

1 **Energy Conservation Upgrades Hydro Place, \$832,600, Page B-34**

2 Q. The report *Hydro Place Energy Efficiency Improvements*, Tab 18 Volume 2,  
 3 page 9, estimates the annual reduction in building energy consumption to be  
 4 1,355,918 kWh. What are the expected annualized savings that will result  
 5 from this project based on reduced production at the Holyrood Thermal  
 6 Generating Station. Please express the savings on a dollar basis and a  
 7 cents per kWh basis.

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10 A. Please see the table below.

Annualized Savings Based On Reduced Production at Holyrood							
			Net Present Value @ 8%	Years	Annualized Savings	Annualized Savings cents per kWh	
			\$1,831,420	15	<b>\$122,095</b>	<b>8.27</b>	
	Hydro Place Savings	Newfoundland Power Average System Losses	Hydro Average Transmission Losses	Total System Impact	Conversion Factor	Fuel (\$Cdn/bbl)	Total Savings per Annum
	kWh	kWh	kWh	kWh			
2009		0	0	0.0	630	99.6	\$0
2010	1,355,918	75,931	44,387	1,476,237	630	92.5	\$216,749
2011	1,355,918	75,931	44,387	1,476,237	630	88.5	\$207,376
2012	1,355,918	75,931	44,387	1,476,237	630	88.7	\$207,845
2013	1,355,918	75,931	44,387	1,476,237	630	92.7	\$217,218
2014	1,355,918	75,931	44,387	1,476,237	630	94.6	\$221,670
2015	1,355,918	75,931	44,387	1,476,237	630	96.6	\$226,356
2016	1,355,918	75,931	44,387	1,476,237	630	98.5	\$230,808
2017	1,355,918	75,931	44,387	1,476,237	630	100.8	\$236,198
2018	1,355,918	75,931	44,387	1,476,237	630	103.0	\$241,353
2019	1,355,918	75,931	44,387	1,476,237	630	105.2	\$246,508
2020	1,355,918	75,931	44,387	1,476,237	630	107.5	\$251,898
2021	1,355,918	75,931	44,387	1,476,237	630	109.7	\$257,053
2022	1,355,918	75,931	44,387	1,476,237	630	112.0	\$262,442
2023	1,355,918	75,931	44,387	1,476,237	630	114.4	\$268,066
2024	1,355,918	75,931	44,387	1,476,237	630	116.7	\$273,455

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The expected annualized savings are \$122,095. This value is calculated by dividing the net present value of the annual savings (\$1,831,420) by 15

1 years, the period 2010 to 2024. The expected annualized savings expressed  
2 as cents per kWh is 8.27 which is calculated by dividing \$122,095 by the total  
3 system impact of 1,476,237 kWh.

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5 The total system impact includes annual savings from losses of 75,931 kWh  
6 and 44,387 kWh. The ten-year (1998-2007) average losses applied in the  
7 above table are 5.6 percent for Newfoundland Power and 3.1 percent for  
8 Hydro transmission. The fuel efficiency conversion factor is 630 kWh per  
9 barrel of No. 6 fuel consumed at the Holyrood Thermal Generating Station.

10 The fuel prices are Hydro's June 2008 fuel forecast for No. 6 fuel having one  
11 percent sulphur content.