

1 Q. **RE: p. B-71** Provide a copy of the economic analysis referred to in the last
2 paragraph at p. B-71.

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5 A. Please refer to the attached table that demonstrates total net benefits for the
6 project of approximately \$287,000 by 2032 with a project payback period of
7 9 years.

Roddickton Mini Hydro Dam Replacement

Assumptions			
Annual Escalation:	2.0%	Capital (2005):	231,500
Discount Rate:	8.5%		
Installed Capacity:	400 kW		
Annual Energy:	1,000,000 kWh		
Holyrood Conversion:	630 kWh/BBL	Operator + O&M (2003\$):	19,100
Holyrood Var O&M:	4.5 mills/kWh 2004\$		
Fuel Forecast:	Fall 2003		
Capacity Value (CT equiv.):	100 \$/kW/yr 2004\$		

Year	Replace Dam				Retire Plant						Difference (Net Benefits) TOTAL	
	Capital Cost	Plant O&M	Sub-total Current\$ CPW 2004\$		Operator	Capacity	Holyrood Var O&M	Fuel	Sub-total Current\$ CPW 2004\$		Current\$	CPW 2004\$
2004												
2005	231,500	19,872	251,372	231,679	19,872				19,872	18,315	231,500	213,364
2006		20,269	20,269	248,897		0	4,682	46,493	51,175	61,786	-30,906	187,111
2007		20,674	20,674	265,083		0	4,775	48,187	52,962	103,250	-32,288	161,832
2008		21,088	21,088	280,299		0	4,871	52,202	57,073	144,433	-35,985	135,866
2009		21,510	21,510	294,604		0	4,968	53,254	58,222	183,153	-36,713	111,451
2010		21,940	21,940	308,052		0	5,068	55,000	60,068	219,972	-38,128	88,080
2011		22,379	22,379	320,695		13,113	5,169	56,508	74,790	262,222	-52,411	58,472
2012		22,826	22,826	332,579		13,113	5,272	58,095	76,481	302,044	-53,654	30,536
2013		23,283	23,283	343,752		13,113	5,378	59,762	78,253	339,595	-54,970	4,157
2014		23,748	23,748	354,256		13,113	5,485	61,429	80,027	374,990	-56,278	-20,734
2015		24,223	24,223	364,130		13,113	5,595	63,175	81,883	408,369	-57,659	-44,238
2016		24,708	24,708	373,413		13,113	5,707	64,921	83,741	439,830	-59,033	-66,417
2017		25,202	25,202	382,140		13,113	5,821	66,746	85,680	469,498	-60,478	-87,359
2018		25,706	25,706	390,344		13,113	5,938	68,571	87,622	497,462	-61,916	-107,118
2019		26,220	26,220	398,056		13,113	6,056	70,476	89,645	523,830	-63,425	-125,774
2020		26,745	26,745	405,306		13,113	6,178	72,460	91,751	548,704	-65,006	-143,397
2021		27,280	27,280	412,122		13,113	6,301	74,127	93,541	572,076	-66,261	-159,953
2022		27,825	27,825	418,530		13,113	6,427	75,635	95,175	593,993	-67,350	-175,463
2023		28,382	28,382	424,554		13,113	6,556	77,460	97,129	614,608	-68,747	-190,054
2024		28,949	28,949	430,217		13,113	6,687	79,127	98,927	633,960	-69,977	-203,743
2025		29,528	29,528	435,541		13,113	6,820	80,952	100,886	652,149	-71,358	-216,608
2026		30,119	30,119	440,545		13,113	6,957	82,778	102,848	669,238	-72,729	-228,693
2027		30,721	30,721	445,250		13,113	7,096	84,603	104,812	685,290	-74,091	-240,040
2028		31,336	31,336	449,673		13,113	7,238	86,508	106,859	700,374	-75,523	-250,700
2029		31,962	31,962	453,831		13,113	7,383	88,492	108,988	714,552	-77,025	-260,721
2030		32,602	32,602	457,740		13,113	7,530	90,397	111,040	727,866	-78,439	-270,126
2031		33,254	33,254	461,415		13,113	7,681	92,460	113,254	740,382	-80,001	-278,967
2032		33,919	33,919	464,870		13,113	7,835	94,603	115,551	752,151	-81,632	-287,281