NOTE 10. FINANCIAL RISK MANAGEMENT

The Corporation's normal operating, investing and financing activities expose it to a variety of financial risks, including market risk (including commodity price risk, interest rate and inflation risk, and foreign currency risk), credit risk, economic dependence and liquidity risk. The Corporation's overall risk management process is designed to identify, manage and mitigate business risk, which includes, among others, financial risk.

(A) Market Risk

Market risk is the risk or uncertainty arising from possible price movements and their impact on the future performance of the business. The Corporation is exposed to gas and power prices (commodity price risk), interest rates, foreign currency exchange rates and other indices that could adversely affect the value of the Corporation's financial assets, liabilities or expected future cash flows.

Commodity price risk

Cardinal's gas purchase agreement mitigates Cardinal's risk to exposure to changes in the market price of gas. This agreement expires on May 1, 2015. Upon expiry of the agreement, Cardinal may choose to renegotiate the agreement or enter into a new agreement, and may not be able to do so on terms that are similar to the existing agreement, if at all, or buy gas at spot rates.

The majority of the electricity that is generated at the power facilities is sold to large utilities or creditworthy customers under fixed long-term PPAs providing a specified rate for a defined period of time. The excess power capacity of Whitecourt may be sold in the open market exposing certain assets to fluctuations in energy prices.

In 2011, Cardinal used gas swap agreements to mitigate the effect of gas price fluctuations on the net proceeds that Cardinal receives for the sale of natural gas in excess of the plant's requirements. These contracts were not renewed in 2012 given the outlook for gas prices.

Bristol Water is exposed to risk in prices for materials and services used in its treatment processes, including for chemicals and electricity. Risk is minimized through actively monitoring the market and by the use of fixed price supply contracts extending over more than one year where considered appropriate.

Interest rate and inflation risk

Interest rate risk arises as changes in market interest rates affect the Corporation's future payments on debt obligations. The Corporation is exposed to interest rate risk on its floating rate debt and levelization amounts. Currently, the Corporation has interest rate swap contracts to mitigate some of the risks associated with its long-term debt.

The terms of the contracts are as follows:

Counterparty	Maturity Date	Notional Amount	Swap Fixed Rate	Stamping Fee	Effective Interest Rate
Erie Shores project debt	December 1, 2016	20,000	5.63%	—	5.63%
Amherstburg debt swap	June 30, 2028	90,560	4.19%	3.13%	7.32%
Bristol Water	December 7, 2017	£10,000	5.025%	—	5.025%

The interest rate swap contracts at Bristol Water have been designated for hedge accounting. No other derivative contracts above have been designated for hedge accounting.

Inflation risk arises as changes to inflation rates cause future cash flows from financial instruments to fluctuate. The index linked long-term debt at Bristol Water is subject to inflation risk. Inflation risk is mitigated by the indexation to RPI included in the determination of Bristol Water's regulated revenue. Refer to note 18 (c)(ii) for further detail on this debt.

Foreign currency exchange risk

The Corporation's exposure to foreign currency exchange risk is primarily related to the investment in Bristol Water and the SEK denominated shareholder loan with Värmevärden.

Changes in the Canadian dollar and pound sterling currency rates impact the carrying value of assets, liabilities and components of the consolidated statement of income. Bristol Water has a foreign functional currency requiring movements in the pound sterling to be reflected by the Corporation on consolidation.

Capstone is also exposed to foreign exchange risk from the translation of foreign monetary assets. Changes in the Canadian dollar and SEK currency rates impact the value of the shareholder loan with Värmevärden resulting in a foreign exchange gain or loss which is included in the consolidated statement of income.

(B) Credit Risk

Credit risk is the risk that one party to a financial instrument will cause a financial loss for the other party by failing to honour a financial obligation. Financial instruments that potentially subject the Corporation to concentrations of credit risk consist of cash and cash equivalents, restricted cash, short-term deposits, accounts and loans receivable and derivative contracts.

The Corporation deposits its cash and holds its short-term investments with highly rated financial institutions, with a credit rating of R1 or higher, and therefore management believes the risk of loss to be remote.

Credit risk concentration with respect to power trade receivables is limited due to the Corporation's customer base being predominantly government authorities. As at December 31, 2012, the maximum exposure with respect to receivables from the OEFC and OPA was $23,948 or 31.8% and $3,975 or 5.3%, respectively (2011 – $22,558 or 31.8% and $4,184 or 5.9%, respectively) and there are no accounts receivable that are past due. Since the OEFC and OPA are government agencies, management considers credit risk to be minimized.

Bristol Water is required to supply water to all customers in its licenced area. Consequently, for residential customers Bristol Water is not able to disconnect services in the event of non-payment. For commercial customers, Bristol Water has the right of disconnection in the event of non-payment. For all customers, Bristol Water has implemented policies and procedures to assess the risk of non-payment, recoup debts and establish appropriate provisions.

The Corporation's derivative agreements expose Capstone to losses under certain circumstances, such as the counterparty defaulting on its obligations under the swap agreements or if the swap agreements provide an imperfect hedge. Counterparties to the Corporation's derivative contracts are major financial institutions that have been accorded investment grade ratings. Consequently, management believes there to be minimal credit risk associated with its derivative contracts.

(C) Economic Dependence

Economic dependence arises when an enterprise relies on a significant volume of business with another party that cannot be easily transferred at similar terms and conditions or is abnormal relative to expectations of similar entities.

For the power segment, during 2012, approximately 31.8% and 10.3% (2011 – 53.0% and 13.0%) of the Corporation's revenue was derived from the sale of electricity to the OEFC and OPA, respectively.

For the utilities – water segment, no economic dependence exists. Bristol Water has a large number of customers and there is no significant loss on trade receivables that has not been provided for. Revenue is derived from water supply and related activities in the United Kingdom.

(D) Liquidity Risk

Liquidity risk is the risk that the Corporation may have insufficient cash or other resources to meet obligations as they come due.

Compliance with debt covenants

The Corporation has financial liabilities in the power and utilities – water operating segments, as well as at corporate. Refer to notes 16 (Accounts payable and other liabilities), 17 (Finance lease obligations) and 18 (Long-term debt) for further detail on financial liabilities. These financial liabilities contain a number of standard financial and other covenants.

Failure to comply with terms and covenants of the Corporation's credit agreements could result in a default, which, if not cured or waived, could result in accelerated repayment or the suspension of dividends.

In the event of default, there can be no assurance that the Corporation could:

(i) Generate sufficient cash flow from operations or that future dividends will be available in amounts sufficient to pay outstanding indebtedness, or to fund any other liquidity needs; or

(ii) Refinance these credit agreements or obtain additional financing on commercially reasonable terms, if at all. The credit agreements, and future borrowings may be, at variable rates of interest, which exposes the Corporation to the risk of increased interest rates.

Contractual maturities

The contractual maturities of the Corporation's financial liabilities as at December 31, 2012 were as follows:

Financial Liabilities	Within one year	One year to five years	Beyond five years	Total
Accounts payable and accrued liabilities	106,767	—	—	106,767
Derivative financial instruments				
Embedded derivatives	—	12,158	—	12,158
Interest rate swaps	3,106	8,615	6,772	18,493
	3,106	20,773	6,772	30,651
Finance lease obligations	3,528	2,689	2,572	8,789
Long-term debt	14,977	212,443	522,273	749,693

(E) Sensitivity Analysis

The sensitivity analysis provided below discloses the effect on net income for the year ended December 31, 2012, assuming that a reasonably possible change in the relevant risk variable has occurred during the year and has been applied to the risk exposures in existence at that date to show the effects of reasonably possible changes. The reasonably possible changes in market variables used in the sensitivity analysis were determined based on implied volatilities, where available, or historical data.

The sensitivity analysis has been prepared based on December 31, 2012 balances and on the basis that the balances, the ratio of fixed to floating rates of debt and derivatives, the proportion of energy contracts that are financial instruments and the proportion of financial instruments in foreign currencies in place at December 31, 2012 are all constant. Excluded from this analysis are all non-financial assets and liabilities that are not classified as financial instruments under IFRS 7.

The sensitivity analysis provided is hypothetical and should be used with caution as the impacts provided are not necessarily indicative of the actual impacts that would be experienced because the Corporation's actual exposure to market rates is constantly changing as the Corporation's portfolio of commodity, debt, foreign currency and equity contracts changes. Changes in fair values or cash flows based on a variation in a market variable cannot be extrapolated because the relationship between the change in the market variable and the change in fair value or cash flows may not be linear. In addition, the effect of a change in a particular market variable on fair values or cash flows is calculated without considering interrelationships between the various market rates, hedging strategies employed by the Corporation or other mitigating actions that would be taken by the Corporation.

	Carrying	Natural Gas Price Risk		DCR Risk	
For year ended Dec 31, 2012	Amount	(10)%	10%	(1)%	1%
Financial assets:					
Embedded derivative asset	1,172	(266)	366	38	(30)
Financial liabilities:					
Embedded derivative liability	12,158	—	—	1,659	(1,675)

	Carrying	Interest Rate Risk		Canadian $ to SEK Foreign Exchange Rate Risk	
For year ended Dec 31, 2012	Amount	(0.5)%	0.5%	(10)%	10%
Financial assets:					
Cash and cash equivalents [1]	49,599	(248)	248	—	—
Restricted cash	19,229	(96)	96	—	—
Short-term deposits	6,471	(32)	32	—	—
Loans receivable [2]	34,768	—	—	(3,477)	3,477
SEK – foreign exchange contracts	250	—	—	(353)	177
Financial liabilities:					
Finance lease obligations	7,201	81	(81)	—	—
Long-term debt [3]	52,495	262	(262)	—	—
Interest rate swap contracts, net [4]	15,337	3,932	(3,932)	—	—

(1) Cash and cash equivalents include deposits at call, which are at floating interest rates.
(2) Loans receivable exclude loans related to Chapais of $4,237.
(3) Long-term debt excludes all fixed-rate debt totaling $668,905 and variable rate debt that is covered by a swap instrument for fixed-rate debt totaling $90,560.
(4) Interest rate swaps exclude Bristol Water's cash flow hedge of $3,156 as changes flow through OCI.

Pound sterling foreign exchange contracts have been excluded from this analysis as the change is considered insignificant with respect to currency fluctuation on consolidation.

Bristol Water's sensitivity to changes in inflation and foreign exchange on its long-term debt were as follows:

	Inflation Rate Risk (RPI)		Canadian $ to £ Foreign Exchange Rate Risk	
For year ended Dec 31, 2012	(1)%	1%	(1)%	1%
Impact on net income before taxes	2,610	(2,610)	—	—
Impact on equity	2,054	(2,054)	3,702	(3,702)