest costs associated with these loans since inception until very recent years have been extremely favorable when measured against comparable alternative financings over the same timeframe. Current financing rates, however, are near historic lows and it is in this context that we need to examine the cost effectiveness of refinancing this debt.

### **Prepayment Options**

We have been advised by Industry Canada, the federal department responsible for the administration of these loans, that the loans may be prepaid at any time without penalty.

### **Average Cost and Life of Loans**

The existing loans mature between the years 2009 and 2014, with annual principal and interest payments due each year on March 31. The average remaining life of the loans at March 31, 2005, with annual principal payments factored in, is 3.28 years and the average cost is 6.39%.

| <b><u>Payment<br/>Date</u></b> | <b><u>Principal<br/>Payment</u></b> | <b><u>Interest<br/>Payment</u></b> | <b><u>Years<br/>O/S</u></b> | <b><u>Average Life<br/>Weighting</u></b> |
|--------------------------------|-------------------------------------|------------------------------------|-----------------------------|--|
| 2006                           | \$2,577,664                         | \$850,250                          | 1                           | 2,577,664                                |
| 2007                           | 2,729,277                           | 698,637                            | 2                           | 5,458,554                                |
| 2008                           | 2,890,013                           | 537,901                            | 3                           | 8,670,039                                |
| 2009                           | 3,060,439                           | 367,478                            | 4                           | 12,241,757                               |
| 2010                           | 855,118                             | 186,769                            | 5                           | 4,275,592                                |
| 2011                           | 725,652                             | 125,694                            | 6                           | 4,353,915                                |
| 2012                           | 319,242                             | 71,388                             | 7                           | 2,234,691                                |
| 2013                           | 310,082                             | 48,044                             | 8                           | 2,480,655                                |
| 2014                           | 333,239                             | 24,889                             | 9                           | 2,999,150                                |
|                                | <b>\$13,800,727</b>                 | <b>\$2,911,052</b>                 | <b>3.28</b>                 | <b>45,292,017</b>                        |

Ignoring any compounding, remaining interest costs on the debt as it is presently structured can be computed as:

$$\$13,800 * 6.39\% * 3.28 = \$2,892$$

### **Refinancing Alternatives**

We are recommending the loans be prepaid using Hydro's existing promissory note program. While there are other financing vehicles that potentially would be available to us, including a medium term note or bank loan, these are viewed as impractical considering the attendant administrative and legal costs involved.

### **Statistical Promissory Note financing costs**

The median rate on Hydro's promissory notes bearing a one-year term, based on average daily observations for the past five years, is 3.17% with a standard deviation of 1.20%. Applying these statistical measures, the expected range of rates on Hydro's promissory notes with a one-year term to maturity, should be between 0.77% to 5.57%, with 95% certainty.

Ignoring any compounding, the statistical maximum remaining interest costs on the debt, when refinanced using promissory notes, can be computed as:

$$\$13,800 * 5.57\% * 3.28 = \$2,521$$

### **Actual and forecast Promissory Note financing costs**

The current rate on a one-year promissory note is 2.95%. The average of all advisors latest forecasts for a one-year rate, one year from now, is 3.30%. There are no forecasts beyond year two, hence year three and remainder assumes statistical maximum rate.

Ignoring any compounding, using a combination of actual, forecast, and statistical rates, the expected remaining interest costs on the debt, when refinanced using promissory notes, can be computed as:

$$\$13,800 * 2.95\% * 1.00 = \$407$$

$$\$13,800 * 3.30\% * 1.00 = \$455$$

$$\$13,800 * 5.57\% * 1.00 = \$769$$

$$\$13,800 * 5.57\% * 0.28 = \underline{\$215}$$

$$\$1,846$$