ECONOMIC ANALYSIS WORKSHEETS – BASE CASE

Economic Methodology for Fixed Link Project

Section 1 - Transportation Economics

				Phase 1 - Planning Approval			Phase 2 - Design & Construction																
				1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
Traffic	Travellers (one-way trips)	Tourist Visitors - ferry/link	3.50%	13,000	13,455	13,926	14,413	14,918	15,440	15,980	16,540	17,119	17,718	18,338	18,980	19,644	20,331	21,043	21,780	22,542	23,331	24,147	24,993	25,867
		Traditional Tourist Vehicles		4,869	5,039	5,216	5,398	5,587	5,783	5,985	6,195	6,411	6,636	6,868	7,108	7,357	7,615	7,881	8,157	8,443	8,738	9,044	9,360	9,688
		Induced Visitors - fixed Link	1.25%												229	477	746	1,035	1,347	1,684	2,045	2,434	2,852	3,299
		Induced Demand Vehicles - Tourists	2.67												86	179	279	388	505	631	766	912	1,068	1,236
		Tourist Vehicles - ferry/link	2.67	4,869	5,039	5,216	5,398	5,587	5,783	5,985	6,195	6,411	6,636	6,868	7,194	7,536	7,894	8,269	8,662	9,073	9,504	9,956	10,429	10,924
	Passenger Veh.																							
	Labrador	Local and Business Traffic Base	1.5%	16,769	17,139	17,518	17,903	18,297	18,698	19,108	19,526	19,952	20,387	20,830	27,079	27,485	27,898	28,316	28,741	29,172	29,610	30,054	30,505	30,962
		one-time surge	30.0%																					
	Cabot	Diverted Passenger Vehicles													20,334	20,842	21,363	21,897	22,445	23,006	23,581	24,170	24,775	25,394
		Induced Demand Veh %	1.50%												6,100	6,192	6,284	6,379	6,474	6,572	6,670	6,770	6,872	6,975
		One time effect	30.0%																					
	Total	Total Passenger Vehicles													60,793	62,234	63,718	65,249	66,826	68,453	70,131	71,861	73,647	75,490
		Total Induced Vehicle Trips		0	0	0	0	0	0	0	0	0	0	0	6,186	6,370	6,564	6,766	6,979	7,202	7,436	7,682	7,940	8,211
		Total Visitors	2.67												162,318	166,164	170,128	174,214	178,426	182,769	187,249	191,870	196,638	201,559
	Base Freight	Cabot/Oceanex Tractor-trailer	2.50%	142,402	145,962	149,611	153,351	157,185	161,115	165,143	169,271	173,503	177,841	182,287	186,844	191,515	196,303	201,210	206,241	211,397	216,681	222,099	227,651	233,342
		Apollo Tractor-trailer		2,404	2,464	2,526	2,589	2,654	2,720	2,788	2,858	2,929	3,003	3,078	3,155	3,233	3,314	3,397	3,482	3,569	3,658	3,750	3,843	3,940
		Diverted Cabot/Oceanex Tractor-Trailer	10%												18,684	19,151	19,630	20,121	20,624	21,140	21,668	22,210	22,765	23,334
		Induced Cabot/Oceanex Tractor-Trailer	1.0%												1,868	1,915	1,963	2,012	2,062	2,114	2,167	2,221	2,277	2,333
		Total Tractor-trailer													23,707	24,300	24,908	25,530	26,168	26,823	27,493	28,181	28,885	29,607
	Design Peak Hour Vol	Autos													38	39	40	41	42	43	44	45	46	47
		Trucks													8	9	9	9	9	9	10	10	10	10
		PCUs	2.5												59	60	62	63	65	67	68	70	72	73
		Dominant Direction (ratio)	50.00%												29	30	31	32	32	33	34	35	36	37
Revenues Total															6,692,243	6,855,814	7,023,848	7,196,483	7,373,863	7,556,135	7,743,454	7,935,979	8,133,874	8,337,312
	Passenger Tolls														1,015,245	1,039,305	1,064,098	1,089,653	1,115,998	1,143,164	1,171,183	1,200,087	1,229,911	1,260,690
	Vehicle Tolls														1,854,190	1,898,132	1,943,413	1,990,085	2,038,200	2,087,815	2,138,986	2,191,775	2,246,244	2,302,458
	Freight Tolls														3,822,808	3,918,378	4,016,337	4,116,746	4,219,664	4,325,156	4,433,285	4,544,117	4,657,720	4,774,163
	Other																							
Expenses Total															4,555,581	4,555,581	4,555,581	4,555,581	4,555,581	4,555,581	4,775,581	4,555,581	4,555,581	4,966,206
	Operations	Wages													3,374,000	3,374,000	3,374,000	3,374,000	3,374,000	3,374,000	3,374,000	3,374,000	3,374,000	3,374,000
		Energy													481,581	481,581	481,581	481,581	481,581	481,581	481,581	481,581	481,581	892,206
	Annual Maintenance	Wages													614,000	614,000	614,000	614,000	614,000	614,000	614,000	614,000	614,000	614,000
		Purchased Serv & Supp													86,000	86,000	86,000	86,000	86,000	86,000	86,000	86,000	86,000	86,000
	Periodic Maintenance	Purchased Serv & Supp																			220,000			
Gross Operating (Surplus/Deficit)															2,136,662	2,300,233	2,468,267	2,640,902	2,818,282	3,000,554	2,967,873	3,380,398	3,578,293	3,371,106
OperatingCostFact	100%																							
Total Capital Investments (Outflow)	Pre-operation		1,184,466,303	11,000,000	2,000,000	2,000,000	24,975,000	24,975,000	143,684,647	216,789,022	254,041,183	182,458,739	188,557,044	133,985,669										
	Operations Phase	Revenues	0												0	0	0	0	0	0	0	0	0	0
		Costs																						
	Infrastructure	Civil Works	971,740,540	11,000,000	2,000,000	2,000,000	24,975,000	24,975,000	121,888,283	194,992,658	232,244,820	160,662,375	130,483,853	66,518,552										
		M & E	17,004,000		0	0	0	0	0	0	0	0	10,627,500	6,376,500										
		Systems	29,672,471		0	0	0	0	0	0	0	0	19,781,648	9,890,824										
		Rolling Stock	37,367,772	0	0	0	0	0	0	0	0	0	0	37,367,772										
	Sub total		1,055,784,783																					
	Other (Design, Proj. Mgt)		128,681,520	0	0	0	0	0	21,796,364	21,796,364	21,796,364	21,796,364	27,664,044	13,832,022										
TOTAL CAPEX		$ 2004	1,184,466,303																					
CapCostFactor	100%																							
Present Values at Social Discount Rate	Present Value Income Operation Phase		45,957,013												2,809,766	2,677,620	2,551,859	2,432,167	2,318,247	2,209,814	2,106,601	2,008,351	1,914,821	1,825,779
	Present Value Costs Operating Phase		-30,867,079												1,912,679	1,779,237	1,655,104	1,539,632	1,432,215	1,332,293	1,299,194	1,152,877	1,072,444	1,087,544
	Present Value Capital Investment		-663,012,930	-10,232,558	-1,730,665	-1,609,921	-18,701,293	-17,396,552	-93,102,122	-130,670,645	-142,441,459	-95,167,463	-91,486,733	-60,473,519										
	Net Present Value of Fixed Link Cash Flows		-647,922,996																					
Benefit Cost Ratio and IRR	Fixed Link Cash Flows	sum undiscounted	-1,085,062,657	-11,000,000	-2,000,000	-2,000,000	-24,975,000	-24,975,000	-143,684,647	-216,789,022	-254,041,183	-182,458,739	-188,557,044	-133,985,669	2,136,662	2,300,233	2,468,267	2,640,902	2,818,282	3,000,554	2,967,873	3,380,398	3,578,293	3,371,106
	Real Internal Rate of Return (RIRR)		-9.53%																					
	Benefit /Cost Ratio		0.07																					

Indirect Transportation

Marine Atlantic Impacts	Passenger Vehicles	Base Projection # Vehicle trips	2.50%	154972	158,846	162,817	166,888	171,060	175,337	179,720	184,213	188,818	193,539	198,377	203,337	208,420	213,631	218,971	224,446	230,057	235,808	241,703	247,746	253,940
		Vehicle-trips diverted	10%												-20,334	-20,842	-21,363	-21,897	-22,445	-23,006	-23,581	-24,170	-24,775	-25,394
		Net Vehicle trips													183,003	187,578	192,268	197,074	202,001	207,051	212,227	217,533	222,971	228,546
		Passenger Vehicle Revenue $	148	22,935,856	23,509,252	24,096,984	24,699,408	25,316,894	25,949,816	26,598,561	27,263,525	27,945,113	28,643,741	29,359,835	27,084,448	27,761,559	28,455,598	29,166,988	29,896,162	30,643,566	31,409,656	32,194,897	32,999,769	33,824,764
	Freight tractor-trailer	Base Projection Tractor-trailer	2/3	94,935	97,308	99,741	102,234	104,790	107,410	110,095	112,847	115,669	118,560	121,524	124,563	127,677	130,868	134,140	137,494	140,931	144,454	148,066	151,767	155,562
		Diverted Freight tractor-trailer	1												-18,684	-19,151	-19,630	-20,121	-20,624	-21,140	-21,668	-22,210	-22,765	-23,334
		Net Freight tractor-trailer													105,878	108,525	111,238	114,019	116,870	119,791	122,786	125,856	129,002	132,227
		Net Revenue $	257.25	24,421,943	25,032,492	25,658,304	26,299,761	26,957,255	27,631,187	28,321,967	29,030,016	29,755,766	30,499,660	31,262,152	27,237,150	27,918,078	28,616,030	29,331,431	30,064,717	30,816,335	31,586,743	32,376,412	33,185,822	34,015,468
		Change in Pass. Car Equivalent Veh. (PCU)			2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.6%	2.6%	-11.1%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%

Economic Methodology for Fixed Link Project

				Phase 1 - Planning Approval			Phase 2 - Design & Construction																	
				1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
	Total Operating Cost		111	111,100,000	112,319,750	113,554,324	114,803,907	116,068,686	117,348,848	118,644,585	119,956,092	121,283,563	122,660,789	124,090,068	117,989,626	119,293,109	120,612,457	121,947,867	123,299,540	124,667,677	126,052,482	127,454,164	128,872,932	130,308,999
		Wages	64.3	64,300,000	65,103,750	65,917,547	66,741,516	67,575,785	68,420,482	69,275,739	70,141,685	71,018,456	71,928,380	72,873,002	68,839,843	69,700,341	70,571,595	71,453,740	72,346,912	73,251,248	74,166,889	75,093,975	76,032,649	76,983,058
		Fuel	16.9	16,900,000	16,942,250	16,984,606	17,027,067	17,069,635	17,112,309	17,155,090	17,197,977	17,240,972	17,285,152	17,330,553	17,138,721	17,181,568	17,224,522	17,267,583	17,310,752	17,354,029	17,397,414	17,440,907	17,484,510	17,528,221
		Purchased Goods & Ser	29.9	29,900,000	30,273,750	30,652,172	31,035,324	31,423,266	31,816,056	32,213,757	32,616,429	33,024,134	33,447,256	33,886,513	32,011,062	32,411,200	32,816,340	33,226,545	33,641,876	34,062,400	34,488,180	34,919,282	35,355,773	35,797,720
	Subsidy impact	-- reference subsidy $mm	43.8																					
		Incremental gain (loss)													-1,715,497	-8,583,767	-8,791,018	-9,003,362	-8,627,334	-8,843,017	-9,064,093	-9,290,695	-9,522,963	-9,761,037
	Net Revenue	Operating Surplus(deficit)		-63,742,201	-63,778,006	-63,799,037	-63,804,738	-63,794,537	-63,767,845	-63,724,057	-63,662,551	-63,582,684	-63,517,387	-63,468,081	-63,668,028	-62,309,988	-63,540,829	-63,449,448	-63,338,661	-63,207,775	-63,056,083	-62,882,855	-62,687,341	-62,468,767
	Capital Plan - Base	$ Millions					75			100					150		150		150					
	Capital Plan - Divert	$ Millions					75			100													300	
	Total Cash - Base			-63,742,201	-63,778,006	-63,799,037	-138,804,738	-63,794,537	-63,767,845	-163,724,057	-63,662,551	-63,582,684	-63,517,387	-63,468,081	-211,952,532	-53,726,221	-204,749,811	-54,446,086	-204,711,326	-54,364,758	-53,991,990	-53,592,160	-53,164,378	-52,707,731
	Total Cash - Divert			-63,742,201	-63,778,006	-63,799,037	-138,804,738	-63,794,537	-63,767,845	-163,724,057	-63,662,551	-63,582,684	-63,517,387	-63,468,081	-63,668,028	-62,309,988	-63,540,829	-63,449,448	-63,338,661	-63,207,775	-63,056,083	-62,882,855	-362,687,341	-62,468,767
	PV Base (2004)		-1,044,206,082	-59,295,071	-55,189,189	-51,355,709	-103,937,061	-44,436,635	-41,319,110	-98,685,478	-35,695,734	-33,163,677	-30,818,251	-28,645,886	-88,989,146	-20,983,419	-74,388,364	-18,400,927	-64,358,579	-15,899,137	-14,688,484	-13,562,522	-12,515,594	-11,542,412
	PV Divert		-1,015,598,330	-59,295,071	-55,189,189	-51,355,709	-103,937,061	-44,436,635	-41,319,110	-98,685,478	-35,695,734	-33,163,677	-30,818,251	-28,645,886	-26,731,285	-24,335,912	-23,085,239	-21,443,758	-19,912,851	-18,485,305	-17,154,365	-15,913,710	-85,381,369	-13,679,971
	Net Present Value	Benefit attributable to fixed link	28,607,753																					
Apollo Impacts																								
	Base																							
		Total Vehicles #	2.50%	24042	24643	25259	25891	26538	27201	27881	28578	29293	30025	30776										
		Trucks # (est.)	10.00%	2,404	2,464	2,526	2,589	2,654	2,720	2,788	2,858	2,929	3,003	3,078										
		Passenger Vehicles #		21,638	22,179	22,733	23,302	23,884	24,481	25,093	25,721	26,364	27,023	27,698										
	Subsidy impact	Reference Annual Subsidy $ millions	5.5																					
		Sub total																						
	Net Change	Surplus(deficit)		-5,500,000	-5,500,000	-5,500,000	-5,500,000	-5,500,000	-5,500,000	-5,500,000	-5,500,000	-5,500,000	-5,500,000	-5,500,000	-5,500,000.0	-5,500,000.0	-5,500,000.0	-5,500,000.0	-5,500,000.0	-5,500,000.0	-5,500,000.0	-5,500,000.0	-5,500,000.0	-5,500,000.0
	Capital Plan - Base												75											
	Capital Plan - Divert												20											
	Total Cash - Base			-5,500,000	-5,500,000	-5,500,000	-5,500,000	-5,500,000	-5,500,000	-5,500,000	-5,500,000	-5,500,000	-80,500,000	-5,500,000	-5,500,000	-5,500,000	-5,500,000	-5,500,000	-5,500,000	-5,500,000	-5,500,000	-5,500,000	-5,500,000	-5,500,000
	Total Cash - Divert			-5,500,000	-5,500,000	-5,500,000	-5,500,000	-5,500,000	-5,500,000	-5,500,000	-5,500,000	-5,500,000	-25,500,000	-5,500,000	0	0	0	0	0	0	0	0	0	0
	PV Base (2004)		-110,098,784	-5,116,279	-4,759,329	-4,427,283	-4,118,403	-3,831,072	-3,563,788	-3,315,152	-3,083,862	-2,868,709	-39,058,111	-2,482,388	-2,309,198	-2,148,091	-1,998,224	-1,858,813	-1,729,128	-1,608,492	-1,496,271	-1,391,880	-1,294,772	-1,204,439
	PV Divert		-49,938,711	-5,116,279	-4,759,329	-4,427,283	-4,118,403	-3,831,072	-3,563,788	-3,315,152	-3,083,862	-2,868,709	-12,372,445	-2,482,388	0	0	0	0	0	0	0	0	0	0
	Net Present Value	Benefit attributable to fixed link	60,160,073																					
Transportation Net Present Value - ERR and Benefit to Cost Ratio	Fix Link Cash Flows			-11,000,000	-2,000,000	-2,000,000	-24,975,000	-24,975,000	-143,684,647	-216,789,022	-254,041,183	-182,458,739	-188,557,044	-133,985,669	2,136,662	2,300,233	2,468,267	2,640,902	2,818,282	3,000,554	2,967,873	3,380,398	3,578,293	3,371,106
	Marine Atlantic Economic Benefit			0	0	0	0	0	0	0	0	0	0	0	148,284,503	-8,583,767	141,208,982	-9,003,362	141,372,666	-8,843,017	-9,064,093	-9,290,695	-309,522,963	-9,761,037
	Apolo Economic Benefit			0	0	0	0	0	0	0	0	0	55,000,000	0	5,500,000	5,500,000	5,500,000	5,500,000	5,500,000	5,500,000	5,500,000	5,500,000	5,500,000	5,500,000
	Total Economic Cash Flow		-878,841,338	-11,000,000	-2,000,000	-2,000,000	-24,975,000	-24,975,000	-143,684,647	-216,789,022	-254,041,183	-182,458,739	-133,557,044	-133,985,669	155,921,166	-783,534	149,177,249	-862,460	149,690,947	-342,464	-596,220	-410,298	-300,444,669	-889,931
		Present Value	-559,155,170	-10,232,558	-1,730,665	-1,609,921	-18,701,293	-17,396,552	-93,102,122	-130,670,645	-142,441,459	-95,167,463	-64,801,067	-60,473,519	65,464,145	-306,018	54,198,104	-291,482	47,060,887	-100,154	-162,201	-103,834	-70,728,625	-194,885
	Economic Net Present Value		-559,155,170																					
	Economic Rate of Return (ERR)		-5.28%																					
	Benefit /Cost Ratio		0.19																					
Other Economic Impacts			-211,649,822		-1,405,340	-1,405,340	-17,549,183	-17,549,183	-107,443,603	-158,811,855	-184,987,831	-134,688,995	-91,600,405	-112,311,783	165,007,929	8,458,363	158,577,689	8,700,028	159,419,092	9,555,051	9,505,489	9,837,531	-290,015,665	9,782,291
	Construction Impacts	Indirect plus induced GDP -- NPV	166,971,243																					
	Operations Impacts	Indirect plus induced GDP -- NPV	4,350,097																					
	Tourism Impacts	Total GDP Impact -- NPV	54,374,372																					
	Total Spin-off Benefits	NPV	225,695,712																					
	Fixed Link Economic NPV		-333,459,458																					
		Socio-economic Rate of Return	-1.4%																					
		Benefit Cost Ratio	0.52																					

SECTION 2 - Financial Analysis

		Project Cost, Constant 2004$		-11,000,000	-2,000,000	-2,000,000	-24,975,000	-24,975,000	-143,684,647	-216,789,022	-254,041,183	-182,458,739	-188,557,044	-133,985,669	2,136,662	2,300,233	2,468,267	2,640,902	2,818,282	3,000,554	2,967,873	3,380,398	3,578,293	3,371,106
		Nominal Value		-11,275,000	-2,101,250	-2,153,781	-27,567,727	-28,256,920	-166,630,139	-257,694,022	-309,524,514	-227,865,962	-241,368,958	-175,800,809	2,873,573	3,170,897	3,487,597	3,824,814	4,183,755	4,565,698	4,628,869	5,404,073	5,863,450	5,662,048
Financing during Construction	Cumm. Const. Cost	Comprised of:	-1,707,787,952	-11,275,000	-13,658,125	-16,442,281	-44,778,278	-74,584,919	-244,237,880	-509,978,042	-838,559,108	-1,100,614,912	-1,391,317,967	-1,630,650,450										
		Interest during Construction (IDC)l	-257,548,871	-281,875	-630,375	-768,270	-1,549,721	-3,022,823	-8,046,141	-19,056,552	-34,189,843	-49,334,097	-63,531,674	-77,137,502										
		Project Costs	-1,450,239,081																					
Financing Base Case	Project Cost																							
Debt Financing		Pre operations cost	1,450,239,081																					
		Interest during Construction	257,548,871																					
	Total Amount to Finance		1,707,787,952																					
		Annual Debt Amortization (CRF)	-188,759,209												-188,759,209	-188,759,209	-188,759,209	-188,759,209	-188,759,209	-188,759,209	-188,759,209	-188,759,209	-188,759,209	-188,759,209
		Net Cash Flow													-185,885,636	-185,588,312	-185,271,612	-184,934,395	-184,575,454	-184,193,511	-184,130,340	-183,355,136	-182,895,759	-183,097,161
		IRR Excl IDC	-7.2%																					
Subsidized Financing Sensitivity Case		Project Spending	1,450,239,081	11,275,000	2,101,250	2,153,781	27,567,727	28,256,920	166,630,139	257,694,022	309,524,514	227,865,962	241,368,958	175,800,809										
		Grant Award	1,395,000,000	11,275,000	2,101,250	2,153,781	27,567,727	28,256,920	166,630,139	257,694,022	309,524,514	227,865,962	241,368,958	120,561,728										
		Cost less Grant	55,239,081	0	0	0	0	0	0	0	0	0	0	55,239,081										
	Total Amount to Finance		56,620,058																					
		Comprised of:		0	0	0	0	0	0	0	0	0	0	55,239,081										
		Interest during Construction (IDC)	1,380,977	0	0	0	0.00	0	0	0	0	0	0	1,380,977										

Economic Methodology for Fixed Link Project

				Phase 1 - Planning Approval			Phase 2 - Design & Construction																	
				1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
		Project Costs	55,239,081																					
		Internal Rate of Return	8.0%	0	0	0	0	0	0	0	0	0	0	-56,620,058	2,873,573	3,170,897	3,487,597	3,824,814	4,183,755	4,565,698	4,628,869	5,404,073	5,863,450	5,662,048
	Section 3 - Socio-Economic Impact			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
Construction Effects																								
	Construction Spending	Annual Civil & M&E		11,000,000	2,000,000	2,000,000	24,975,000	24,975,000	121,888,283	194,992,658	232,244,820	160,662,375	141,111,353	72,895,052										
		Direct GDP	34.0%	3,740,000	680,000	680,000	8,491,500	8,491,500	41,442,016	66,297,504	78,963,239	54,625,207	47,977,860	24,784,318										
		Indirect	63.0%	2,356,200	428,400	428,400	5,349,645	5,349,645	26,108,470	41,767,427	49,746,840	34,413,881	30,226,052	15,614,120										
		Induced	15.0%	914,430	166,260	166,260	2,076,172	2,076,172	10,132,573	16,209,740	19,306,512	13,355,863	11,730,587	6,059,766										
		Indirect plus induced GNP impact		3,270,630	594,660	594,660	7,425,817	7,425,817	36,241,043	57,977,167	69,053,352	47,769,744	41,956,638	21,673,886										
		Net Present Value	166,971,243	3,042,447	514,579	478,678	5,560,456	5,172,517	23,482,801	34,946,022	38,718,369	24,915,909	20,357,106	9,782,361										
Operations Impacts	Operations Costs	Annual Costs													4,555,581	4,555,581	4,555,581	4,555,581	4,555,581	4,555,581	4,775,581	4,555,581	4,555,581	4,966,206
		Direct GDP	34.0%												1,548,898	1,548,898	1,548,898	1,548,898	1,548,898	1,548,898	1,623,698	1,548,898	1,548,898	1,688,510
		Indirect	23.0%												356,246	356,246	356,246	356,246	356,246	356,246	373,450	356,246	356,246	388,357
		Induced	15.0%												285,772	285,772	285,772	285,772	285,772	285,772	299,572	285,772	285,772	311,530
		Indirect plus induced GNP impact													642,018	642,018	642,018	642,018	642,018	642,018	673,023	642,018	642,018	699,887
		Net Present Value	4,350,097												269,554	250,748	233,254	216,980	201,842	187,760	183,095	162,475	151,139	153,268
Tourism Impacts	Tourist Indicators																							
		Induced Visitors -- trip add-on	1												54,520	56,126	57,785	59,500	61,274	63,109	65,006	66,969	69,000	71,101
		Induced Visitors -- full trip	11												16,287	16,532	16,780	17,031	17,287	17,546	17,809	18,076	18,347	18,623
		Incremental Room nights	2	6,500	6,728	6,963	7,207	7,459	7,720	7,990	8,270	8,559	8,859	9,169	116,840	118,986	121,180	123,422	125,714	128,057	130,454	132,904	135,411	137,976
		Incre.Annual Expenditures Tourists	62.35												14,569,953	14,837,609	15,111,147	15,390,735	15,676,547	15,968,765	16,267,575	16,573,173	16,885,760	17,205,547
		Direct GDP	35.0%												5,099,484	5,193,163	5,288,902	5,386,757	5,486,792	5,589,068	5,693,651	5,800,610	5,910,016	6,021,941
		Indirect	44.0%												2,243,773	2,284,992	2,327,117	2,370,173	2,414,188	2,459,190	2,505,207	2,552,269	2,600,407	2,649,654
		Induced	15.0%												1,101,488	1,121,723	1,142,403	1,163,540	1,185,147	1,207,239	1,229,829	1,252,932	1,276,563	1,300,739
		Total													8,444,745	8,599,878	8,758,421	8,920,470	9,086,127	9,255,496	9,428,686	9,605,811	9,786,987	9,972,335
		Net Present Value	54,374,372												3,545,561	3,358,786	3,182,052	3,014,816	2,856,560	2,706,798	2,565,068	2,430,934	2,303,985	2,183,831
TOTAL OTHER IMPACTS		Net Present Value - Real	225,695,712	3,042,447	514,579	478,678	5,560,456	5,172,517	23,482,801	34,946,022	38,718,369	24,915,909	20,357,106	9,782,361	3,815,115	3,609,533	3,415,306	3,231,796	3,058,402	2,894,558	2,748,163	2,593,409	2,455,125	2,337,099
Social Impacts																								
	Employment	Construction & Operations																						
		NL - Skilled		0	0	0	0	0	192	229	257	201	247	182	25	25	25	25	25	25	25	25	25	25
		NL - Unskilled		0	0	0	0	0	166	233	278	184	202	102	15	15	15	15	15	15	15	15	15	15
		Non-res		0	0	0	0	0	0	19	29	24	4	2	0	0	0	0	0	0	0	0	0	0
		Total NL Direct Employment		0	0	0	0	0	358	462	535	385	449	284	40	40	40	40	40	40	40	40	40	40
		Indirect Construction Employment	0.63	0	0	0	0	0	226	291	337	243	283	179	25	25	25	25	25	25	25	25	25	25
		Induced Construction Employment	0.3	0	0	0	0	0	175	226	262	188	220	139	20	20	20	20	20	20	20	20	20	20
		Total Annual FTE Employment		0	0	0	0	0	759	979	1,134	816	951	602	85	85	85	85	85	85	85	85	85	85
		Tourism																						
		Total Incremental Spending													14,569,953	14,837,609	15,111,147	15,390,735	15,676,547	15,968,765	16,267,575	16,573,173	16,885,760	17,205,547
		Incremental FTE - Direct	12.8												186	190	193	197	201	204	208	212	216	220
		Incremental FTE - Indirect	0.24																					
		Incremental FTE - Induced	0.15																					
		Total Impact	18.3												266	271	276	281	286	291	297	303	308	314
		TOTAL RELATED EMPLOYMENT			0	0	0	0	759	979	1,134	816	951	602	351	356	361	366	371	376	382	387	393	399
Wages		Construction & Operations																						
		Direct Payroll		3,300,000	600,000	600,000	7,492,500	7,492,500	36,566,485	58,497,797	69,673,446	48,198,712	42,333,406	21,868,515	3,988,000	3,988,000	3,988,000	3,988,000	3,988,000	3,988,000	3,988,000	3,988,000	3,988,000	3,988,000
		Indirect Construction Employment	0.53	1,749,000	318,000	318,000	3,971,025	3,971,025	19,380,237	31,003,833	36,926,926	25,545,318	22,436,705	11,590,313	2,113,640	2,113,640	2,113,640	2,113,640	2,113,640	2,113,640	2,113,640	2,113,640	2,113,640	2,113,640
		Induced Construction Employment	0.3	1,514,700	275,400	275,400	3,439,058	3,439,058	16,784,017	26,850,489	31,980,112	22,123,209	19,431,033	10,037,649	1,830,492	1,830,492	1,830,492	1,830,492	1,830,492	1,830,492	1,830,492	1,830,492	1,830,492	1,830,492
		Sub-Total Wages		6,563,700	1,193,400	1,193,400	14,902,583	14,902,583	72,730,738	116,352,119	138,580,484	95,867,239	84,201,144	43,496,477	7,932,132	7,932,132	7,932,132	7,932,132	7,932,132	7,932,132	7,932,132	7,932,132	7,932,132	7,932,132
		Tourism																						
		Incremental Direct Wages	23.6%												3,438,509	3,501,676	3,566,231	3,632,214	3,699,665	3,768,628	3,839,148	3,911,269	3,985,039	4,060,509
		Incremental Indirect Wages	33.0%																					
		IncrementalInduced Wages	15.0%																					
		Sub-Total Wages	36.1%												5,259,199	5,355,813	5,454,550	5,555,471	5,658,638	5,764,117	5,871,976	5,982,286	6,095,118	6,210,549
		TOTAL RELATED WAGES		6,563,700	1,193,400	1,193,400	14,902,583	14,902,583	72,730,738	116,352,119	138,580,484	95,867,239	84,201,144	43,496,477	13,191,331	13,287,945	13,386,682	13,487,603	13,590,770	13,696,249	13,804,108	13,914,418	14,027,250	14,142,681
		NPV Wages	411,233,763	6,105,767	1,032,688	960,640	11,159,062	10,380,522	47,126,720	70,131,810	77,702,387	50,002,768	40,853,884	19,631,839	5,538,435	5,189,766	4,863,562	4,558,351	4,272,761	4,005,509	3,755,398	3,521,310	3,302,199	3,097,091
	Other Impacts																							

Economic Methodology for Fixed Link Project

Phase 3 - Operation

Section 1 - Transportation Economics

				22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
Traffic	Travellers (one-way trips)	Tourist Visitors - ferry/link	3.50%	26,773	27,710	28,679	29,683	30,722	31,797	32,910	34,062	35,254	36,488	37,765	39,087	40,455	41,871	43,337	44,853	46,423	48,048	49,730	51,470
		Traditional Tourist Vehicles		10,027	10,378	10,741	11,117	11,506	11,909	12,326	12,757	13,204	13,666	14,144	14,639	15,152	15,682	16,231	16,799	17,387	17,996	18,625	19,277
		Induced Visitors - fixed Link	1.25%	3,780	4,294	4,844	5,433	6,062	6,734	7,451	8,216	9,032	9,902	10,828	11,815	12,865	13,981	15,169	16,431	17,772	19,197	20,709	22,315
		Induced Demand Vehicles - Tourists	2.67	1,416	1,608	1,814	2,035	2,270	2,522	2,791	3,077	3,383	3,709	4,056	4,425	4,818	5,236	5,681	6,154	6,656	7,190	7,756	8,358
		Tourist Vehicles - ferry/link	2.67	11,443	11,986	12,556	13,152	13,777	14,431	15,117	15,835	16,587	17,375	18,200	19,064	19,970	20,919	21,912	22,953	24,043	25,185	26,382	27,635
	Passenger Veh.																						
	Labrador	Local and Business Traffic Base	1.5%	31,427	31,898	32,376	32,862	33,355	33,855	34,363	34,879	35,402	35,933	36,472	37,019	37,574	38,138	38,710	39,290	39,880	40,478	41,085	41,701
		one-time surge	30.0%																				
	Cabot	Diverted Passenger Vehicles		26,029	26,680	27,347	28,030	28,731	29,449	30,185	30,940	31,714	32,506	33,319	34,152	35,006	35,881	36,778	37,697	38,640	39,606	40,596	41,611
		Induced Demand Veh %	1.50%	7,079	7,186	7,293	7,403	7,514	7,627	7,741	7,857	7,975	8,095	8,216	8,339	8,464	8,591	8,720	8,851	8,984	9,118	9,255	9,394
		One time effect	30.0%																				
	Total	Total Passenger Vehicles		77,393	79,357	81,386	83,482	85,647	87,884	90,197	92,588	95,060	97,617	100,262	103,000	105,832	108,765	111,801	114,946	118,203	121,578	125,074	128,699
		Total Induced Vehicle Trips		8,495	8,794	9,108	9,437	9,784	10,149	10,532	10,934	11,358	11,803	12,272	12,764	13,283	13,828	14,401	15,005	15,640	16,308	17,011	17,752
		Total Visitors	2.67	206,639	211,884	217,301	222,896	228,677	234,651	240,825	247,209	253,810	260,637	267,700	275,009	282,573	290,403	298,510	306,905	315,602	324,612	333,949	343,626
	Base Freight																						
		Cabot/Oceanex Tractor-trailer	2.50%	239,176	245,155	251,284	257,566	264,005	270,605	277,371	284,305	291,413	298,698	306,165	313,819	321,665	329,707	337,949	346,398	355,058	363,934	373,033	382,358
		Apollo Tractor-trailer		4,038	4,139	4,242	4,349	4,457	4,569	4,683	4,800	4,920	5,043	5,169	5,298	5,431	5,567	5,706	5,848	5,995	6,144	6,298	6,455
		Diverted Cabot/Oceanex Tractor-Trailer	10%	23,918	24,516	25,128	25,757	26,401	27,061	27,737	28,430	29,141	29,870	30,617	31,382	32,166	32,971	33,795	34,640	35,506	36,393	37,303	38,236
		Induced Cabot/Oceanex Tractor-Trailer	1.0%	2,392	2,452	2,513	2,576	2,640	2,706	2,774	2,843	2,914	2,987	3,062	3,138	3,217	3,297	3,379	3,464	3,551	3,639	3,730	3,824
		Total Tractor-trailer		30,347	31,106	31,884	32,681	33,498	34,335	35,194	36,074	36,975	37,900	38,847	39,818	40,814	41,834	42,880	43,952	45,051	46,177	47,332	48,515
	Design Peak Hour Vol	Autos		48	50	51	52	54	55	56	58	59	61	63	64	66	68	70	72	74	76	78	80
		Trucks		11	11	11	12	12	12	12	13	13	13	14	14	14	15	15	16	16	16	17	17
		PCUs	2.5	75	77	79	81	83	85	88	90	92	95	97	100	102	105	108	111	114	117	120	123
		Dominant Direction (ratio)	50.00%	38	39	40	41	42	43	44	45	46	47	49	50	51	53	54	55	57	58	60	62
Revenues Total				8,546,468	8,761,526	8,982,677	9,210,118	9,444,054	9,684,696	9,932,264	10,186,987	10,449,102	10,718,854	10,996,498	11,282,298	11,576,530	11,879,478	12,191,438	12,512,717	12,843,636	13,184,524	13,535,728	13,897,604
	Passenger Tolls			1,292,463	1,325,269	1,359,149	1,394,144	1,430,301	1,467,665	1,506,285	1,546,212	1,587,500	1,630,204	1,674,381	1,720,093	1,767,403	1,816,376	1,867,083	1,919,596	1,973,990	2,030,345	2,088,742	2,149,269
	Vehicle Tolls			2,360,487	2,420,402	2,482,277	2,546,191	2,612,226	2,680,465	2,751,000	2,823,921	2,899,327	2,977,318	3,058,001	3,141,487	3,227,891	3,317,334	3,409,943	3,505,849	3,605,192	3,708,115	3,814,769	3,925,312
	Freight Tolls			4,893,517	5,015,855	5,141,251	5,269,783	5,401,527	5,536,565	5,674,980	5,816,854	5,962,275	6,111,332	6,264,116	6,420,718	6,581,236	6,745,767	6,914,412	7,087,272	7,264,454	7,446,065	7,632,217	7,823,022
	Other																						
Expenses Total				4,966,206	6,026,206	4,966,206	4,966,206	4,966,206	20,788,206	4,966,206	4,966,206	4,966,206	28,844,206	4,966,206	4,966,206	4,966,206	4,966,206	8,096,206	4,966,206	4,966,206	4,966,206	4,966,206	10,828,206
	Operations	Wages		3,374,000	3,374,000	3,374,000	3,374,000	3,374,000	3,374,000	3,374,000	3,374,000	3,374,000	3,374,000	3,374,000	3,374,000	3,374,000	3,374,000	3,374,000	3,374,000	3,374,000	3,374,000	3,374,000	3,374,000
		Energy		892,206	892,206	892,206	892,206	892,206	892,206	892,206	892,206	892,206	892,206	892,206	892,206	892,206	892,206	892,206	892,206	892,206	892,206	892,206	892,206
	Annual Maintenance	Wages		614,000	614,000	614,000	614,000	614,000	614,000	614,000	614,000	614,000	614,000	614,000	614,000	614,000	614,000	614,000	614,000	614,000	614,000	614,000	614,000
		Purchased Serv & Supp		86,000	86,000	86,000	86,000	86,000	86,000	86,000	86,000	86,000	86,000	86,000	86,000	86,000	86,000	86,000	86,000	86,000	86,000	86,000	86,000
	Periodic Maintenance	Purchased Serv & Supp			1,060,000				15,822,000				23,878,000					3,130,000					5,862,000
Gross Operating (Surplus/Deficit)				3,580,262	2,735,320	4,016,471	4,243,912	4,477,848	-11,103,510	4,966,058	5,220,781	5,482,896	-18,125,352	6,030,292	6,316,092	6,610,324	6,913,272	4,095,232	7,546,511	7,877,430	8,218,318	8,569,522	3,069,398
OperatingCostFact	100%																						
Total Capital Investments (Outflow)	Pre-operation		1,184,466,303																				
	Operations Phase	Revenues	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Costs																					
	Infrastructure																						
		Civil Works	971,740,540																				
		M & E	17,004,000																				
		Systems	29,672,471																				
		Rolling Stock	37,367,772																				
	Sub total		1,055,784,783																				
	Other (Design, Proj. Mgt)		128,681,520																				
TOTAL CAPEX		S 2004	1,184,466,303																				
CapCostFactor	100%																						
Present Values at Social Discount Rate	Present Value Income Operation Phase		45,957,013	1,741,007	1,660,294	1,583,444	1,510,267	1,440,583	1,374,224	1,311,026	1,250,836	1,193,507	1,138,901	1,086,885	1,037,333	990,126	945,151	902,298	861,467	822,558	785,479	750,141	716,462
	Present Value Costs Operating Phase		-30,867,079	1,011,669	1,141,956	875,430	814,354	757,538	2,949,772	655,523	609,789	567,245	3,064,758	490,856	456,610	424,753	395,120	599,207	341,910	318,056	295,866	275,224	558,225
	Present Value Capital Investment		-663,012,930																				
	Net Present Value of Fixed Link Cash Flows		-647,922,996																				
	Fixed Link Cash Flows	sum undiscounted	-1,085,062,657	3,580,262	2,735,320	4,016,471	4,243,912	4,477,848	-11,103,510	4,966,058	5,220,781	5,482,896	-18,125,352	6,030,292	6,316,092	6,610,324	6,913,272	4,095,232	7,546,511	7,877,430	8,218,318	8,569,522	3,069,398
Benefit Cost Ratio and IRR	Real Internal Rate of Return (RIRR)		-9.53%																				
	Benefit /Cost Ratio		0.07																				

Indirect Transportation

Marine Atlantic Impacts	Passenger Vehicles	Base Projection # Vehicle trips	2.50%	260,288	266,795	273,465	280,302	287,309	294,492	301,854	309,401	317,136	325,064	333,191	341,521	350,059	358,810	367,780	376,975	386,399	396,059	405,961	416,110
		Vehicle-trips diverted	10%	-26,029	-26,680	-27,347	-28,030	-28,731	-29,449	-30,185	-30,940	-31,714	-32,506	-33,319	-34,152	-35,006	-35,881	-36,778	-37,697	-38,640	-39,606	-40,596	-41,611
		Net Vehicle trips		234,259	240,116	246,119	252,272	258,578	265,043	271,669	278,461	285,422	292,558	299,872	307,369	315,053	322,929	331,002	339,277	347,759	356,453	365,365	374,499
		Passenger Vehicle Revenue $	148	34,670,383	35,537,142	36,425,571	37,336,210	38,269,615	39,226,356	40,207,015	41,212,190	42,242,495	43,298,557	44,381,021	45,490,547	46,627,810	47,793,506	48,988,343	50,213,052	51,468,378	52,755,087	54,073,965	55,425,814
	Freight tractor-trailer	Base Projection Tractor-trailer	2/3	159,451	163,437	167,523	171,711	176,004	180,404	184,914	189,537	194,275	199,132	204,110	209,213	214,443	219,804	225,299	230,932	236,705	242,623	248,688	254,906
		Diverted Freight tractor-trailer	1	-23,918	-24,516	-25,128	-25,757	-26,401	-27,061	-27,737	-28,430	-29,141	-29,870	-30,617	-31,382	-32,166	-32,971	-33,795	-34,640	-35,506	-36,393	-37,303	-38,236
		Net Freight tractor-trailer		135,533	138,921	142,394	145,954	149,603	153,343	157,177	161,106	165,134	169,262	173,494	177,831	182,277	186,834	191,505	196,292	201,199	206,229	211,385	216,670
		Net Revenue $	257.25	34,865,854	35,737,501	36,630,938	37,546,712	38,485,380	39,447,514	40,433,702	41,444,544	42,480,658	43,542,674	44,631,241	45,747,022	46,890,698	48,062,965	49,264,540	50,496,153	51,758,557	53,052,521	54,378,834	55,738,305
		Change in Pass. Car Equivalent Veh. (PCU)		2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%

Economic Methodology for Fixed Link Project

Phase 3 - Operation

				22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
	Total Operating Cost		111	131,762,579	133,233,891	134,723,155	136,230,594	137,756,435	139,300,906	140,864,239	142,446,670	144,048,434	145,669,774	147,310,932	148,972,156	150,653,694	152,355,800	154,078,730	155,822,743	157,588,100	159,375,069	161,183,918	163,014,918
		Wages	64.3	77,945,346	78,919,663	79,906,158	80,904,985	81,916,298	82,940,251	83,977,004	85,026,717	86,089,551	87,165,670	88,255,241	89,358,432	90,475,412	91,606,355	92,751,434	93,910,827	95,084,713	96,273,271	97,476,687	98,695,146
		Fuel	16.9	17,572,041	17,615,971	17,660,011	17,704,161	17,748,422	17,792,793	17,837,275	17,881,868	17,926,573	17,971,389	18,016,318	18,061,358	18,106,512	18,151,778	18,197,158	18,242,650	18,288,257	18,333,978	18,379,813	18,425,762
		Purchased Goods & Ser	29.9	36,245,192	36,698,257	37,156,985	37,621,447	38,091,715	38,567,862	39,049,960	39,538,085	40,032,311	40,532,715	41,039,373	41,552,366	42,071,770	42,597,667	43,130,138	43,669,265	44,215,131	44,767,820	45,327,418	45,894,010
	Subsidy impact	-- reference subsidy $mm	43.8																				
		Incremental gain (loss)		-10,005,063	-10,255,189	-10,511,569	-10,774,358	-11,043,717	-11,319,810	-11,602,805	-11,892,875	-12,190,197	-12,494,952	-12,807,326	-13,127,509	-13,455,697	-13,792,089	-14,136,892	-14,490,314	-14,852,572	-15,223,886	-15,604,483	-15,994,595
	Net Revenue	Operating Surplus(deficit)		-62,226,342	-61,959,248	-61,666,646	-61,347,672	-61,001,440	-60,627,036	-60,223,523	-59,789,935	-59,325,282	-58,828,542	-58,298,670	-57,734,587	-57,135,186	-56,499,329	-55,825,847	-55,113,538	-54,361,165	-53,567,461	-52,731,119	-51,850,800
	Capital Plan - Base	$ Millions														75				100			150
	Capital Plan - Divert	$ Millions		150																		75	
	Total Cash - Base			-52,221,279	-51,704,059	-51,155,077	-50,573,314	-49,957,723	-49,307,226	-48,620,718	-47,897,060	-47,135,084	-46,333,590	-45,491,344	-44,607,078	-118,679,489	-42,707,240	-41,688,956	-140,623,224	-39,508,594	-38,343,575	-37,126,636	-185,856,205
	Total Cash - Divert			-212,226,342	-61,959,248	-61,666,646	-61,347,672	-61,001,440	-60,627,036	-60,223,523	-59,789,935	-59,325,282	-58,828,542	-58,298,670	-57,734,587	-57,135,186	-56,499,329	-55,825,847	-55,113,538	-54,361,165	-53,567,461	-127,731,119	-51,850,800
	PV Base (2004)		-1,044,206,082	-10,638,032	-9,797,831	-9,017,489	-8,292,965	-7,620,484	-6,996,519	-6,417,773	-5,881,165	-5,383,818	-4,923,042	-4,496,327	-4,101,328	-10,150,510	-3,397,858	-3,085,434	-9,681,527	-2,530,288	-2,284,349	-2,057,534	-9,581,423
	PV Divert		-1,015,598,330	-43,232,771	-11,741,172	-10,870,441	-10,059,734	-9,305,078	-8,602,760	-7,949,305	-7,341,463	-6,776,195	-6,250,657	-5,762,193	-5,308,316	-4,886,702	-4,495,180	-4,131,717	-3,794,417	-3,481,506	-3,191,324	-7,078,776	-2,673,058
	Net Present Value	Benefit attributable to fixed link	28,607,753																				
Apollo Impacts																							
	Base																						
		Total Vehicles #	2.50%																				
		Trucks # (est.)	10.00%																				
		Passenger Vehicles #																					
	Subsidy impact	Reference Annual Subsidy $ millions	5.5																				
		Sub total																					
	Net Change	Surplus(deficit)		-5,500,000.0	-5,500,000.0	-5,500,000.0	-5,500,000.0	-5,500,000.0	-5,500,000.0	-5,500,000.0	-5,500,000.0	-5,500,000.0	-5,500,000.0	-5,500,000.0	-5,500,000.0	-5,500,000.0	-5,500,000.0	-5,500,000.0	-5,500,000.0	-5,500,000.0	-5,500,000.0	-5,500,000.0	-5,500,000
	Capital Plan - Base																					75	
	Capital Plan - Divert																						
	Total Cash - Base			-5,500,000	-5,500,000	-5,500,000	-5,500,000	-5,500,000	-5,500,000	-5,500,000	-5,500,000	-5,500,000	-5,500,000	-5,500,000	-5,500,000	-5,500,000	-5,500,000	-5,500,000	-5,500,000	-5,500,000	-5,500,000	-80,500,000	-5,500,000
	Total Cash - Divert			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	PV Base (2004)		-110,098,784	-1,120,409	-1,042,241	-969,526	-901,885	-838,963	-780,430	-725,982	-675,332	-628,216	-584,387	-543,616	-505,689	-470,408	-437,589	-407,060	-378,660	-352,242	-327,667	-4,461,258	-283,541
	PV Divert		-49,938,711	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Net Present Value	Benefit attributable to fixed link	60,160,073																				
Transportation Net Present Value - ERR and Benefit to Cost Ratio	Fix Link Cash Flows			3,580,262	2,735,320	4,016,471	4,243,912	4,477,848	-11,103,510	4,966,058	5,220,781	5,482,896	-18,125,352	6,030,292	6,316,092	6,610,324	6,913,272	4,095,232	7,546,511	7,877,430	8,218,318	8,569,522	3,069,398
	Marine Atlantic Economic Benefit			-160,005,063	-10,255,189	-10,511,569	-10,774,358	-11,043,717	-11,319,810	-11,602,805	-11,892,875	-12,190,197	-12,494,952	-12,807,326	-13,127,509	61,544,303	-13,792,089	-14,136,892	85,509,686	-14,852,572	-15,223,886	-90,604,483	134,005,405
	Apolo Economic Benefit			5,500,000	5,500,000	5,500,000	5,500,000	5,500,000	5,500,000	5,500,000	5,500,000	5,500,000	5,500,000	5,500,000	5,500,000	5,500,000	5,500,000	5,500,000	5,500,000	5,500,000	5,500,000	80,500,000	5,500,000
	Total Economic Cash Flow		-878,841,338	-150,924,801	-2,019,869	-995,098	-1,030,446	-1,065,870	-16,923,320	-1,136,747	-1,172,094	-1,207,301	-25,120,304	-1,277,034	-1,311,417	73,654,627	-1,378,818	-4,541,660	98,556,197	-1,475,142	-1,505,568	-1,534,961	142,574,803
		Present Value	-559,155,170	-30,744,993	-382,762	-175,413	-168,972	-162,586	-2,401,359	-150,047	-143,919	-137,899	-2,669,086	-126,221	-120,576	6,299,589	-109,701	-336,132	6,785,327	-94,474	-89,695	-85,067	7,350,142
	Economic Net Present Value		-559,155,170																				
	Economic Rate of Return (ERR)		-5.28%																				
	Benefit /Cost Ratio		0.19																				
Other Economic Impacts			-211,649,822	-140,062,931	9,185,464	10,259,493	10,427,496	10,600,279	-2,814,165	10,960,994	11,149,358	11,343,364	-8,969,617	11,749,289	11,961,730	87,180,859	12,406,970	9,951,483	112,881,391	13,130,364	13,387,650	13,653,622	158,892,806
	Construction Impacts	Indirect plus induced GDP -- NPV	166,971,243																				
	Operations Impacts	Indirect plus induced GDP -- NPV	4,350,097																				
	Tourism Impacts	Total GDP Impact -- NPV	54,374,372																				
	Total Spin-off Benefits	NPV	225,695,712																				
	Fixed Link Economic NPV		-333,459,458																				
		Socio-economic Rate of Return	-1.4%																				
		Benefit Cost Ratio	0.52																				

SECTION 2 - Financial Analysis

		Project Cost, Constant 2004$		3,580,262	2,735,320	4,016,471	4,243,912	4,477,848	-11,103,510	4,966,058	5,220,781	5,482,896	-18,125,352	6,030,292	6,316,092	6,610,324	6,913,272	4,095,232	7,546,511	7,877,430	8,218,318	8,569,522	3,069,398
		Nominal Value		6,163,676	4,826,775	7,264,696	7,867,976	8,509,221	-21,627,418	9,914,710	10,683,846	11,500,745	-38,969,629	13,289,298	14,267,111	15,305,029	16,406,612	9,961,796	18,816,084	20,132,208	21,528,497	23,009,713	8,447,567
Financing during Construction	Cumm. Const. Cost	Comprised of:	-1,707,787,952																				
		Interest during Construction (IDC)	-257,548,871																				
		Project Costs	-1,450,239,081																				
Financing Base Case	Project Cost																						
Debt Financing		Pre operations cost	1,450,239,081																				
		Interest during Construction	257,548,871																				
	Total Amount to Finance		1,707,787,952																				
		Annual Debt Amortization (CRF)	-188,759,209	-188,759,209	-188,759,209	-188,759,209	-188,759,209	-188,759,209	-188,759,209	-188,759,209	-188,759,209	-188,759,209	-188,759,209	-188,759,209	-188,759,209	-188,759,209	-188,759,209	-188,759,209	-188,759,209	-188,759,209	-188,759,209	-188,759,209	-188,759,209
		Net Cash Flow		-182,595,533	-183,932,434	-181,494,514	-180,891,233	-180,249,988	-210,386,627	-178,844,499	-178,075,363	-177,258,464	-227,728,839	-175,469,912	-174,492,099	-173,454,180	-172,352,597	-178,797,413	-169,943,125	-168,627,001	-167,230,712	-165,749,496	-180,311,642
		IRR Excl IDC	-7.2%																				
Subsidized Financing Sensitivity Case		Project Spending	1,450,239,081																				
		Grant Award	1,395,000,000																				
		Cost less Grant	55,239,081																				
	Total Amount to Finance		56,620,058																				
		Comprised of:																					
		Interest during Construction (IDC)	1,380,977																				

Economic Methodology for Fixed Link Project

				Phase 3 - Operation																			
				22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
		Project Costs	55,239,081																				
		Internal Rate of Return	8.0%	6,163,676	4,826,775	7,264,696	7,867,976	8,509,221	-21,627,418	9,914,710	10,683,846	11,500,745	-38,969,629	13,289,298	14,267,111	15,305,029	16,406,612	9,961,796	18,816,084	20,132,208	21,528,497	23,009,713	8,447,567

Section 3 - Socio-Economic Impact

				22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
Construction Effects																							
	Construction Spending	Annual Civil & M&E																					
		Direct GDP	34.0%																				
		Indirect	63.0%																				
		Induced	15.0%																				
		Indirect plus induced GNP impact																					
		Net Present Value	166,971,243																				
Operations Impacts	Operations Costs	Annual Costs		4,966,206	6,026,206	4,966,206	4,966,206	4,966,206	20,788,206	4,966,206	4,966,206	4,966,206	28,844,206	4,966,206	4,966,206	4,966,206	4,966,206	8,096,206	4,966,206	4,966,206	4,966,206	4,966,206	10,828,206
		Direct GDP	34.0%	1,688,510	2,048,910	1,688,510	1,688,510	1,688,510	7,067,990	1,688,510	1,688,510	1,688,510	9,807,030	1,688,510	1,688,510	1,688,510	1,688,510	2,752,710	1,688,510	1,688,510	1,688,510	1,688,510	3,681,590
		Indirect	23.0%	388,357	471,249	388,357	388,357	388,357	1,625,638	388,357	388,357	388,357	2,255,617	388,357	388,357	388,357	388,357	633,123	388,357	388,357	388,357	388,357	846,766
		Induced	15.0%	311,530	378,024	311,530	311,530	311,530	1,304,044	311,530	311,530	311,530	1,809,397	311,530	311,530	311,530	311,530	507,875	311,530	311,530	311,530	311,530	679,253
		Indirect plus induced GNP impact		699,887	849,273	699,887	699,887	699,887	2,929,682	699,887	699,887	699,887	4,065,014	699,887	699,887	699,887	699,887	1,140,998	699,887	699,887	699,887	699,887	1,526,019
		Net Present Value	4,350,097	142,575	160,936	123,374	114,767	106,760	415,711	92,383	85,938	79,942	431,916	69,176	64,350	59,861	55,684	84,446	48,185	44,824	41,696	38,787	78,671
Tourism Impacts	Tourist Indicators																						
		Induced Visitors -- trip add-on	1	73,276	75,528	77,859	80,273	82,773	85,363	88,046	90,826	93,708	96,694	99,790	103,001	106,330	109,784	113,366	117,083	120,941	124,945	129,101	133,416
		Induced Visitors -- full trip	11	18,902	19,186	19,473	19,765	20,062	20,363	20,668	20,978	21,293	21,612	21,937	22,266	22,600	22,939	23,283	23,632	23,986	24,346	24,711	25,082
		Incremental Room nights	2	140,599	143,285	146,033	148,847	151,727	154,677	157,699	160,794	163,965	167,215	170,546	173,961	177,463	181,054	184,738	188,517	192,396	196,376	200,463	204,659
		Incre.Annual Expenditures Tourists	62.35	17,532,751	17,867,598	18,210,323	18,561,171	18,920,394	19,288,257	19,665,034	20,051,008	20,446,477	20,851,749	21,267,143	21,692,994	22,129,648	22,577,467	23,036,827	23,508,119	23,991,751	24,488,147	24,997,751	25,521,022
		Direct GDP	35.0%	6,136,463	6,253,659	6,373,613	6,496,410	6,622,138	6,750,890	6,882,762	7,017,853	7,156,267	7,298,112	7,443,500	7,592,548	7,745,377	7,902,114	8,062,889	8,227,842	8,397,113	8,570,852	8,749,213	8,932,358
		Indirect	44.0%	2,700,044	2,751,610	2,804,390	2,858,420	2,913,741	2,970,392	3,028,415	3,087,855	3,148,757	3,211,169	3,275,140	3,340,721	3,407,966	3,476,930	3,547,671	3,620,250	3,694,730	3,771,175	3,849,654	3,930,237
		Induced	15.0%	1,325,476	1,350,790	1,376,700	1,403,225	1,430,382	1,458,192	1,486,677	1,515,856	1,545,754	1,576,392	1,607,796	1,639,990	1,673,001	1,706,857	1,741,584	1,777,214	1,813,776	1,851,304	1,889,830	1,929,389
		Total		10,161,982	10,356,060	10,554,703	10,758,055	10,966,261	11,179,474	11,397,854	11,621,564	11,850,778	12,085,673	12,326,436	12,573,259	12,826,344	13,085,900	13,352,145	13,625,306	13,905,619	14,193,330	14,488,696	14,791,984
		Net Present Value	54,374,372	2,070,104	1,962,456	1,860,557	1,764,096	1,672,779	1,586,327	1,504,479	1,426,984	1,353,608	1,284,128	1,218,335	1,156,029	1,097,021	1,041,136	988,203	938,065	890,571	845,579	802,954	762,569
TOTAL OTHER IMPACTS		**Net Present Value - Real**	225,695,712	2,212,679	2,123,392	1,983,931	1,878,863	1,779,539	2,002,039	1,596,862	1,512,922	1,433,550	1,716,045	1,287,511	1,220,379	1,156,882	1,096,820	1,072,650	986,251	935,395	887,275	841,741	841,240
Social Impacts																							
	Employment	Construction & Operations																					
		NL - Skilled		25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
		NL - Unskilled		15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
		Non-res		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Total NL Direct Employment		40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
		Indirect Construction Employment	0.63	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
		Induced Construction Employment	0.3	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20
		Total Annual FTE Employment		85	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85
		Tourism																					
		Total Incremental Spending		17,532,751	17,867,598	18,210,323	18,561,171	18,920,394	19,288,257	19,665,034	20,051,008	20,446,477	20,851,749	21,267,143	21,692,994	22,129,648	22,577,467	23,036,827	23,508,119	23,991,751	24,488,147	24,997,751	25,521,022
		Incremental FTE - Direct	12.8	224	229	233	238	242	247	252	257	262	267	272	278	283	289	295	301	307	313	320	327
		Incremental FTE - Indirect	0.24																				
		Incremental FTE - Induced	0.15																				
		Total Impact	18.3	320	326	332	339	345	352	359	366	373	381	388	396	404	412	420	429	438	447	456	466
		TOTAL RELATED EMPLOYMENT		405	411	417	424	430	437	444	451	458	465	473	481	489	497	505	514	523	532	541	551
	Wages	Construction & Operations																					
		Direct Payroll		3,988,000	3,988,000	3,988,000	3,988,000	3,988,000	3,988,000	3,988,000	3,988,000	3,988,000	3,988,000	3,988,000	3,988,000	3,988,000	3,988,000	3,988,000	3,988,000	3,988,000	3,988,000	3,988,000	3,988,000
		Indirect Construction Employment	0.53	2,113,640	2,113,640	2,113,640	2,113,640	2,113,640	2,113,640	2,113,640	2,113,640	2,113,640	2,113,640	2,113,640	2,113,640	2,113,640	2,113,640	2,113,640	2,113,640	2,113,640	2,113,640	2,113,640	2,113,640
		Induced Construction Employment	0.3	1,830,492	1,830,492	1,830,492	1,830,492	1,830,492	1,830,492	1,830,492	1,830,492	1,830,492	1,830,492	1,830,492	1,830,492	1,830,492	1,830,492	1,830,492	1,830,492	1,830,492	1,830,492	1,830,492	1,830,492
		Sub-Total Wages		7,932,132	7,932,132	7,932,132	7,932,132	7,932,132	7,932,132	7,932,132	7,932,132	7,932,132	7,932,132	7,932,132	7,932,132	7,932,132	7,932,132	7,932,132	7,932,132	7,932,132	7,932,132	7,932,132	7,932,132
		Tourism																					
		Incremental Direct Wages	23.6%	4,137,729	4,216,753	4,297,636	4,380,436	4,465,213	4,552,029	4,640,948	4,732,038	4,825,369	4,921,013	5,019,046	5,119,547	5,222,597	5,328,282	5,436,691	5,547,916	5,662,053	5,779,203	5,899,469	6,022,961
		Incremental Indirect Wages	33.0%																				
		IncrementalInduced Wages	15.0%																				
		Sub-Total Wages	36.1%	6,328,657	6,449,524	6,573,235	6,699,877	6,829,543	6,962,328	7,098,330	7,237,652	7,380,401	7,526,689	7,676,630	7,830,346	7,987,962	8,149,608	8,315,419	8,485,538	8,660,110	8,839,291	9,023,238	9,212,119
		TOTAL RELATED WAGES		14,260,789	14,381,656	14,505,367	14,632,009	14,761,675	14,894,460	15,030,462	15,169,784	15,312,533	15,458,821	15,608,762	15,762,478	15,920,094	16,081,740	16,247,551	16,417,670	16,592,242	16,771,423	16,955,370	17,144,251
		NPV Wages	411,233,763	2,905,075	2,725,299	2,556,970	2,399,343	2,251,726	2,113,471	1,983,971	1,862,661	1,749,013	1,642,533	1,542,757	1,449,256	1,361,626	1,279,490	1,202,495	1,130,312	1,062,633	999,171	939,656	883,836
	Other Impacts																						

ECONOMIC ANALYSIS WORKSHEETS – BASE CASE WITH HVDC INCOME

Economic Methodology for Fixed Link Project

Section 1 - Transportation Economics

				Phase 1 - Planning Approval			Phase 2 - Design & Construction																
				1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
Traffic	Travellers (one-way trips)	Tourist Visitors - ferry/link	3.50%	13,000	13,455	13,926	14,413	14,918	15,440	15,980	16,540	17,119	17,718	18,338	18,980	19,644	20,331	21,043	21,780	22,542	23,331	24,147	24,993	25,867
		Traditional Tourist Vehicles		4,869	5,039	5,216	5,398	5,587	5,783	5,985	6,195	6,411	6,636	6,868	7,108	7,357	7,615	7,881	8,157	8,443	8,738	9,044	9,360	9,688
		Induced Visitors - fixed Link	1.25%												229	477	746	1,035	1,347	1,684	2,045	2,434	2,852	3,299
		Induced Demand Vehicles - Tourists	2.67												86	179	279	388	505	631	766	912	1,068	1,236
		Tourist Vehicles - ferry/link	2.67	4,869	5,039	5,216	5,398	5,587	5,783	5,985	6,195	6,411	6,636	6,868	7,194	7,536	7,894	8,269	8,662	9,073	9,504	9,956	10,429	10,924
	Passenger Veh.																							
	Labrador	Local and Business Traffic Base	1.5%	16,769	17,139	17,518	17,903	18,297	18,698	19,108	19,526	19,952	20,387	20,830	27,079	27,485	27,898	28,316	28,741	29,172	29,610	30,054	30,505	30,962
		one-time surge	30.0%																					
	Cabot	Diverted Passenger Vehicles													20,334	20,842	21,363	21,897	22,445	23,006	23,581	24,170	24,775	25,394
		Induced Demand Veh %	1.50%												6,100	6,192	6,284	6,379	6,474	6,572	6,670	6,770	6,872	6,975
		One time effect	30.0%																					
	Total	Total Passenger Vehicles													60,793	62,234	63,718	65,249	66,826	68,453	70,131	71,861	73,647	75,490
		Total Induced Vehicle Trips		0	0	0	0	0	0	0	0	0	0	0	6,186	6,370	6,564	6,766	6,979	7,202	7,436	7,682	7,940	8,211
		Total Visitors	2.67												162,318	166,164	170,128	174,214	178,426	182,769	187,249	191,870	196,638	201,559
	Base Freight	Cabot/Oceanex Tractor-trailer	2.50%	142,402	145,962	149,611	153,351	157,185	161,115	165,143	169,271	173,503	177,841	182,287	186,844	191,515	196,303	201,210	206,241	211,397	216,681	222,099	227,651	233,342
		Apollo Tractor-trailer		2,404	2,464	2,526	2,589	2,654	2,720	2,788	2,858	2,929	3,003	3,078	3,155	3,233	3,314	3,397	3,482	3,569	3,658	3,750	3,843	3,940
		Diverted Cabot/Oceanex Tractor-Trailer	10%												18,684	19,151	19,630	20,121	20,624	21,140	21,668	22,210	22,765	23,334
		Induced Cabot/Oceanex Tractor-Trailer	1.0%												1,868	1,915	1,963	2,012	2,062	2,114	2,167	2,221	2,277	2,333
		Total Tractor-trailer													23,707	24,300	24,908	25,530	26,168	26,823	27,493	28,181	28,885	29,607
	Design Peak Hour Vol	Autos													38	39	40	41	42	43	44	45	46	47
		Trucks													8	9	9	9	9	9	10	10	10	10
		PCUs	2.5												59	60	62	63	65	67	68	70	72	73
		Dominant Direction (ratio)	50.00%												29	30	31	32	32	33	34	35	36	37
Revenues Total															30,995,956	31,159,527	31,327,561	31,500,196	31,677,575	31,859,847	32,047,166	32,239,691	32,437,587	32,641,024
	Passenger Tolls														1,015,245	1,039,305	1,064,098	1,089,653	1,115,998	1,143,164	1,171,183	1,200,087	1,229,911	1,260,690
	Vehicle Tolls														1,854,190	1,898,132	1,943,413	1,990,085	2,038,200	2,087,815	2,138,986	2,191,775	2,246,244	2,302,458
	Freight Tolls														3,822,808	3,918,378	4,016,337	4,116,746	4,219,664	4,325,156	4,433,285	4,544,117	4,657,720	4,774,163
	Transmission Fee														17,198,000	17,198,000	17,198,000	17,198,000	17,198,000	17,198,000	17,198,000	17,198,000	17,198,000	17,198,000
	Cable recovery														7,105,712	7,105,712	7,105,712	7,105,712	7,105,712	7,105,712	7,105,712	7,105,712	7,105,712	7,105,712
	Other														4,555,581	4,555,581	4,555,581	4,555,581	4,555,581	4,555,581	4,775,581	4,555,581	4,555,581	4,966,206
Expenses Total																								
	Operations	Wages													3,374,000	3,374,000	3,374,000	3,374,000	3,374,000	3,374,000	3,374,000	3,374,000	3,374,000	3,374,000
		Energy													481,581	481,581	481,581	481,581	481,581	481,581	481,581	481,581	481,581	892,206
	Annual Maintenance	Wages													614,000	614,000	614,000	614,000	614,000	614,000	614,000	614,000	614,000	614,000
		Purchased Serv & Supp													86,000	86,000	86,000	86,000	86,000	86,000	86,000	86,000	86,000	86,000
	Periodic Maintenance	Purchased Serv & Supp																			220,000			
Gross Operating (Surplus/Deficit)															26,440,375	26,603,946	26,771,980	26,944,615	27,121,994	27,304,266	27,271,585	27,684,110	27,882,006	27,674,818
Total Capital Investments (Outflow)	Pre-operation		1,261,466,303	11,000,000	2,000,000	2,000,000	24,975,000	24,975,000	143,684,647	216,789,022	254,041,183	182,458,739	227,057,044	172,485,669										
	Operations Phase		0												0	0	0	0	0	0	0	0	0	0
	Infrastructure	Civil Works	971,740,540	11,000,000	2,000,000	2,000,000	24,975,000	24,975,000	121,888,283	194,992,658	232,244,820	160,662,375	130,483,853	66,518,552										
		M & E	17,004,000		0	0	0	0	0	0	0	0	10,627,500	6,376,500										
		Systems	29,672,471		0	0	0	0	0	0	0	0	19,781,648	9,890,824										
		Rolling Stock	37,367,772	0	0	0	0	0	0	0	0	0	0	37,367,772										
		Cable	77,000,000	0	0	0	0	0	0	0	0	0	38,500,000	38,500,000										
	Sub total		1,132,784,783																					
	Other (Design, Proj. Mgt)		128,681,520	0	0	0	0	0	21,796,364	21,796,364	21,796,364	21,796,364	27,664,044	13,832,022										
TOTAL CAPEX		$ 2004	1,261,466,303																					
Present Values at Social Discount Rate	Present Value Income Operation Phase		175,508,861												13,013,780	12,169,727	11,381,725	10,645,996	9,959,018	9,317,509	8,718,410	8,158,871	7,636,234	7,148,024
	Present Value Cost Operatoin Phase		-30,867,079												1,912,679	1,779,237	1,655,104	1,539,632	1,432,215	1,332,293	1,299,194	1,152,877	1,072,444	1,087,544
	Present Value Capital Investment		-699,069,609	-10,232,558	-1,730,665	-1,609,921	-18,701,293	-17,396,552	-93,102,122	-130,670,645	-142,441,459	-95,167,463	-110,166,699	-77,850,232										
	Net Present Value of Fixed Link Cash Flows		-554,427,827																					
Benefit Cost Ratio and IRR	Fixed Link Cash Flows	sum undiscounted	-432,951,286	-11,000,000	-2,000,000	-2,000,000	-24,975,000	-24,975,000	-143,684,647	-216,789,022	-254,041,183	-182,458,739	-227,057,044	-172,485,669	26,440,375	26,603,946	26,771,980	26,944,615	27,121,994	27,304,266	27,271,585	27,684,110	27,882,006	27,674,818
	Real Internal Rate of Return (RIRR)		-2.1%																					
	Benefit /Cost Ratio		0.24																					

Indirect Transportation

Marine Atlantic Impacts	Passenger Vehicles	Base Projection # Vehicle trips	2.50%	154972	158,846	162,817	166,888	171,060	175,337	179,720	184,213	188,818	193,539	198,377	203,337	208,420	213,631	218,971	224,446	230,057	235,808	241,703	247,746	253,940
		Vehicle-trips diverted	10%												-20,334	-20,842	-21,363	-21,897	-22,445	-23,006	-23,581	-24,170	-24,775	-25,394
		Net Vehicle trips													183,003	187,578	192,268	197,074	202,001	207,051	212,227	217,533	222,971	228,546
		Passenger Vehicle Revenue $	148	22,935,856	23,509,252	24,096,984	24,699,408	25,316,894	25,949,816	26,598,561	27,263,525	27,945,113	28,643,741	29,359,835	27,084,448	27,761,559	28,455,598	29,166,988	29,896,162	30,643,566	31,409,656	32,194,897	32,999,769	33,824,764
	Freight tractor-trailer	Base Projection Tractor-trailer	2/3	94,935	97,308	99,741	102,234	104,790	107,410	110,095	112,847	115,669	118,560	121,524	124,563	127,677	130,868	134,140	137,494	140,931	144,454	148,066	151,767	155,562
		Diverted Freight tractor-trailer	1												-18,684	-19,151	-19,630	-20,121	-20,624	-21,140	-21,668	-22,210	-22,765	-23,334
		Net Freight tractor-trailer													105,878	108,525	111,238	114,019	116,870	119,791	122,786	125,856	129,002	132,227
		Net Revenue $	257.25	24,421,943	25,032,492	25,658,304	26,299,761	26,957,255	27,631,187	28,321,967	29,030,016	29,755,766	30,499,660	31,262,152	27,237,150	27,918,078	28,616,030	29,331,431	30,064,717	30,816,335	31,586,743	32,376,412	33,185,822	34,015,468
		Change in Pass. Car Equivalent Veh. (PCU)			2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.6%	2.6%	-11.1%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%
	Total Operating Cost		111	111,100,000	112,319,750	113,554,324	114,803,907	116,068,686	117,348,848	118,644,585	119,956,092	121,283,563	122,660,789	124,090,068	117,989,626	119,293,109	120,612,457	121,947,867	123,299,540	124,667,677	126,052,482	127,454,164	128,872,932	130,308,999

Economic Methodology for Fixed Link Project

				Phase 1 - Planning Approval			Phase 2 - Design & Construction																	
				1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
		Wages	64.3	64,300,000	65,103,750	65,917,547	66,741,516	67,575,785	68,420,482	69,275,739	70,141,685	71,018,456	71,928,380	72,873,002	68,839,843	69,700,341	70,571,595	71,453,740	72,346,912	73,251,248	74,166,889	75,093,975	76,032,649	76,983,058
		Fuel	16.9	16,900,000	16,942,250	16,984,606	17,027,067	17,069,635	17,112,309	17,155,090	17,197,977	17,240,972	17,285,152	17,330,553	17,138,721	17,181,568	17,224,522	17,267,583	17,310,752	17,354,029	17,397,414	17,440,907	17,484,510	17,528,221
		Purchased Goods & Ser	29.9	29,900,000	30,273,750	30,652,172	31,035,324	31,423,266	31,816,056	32,213,757	32,616,429	33,024,134	33,447,256	33,886,513	32,011,062	32,411,200	32,816,340	33,226,545	33,641,876	34,062,400	34,488,180	34,919,282	35,355,773	35,797,720
	Subsidy impact	-- reference subsidy Smm	43.8																					
		Incremental gain (loss)													-1,715,497	-8,583,767	-8,791,018	-9,003,362	-8,627,334	-8,843,017	-9,064,093	-9,290,695	-9,522,963	-9,761,037
	Net Revenue	Operating Surplus(deficit)		-63,742,201	-63,778,006	-63,799,037	-63,804,738	-63,794,537	-63,767,845	-63,724,057	-63,662,551	-63,582,684	-63,517,387	-63,468,081	-63,668,028	-62,309,988	-63,540,829	-63,449,448	-63,338,661	-63,207,775	-63,056,083	-62,882,855	-62,687,341	-62,468,767
	Capital Plan - Base	$ Millions					75			100					150		150		150					300
	Capital Plan - Divert	$ Millions					75			100														
	Total Cash - Base			-63,742,201	-63,778,006	-63,799,037	-138,804,738	-63,794,537	-63,767,845	-163,724,057	-63,662,551	-63,582,684	-63,517,387	-63,468,081	-211,952,532	-53,726,221	-204,749,811	-54,446,086	-204,711,326	-54,364,758	-53,991,990	-53,592,160	-53,164,378	-52,707,731
	Total Cash - Divert			-63,742,201	-63,778,006	-63,799,037	-138,804,738	-63,794,537	-63,767,845	-163,724,057	-63,662,551	-63,582,684	-63,517,387	-63,468,081	-63,668,028	-62,309,988	-63,540,829	-63,449,448	-63,338,661	-63,207,775	-63,056,083	-62,882,855	-362,687,341	-62,468,767
	PV Base (2004)		-1,044,206,082	-59,295,071	-55,189,189	-51,355,709	-103,937,061	-44,436,635	-41,319,110	-98,685,478	-35,695,734	-33,163,677	-30,818,251	-28,645,886	-88,989,146	-20,983,419	-74,388,364	-18,400,927	-64,358,579	-15,899,137	-14,688,484	-13,562,522	-12,515,594	-11,542,412
	PV Divert		-1,015,598,330	-59,295,071	-55,189,189	-51,355,709	-103,937,061	-44,436,635	-41,319,110	-98,685,478	-35,695,734	-33,163,677	-30,818,251	-28,645,886	-26,731,285	-24,335,912	-23,085,239	-21,443,758	-19,912,851	-18,485,305	-17,154,365	-15,913,710	-85,381,369	-13,679,971
	Net Present Value	Benefit attributable to fixed link	28,607,753																					
Apollo Impacts																								
	Base																							
		Total Vehicles #	2.50%	24042	24643	25259	25891	26538	27201	27881	28578	29293	30025	30776										
		Trucks # (est.)	10.00%	2,404	2,464	2,526	2,589	2,654	2,720	2,788	2,858	2,929	3,003	3,078										
		Passenger Vehicles #		21,638	22,179	22,733	23,302	23,884	24,481	25,093	25,721	26,364	27,023	27,698										
	Subsidy impact	Reference Annual Subsidy $ millions	5.5																					
		Sub total																						
	Net Change	Surplus(deficit)		-5,500,000	-5,500,000	-5,500,000	-5,500,000	-5,500,000	-5,500,000	-5,500,000	-5,500,000	-5,500,000	-5,500,000	-5,500,000	-5,500,000.0	-5,500,000.0	-5,500,000.0	-5,500,000.0	-5,500,000.0	-5,500,000.0	-5,500,000.0	-5,500,000.0	-5,500,000.0	-5,500,000.0
	Capital Plan - Base												75											
	Capital Plan - Divert												20											
	Total Cash - Base			-5,500,000	-5,500,000	-5,500,000	-5,500,000	-5,500,000	-5,500,000	-5,500,000	-5,500,000	-5,500,000	-80,500,000	-5,500,000	-5,500,000	-5,500,000	-5,500,000	-5,500,000	-5,500,000	-5,500,000	-5,500,000	-5,500,000	-5,500,000	-5,500,000
	Total Cash - Divert			-5,500,000	-5,500,000	-5,500,000	-5,500,000	-5,500,000	-5,500,000	-5,500,000	-5,500,000	-5,500,000	-25,500,000	-5,500,000	0	0	0	0	0	0	0	0	0	0
	PV Base (2004)		-110,098,784	-5,116,279	-4,759,329	-4,427,283	-4,118,403	-3,831,072	-3,563,788	-3,315,152	-3,083,862	-2,868,709	-39,058,111	-2,482,388	-2,309,198	-2,148,091	-1,998,224	-1,858,813	-1,729,128	-1,608,492	-1,496,271	-1,391,880	-1,294,772	-1,204,439
	PV Divert		-49,938,711	-5,116,279	-4,759,329	-4,427,283	-4,118,403	-3,831,072	-3,563,788	-3,315,152	-3,083,862	-2,868,709	-12,372,445	-2,482,388	0	0	0	0	0	0	0	0	0	0
	Net Present Value	Benefit attributable to fixed link	60,160,073																					
Transportation Net Present Value - ERR and Benefit to Cost Ratio	Fix Link Cash Flows			-11,000,000	-2,000,000	-2,000,000	-24,975,000	-24,975,000	-143,684,647	-216,789,022	-254,041,183	-182,458,739	-227,057,044	-172,485,669	26,440,375	26,603,946	26,771,980	26,944,615	27,121,994	27,304,266	27,271,585	27,684,110	27,882,006	27,674,818
	Marine Atlantic Economic Benefit			0	0	0	0	0	0	0	0	0	0	0	148,284,503	-8,583,767	141,208,982	-9,003,362	141,372,666	-8,843,017	-9,064,093	-9,290,695	-309,522,963	-9,761,037
	Apolo Economic Benefit			0	0	0	0	0	0	0	0	0	55,000,000	0	5,500,000	5,500,000	5,500,000	5,500,000	5,500,000	5,500,000	5,500,000	5,500,000	5,500,000	5,500,000
	Total Economic Cash Flow		-226,729,966	-11,000,000	-2,000,000	-2,000,000	-24,975,000	-24,975,000	-143,684,647	-216,789,022	-254,041,183	-182,458,739	-172,057,044	-172,485,669	180,224,878	23,520,179	173,480,962	23,441,252	173,994,660	23,961,249	23,707,492	23,893,415	-276,140,957	23,413,781
		Present Value	-465,660,002	-10,232,558	-1,730,665	-1,609,921	-18,701,293	-17,396,552	-93,102,122	-130,670,645	-142,441,459	-95,167,463	-83,481,033	-77,850,232	75,668,159	9,186,088	63,027,970	7,922,347	54,701,658	7,007,540	6,449,607	6,046,686	-65,007,212	5,127,360
	Economic Net Present Value		-465,660,002																					
	Economic Rate of Return (ERR)		-1.1%																					
	Benefit /Cost Ratio		0.38																					
Other Economic Impacts			432,732,179	-7,729,370	-1,405,340	-1,405,340	-17,549,183	-17,549,183	-107,443,603	-158,811,855	-184,987,831	-134,688,995	-130,100,405	-150,811,783	189,311,641	32,762,075	182,881,401	33,003,741	183,722,805	33,858,763	33,809,201	34,141,244	-265,711,952	34,086,004
	Construction Impacts	Indirect plus induced GDP -- NPV	166,971,243																					
	Operations Impacts	Indirect plus induced GDP -- NPV	4,350,097																					
	Tourism Impacts	Total GDP Impact -- NPV	54,374,372																					
	Total Spin-off Benefits	NPV	225,695,712																					
	Fixed Link Economic NPV		-239,964,289																					
		Socio-economic Rate of Return	2.3%																					
		Benefit Cost Ratio	0.70																					

SECTION 2 - Financial Analysis

		Project Cost, Constant 2004$		-11,000,000	-2,000,000	-2,000,000	-24,975,000	-24,975,000	-143,684,647	-216,789,022	-254,041,183	-182,458,739	-227,057,044	-172,485,669	26,440,375	26,603,946	26,771,980	26,944,615	27,121,994	27,304,266	27,271,585	27,684,110	27,882,006	27,674,818
		Nominal Value		-11,275,000	-2,101,250	-2,153,781	-27,567,727	-28,256,920	-166,630,139	-257,694,022	-309,524,514	-227,865,962	-290,652,212	-226,316,145	35,559,365	36,673,833	37,828,106	39,023,836	40,262,753	41,546,670	42,534,366	44,257,208	45,687,913	46,482,122
Financing during Construction	Cumm. Const. Cost	Comprised of:	-1,812,607,275	-11,275,000	-13,658,125	-16,442,281	-44,778,278	-74,584,919	-244,237,880	-509,978,042	-838,559,108	-1,100,614,912	-1,440,601,222	-1,731,681,122										
		Interest during Construction (IDC)	-262,569,603	-281,875	-630,375	-768,270	-1,549,721	-3,022,823	-8,046,141	-19,056,552	-34,189,843	-49,334,097	-64,763,756	-80,926,152										
		Project Costs	-1,550,037,672																					
Financing Base Case Debt Financing	Project Cost																							
		Pre operations cost	1,550,037,672																					
		Interest during Construction	262,569,603																					
	Total Amount to Finance		1,812,607,275																					
		Annual Debt Amortization (CRF)	-200,344,730												-200,344,730	-200,344,730	-200,344,730	-200,344,730	-200,344,730	-200,344,730	-200,344,730	-200,344,730	-200,344,730	-200,344,730
		Net Cash Flow													-164,785,365	-163,670,897	-162,516,623	-161,320,894	-160,081,977	-158,798,059	-157,810,364	-156,087,522	-154,656,817	-153,862,608
		Internal Rate of Return	0.4%																					
Subsidized Financing Sensitivity Case		Project Spending	1,550,037,672	11,275,000	2,101,250	2,153,781	27,567,727	28,256,920	166,630,139	257,694,022	309,524,514	227,865,962	290,652,212	226,316,145										
		Grant Award	1,050,000,000	11,275,000	2,101,250	2,153,781	27,567,727	28,256,920	166,630,139	257,694,022	309,524,514	227,865,962	16,930,685	0										
		Cost less Grant	500,037,672	0	0	0	0	0	0	0	0	0	273,721,527	226,316,145										
	Total Amount to Finance		526,566,842																					
		Comprised of:		0	0	0	0	0	0	0	0	0	273,721,527	506,880,710										
		Interest during Construction (IDC)	26,529,170	0	0	0	0.00	0	0	0	0	0	6,843,038	19,686,132										
		Project Costs	500,037,672																					

Economic Methodology for Fixed Link Project

				Phase 1 - Planning Approval			Phase 2 - Design & Construction																
				1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
		Internal Rate of Return	7.6%	0	0	0	0	0	0	0	0	0	-280,564,565	-246,002,277	35,559,365	36,673,833	37,828,106	39,023,836	40,262,753	41,546,670	42,534,366	44,257,208	45,687,913	46,482,122
	Section 3 - Socio-Economic Impact			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
Construction Effects																								
	Construction Spending	Annual Civil & M&E		11,000,000	2,000,000	2,000,000	24,975,000	24,975,000	121,888,283	194,992,658	232,244,820	160,662,375	141,111,353	72,895,052										
		Direct GDP	34.0%	3,740,000	680,000	680,000	8,491,500	8,491,500	41,442,016	66,297,504	78,963,239	54,625,207	47,977,860	24,784,318										
		Indirect	63.0%	2,356,200	428,400	428,400	5,349,645	5,349,645	26,108,470	41,767,427	49,746,840	34,413,881	30,226,052	15,614,120										
		Induced	15.0%	914,430	166,260	166,260	2,076,172	2,076,172	10,132,573	16,209,740	19,306,512	13,355,863	11,730,587	6,059,766										
		Indirect plus induced GNP impact		3,270,630	594,660	594,660	7,425,817	7,425,817	36,241,043	57,977,167	69,053,352	47,769,744	41,956,638	21,673,886										
		Net Present Value	166,971,243	3,042,447	514,579	478,678	5,560,456	5,172,517	23,482,801	34,946,022	38,718,369	24,915,909	20,357,106	9,782,361										
Operations Impacts	Operations Costs	Annual Costs													4,555,581	4,555,581	4,555,581	4,555,581	4,555,581	4,555,581	4,775,581	4,555,581	4,555,581	4,966,206
		Direct GDP	34.0%												1,548,898	1,548,898	1,548,898	1,548,898	1,548,898	1,548,898	1,623,698	1,548,898	1,548,898	1,688,510
		Indirect	23.0%												356,246	356,246	356,246	356,246	356,246	356,246	373,450	356,246	356,246	388,357
		Induced	15.0%												285,772	285,772	285,772	285,772	285,772	285,772	299,572	285,772	285,772	311,530
		Indirect plus induced GNP impact													642,018	642,018	642,018	642,018	642,018	642,018	673,023	642,018	642,018	699,887
		Net Present Value	4,350,097												269,554	250,748	233,254	216,980	201,842	187,760	183,095	162,475	151,139	153,268
Tourism Impacts	Tourist Indicators																							
		Induced Visitors -- trip add-on	1												54,520	56,126	57,785	59,500	61,274	63,109	65,006	66,969	69,000	71,101
		Induced Visitors -- full trip	11												16,287	16,532	16,780	17,031	17,287	17,546	17,809	18,076	18,347	18,623
		Incremental Room nights	2	6,500	6,728	6,963	7,207	7,459	7,720	7,990	8,270	8,559	8,859	9,169	116,840	118,986	121,180	123,422	125,714	128,057	130,454	132,904	135,411	137,976
		Incre.Annual Expenditures Tourists	62.35												14,569,953	14,837,609	15,111,147	15,390,735	15,676,547	15,968,765	16,267,575	16,573,173	16,885,760	17,205,547
		Direct GDP	35.0%												5,099,484	5,193,163	5,288,902	5,386,757	5,486,792	5,589,068	5,693,651	5,800,610	5,910,016	6,021,941
		Indirect	44.0%												2,243,773	2,284,992	2,327,117	2,370,173	2,414,188	2,459,190	2,505,207	2,552,269	2,600,407	2,649,654
		Induced	15.0%												1,101,488	1,121,723	1,142,403	1,163,540	1,185,147	1,207,239	1,229,829	1,252,932	1,276,563	1,300,739
		Total													8,444,745	8,599,878	8,758,421	8,920,470	9,086,127	9,255,496	9,428,686	9,605,811	9,786,987	9,972,335
		Net Present Value	54,374,372												3,545,561	3,358,786	3,182,052	3,014,816	2,856,560	2,706,798	2,565,068	2,430,934	2,303,985	2,183,831
TOTAL OTHER IMPACTS		Net Present Value - Real	225,695,712	3,042,447	514,579	478,678	5,560,456	5,172,517	23,482,801	34,946,022	38,718,369	24,915,909	20,357,106	9,782,361	3,815,115	3,609,533	3,415,306	3,231,796	3,058,402	2,894,558	2,748,163	2,593,409	2,455,125	2,337,099
Social Impacts																								
	Employment	Construction & Operations																						
		NL - Skilled		0	0	0	0	0	192	239	257	201	247	182	25	25	25	25	25	25	25	25	25	25
		NL - Unskilled		0	0	0	0	0	166	233	278	184	202	102	15	15	15	15	15	15	15	15	15	15
		Non-res		0	0	0	0	0	0	19	29	24	4	2	0	0	0	0	0	0	0	0	0	0
		Total NL Direct Employment		0	0	0	0	0	358	462	535	385	449	284	40	40	40	40	40	40	40	40	40	40
		Indirect Construction Employment	0.63	0	0	0	0	0	226	291	337	243	283	179	25	25	25	25	25	25	25	25	25	25
		Induced Construction Employment	0.3	0	0	0	0	0	175	226	262	188	220	139	20	20	20	20	20	20	20	20	20	20
		Total Annual FTE Employment		0	0	0	0	0	759	979	1,134	816	951	602	85	85	85	85	85	85	85	85	85	85
		Tourism																						
		Total Incremental Spending													14,569,953	14,837,609	15,111,147	15,390,735	15,676,547	15,968,765	16,267,575	16,573,173	16,885,760	17,205,547
		Incremental FTE - Direct	12.8												186	190	193	197	201	204	208	212	216	220
		Incremental FTE - Indirect	0.24																					
		Incremental FTE - Induced	0.15																					
		Total Impact	18.3												266	271	276	281	286	291	297	303	308	314
		TOTAL RELATED EMPLOYMENT			0	0	0	0	759	979	1,134	816	951	602	351	356	361	366	371	376	382	387	393	399
	Wages	Construction & Operations																						
		Direct Payroll		3,300,000	600,000	600,000	7,492,500	7,492,500	36,566,485	58,497,797	69,673,446	48,198,712	42,333,406	21,868,515	3,988,000	3,988,000	3,988,000	3,988,000	3,988,000	3,988,000	3,988,000	3,988,000	3,988,000	3,988,000
		Indirect Construction Employment	0.53	1,749,000	318,000	318,000	3,971,025	3,971,025	19,380,237	31,003,833	36,926,926	25,545,318	22,436,705	11,590,313	2,113,640	2,113,640	2,113,640	2,113,640	2,113,640	2,113,640	2,113,640	2,113,640	2,113,640	2,113,640
		Induced Construction Employment	0.3	1,514,700	275,400	275,400	3,439,058	3,439,058	16,784,017	26,850,489	31,980,112	22,123,209	19,431,033	10,037,649	1,830,492	1,830,492	1,830,492	1,830,492	1,830,492	1,830,492	1,830,492	1,830,492	1,830,492	1,830,492
		Sub-Total Wages		6,563,700	1,193,400	1,193,400	14,902,583	14,902,583	72,730,738	116,352,119	138,580,484	95,867,239	84,201,144	43,496,477	7,932,132	7,932,132	7,932,132	7,932,132	7,932,132	7,932,132	7,932,132	7,932,132	7,932,132	7,932,132
		Tourism																						
		Incremental Direct Wages	23.6%												3,438,509	3,501,676	3,566,231	3,632,214	3,699,665	3,768,628	3,839,148	3,911,269	3,985,039	4,060,509
		Incremental Indirect Wages	33.0%																					
		IncrementalInduced Wages	15.0%																					
		Sub-Total Wages	36.1%												5,259,199	5,355,813	5,454,550	5,555,471	5,658,638	5,764,117	5,871,976	5,982,286	6,095,118	6,210,549
		TOTAL RELATED WAGES		6,563,700	1,193,400	1,193,400	14,902,583	14,902,583	72,730,738	116,352,119	138,580,484	95,867,239	84,201,144	43,496,477	13,191,331	13,287,945	13,386,682	13,487,603	13,590,770	13,696,249	13,804,108	13,914,418	14,027,250	14,142,681
		NPV Wages	411,233,763	6,105,767	1,032,688	960,640	11,159,062	10,380,522	47,126,720	70,131,810	77,702,387	50,002,768	40,853,884	19,631,839	5,538,435	5,189,766	4,863,562	4,558,351	4,272,761	4,005,509	3,755,398	3,521,310	3,302,199	3,097,091
	Other Impacts																							

Economic Methodology for Fixed Link Project

Phase 3 - Operation

Section 1 - Transportation Economics

				22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
Traffic	Travellers (one-way trips)	Tourist Visitors - ferry/link	3.50%	26,773	27,710	28,679	29,683	30,722	31,797	32,910	34,062	35,254	36,488	37,765	39,087	40,455	41,871	43,337	44,853	46,423	48,048	49,730	51,470
		Traditional Tourist Vehicles		10,027	10,378	10,741	11,117	11,506	11,909	12,326	12,757	13,204	13,666	14,144	14,639	15,152	15,682	16,231	16,799	17,387	17,996	18,625	19,277
		Induced Visitors - fixed Link	1.25%	3,780	4,294	4,844	5,433	6,062	6,734	7,451	8,216	9,032	9,902	10,828	11,815	12,865	13,981	15,169	16,431	17,772	19,197	20,709	22,315
		Induced Demand Vehicles - Tourists	2.67	1,416	1,608	1,814	2,035	2,270	2,522	2,791	3,077	3,383	3,709	4,056	4,425	4,818	5,236	5,681	6,154	6,656	7,190	7,756	8,358
		Tourist Vehicles - ferry/link	2.67	11,443	11,986	12,556	13,152	13,777	14,431	15,117	15,835	16,587	17,375	18,200	19,064	19,970	20,919	21,912	22,953	24,043	25,185	26,382	27,635
	Passenger Veh.																						
	Labrador	Local and Business Traffic Base	1.5%	31,427	31,898	32,376	32,862	33,355	33,855	34,363	34,879	35,402	35,933	36,472	37,019	37,574	38,138	38,710	39,290	39,880	40,478	41,085	41,701
		one-time surge	30.0%																				
	Cabot	Diverted Passenger Vehicles		26,029	26,680	27,347	28,030	28,731	29,449	30,185	30,940	31,714	32,506	33,319	34,152	35,006	35,881	36,778	37,697	38,640	39,606	40,596	41,611
		Induced Demand Veh %	1.50%	7,079	7,186	7,293	7,403	7,514	7,627	7,741	7,857	7,975	8,095	8,216	8,339	8,464	8,591	8,720	8,851	8,984	9,118	9,255	9,394
		One time effect	30.0%																				
	Total	Total Passenger Vehicles		77,393	79,357	81,386	83,482	85,647	87,884	90,197	92,588	95,060	97,617	100,262	103,000	105,832	108,765	111,801	114,946	118,203	121,578	125,074	128,699
		Total Induced Vehicle Trips		8,495	8,794	9,108	9,437	9,784	10,149	10,532	10,934	11,358	11,803	12,272	12,764	13,283	13,828	14,401	15,005	15,640	16,308	17,011	17,752
		Total Visitors	2.67	206,639	211,884	217,301	222,896	228,677	234,651	240,825	247,209	253,810	260,637	267,700	275,009	282,573	290,403	298,510	306,905	315,602	324,612	333,949	343,626
	Base Freight																						
		Cabot/Oceanex Tractor-trailer	2.50%	239,176	245,155	251,284	257,566	264,005	270,605	277,371	284,305	291,413	298,698	306,165	313,819	321,665	329,707	337,949	346,398	355,058	363,934	373,033	382,358
		Apollo Tractor-trailer		4,038	4,139	4,242	4,349	4,457	4,569	4,683	4,800	4,920	5,043	5,169	5,298	5,431	5,567	5,706	5,848	5,995	6,144	6,298	6,455
		Diverted Cabot/Oceanex Tractor-Trailer	10%	23,918	24,516	25,128	25,757	26,401	27,061	27,737	28,430	29,141	29,870	30,617	31,382	32,166	32,971	33,795	34,640	35,506	36,393	37,303	38,236
		Induced Cabot/Oceanex Tractor-Trailer	1.0%	2,392	2,452	2,513	2,576	2,640	2,706	2,774	2,843	2,914	2,987	3,062	3,138	3,217	3,297	3,379	3,464	3,551	3,639	3,730	3,824
		Total Tractor-trailer		30,347	31,106	31,884	32,681	33,498	34,335	35,194	36,074	36,975	37,900	38,847	39,818	40,814	41,834	42,880	43,952	45,051	46,177	47,332	48,515
	Design Peak Hour Vol	Autos		48	50	51	52	54	55	56	58	59	61	63	64	66	68	70	72	74	76	78	80
		Trucks		11	11	11	12	12	12	12	13	13	13	14	14	14	15	15	16	16	16	17	17
		PCUs	2.5	75	77	79	81	83	85	88	90	92	95	97	100	102	105	108	111	114	117	120	123
		Dominant Direction (ratio)	50.00%	38	39	40	41	42	43	44	45	46	47	49	50	51	53	54	55	57	58	60	62
Revenues Total				32,850,180	33,065,238	33,286,389	33,513,830	33,747,766	33,988,408	34,235,976	34,490,700	34,752,815	35,022,566	35,300,210	35,586,011	35,880,242	36,183,190	36,495,150	36,816,430	37,147,348	37,488,237	37,839,440	38,201,316
	Passenger Tolls			1,292,463	1,325,269	1,359,149	1,394,144	1,430,301	1,467,665	1,506,285	1,546,212	1,587,500	1,630,204	1,674,381	1,720,093	1,767,403	1,816,376	1,867,083	1,919,596	1,973,990	2,030,345	2,088,742	2,149,269
	Vehicle Tolls			2,360,487	2,420,402	2,482,277	2,546,191	2,612,226	2,680,465	2,751,000	2,823,921	2,899,327	2,977,318	3,058,001	3,141,487	3,227,891	3,317,334	3,409,943	3,505,849	3,605,192	3,708,115	3,814,769	3,925,312
	Freight Tolls			4,893,517	5,015,855	5,141,251	5,269,783	5,401,527	5,536,565	5,674,980	5,816,854	5,962,275	6,111,332	6,264,116	6,420,718	6,581,236	6,745,767	6,914,412	7,087,272	7,264,454	7,446,065	7,632,217	7,823,022
	Transmission Fee			17,198,000	17,198,000	17,198,000	17,198,000	17,198,000	17,198,000	17,198,000	17,198,000	17,198,000	17,198,000	17,198,000	17,198,000	17,198,000	17,198,000	17,198,000	17,198,000	17,198,000	17,198,000	17,198,000	17,198,000
	Cable recovery			7,105,712	7,105,712	7,105,712	7,105,712	7,105,712	7,105,712	7,105,712	7,105,712	7,105,712	7,105,712	7,105,712	7,105,712	7,105,712	7,105,712	7,105,712	7,105,712	7,105,712	7,105,712	7,105,712	7,105,712
	Other																						
Expenses Total				4,966,206	6,026,206	4,966,206	4,966,206	4,966,206	20,788,206	4,966,206	4,966,206	4,966,206	28,844,206	4,966,206	4,966,206	4,966,206	4,966,206	8,096,206	4,966,206	4,966,206	4,966,206	4,966,206	10,828,206
	Operations																						
		Wages		3,374,000	3,374,000	3,374,000	3,374,000	3,374,000	3,374,000	3,374,000	3,374,000	3,374,000	3,374,000	3,374,000	3,374,000	3,374,000	3,374,000	3,374,000	3,374,000	3,374,000	3,374,000	3,374,000	3,374,000
		Energy		892,206	892,206	892,206	892,206	892,206	892,206	892,206	892,206	892,206	892,206	892,206	892,206	892,206	892,206	892,206	892,206	892,206	892,206	892,206	892,206
	Annual Maintenance																						
		Wages		614,000	614,000	614,000	614,000	614,000	614,000	614,000	614,000	614,000	614,000	614,000	614,000	614,000	614,000	614,000	614,000	614,000	614,000	614,000	614,000
		Purchased Serv & Supp		86,000	86,000	86,000	86,000	86,000	86,000	86,000	86,000	86,000	86,000	86,000	86,000	86,000	86,000	86,000	86,000	86,000	86,000	86,000	86,000
	Periodic Maintenance																						
		Purchased Serv & Supp			1,060,000				15,822,000				23,878,000					3,130,000					5,862,000
Gross Operating (Surplus/Deficit)				27,883,974	27,039,032	28,320,183	28,547,624	28,781,560	13,200,202	29,269,770	29,524,494	29,786,609	6,178,360	30,334,004	30,619,805	30,914,036	31,216,984	28,398,944	31,850,224	32,181,142	32,522,031	32,873,234	27,373,110
Total Capital Investments (Outflow)	Pre-operation		1,261,466,303																				
	Operations Phase		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Infrastructure																						
		Civil Works	971,740,540																				
		M & E	17,004,000																				
		Systems	29,672,471																				
		Rolling Stock	37,367,772																				
		Cable	77,000,000																				
	Sub total		1,132,784,783																				
	Other (Design, Proj. Mgt)		128,681,520																				
TOTAL CAPEX		S 2004	1,261,466,303																				
Present Values at Social Discount Rate	Present Value Income Operation Phase		175,508,861	6,691,932	6,265,807	5,867,641	5,495,566	5,147,839	4,822,834	4,519,035	4,235,030	3,969,502	3,721,222	3,489,044	3,271,900	3,068,793	2,878,794	2,701,036	2,534,711	2,379,064	2,233,392	2,097,037	1,969,388
	Present Value Cost Operatoin Phase		-30,867,079	1,011,669	1,141,956	875,430	814,354	757,538	2,949,772	655,523	609,789	567,245	3,064,758	490,856	456,610	424,753	395,120	599,207	341,910	318,056	295,866	275,224	558,225
	Present Value Capital Investment		-699,069,609																				
	Net Present Value of Fixed Link Cash Flows		-554,427,827																				
Benefit Cost Ratio and IRR	Fixed Link Cash Flows	sum undiscounted	-432,951,286	27,883,974	27,039,032	28,320,183	28,547,624	28,781,560	13,200,202	29,269,770	29,524,494	29,786,609	6,178,360	30,334,004	30,619,805	30,914,036	31,216,984	28,398,944	31,850,224	32,181,142	32,522,031	32,873,234	27,373,110
	Real Internal Rate of Return (RIRR)		-2.1%																				
	Benefit /Cost Ratio		0.24																				

Indirect Transportation

Marine Atlantic Impacts																							
	Passenger Vehicles																						
		Base Projection # Vehicle trips	2.50%	260,288	266,795	273,465	280,302	287,309	294,492	301,854	309,401	317,136	325,064	333,191	341,521	350,059	358,810	367,780	376,975	386,399	396,059	405,961	416,110
		Vehicle-trips diverted	10%	-26,029	-26,680	-27,347	-28,030	-28,731	-29,449	-30,185	-30,940	-31,714	-32,506	-33,319	-34,152	-35,006	-35,881	-36,778	-37,697	-38,640	-39,606	-40,596	-41,611
		Net Vehicle trips		234,259	240,116	246,119	252,272	258,578	265,043	271,669	278,461	285,422	292,558	299,872	307,369	315,053	322,929	331,002	339,277	347,759	356,453	365,365	374,499
		Passenger Vehicle Revenue $	148	34,670,383	35,537,142	36,425,571	37,336,210	38,269,615	39,226,356	40,207,015	41,212,190	42,242,495	43,298,557	44,381,021	45,490,547	46,627,810	47,793,506	48,988,343	50,213,052	51,468,378	52,755,087	54,073,965	55,425,814
	Freight tractor-trailer																						
		Base Projection Tractor-trailer	2/3	159,451	163,437	167,523	171,711	176,004	180,404	184,914	189,537	194,275	199,132	204,110	209,213	214,443	219,804	225,299	230,932	236,705	242,623	248,688	254,906
		Diverted Freight tractor-trailer	1	-23,918	-24,516	-25,128	-25,757	-26,401	-27,061	-27,737	-28,430	-29,141	-29,870	-30,617	-31,382	-32,166	-32,971	-33,795	-34,640	-35,506	-36,393	-37,303	-38,236
		Net Freight tractor-trailer		135,533	138,921	142,394	145,954	149,603	153,343	157,177	161,106	165,134	169,262	173,494	177,831	182,277	186,834	191,505	196,292	201,199	206,229	211,385	216,670
		Net Revenue $	257.25	34,865,854	35,737,501	36,630,938	37,546,712	38,485,380	39,447,514	40,433,702	41,444,544	42,480,658	43,542,674	44,631,241	45,747,022	46,890,698	48,062,965	49,264,540	50,496,153	51,758,557	53,052,521	54,378,834	55,738,305
		Change in Pass. Car Equivalent Veh. (PCU)		2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%
	Total Operating Cost		111	131,762,579	133,233,891	134,723,155	136,230,594	137,756,435	139,300,906	140,864,239	142,446,670	144,048,434	145,669,774	147,310,932	148,972,156	150,653,694	152,355,800	154,078,730	155,822,743	157,588,100	159,375,069	161,183,918	163,014,918

Economic Methodology for Fixed Link Project

				Phase 3 - Operation																			
				22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
		Wages	64.3	77,945,346	78,919,663	79,906,158	80,904,985	81,916,298	82,940,251	83,977,004	85,026,717	86,089,551	87,165,670	88,255,241	89,358,432	90,475,412	91,606,355	92,751,434	93,910,827	95,084,713	96,273,271	97,476,687	98,695,146
		Fuel	16.9	17,572,041	17,615,971	17,660,011	17,704,161	17,748,422	17,792,793	17,837,275	17,881,868	17,926,573	17,971,389	18,016,318	18,061,358	18,106,512	18,151,778	18,197,158	18,242,650	18,288,257	18,333,978	18,379,813	18,425,762
		Purchased Goods & Ser	29.9	36,245,192	36,698,257	37,156,985	37,621,447	38,091,715	38,567,862	39,049,960	39,538,085	40,032,311	40,532,715	41,039,373	41,552,366	42,071,770	42,597,667	43,130,138	43,669,265	44,215,131	44,767,820	45,327,418	45,894,010
	Subsidy impact	-- reference subsidy $mm	43.8																				
		Incremental gain (loss)		-10,005,063	-10,255,189	-10,511,569	-10,774,358	-11,043,717	-11,319,810	-11,602,805	-11,892,875	-12,190,197	-12,494,952	-12,807,326	-13,127,509	-13,455,697	-13,792,089	-14,136,892	-14,490,314	-14,852,572	-15,223,886	-15,604,483	-15,994,595
	Net Revenue	Operating Surplus(deficit)		-62,226,342	-61,959,248	-61,666,646	-61,347,672	-61,001,440	-60,627,036	-60,223,523	-59,789,935	-59,325,282	-58,828,542	-58,298,670	-57,734,587	-57,135,186	-56,499,329	-55,825,847	-55,113,538	-54,361,165	-53,567,461	-52,731,119	-51,850,800
	Capital Plan - Base	$ Millions														75			100				150
	Capital Plan - Divert	$ Millions		150																		75	
	Total Cash - Base			-52,221,279	-51,704,059	-51,155,077	-50,573,314	-49,957,723	-49,307,226	-48,620,718	-47,897,060	-47,135,084	-46,333,590	-45,491,344	-44,607,078	-118,679,489	-42,707,240	-41,688,956	-140,623,224	-39,508,594	-38,343,575	-37,126,636	-185,856,205
	Total Cash - Divert			-212,226,342	-61,959,248	-61,666,646	-61,347,672	-61,001,440	-60,627,036	-60,223,523	-59,789,935	-59,325,282	-58,828,542	-58,298,670	-57,734,587	-57,135,186	-56,499,329	-55,825,847	-55,113,538	-54,361,165	-53,567,461	-127,731,119	-51,850,800
	PV Base (2004)		-1,044,206,082	-10,638,032	-9,797,831	-9,017,489	-8,292,965	-7,620,484	-6,996,519	-6,417,773	-5,881,165	-5,383,818	-4,923,042	-4,496,327	-4,101,328	-10,150,510	-3,397,858	-3,085,434	-9,681,527	-2,530,288	-2,284,349	-2,057,534	-9,581,423
	PV Divert		-1,015,598,330	-43,232,771	-11,741,172	-10,870,441	-10,059,734	-9,305,078	-8,602,760	-7,949,305	-7,341,463	-6,776,195	-6,250,657	-5,762,193	-5,308,316	-4,886,702	-4,495,180	-4,131,717	-3,794,417	-3,481,506	-3,191,324	-7,078,776	-2,673,058
	Net Present Value	Benefit attributable to fixed link	28,607,753																				
Apollo Impacts																							
	Base																						
		Total Vehicles #	2.50%																				
		Trucks # (est.)	10.00%																				
		Passenger Vehicles #																					
	Subsidy impact	Reference Annual Subsidy $ millions	5.5																				
		Sub total																					
	Net Change	Surplus(deficit)		-5,500,000.0	-5,500,000.0	-5,500,000.0	-5,500,000.0	-5,500,000.0	-5,500,000.0	-5,500,000.0	-5,500,000.0	-5,500,000.0	-5,500,000.0	-5,500,000.0	-5,500,000.0	-5,500,000.0	-5,500,000.0	-5,500,000.0	-5,500,000.0	-5,500,000.0	-5,500,000.0	-5,500,000.0	-5,500,000
	Capital Plan - Base																					75	
	Capital Plan - Divert																						
	Total Cash - Base			-5,500,000	-5,500,000	-5,500,000	-5,500,000	-5,500,000	-5,500,000	-5,500,000	-5,500,000	-5,500,000	-5,500,000	-5,500,000	-5,500,000	-5,500,000	-5,500,000	-5,500,000	-5,500,000	-5,500,000	-5,500,000	-80,500,000	-5,500,000
	Total Cash - Divert			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	PV Base (2004)		-110,098,784	-1,120,409	-1,042,241	-969,526	-901,885	-838,963	-780,430	-725,982	-675,332	-628,216	-584,387	-543,616	-505,689	-470,408	-437,589	-407,060	-378,660	-352,242	-327,667	-4,461,258	-283,541
	PV Divert		-49,938,711	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Net Present Value	Benefit attributable to fixed link	60,160,073																				
Transportation Net Present Value - ERR and Benefit to Cost Ratio	Fix Link Cash Flows			27,883,974	27,039,032	28,320,183	28,547,624	28,781,560	13,200,202	29,269,770	29,524,494	29,786,609	6,178,360	30,334,004	30,619,805	30,914,036	31,216,984	28,398,944	31,850,224	32,181,142	32,522,031	32,873,234	27,373,110
	Marine Atlantic Economic Benefit			-160,005,063	-10,255,189	-10,511,569	-10,774,358	-11,043,717	-11,319,810	-11,602,805	-11,892,875	-12,190,197	-12,494,952	-12,807,326	-13,127,509	61,544,303	-13,792,089	-14,136,892	85,509,686	-14,852,572	-15,223,886	-90,604,483	134,005,405
	Apolo Economic Benefit			5,500,000	5,500,000	5,500,000	5,500,000	5,500,000	5,500,000	5,500,000	5,500,000	5,500,000	5,500,000	5,500,000	5,500,000	5,500,000	5,500,000	5,500,000	5,500,000	5,500,000	5,500,000	80,500,000	5,500,000
	Total Economic Cash Flow		-226,729,966	-126,621,089	22,283,843	23,308,615	23,273,266	23,237,843	7,380,392	23,166,965	23,131,618	23,096,411	-816,592	23,026,678	22,992,296	97,958,339	22,924,895	19,762,053	122,859,910	22,828,570	22,798,145	22,768,751	166,878,515
		Present Value	-465,660,002	-25,794,067	4,222,750	4,108,784	3,816,328	3,544,669	1,047,251	3,057,962	2,840,276	2,638,096	-86,765	2,275,938	2,113,990	8,378,256	1,823,942	1,462,606	8,458,571	1,462,033	1,358,218	1,261,829	8,603,069
	Economic Net Present Value		-465,660,002																				
	Economic Rate of Return (ERR)		-1.1%																				
	Benefit /Cost Ratio		0.38																				
Other Economic Impacts			432,732,179	-115,759,219	33,489,176	34,563,205	34,731,208	34,903,991	21,489,548	35,264,706	35,453,070	35,647,077	15,334,096	36,053,002	36,265,442	111,484,571	36,710,682	34,255,196	137,185,103	37,434,077	37,691,362	37,957,335	183,196,518
	Construction Impacts	Indirect plus induced GDP – NPV	166,971,243																				
	Operations Impacts	Indirect plus induced GDP – NPV	4,350,097																				
	Tourism Impacts	Total GDP Impact – NPV	54,374,372																				
	Total Spin-off Benefits	NPV	225,695,712																				
	Fixed Link Economic NPV		-239,964,289																				
		Socio-economic Rate of Return	2.3%																				
		Benefit Cost Ratio	0.70																				

SECTION 2 - Financial Analysis

		Project Cost, Constant 2004$		27,883,974	27,039,032	28,320,183	28,547,624	28,781,560	13,200,202	29,269,770	29,524,494	29,786,609	6,178,360	30,334,004	30,619,805	30,914,036	31,216,984	28,398,944	31,850,224	32,181,142	32,522,031	32,873,234	27,373,110
		Nominal Value		48,004,252	47,713,365	51,223,451	52,925,700	54,693,388	25,711,354	58,436,951	60,419,142	62,479,424	13,283,517	66,848,772	69,165,572	71,575,952	74,084,308	69,081,434	79,413,714	82,244,779	85,193,881	88,266,732	75,336,012
Financing during Construction	Cumm. Const. Cost	Comprised of:	-1,812,607,275																				
		Interest during Construction (IDC)	-262,569,603																				
		Project Costs	-1,550,037,672																				
Financing Base Case Debt Financing	Project Cost																						
		Pre operations cost	1,550,037,672																				
		Interest during Construction	262,569,603																				
	Total Amount to Finance		1,812,607,275																				
		Annual Debt Amortization (CRF)	-200,344,730	-200,344,730	-200,344,730	-200,344,730	-200,344,730	-200,344,730	-200,344,730	-200,344,730	-200,344,730	-200,344,730	-200,344,730	-200,344,730	-200,344,730	-200,344,730	-200,344,730	-200,344,730	-200,344,730	-200,344,730	-200,344,730	-200,344,730	-200,344,730
		Net Cash Flow		-152,340,478	-152,631,364	-149,121,279	-147,419,030	-145,651,341	-174,633,376	-141,907,779	-139,925,587	-137,865,305	-187,061,213	-133,495,957	-131,179,158	-128,768,777	-126,260,421	-131,263,295	-120,931,016	-118,099,951	-115,150,848	-112,077,998	-125,008,718
		Internal Rate of Return	0.4%																				
Subsidized Financing Sensitivity Case		Project Spending	1,550,037,672																				
		Grant Award	1,050,000,000																				
		Cost less Grant	500,037,672																				
	Total Amount to Finance		526,566,842																				
		Comprised of:																					
		Interest during Construction (IDC)	26,529,170																				
		Project Costs	500,037,672																				

Economic Methodology for Fixed Link Project

				Phase 3 - Operation																			
				22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
		Internal Rate of Return	7.6%	48,004,252	47,713,365	51,223,451	52,925,700	54,693,388	25,711,354	58,436,951	60,419,142	62,479,424	13,283,517	66,848,772	69,165,572	71,575,952	74,084,308	69,081,434	79,413,714	82,244,779	85,193,881	88,266,732	75,336,012
Section 3 - Socio-Economic Impact				22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
Construction Effects																							
	Construction Spending	Annual Civil & M&E																					
		Direct GDP	34.0%																				
		Indirect	63.0%																				
		Induced	15.0%																				
		Indirect plus induced GNP impact																					
		Net Present Value	166,971,243																				
Operations Impacts	Operations Costs	Annual Costs		4,966,206	6,026,206	4,966,206	4,966,206	4,966,206	20,788,206	4,966,206	4,966,206	4,966,206	28,844,206	4,966,206	4,966,206	4,966,206	4,966,206	8,096,206	4,966,206	4,966,206	4,966,206	4,966,206	10,828,206
		Direct GDP	34.0%	1,688,510	2,048,910	1,688,510	1,688,510	1,688,510	7,067,990	1,688,510	1,688,510	1,688,510	9,807,030	1,688,510	1,688,510	1,688,510	1,688,510	2,752,710	1,688,510	1,688,510	1,688,510	1,688,510	3,681,590
		Indirect	23.0%	388,357	471,249	388,357	388,357	388,357	1,625,638	388,357	388,357	388,357	2,255,617	388,357	388,357	388,357	388,357	633,123	388,357	388,357	388,357	388,357	846,766
		Induced	15.0%	311,530	378,024	311,530	311,530	311,530	1,304,044	311,530	311,530	311,530	1,809,397	311,530	311,530	311,530	311,530	507,875	311,530	311,530	311,530	311,530	679,253
		Indirect plus induced GNP impact		699,887	849,273	699,887	699,887	699,887	2,929,682	699,887	699,887	699,887	4,065,014	699,887	699,887	699,887	699,887	1,140,998	699,887	699,887	699,887	699,887	1,526,019
		Net Present Value	4,350,097	142,575	160,936	123,374	114,767	106,760	415,711	92,383	85,938	79,942	431,916	69,176	64,350	59,861	55,684	84,446	48,185	44,824	41,696	38,787	78,671
Tourism Impacts	Tourist Indicators																						
		Induced Visitors -- trip add-on	1	73,276	75,528	77,859	80,273	82,773	85,363	88,046	90,826	93,708	96,694	99,790	103,001	106,330	109,784	113,366	117,083	120,941	124,945	129,101	133,416
		Induced Visitors -- full trip	11	18,902	19,186	19,473	19,765	20,062	20,363	20,668	20,978	21,293	21,612	21,937	22,266	22,600	22,939	23,283	23,632	23,986	24,346	24,711	25,082
		Incremental Room nights	2	140,599	143,285	146,033	148,847	151,727	154,677	157,699	160,794	163,965	167,215	170,546	173,961	177,463	181,054	184,738	188,517	192,396	196,376	200,463	204,659
		Incre.Annual Expenditures Tourists	62.35	17,532,751	17,867,598	18,210,323	18,561,171	18,920,394	19,288,257	19,665,034	20,051,008	20,446,477	20,851,749	21,267,143	21,692,994	22,129,648	22,577,467	23,036,827	23,508,119	23,991,751	24,488,147	24,997,751	25,521,022
		Direct GDP	35.0%	6,136,463	6,253,659	6,373,613	6,496,410	6,622,138	6,750,890	6,882,762	7,017,853	7,156,267	7,298,112	7,443,500	7,592,548	7,745,377	7,902,114	8,062,889	8,227,842	8,397,113	8,570,852	8,749,213	8,932,358
		Indirect	44.0%	2,700,044	2,751,610	2,804,390	2,858,420	2,913,741	2,970,392	3,028,415	3,087,855	3,148,757	3,211,169	3,275,140	3,340,721	3,407,966	3,476,930	3,547,671	3,620,250	3,694,730	3,771,175	3,849,654	3,930,237
		Induced	15.0%	1,325,476	1,350,790	1,376,700	1,403,225	1,430,382	1,458,192	1,486,677	1,515,856	1,545,754	1,576,392	1,607,796	1,639,990	1,673,001	1,706,857	1,741,584	1,777,214	1,813,776	1,851,304	1,889,830	1,929,389
		Total		10,161,982	10,356,060	10,554,703	10,758,055	10,966,261	11,179,474	11,397,854	11,621,564	11,850,778	12,085,673	12,326,436	12,573,259	12,826,344	13,085,900	13,352,145	13,625,306	13,905,619	14,193,330	14,488,696	14,791,984
		Net Present Value	54,374,372	2,070,104	1,962,456	1,860,557	1,764,096	1,672,779	1,586,327	1,504,479	1,426,984	1,353,608	1,284,128	1,218,335	1,156,029	1,097,021	1,041,136	988,203	938,065	890,571	845,579	802,954	762,569
TOTAL OTHER IMPACTS		Net Present Value - Real	225,695,712	2,212,679	2,123,392	1,983,931	1,878,863	1,779,539	2,002,039	1,596,862	1,512,922	1,433,550	1,716,045	1,287,511	1,220,379	1,156,882	1,096,820	1,072,650	986,251	935,395	887,275	841,741	841,240
Social Impacts																							
	Employment	Construction & Operations																					
		NL - Skilled		25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
		NL - Unskilled		15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
		Non-res		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Total NL Direct Employment		40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
		Indirect Construction Employment	0.63	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
		Induced Construction Employment	0.3	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20
		Total Annual FTE Employment		85	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85
		Tourism																					
		Total Incremental Spending		17,532,751	17,867,598	18,210,323	18,561,171	18,920,394	19,288,257	19,665,034	20,051,008	20,446,477	20,851,749	21,267,143	21,692,994	22,129,648	22,577,467	23,036,827	23,508,119	23,991,751	24,488,147	24,997,751	25,521,022
		Incremental FTE - Direct	12.8	224	229	233	238	242	247	252	257	262	267	272	278	283	289	295	301	307	313	320	327
		Incremental FTE - Indirect	0.24																				
		Incremental FTE - Induced	0.15																				
		Total Impact	18.3	320	326	332	339	345	352	359	366	373	381	388	396	404	412	420	429	438	447	456	466
		TOTAL RELATED EMPLOYMENT		405	411	417	424	430	437	444	451	458	465	473	481	489	497	505	514	523	532	541	551
	Wages	Construction & Operations																					
		Direct Payroll		3,988,000	3,988,000	3,988,000	3,988,000	3,988,000	3,988,000	3,988,000	3,988,000	3,988,000	3,988,000	3,988,000	3,988,000	3,988,000	3,988,000	3,988,000	3,988,000	3,988,000	3,988,000	3,988,000	3,988,000
		Indirect Construction Employment	0.53	2,113,640	2,113,640	2,113,640	2,113,640	2,113,640	2,113,640	2,113,640	2,113,640	2,113,640	2,113,640	2,113,640	2,113,640	2,113,640	2,113,640	2,113,640	2,113,640	2,113,640	2,113,640	2,113,640	2,113,640
		Induced Construction Employment	0.3	1,830,492	1,830,492	1,830,492	1,830,492	1,830,492	1,830,492	1,830,492	1,830,492	1,830,492	1,830,492	1,830,492	1,830,492	1,830,492	1,830,492	1,830,492	1,830,492	1,830,492	1,830,492	1,830,492	1,830,492
		Sub-Total Wages		7,932,132	7,932,132	7,932,132	7,932,132	7,932,132	7,932,132	7,932,132	7,932,132	7,932,132	7,932,132	7,932,132	7,932,132	7,932,132	7,932,132	7,932,132	7,932,132	7,932,132	7,932,132	7,932,132	7,932,132
		Tourism																					
		Incremental Direct Wages	23.6%	4,137,729	4,216,753	4,297,636	4,380,436	4,465,213	4,552,029	4,640,948	4,732,038	4,825,369	4,921,013	5,019,046	5,119,547	5,222,597	5,328,282	5,436,691	5,547,916	5,662,053	5,779,203	5,899,469	6,022,961
		Incremental Indirect Wages	33.0%																				
		IncrementalInduced Wages	15.0%																				
		Sub-Total Wages	36.1%	6,328,657	6,449,524	6,573,235	6,699,877	6,829,543	6,962,328	7,098,330	7,237,652	7,380,401	7,526,689	7,676,630	7,830,346	7,987,962	8,149,608	8,315,419	8,485,538	8,660,110	8,839,291	9,023,238	9,212,119
		TOTAL RELATED WAGES		14,260,789	14,381,656	14,505,367	14,632,009	14,761,675	14,894,460	15,030,462	15,169,784	15,312,533	15,458,821	15,608,762	15,762,478	15,920,094	16,081,740	16,247,551	16,417,670	16,592,242	16,771,423	16,955,370	17,144,251
		NPV Wages	411,233,763	2,905,075	2,725,299	2,556,970	2,399,343	2,251,726	2,113,471	1,983,971	1,862,661	1,749,013	1,642,533	1,542,757	1,449,256	1,361,626	1,279,490	1,202,495	1,130,312	1,062,633	999,171	939,656	883,836
	Other Impacts																						

ECONOMIC ANALYSIS WORKSHEETS – UPGRADED FERRY

Economic Methodology for Fixed Link Project

Section 1 - Transportation Economics

				Phase 1 - Planning Approval			Phase 2 - Design & Construction																				
				1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
Traffic	Travellers (one-way trips)	Tourist Visitors - ferrylink	3.50%	13,000	13,455	13,926	14,413	14,918	15,440	15,980	16,540	17,119	17,718	18,338	18,980	19,644	20,331	21,043	21,780	22,542	23,331	24,147	24,993	25,867	26,773	27,710	28,679	29,683
		Traditional Tourist Vehicles		4,869	5,039	5,216	5,398	5,587	5,783	5,985	6,195	6,411	6,636	6,868	7,108	7,357	7,615	7,881	8,157	8,443	8,738	9,044	9,360	9,688	10,027	10,378	10,741	11,117
		Induced Visitors - fixed Link	0.50%												270	274	278	282	286	291	295	300	304	309	313	318	323	327
		Induced Demand Vehicles - Tourists	2.67												101	103	104	106	107	109	111	112	114	116	117	119	121	123
		Tourist Vehicles - ferrylink	2.67	4,869	5,039	5,216	5,398	5,587	5,783	5,985	6,195	6,411	6,636	6,868	7,210	7,460	7,719	7,987	8,264	8,552	8,849	9,156	9,474	9,804	10,144	10,497	10,862	11,240
	Passenger Veh. Labrador	Local and Business Traffic Base	1.5%	16,285	16,647	17,012	17,385	17,766	18,154	18,550	18,954	19,366	19,786	20,215	20,518	20,826	21,138	21,455	21,777	22,104	22,435	22,772	23,113	23,460	23,812	24,169	24,532	24,899
		Induced Demand - Local	15.0%												3,078	3,124	3,171	3,218	3,267	3,316	3,365	3,416	3,467	3,519	3,572	3,625	3,680	3,735
	Cabot	Diverted Passenger Vehicles					0	0	0	0	0	0	0	0	2,033	2,084	2,136	2,190	2,244	2,301	2,358	2,417	2,477	2,539	2,603	2,668	2,735	2,803
		Induced Demand Veh %	0.00%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	Total Passenger Vehicles		21,157	21,686	22,228	22,784	23,353	23,937	24,536	25,149	25,778	26,422	27,083	32,838	33,494	34,164	34,850	35,552	36,271	37,007	37,761	38,532	39,322	40,131	40,959	41,808	42,677
		Total Induced Vehicle Trips		0	0	0	0	0	0	0	0	0	0	0	2,134	2,187	2,240	2,295	2,352	2,409	2,469	2,529	2,591	2,655	2,720	2,787	2,855	2,926
		Total Visitors	2.67	56,489	57,901	59,349	60,823	62,353	63,912	65,510	67,148	68,827	70,547	72,311	87,679	89,428	91,218	93,050	94,925	96,844	98,809	100,821	102,880	104,990	107,150	109,362	111,628	113,949
	Base Freight	Cabot/Oceanex Tractor-trailer	2.50%	142,402	145,962	149,611	153,351	157,185	161,115	165,143	169,271	173,503	177,841	182,287	186,844	191,515	196,303	201,210	206,241	211,397	216,681	222,099	227,651	233,342	239,176	245,155	251,284	257,566
		Apollo Tractor-trailer		2,885	2,957	3,031	3,107	3,185	3,264	3,346	3,429	3,515	3,603	3,693	3,785	3,880	3,977	4,076	4,178	4,283	4,390	4,500	4,612	4,727	4,846	4,967	5,091	5,218
		Diverted Cabot/Oceanex Tractor-Trailer	2%												3,737	3,830	3,926	4,024	4,125	4,228	4,334	4,442	4,553	4,667	4,784	4,903	5,026	5,151
		Induced Cabot/Oceanex Tractor-Trailer	0.0%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Total Tractor-trailer		2,885	2,957	3,031	3,107	3,185	3,264	3,346	3,429	3,515	3,603	3,693	7,522	7,710	7,903	8,101	8,303	8,511	8,724	8,942	9,165	9,394	9,629	9,870	10,117	10,370
	Design Peak Trip Vol	Autos		66	68	69	71	73	75	77	79	81	83	85	103	105	107	109	111	113	116	118	120	123	125	128	131	133
		Trucks		1	1	1	1	1	1	1	1	1	1	1	3	3	3	3	3	3	3	3	3	3	3	3	4	4
		PCUs	3	69	71	73	75	76	78	80	82	84	86	89	111	113	115	118	120	122	125	128	130	133	136	138	141	144
		Dominant Direction (ratio)	50.00%	35	35	36	37	38	39	40	41	42	43	44	55	56	58	59	60	61	62	64	65	66	68	69	71	72
Revenues Total		Total Rev		1,463,822	1,500,418	1,537,928	1,576,376	1,615,786	1,656,180	1,697,585	1,740,025	1,783,525	1,828,113	1,873,816	3,560,131	3,640,318	3,722,445	3,806,561	3,892,718	3,980,968	4,071,365	4,163,965	4,258,825	4,356,003	4,455,560	4,557,556	4,662,057	4,769,126
	Passenger Tolls			353,321	362,154	371,208	380,489	390,001	399,751	409,745	419,988	430,488	441,250	452,281	548,402	559,342	570,537	581,995	593,723	605,728	618,018	630,601	643,484	656,677	670,187	684,023	698,196	712,713
	Vehicle Tolls			645,238	661,429	677,955	694,904	712,277	730,084	748,336	767,044	786,220	805,876	826,023	1,001,572	1,021,552	1,041,999	1,062,926	1,084,345	1,106,271	1,128,716	1,151,696	1,175,226	1,199,320	1,223,994	1,249,264	1,275,148	1,301,661
	Freight Tolls			465,213	476,843	488,764	500,984	513,508	526,346	539,504	552,992	566,817	580,987	595,512	1,212,971	1,243,295	1,274,378	1,306,237	1,338,893	1,372,365	1,406,674	1,441,841	1,477,887	1,514,834	1,552,705	1,591,523	1,631,311	1,672,094
	Passenger Tolls	Incremental													35,645	36,519	37,415	38,333	39,274	40,238	41,226	42,238	43,273	44,338	45,427	46,543	47,687	48,859
	Vehicle Tolls	Incremental													158,970	161,974	165,040	168,167	171,357	174,612	177,933	181,321	184,778	188,305	191,905	195,577	199,324	203,148
Expenses Total	Freight Tolls	Incremental													602,571	617,635	633,076	648,903	665,126	681,754	698,798	716,268	734,174	752,529	771,342	790,626	810,391	830,651
	Total	Incremental		0	0	0	0	0	0	0	0	0	0	0	797,186	816,129	835,531	855,403	875,757	896,604	917,956	939,827	962,228	985,172	1,008,674	1,032,746	1,057,402	1,082,658
Total Capital Investments (Outflow)	Pre-operation		0																									
	Operations Phase		0																									
	Infrastructure	Civil Works	0																									
		M & E	0																									
		Systems	0																									
		Rolling Stock	0																									
	Sub total		0																									
	Other (Design, Proj. Mgt)		0																									
TOTAL CAPEX		$ 2004	0																									
Present Values at Social Discount Rate	Present Value Total Revenue new service		23,872,886												1,494,736	1,421,770	1,352,414	1,286,488	1,223,820	1,164,246	1,107,612	1,053,771	1,002,583	953,917	907,645	863,649	821,816	782,037
	Present Value Capital Investment		0	0	0	0	0	0	0	0	0	0	0	0														
	Net Present Value		-163,600,789																									
Benefit Cost Ratio and IRR	Benefit /Cost Ratio		0.13																									

Indirect Transportation

Marine Atlantic Impacts	Passenger Vehicles	Base Projection # Vehicle trips	2.50%	154972	158,846	162,817	166,888	171,060	175,337	179,720	184,213	188,818	193,539	198,377	203,337	208,420	213,631	218,971	224,446	230,057	235,808	241,703	247,746	253,940	260,288	266,795	273,465	280,302
		Vehicle-trips diverted	1%												-2,033	-2,084	-2,136	-2,190	-2,244	-2,301	-2,358	-2,417	-2,477	-2,539	-2,603	-2,668	-2,735	-2,803
		Net Vehicle trips													201,303	206,336	211,494	216,782	222,201	227,756	233,450	239,286	245,269	251,400	257,685	264,127	270,731	277,499
		Passenger Vehicle Revenue $	148	22,935,856	23,509,252	24,096,984	24,699,408	25,316,894	25,949,816	26,598,561	27,263,525	27,945,113	28,643,741	29,359,835	29,792,892	30,537,715	31,301,158	32,083,686	32,885,779	33,707,923	34,550,621	35,414,387	36,299,746	37,207,240	38,137,421	39,090,857	40,068,128	41,069,831
	Freight tractor-trailer	Base Projection Tractor-trailer	2/3	94,935	97,308	99,741	102,234	104,790	107,410	110,095	112,847	115,669	118,560	121,524	124,563	127,677	130,868	134,140	137,494	140,931	144,454	148,066	151,767	155,562	159,451	163,437	167,523	171,711
		Diverted Freight tractor-trailer	1												-3,737	-3,830	-3,926	-4,024	-4,125	-4,228	-4,334	-4,442	-4,553	-4,667	-4,784	-4,903	-5,026	-5,151
		Net Freight tractor-trailer													120,826	123,846	126,942	130,116	133,369	136,703	140,121	143,624	147,214	150,895	154,667	158,534	162,497	166,559
		Net Revenue $	257.25	24,421,943	25,032,492	25,658,304	26,299,761	26,957,255	27,631,187	28,321,967	29,030,016	29,755,766	30,499,660	31,262,152	31,082,394	31,859,454	32,655,941	33,472,339	34,309,148	35,166,876	36,046,048	36,947,199	37,870,879	38,817,651	39,788,093	40,782,795	41,802,365	42,847,424
		Change in Pass. Car Equivalent Veh. (PCU)				2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.6%	2.6%	0.1%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%
	Total Operating Cost		111	111,100,000	112,319,750	113,554,224	114,803,907	116,069,686	117,348,848	118,644,585	119,956,092	121,283,563	122,660,789	124,090,068	124,171,302	125,550,112	126,945,724	128,358,247	129,788,192	131,235,474	132,700,408	134,183,216	135,684,119	137,203,342	138,741,114	140,297,664	141,873,228	143,468,040
		Wages	64.3	64,300,000	65,103,750	65,917,547	66,741,316	67,575,785	68,420,482	69,273,739	70,141,055	71,018,456	71,928,380	72,873,002	72,926,708	73,838,292	74,761,271	75,695,787	76,641,984	77,600,009	78,570,009	79,552,134	80,546,336	81,553,367	82,572,785	83,604,944	84,650,006	85,708,131
		Fuel	16.9	16,900,000	16,942,250	16,984,606	17,027,067	17,069,635	17,112,309	17,155,090	17,197,977	17,240,972	17,285,122	17,330,553	17,333,107	17,376,440	17,419,881	17,463,431	17,507,089	17,550,857	17,594,734	17,638,721	17,682,818	17,727,025	17,771,343	17,815,771	17,860,310	17,904,961
		Purchased Goods & Ser	29.9	29,900,000	30,273,750	30,652,172	31,035,324	31,423,266	31,816,056	32,213,737	32,616,429	33,024,134	33,447,256	33,886,513	33,911,486	34,335,380	34,764,572	35,199,129	35,639,119	36,084,608	36,535,665	36,992,361	37,454,765	37,922,950	38,396,987	38,876,949	39,362,911	39,854,947
	Subsidy impact	– reference subsidy $mm	43.8																									
		Incremental gain (loss)													-1,343,484	-1,899,316	-1,939,039	-1,979,663	-1,393,287	-1,428,119	-1,463,822	-1,500,418	-1,537,928	-1,576,377	-1,615,786	-1,656,181	-1,697,585	-1,740,025
	Net Revenue	Operating Surplus(deficit)		-63,742,201	-63,778,006	-63,799,037	-63,804,738	-63,794,537	-63,767,845	-63,724,057	-63,662,551	-63,582,684	-63,517,387	-63,468,081	-63,296,015	-61,774,133	-62,988,626	-62,802,321	-62,593,266	-62,360,674	-62,103,739	-61,821,630	-61,513,493	-61,178,451	-60,815,600	-60,424,013	-60,002,735	-59,550,785
	Capital Plan - Base	$ Millions					75			100					150		150		150										
	Capital Plan - Divert	$ Millions					75			100					150		150		150										
	Total Cash - Base			-63,742,201	-63,778,006	-63,799,037	-138,804,738	-63,794,537	-63,767,845	-163,724,057	-63,662,551	-63,582,684	-63,517,387	-63,468,081	-211,952,532	-59,874,818	-211,049,587	-60,822,638	-211,199,979	-60,932,555	-60,639,917	-60,321,212	-59,975,565	-59,602,074	-59,199,814	-58,767,832	-58,305,159	-57,810,760
	Total Cash - Divert			-63,742,201	-63,778,006	-63,799,037	-138,804,738	-63,794,537	-63,767,845	-163,724,057	-63,662,551	-63,582,684	-63,517,387	-63,468,081	-213,296,015	-61,774,133	-212,988,626	-62,802,321	-212,593,266	-62,360,674	-62,103,739	-61,821,630	-61,513,493	-61,178,451	-60,815,600	-60,424,013	-60,002,735	-59,550,785
	PV Base (2004)		-1,078,674,109	-59,295,071	-55,189,189	-51,355,709	-103,937,061	-44,436,635	-41,319,110	-98,685,478	-35,695,734	-33,163,677	-30,818,251	-28,645,886	-88,959,146	-23,384,827	-76,677,158	-20,555,992	-66,398,527	-17,819,910	-16,497,048	-15,265,437	-14,119,037	-13,052,197	-12,059,634	-11,136,404	-10,277,885	-9,479,754
	PV Divert		-1,088,041,306	-59,295,071	-55,189,189	-51,355,709	-103,937,061	-44,436,635	-41,319,110	-98,685,478	-35,695,734	-33,163,677	-30,818,251	-28,645,886	-89,553,213	-24,126,628	-77,381,637	-21,225,051	-66,836,558	-18,237,567	-16,895,280	-15,645,146	-14,481,085	-13,397,406	-12,388,787	-11,450,248	-10,577,131	-9,765,082
	Net Present Value	Benefit attributable to fixed link	-9,367,197	0	0	0	0	0	0	0	0	0	0	0	-564,067	-741,800	-704,479	-669,059	-438,031	-417,658	-398,232	-379,709	-362,049	-345,209	-329,153	-313,843	-299,246	-285,328
Apollo Impacts	Base	Total Vehicles #	2.50%	24042	24643	25259	25891	26538	27201	27881	28578	29293	30025	30776														
		Trucks # (est.)	12.00%	2,885	2,957	3,031	3,107	3,185	3,264	3,346	3,429	3,515	3,603	3,693														

Economic Methodology for Fixed Link Project

				Phase 1 - Planning Approval			Phase 2 - Design & Construction																				
				1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
		Passenger Vehicles #		21,157	21,686	22,228	22,784	23,353	23,937	24,536	25,149	25,778	26,422	27,083														
	Diversions Freight																											
		Tractor-trailer																										
		Drop trailer																										
		Truck																										
		Revenue $																										
	Operating Cost																											
		Wages																										
		Fuel																										
	Subsidy impact	Reference Annual Subsidy $ millions	5.5																									
		Sub total																										
	Net Change	Surplus(deficit)		-5,500,000	-5,500,000	-5,500,000	-5,500,000	-5,500,000	-5,500,000	-5,500,000	-5,500,000	-5,500,000	-5,500,000	-5,500,000	-5,500,000.0	-5,500,000.0	-5,500,000.0	-5,500,000.0	-5,500,000.0	-5,500,000.0	-5,500,000.0	-5,500,000.0	-5,500,000.0	-5,500,000.0	-5,500,000.0	-5,500,000.0	-5,500,000.0	-5,500,000.0
	Capital Plan - Base												75															
	Capital Plan - Divert		3										150															
	Capital NPVBAS		40,545,996	0	0	0	0	0	0	0	0	0	36,389,545	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Capital NPV New		81,091,992	0	0	0	0	0	0	0	0	0	72,779,089	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Operating Costs Status Quo		5,500,000	6,963,822	7,000,418	7,037,928	7,076,376	7,115,786	7,156,180	7,197,585	7,240,025	7,283,525	7,328,113	7,373,816	9,060,131	9,140,318	9,222,445	9,306,561	9,392,718	9,480,968	9,571,365	9,663,965	9,758,825	9,856,003	9,955,560	10,057,556	10,162,037	10,269,126
	Operating Costs New Service		50.0%	10,445,733	10,500,627	10,556,892	10,614,564	10,673,679	10,734,271	10,796,377	10,860,037	10,925,288	10,992,170	11,747,635	18,120,262	18,220,636	18,444,890	18,613,122	18,785,436	18,961,936	19,142,731	19,327,931	19,517,650	19,712,006	19,911,119	20,115,113	20,324,113	20,538,252
	PV Base (2004)		53,190,841	6,477,974	6,057,690	5,665,255	5,298,794	4,956,562	4,636,930	4,338,380	4,059,498	3,798,966	3,555,556	3,328,122	3,803,933	3,569,861	3,350,638	3,145,301	2,952,948	2,772,738	2,603,883	2,445,651	2,297,356	2,158,356	2,028,054	1,905,890	1,791,342	1,683,922
	PV Divert		106,381,683												7,607,867	7,139,722	6,701,277	6,290,603	5,905,897	5,545,475	5,207,767	4,891,303	4,594,711	4,316,712	4,056,108	3,811,780	3,582,684	3,367,843
	NPV	Capital	-40,545,996																									
	Net Present Value	Ferry upgrade net cost	-53,190,841																									
	Economic Net Present Value		-79,231,149																									
	Benefit /Cost Ratio		0.58																									
Other Economic Impacts			12,707,894	0	0	0	0	0	0	0	0	0	0	0	290,870	298,044	305,396	312,930	320,652	328,564	336,673	344,984	353,500	362,228	371,172	380,338	389,731	399,358
	Construction Impacts	**Indirect plus induced GDP -- NPV**	0																									
	Operations Impacts	**Indirect plus induced GDP -- NPV**	582,906																									
	Tourism Impacts	**Total GDP Impact -- NPV**	1,406,988																									
	Total Spin-off Benefits	**NPV**	1,989,894																									
	Fixed Link Economic NPV		-77,241,255																									
		Socio-economic Rate of Return	#NUM!																									
		Benefit Cost Ratio	0.59																									

SECTION 2 - Financial Analysis

		Project Cost, Constant 2004$		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Nominal Value		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Financing during Construction	Comm. Const. Cost	Comprised of:	0	0	0	0	0	0	0	0	0	0	0	0														
		Interest during Construction (IDC)	0	0	0	0	0	0	0	0	0	0	0	0														
		Project Costs	0																									
Financing Base Case	Project Cost																											
Debt Financing		Pre operations cost	0																									
		Interest during Construction	0																									
	Total Amount to Finance		0																									
		Annual Debt Amortization (CRF)	0												0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Net Cash Flow													0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Internal Rate of Return	#NUM!																									
Subsidized Financing Sensitivity Case		Project Spending	0	0	0	0	0	0	0	0	0	0	0	0														
		Grant Award	0	0	0	0	0	0	0	0	0	0	0	0														
		Cost less Grant	0	0	0	0	0	0	0	0	0	0	0	0														
	Total Amount to Finance		0																									
		Comprised of:	0	0	0	0	0	0	0	0	0	0	0	0														
		Interest during Construction (IDC)	0	0	0	0	0.00	0	0	0	0	0	0	0														
		Project Costs	0																									
		Internal Rate of Return	#NUM!	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Section 3 - Socio-Economic Impact

				1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
Construction Effects																												
	Construction Spending	Annual Civil & M&E		0	0	0	0	0	0	0	0	0	0	0														
		Direct GDP	34.0%	0	0	0	0	0	0	0	0	0	0	0														
		Indirect	63.0%	0	0	0	0	0	0	0	0	0	0	0														
		Induced	15.0%	0	0	0	0	0	0	0	0	0	0	0														
		Indirect plus induced GNP impact		0	0	0	0	0	0	0	0	0	0	0														
		Net Present Value	0	0	0	0	0	0	0	0	0	0	0	0														
Operations Impacts	Operations Costs	Annual Costs													602,571	617,635	633,076	648,903	665,126	681,754	698,795	716,268	734,174	752,529	771,342	790,626	810,391	830,651
		Direct GDP	34.0%												204,874	209,996	215,246	220,627	226,143	231,796	237,591	243,531	249,619	255,860	262,256	268,813	275,533	282,421
		Indirect	23.0%												47,121	48,299	49,507	50,744	52,013	53,313	54,646	56,012	57,412	58,848	60,319	61,827	63,373	64,957
		Induced	15.0%												37,799	38,744	39,713	40,706	41,723	42,766	43,836	44,931	46,055	47,206	48,386	49,596	50,836	52,107
		Indirect plus induced GNP impact													84,920	87,043	89,219	91,450	93,736	96,080	98,482	100,944	103,467	106,054	108,705	111,423	114,208	117,064
		Net Present Value	582,906												35,654	33,996	32,415	30,907	29,469	28,099	26,792	25,546	24,358	23,225	22,144	21,114	20,132	19,196
Tourism Impacts	Tourist Indicators																											
		Induced Visitors -- trip add-on	1												5,699	5,839	5,982	6,129	6,279	6,433	6,591	6,753	6,919	7,089	7,263	7,441	7,624	7,812
		Induced Visitors -- full trip	11												0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Incremental Room nights	2	6,500	6,728	6,963	7,207	7,459	7,720	7,990	8,270	8,559	8,859	9,169	2,849	2,919	2,991	3,064	3,140	3,217	3,296	3,376	3,459	3,544	3,631	3,721	3,812	3,906
		Incre.Annual Expenditures Tourists	62.35												355,330	364,045	372,975	382,126	391,503	401,112	410,959	421,049	431,388	441,984	452,841	463,967	475,367	487,051
		Direct GDP	35.0%												124,365	127,416	130,541	133,744	137,026	140,389	143,836	147,367	150,986	154,694	158,494	162,388	166,379	170,468
		Indirect	44.0%												54,721	56,063	57,438	58,847	60,292	61,771	63,288	64,842	66,434	68,065	69,737	71,451	73,207	75,006
		Induced	15.0%												26,863	27,522	28,197	28,889	29,598	30,324	31,068	31,831	32,613	33,414	34,235	35,076	35,938	36,821
		Total													205,949	211,000	216,176	221,480	226,915	232,483	238,192	244,040	250,033	256,174	262,467	268,915	275,523	282,294

Economic Methodology for Fixed Link Project

				Phase 1 - Planning Approval			Phase 2 - Design & Construction																				
				1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
		Net Present Value	1,406,988												86,469	82,409	78,540	74,853	71,339	67,991	64,800	61,759	58,861	56,099	53,467	50,959	48,569	46,290
TOTAL OTHER IMPACTS		**Net Present Value - Real**	**1,989,894**	0	0	0	0	0	0	0	0	0	0	0	122,123	116,405	110,954	105,760	100,809	96,090	91,592	87,305	83,219	79,324	75,612	72,073	68,701	65,486
Social Impacts																												
	Employment	**Construction & Operations**																										
		NL - Skilled													25	25	25	25	25	25	25	25	25	25	25	25	25	25
		NL - Unskilled													15	15	15	15	15	15	15	15	15	15	15	15	15	15
		Non-res													0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Total NL Direct Employment													40	40	40	40	40	40	40	40	40	40	40	40	40	40
		Indirect Construction Employment	0.63												25	25	25	25	25	25	25	25	25	25	25	25	25	25
		Induced Construction Employment	0.3												20	20	20	20	20	20	20	20	20	20	20	20	20	20
		Total Annual FTE Employment													85	85	85	85	85	85	85	85	85	85	85	85	85	85
		Tourism																										
		Total Incremental Spending													355,330	364,045	372,975	382,126	391,503	401,112	410,959	421,049	431,388	441,954	452,841	463,967	475,367	487,031
		Incremental FTE - Direct	12.8												5	5	5	5	5	5	5	5	6	6	6	6	6	6
		Incremental FTE - Indirect	0.24																									
		Incremental FTE - Induced	0.15																									
		Total Impact	18.3												6	7	7	7	7	7	8	8	8	8	8	8	9	9
		TOTAL RELATED EMPLOYMENT													91	91	92	92	92	92	92	92	93	93	93	93	93	94
	Wages	**Construction & Operations**																										
		Direct Payroll													0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Indirect Construction Employment	0.53												0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Induced Construction Employment	0.3												0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Sub-Total Wages													0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Tourism																										
		Incremental Direct Wages	23.6%												83,858	85,915	88,022	90,182	92,395	94,663	96,986	99,368	101,808	104,308	106,870	109,496	112,187	114,944
		Incremental Indirect Wages	33.0%																									
		IncrementalInduced Wages	15.0%																									
		Sub-Total Wages	36.1%												128,261	131,406	134,630	137,933	141,318	144,786	148,341	151,983	155,715	159,539	163,458	167,474	171,590	175,807
		TOTAL RELATED WAGES		0	0	0	0	0	0	0	0	0	0	0	128,261	131,406	134,630	137,933	141,318	144,786	148,341	151,983	155,715	159,539	163,458	167,474	171,590	175,807
		NPV Wages	**876,241**	0	0	0	0	0	0	0	0	0	0	0	53,851	51,322	48,913	46,617	44,428	42,343	40,356	38,462	36,657	34,937	33,298	31,736	30,247	28,829
	Other Impacts																											

Economic Methodology for Fixed Link Project

Section 1 - Transportation Economics

Phase 3 - Operation

				26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
Traffic	Travellers (one-way trips)	Tourist Visitors - ferrylink	3.50%	30,722	31,797	32,910	34,062	35,254	36,488	37,765	39,087	40,455	41,871	43,337	44,853	46,423	48,048	49,730	51,470
		Traditional Tourist Vehicles		11,506	11,909	12,326	12,757	13,204	13,666	14,144	14,639	15,152	15,682	16,231	16,799	17,387	17,996	18,625	19,277
		Induced Visitors - fixed Link	0.50%	332	337	342	348	353	358	363	369	374	380	386	392	397	403	409	416
		Induced Demand Vehicles - Tourists	2.67	124	126	128	130	132	134	136	138	140	142	144	147	149	151	153	156
		Tourist Vehicles - ferrylink	2.67	11,631	12,036	12,454	12,888	13,336	13,800	14,280	14,778	15,292	15,824	16,375	16,946	17,536	18,147	18,779	19,433
	Passenger Veh.																		
	Labrador	Local and Business Traffic Base	1.5%	25,273	23,652	26,037	26,427	26,824	27,226	27,635	28,049	28,470	28,897	29,330	29,770	30,217	30,670	31,130	31,597
		Induced Demand - Local	15.0%	3,791	3,848	3,906	3,964	4,024	4,084	4,145	4,207	4,270	4,335	4,400	4,466	4,533	4,601	4,670	4,740
	Cabot	Diverted Passenger Vehicles		2,873	2,945	3,019	3,094	3,171	3,251	3,332	3,415	3,501	3,588	3,678	3,770	3,864	3,961	4,060	4,161
		Induced Demand Veh %	0.00%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	Total Passenger Vehicles		43,568	44,480	45,415	46,373	47,355	48,361	49,392	50,449	51,533	52,644	53,783	54,951	56,149	57,378	58,638	59,931
		Total Induced Vehicle Trips		2,998	3,071	3,147	3,224	3,303	3,385	3,468	3,553	3,641	3,730	3,822	3,916	4,013	4,112	4,213	4,317
		Total Visitors	2.67	116,326	118,762	121,259	123,816	126,437	129,124	131,877	134,699	137,593	140,559	143,601	146,720	149,918	153,199	156,564	160,015
	Base Freight	Cabot/Oceanex Tractor-trailer	2.50%	264,005	270,605	277,371	284,305	291,413	298,698	306,165	313,819	321,665	329,707	337,949	346,398	355,058	363,934	373,033	382,358
		Apollo Tractor-trailer		5,349	5,482	5,619	5,760	5,904	6,052	6,203	6,358	6,517	6,680	6,847	7,018	7,193	7,373	7,558	7,747
		Diverted Cabot/Oceanex Tractor-Trailer	2%	5,280	5,412	5,547	5,686	5,828	5,974	6,123	6,276	6,433	6,594	6,759	6,928	7,101	7,279	7,461	7,647
		Induced Cabot/Oceanex Tractor-Trailer	0.0%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Total Tractor-trailer		10,629	10,895	11,167	11,446	11,732	12,026	12,326	12,634	12,950	13,274	13,606	13,946	14,293	14,652	15,018	15,394
	Design Peak Trip Vol	Autos		136	139	142	145	148	151	154	158	161	165	168	172	175	179	183	187
		Trucks		4	4	4	4	4	4	4	5	5	5	5	5	5	5	5	5
		PCUs	3	147	151	154	157	160	164	167	171	175	179	183	187	191	195	199	204
		Dominant Direction (ratio)	50.00%	74	75	77	79	80	82	84	86	87	89	91	93	95	97	100	102
Revenues Total		Total Rev		4,878,831	4,991,241	5,106,426	5,224,460	5,345,416	5,469,372	5,596,406	5,726,599	5,860,035	5,996,799	6,136,980	6,280,666	6,427,953	6,578,933	6,733,707	6,892,375
	Passenger Tolls			727,585	742,822	758,433	774,431	790,825	807,627	824,849	842,502	860,600	879,154	898,178	917,686	937,692	958,210	979,235	1,000,843
	Vehicle Tolls			1,325,823	1,356,650	1,385,163	1,414,380	1,444,321	1,475,007	1,506,460	1,538,702	1,571,754	1,605,640	1,640,383	1,676,014	1,712,551	1,750,024	1,788,460	1,827,886
	Freight Tolls			1,713,896	1,756,744	1,800,662	1,845,679	1,891,821	1,939,116	1,987,594	2,037,284	2,088,216	2,140,421	2,193,932	2,248,780	2,305,000	2,362,625	2,421,690	2,482,233
	Passenger Tolls	Incremental		50,060	51,290	52,552	53,844	55,168	56,526	57,916	59,341	60,802	62,299	63,832	65,404	67,014	68,665	70,356	72,090
	Vehicle Tolls	Incremental		207,050	211,032	215,096	219,243	223,476	227,795	232,203	236,703	241,295	245,982	250,766	255,649	260,634	265,722	270,916	276,217
Expenses Total	Freight Tolls	Incremental		851,417	872,703	894,520	916,883	939,803	963,300	987,383	1,012,068	1,037,369	1,063,303	1,089,886	1,117,133	1,145,062	1,173,688	1,203,030	1,233,106
	Total	Incremental		1,108,527	1,135,026	1,162,168	1,189,971	1,218,449	1,247,621	1,277,503	1,308,112	1,339,466	1,371,584	1,404,484	1,438,186	1,472,710	1,508,075	1,544,302	1,581,413
Total Capital Investments (Outflow)	Pre-operation		0																
	Operations Phase		0																
	Infrastructure																		
		Civil Works	0																
		M & E	0																
		Systems	0																
		Rolling Stock	0																
	Sub total		0																
	Other (Design, Proj. Mgt)		0																
TOTAL CAPEX		$ 2004	0																
Present Values at Social Discount Rate	Present Value Total Revenue new service		23,872,886	744,210	708,239	674,031	641,499	610,559	581,132	553,144	526,523	501,202	477,115	454,203	432,407	411,672	391,945	373,178	355,322
	Present Value Capital Investment		0																
	Net Present Value		-163,600,789																
Benefit Cost Ratio and IRR	Benefit /Cost Ratio		0.13																

Indirect Transportation

Marine Atlantic Impacts	Passenger Vehicles	Base Projection # Vehicle trips	2.50%	287,309	294,492	301,854	309,401	317,136	325,064	333,191	341,521	350,059	358,810	367,780	376,975	386,399	396,059	405,961	416,110
		Vehicle-trips diverted	1%	-2,873	-2,945	-3,019	-3,094	-3,171	-3,251	-3,332	-3,415	-3,501	-3,588	-3,678	-3,770	-3,864	-3,961	-4,060	-4,161
		Net Vehicle trips		284,436	291,547	298,836	306,307	313,964	321,814	329,859	338,105	346,558	355,222	364,103	373,205	382,535	392,099	401,901	411,949
		Passenger Vehicle Revenue $	148	42,096,577	43,148,991	44,227,716	45,333,409	46,466,744	47,628,413	48,819,123	50,039,601	51,290,591	52,572,856	53,887,177	55,234,357	56,615,216	58,030,596	59,481,361	60,968,395
	Freight tractor-trailer	Base Projection Tractor-trailer	2/3	176,004	180,404	184,914	189,537	194,273	199,132	204,110	209,213	214,443	219,804	225,299	230,932	236,705	242,623	248,688	254,906
		Diverted Freight tractor-trailer	1	-5,280	-5,412	-5,547	-5,686	-5,828	-5,974	-6,123	-6,276	-6,433	-6,594	-6,759	-6,928	-7,101	-7,279	-7,461	-7,647
		Net Freight tractor-trailer		170,723	174,992	179,366	183,850	188,447	193,158	197,987	202,937	208,010	213,210	218,540	224,004	229,604	235,344	241,228	247,258
		Net Revenue $	257.25	43,918,610	45,016,573	46,141,989	47,293,539	48,477,927	49,689,876	50,932,122	52,205,426	53,510,561	54,848,325	56,219,533	57,625,022	59,065,647	60,542,288	62,055,846	63,607,242
		Change in Pass. Car Equivalent Veh. (PCU)		2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%
	Total Operating Cost		111	145,082,341	146,716,373	148,370,381	150,044,615	151,739,326	153,454,769	155,191,201	156,948,885	158,728,084	160,529,066	162,352,103	164,197,469	166,065,441	167,956,302	169,870,337	171,807,834
		Wages	64.3	86,779,453	87,864,226	88,962,529	90,074,361	91,200,493	92,340,499	93,494,755	94,663,440	95,846,733	97,044,817	98,257,877	99,486,100	100,729,677	101,988,798	103,263,658	104,554,453
		Fuel	16.9	17,949,724	17,994,598	18,039,584	18,084,683	18,129,895	18,175,220	18,220,658	18,266,209	18,311,875	18,357,655	18,403,549	18,449,558	18,495,682	18,541,921	18,588,276	18,634,746
		Purchased Goods & Ser.	29.9	40,353,134	40,857,549	41,368,268	41,885,371	42,408,938	42,939,050	43,475,788	44,019,236	44,569,476	45,126,594	45,690,677	46,261,810	46,840,083	47,425,584	48,018,404	48,618,634
	Subsidy impact	-- reference subsidy $mm	43.8																
		Incremental gain (loss)		-1,783,525	-1,828,114	-1,873,816	-1,920,662	-1,968,678	-2,017,895	-2,068,343	-2,120,051	-2,173,053	-2,227,379	-2,283,063	-2,340,140	-2,398,643	-2,458,610	-2,520,075	-2,583,077
	Net Revenue	Operating Surplus(deficit)		-59,067,154	-58,550,807	-58,000,676	-57,415,667	-56,794,655	-56,136,480	-55,439,956	-54,703,858	-53,926,931	-53,107,885	-52,245,392	-51,338,090	-50,384,578	-49,383,418	-48,333,130	-47,232,197
	Capital Plan - Base	$ Millions										75			100				150
	Capital Plan - Divert	$ Millions										75			100				150
	Total Cash - Base			-57,283,629	-56,722,693	-56,126,860	-55,495,006	-54,825,976	-54,118,585	-53,371,613	-52,583,807	-126,753,879	-50,880,506	-49,962,329	-148,997,950	-47,985,935	-46,924,808	-45,813,056	-194,649,120
	Total Cash - Divert			-59,067,154	-58,550,807	-58,000,676	-57,415,667	-56,794,655	-56,136,480	-55,439,956	-54,703,858	-128,926,931	-53,107,885	-52,245,392	-151,338,090	-50,384,578	-49,383,418	-48,333,130	-197,232,197
	PV Base (2004)		-1,078,674,309	-8,737,968	-8,048,748	-7,405,359	-6,814,099	-6,262,279	-5,750,214	-5,272,207	-4,834,733	-10,841,103	-4,048,127	-3,697,754	-10,258,104	-3,073,211	-2,795,583	-2,538,930	-10,034,723
	PV Divert		-1,088,041,306	-9,010,025	-8,303,150	-7,655,897	-7,049,932	-6,487,144	-5,964,620	-5,479,640	-5,029,660	-11,026,962	-4,225,351	-3,866,725	-10,419,217	-3,226,829	-2,942,057	-2,678,591	-10,167,889
	Net Present Value	Benefit attributable to fixed link	-9,367,197	-272,057	-259,403	-247,338	-235,833	-224,864	-214,406	-204,433	-194,925	-185,859	-177,214	-169,971	-161,112	-153,619	-146,474	-139,661	-133,165
Apollo Impacts	Base																		
		Total Vehicles #	2.50%																
		Trucks # (est.)	12.00%																

Economic Methodology for Fixed Link Project

				Phase 3 - Operation															
				26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
	Diversions Freight	Passenger Vehicles #																	
		Tractor-trailer																	
		Drop trailer																	
		Truck																	
		Revenue $																	
	Operating Cost																		
		Wages																	
		Fuel																	
	Subsidy impact	Reference Annual Subsidy $ millions	5.5																
		Sub total																	
	Net Change	Surplus(deficit)		-5,500,000.0	-5,500,000.0	-5,500,000.0	-5,500,000.0	-5,500,000.0	-5,500,000.0	-5,500,000.0	-5,500,000.0	-5,500,000.0	-5,500,000.0	-5,500,000.0	-5,500,000.0	-5,500,000.0	-5,500,000.0	-5,500,000.0	-5,500,000
	Capital Plan - Base																	75	
	Capital Plan - Divert		2															150	
	Capital NPVIASe		40,545,996	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4,156,451	0
	Capital NPV New		81,091,992	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8,312,903	0
	Operating Costs Status Quo		5,500,000	10,378,831	10,491,241	10,606,426	10,724,460	10,845,416	10,969,372	11,096,406	11,226,599	11,360,035	11,496,799	11,636,980	11,780,666	11,927,933	12,078,933	12,233,707	12,392,375
	Operating Costs New Service		50.0%	20,757,662	20,982,482	21,212,852	21,448,919	21,690,832	21,938,743	22,192,811	22,453,198	22,720,070	22,993,599	23,273,959	23,561,333	23,855,905	24,157,867	24,467,414	24,784,749
	PV Base (2004)		53,190,841	1,593,173	1,458,670	1,400,013	1,316,831	1,238,775	1,165,519	1,096,760	1,032,212	971,610	914,704	861,263	811,067	763,914	719,612	677,984	638,863
	PV Divert		106,381,683	3,166,346	2,977,339	2,800,026	2,633,661	2,477,549	2,331,038	2,193,519	2,064,424	1,943,220	1,829,409	1,722,523	1,622,134	1,527,827	1,439,224	1,355,968	1,277,725
	NPV	Capital	-40,545,996																
	Net Present Value	Ferry upgrade net cost	-53,190,841																
	Economic Net Present Value		**-79,231,149**																
	Benefit /Cost Ratio		**0.58**																
Other Economic Impacts			12,707,894	409,224	419,334	429,696	440,314	451,196	462,349	473,778	485,491	497,493	509,797	522,405	535,326	548,567	562,138	576,046	590,299
	Construction Impacts	**Indirect plus induced GDP -- NPV**	**0**																
	Operations Impacts	**Indirect plus induced GDP -- NPV**	**582,906**																
	Tourism Impacts	**Total GDP Impact -- NPV**	**1,406,988**																
	Total Spin-off Benefits	**NPV**	**1,989,894**																
	Fixed Link Economic NPV		**-77,241,255**																
		Socio-economic Rate of Return	**#NUM!**																
		Benefit Cost Ratio	**0.59**																

SECTION 2 - Financial Analysis

		Project Cost, Constant 2004$		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Nominal Value		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Financing during Construction	**Cumm. Const. Cost**	**Comprised of:**	**0**																
		Interest during Construction (IDC)	**0**																
		Project Costs	**0**																
Financing Base Case	Project Cost																		
Debt Financing		Pre operations cost	0																
		Interest during Construction	0																
	Total Amount to Finance		0																
		Annual Debt Amortization (CRF)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Net Cash Flow		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Internal Rate of Return	**#NUM!**																
Subsidized Financing Sensitivity Case		Project Spending	0																
		Grant Award	0																
		Cost less Grant	0																
	Total Amount to Finance		0																
		Comprised of:																	
		Interest during Construction (IDC)	**0**																
		Project Costs	**0**																
		Internal Rate of Return	**#NUM!**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Section 3 - Socio-Economic Impact

				26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
Construction Effects																			
	Construction Spending	Annual Civil & M&E																	
		Direct GDP	34.0%																
		Indirect	63.0%																
		Induced	15.0%																
		Indirect plus induced GNP impact																	
		Net Present Value	0																
Operations Impacts	Operations Costs	Annual Costs		851,417	872,703	894,520	916,883	939,805	963,300	987,383	1,012,068	1,037,369	1,063,303	1,089,886	1,117,133	1,145,062	1,173,688	1,203,030	1,233,106
		Direct GDP	34.0%	289,482	296,719	304,137	311,740	319,534	327,522	335,710	344,103	352,706	361,523	370,561	379,825	389,321	399,054	409,030	419,256
		Indirect	23.0%	66,581	68,245	69,951	71,700	73,493	75,330	77,213	79,144	81,122	83,150	85,229	87,360	89,544	91,782	94,077	96,429
		Induced	15.0%	53,409	54,745	56,113	57,516	58,954	60,428	61,939	63,487	65,074	66,701	68,369	70,078	71,830	73,625	75,466	77,353
		Indirect plus induced GNP impact		119,990	122,990	126,065	129,216	132,447	135,758	139,152	142,631	146,196	149,851	153,598	157,438	161,374	165,408	169,543	173,782
		Net Present Value	582,906	18,303	17,452	16,640	15,866	15,128	14,425	13,754	13,114	12,504	11,922	11,368	10,839	10,333	9,854	9,396	8,959
Tourism Impacts	Tourist Indicators																		
		Induced Visitors -- trip add-on	1	8,004	8,200	8,402	8,609	8,820	9,037	9,260	9,488	9,721	9,960	10,206	10,457	10,714	10,978	11,249	11,526
		Induced Visitors -- full trip	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Incremental Room nights	2	4,002	4,100	4,201	4,304	4,410	4,519	4,630	4,744	4,861	4,980	5,103	5,228	5,357	5,489	5,624	5,763
		Incre.Annual Expenditures Tourists	62.35	499,023	511,291	523,863	536,746	549,948	563,476	577,340	591,547	606,106	621,025	636,313	651,981	668,036	684,489	701,350	718,628
		Direct GDP	35.0%	174,658	178,952	183,352	187,861	192,482	197,217	202,069	207,041	212,137	217,359	222,710	228,193	233,813	239,571	245,472	251,520
		Indirect	44.0%	76,849	78,739	80,675	82,659	84,692	86,775	88,910	91,098	93,340	95,638	97,992	100,403	102,878	105,411	108,008	110,669
		Induced	15.0%	37,726	38,654	39,604	40,578	41,576	42,599	43,647	44,721	45,822	46,949	48,103	49,290	50,504	51,747	53,022	54,328
		Total		289,233	296,344	303,631	311,098	318,750	326,591	334,626	342,861	351,299	359,946	368,807	377,885	387,194	396,730	406,502	416,517

Economic Methodology for Fixed Link Project

Phase 3 - Operation

				26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
		Net Present Value	1,406,988	44,119	42,030	40,078	38,199	36,408	34,701	33,074	31,524	30,046	28,638	27,296	26,017	24,797	23,636	22,528	21,473
TOTAL OTHER IMPACTS		**Net Present Value - Real**	**1,989,894**	62,422	59,502	56,718	54,065	51,536	49,126	46,828	44,638	42,550	40,560	38,664	36,856	35,132	33,490	31,924	30,432
Social Impacts																			
	Employment	**Construction & Operations**																	
		NL - Skilled		25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
		NL - Unskilled		15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
		Non-res		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Total NL Direct Employment		40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
		Indirect Construction Employment	0.63	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
		Induced Construction Employment	0.5	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20
		Total Annual FTE Employment		85	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85
		Tourism																	
		Total Incremental Spending		499,023	511,291	523,863	536,746	549,948	563,476	577,340	591,547	606,106	621,025	636,313	651,981	668,036	684,489	701,350	718,628
		Incremental FTE - Direct	12.8	6	7	7	7	7	7	7	8	8	8	8	8	9	9	9	9
		Incremental FTE - Indirect	0.24																
		Incremental FTE - Induced	0.15																
		Total Impact	18.2	9	9	10	10	10	10	11	11	11	11	12	12	12	12	13	13
		TOTAL RELATED EMPLOYMENT		94	94	94	95	95	95	95	96	96	96	96	97	97	97	98	98
	Wages	**Construction & Operations**																	
		Direct Payroll		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Indirect Construction Employment	0.53	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Induced Construction Employment	0.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Sub-Total Wages		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Tourism																	
		Incremental Direct Wages	23.6%	117,769	120,665	123,632	126,672	129,788	132,980	136,252	139,605	143,041	146,562	150,170	153,867	157,657	161,539	165,519	169,596
		Incremental Indirect Wages	33.0%																
		Incremental/Induced Wages	15.0%																
		Sub-Total Wages	36.1%	180,128	184,557	189,095	193,745	198,510	203,394	208,398	213,526	218,781	224,166	229,685	235,340	241,136	247,075	253,161	259,395
		TOTAL RELATED WAGES		180,128	184,557	189,095	193,745	198,510	203,394	208,398	213,526	218,781	224,166	229,685	235,340	241,136	247,075	253,161	259,395
		NPV Wages	**876,241**	27,477	26,188	24,960	23,789	22,674	21,611	20,598	19,632	18,712	17,835	16,999	16,203	15,443	14,720	14,030	13,373
	Other Impacts																		

SENSITIVITY ANALYSIS RESULTS – BASE CASE

Variables

Base Case				
Debt Financing (Real)	8.0%		Annual to Peak Hour Design factor	
Long Term Inflation	2.5%		Safety Margin	1.25
Equity Real	11.0%		Auto - Peak duration - days	100
Equity Tax Rate	40.0%		Auto - Peak proportion of total	50.0%
Equity Pre Tax - Real	18.3%		Auto - Peak hours/day	6.0
Equity PreTax - Nominal	22.5%		Auto - Peak % of PADT	60.0%
			Auto Conv. Factor	0.063%
% debt financed	0.0%		Truck - Peak duration days	250
% equity financed	0.0%		Truck - Peak Proportion of total	85.0%
Nominal Grant $ Millions	$1,360		Truck - Peak hours/day	12.0
Blended Cost of Capital - Real	0.0%		Truck - Peak % of PADT	100.0%
Blended Cost of Capital - Nominal	0.0%		Truck - Conv. Factor	0.035%
Financing during Construction	5.0%		Auto Lab - Traditional Growth	1.50%
			Tourist Lab - Traditional Growth	3.50%
Social Discount Rate - Nominal	10.0%		Truck Lab - Traditional Growth	2.50%
Social Discount Rate - Real	7.5%		Auto Lab - Incremental Growth	0.00%
Grant Discount Rate	0.0%		Auto Tourist - Incremental GR.	1.25%
			Total Lab - Veh Growth	2.50%
Standard PY (FTE) hours	1850		Total Lab - % trucks	10.00%
			Truck Lab- Incremental Growth	1.00%
Marine Atlantic Productivity			Auto Lab - Surge	30.00%
Improvement factor			Truck Lab - Surge	0.00%
Wages	50.0%		Auto Cabot - Traditional Growth	2.50%
Fuel	10.0%		Truck Cabot - Traditional Growth	2.50%
Supplies	50.0%		Auto - Diversion from Cabot	10.00%
Weighted Average	43.9%		Truck - Diversion from Cabot	10.00%
			Auto exCabot- Incremental Growth	1.50%
Car Occupancy (in # of Adults)	2.67		Truck exCabot - Incremental Growth	1.00%
			Auto exCabot - Surge	30.00%
Construction Wages % of cost	30%		Truck exCabot - Surge	0.00%
			Total Vehicle trips - Cabot Trad	2.50%
Tolls			Cabot Rev/pass veh	148.00
Per auto	30.5		Cabot Rev/truck	257.25
Per other pass.	10			
Per tractor-trailer	161.25			

			Unit Toll % of Base Case Value			Traditional Market Growth Rate			Incremental Growth Rate			Diversion		
Results		Base Case	50.0%	150.0%	200.0%	1.0%	3.0%	5.0%	2.5%	5.0%	7.5%	0.0%	5.0%	15.0%
Operating Cash Flow	NPV	-647,922,996	-670,901,503	-624,944,489	-601,965,983	-656,004,538	-643,975,751	-625,263,591	-643,534,409	-634,655,348	-623,670,915	-676,970,747	-662,446,871	-633,399,121
	IRR	-9.53%	#DIV/0!	-6.60%	-4.84%	-13.27%	-8.49%	-5.42%	-8.56%	-6.93%	-5.37%	#DIV/0!	#DIV/0!	-7.48%
	Benefit/Cost	0.07	0.03	0.10	0.13	0.05	0.07	0.10	0.07	0.09	0.10	0.02	0.05	0.09
Direct	NPV	-559,155,170	-582,133,677	-536,176,664	-513,198,157	-557,989,554	-559,081,189	-561,416,181	-554,766,583	-545,887,522	-534,903,089	-537,737,132	-548,446,151	-569,864,190
Economic Impact	IRR	-5.28%	-6.66%	-4.11%	-3.09%	-5.27%	-5.25%	-5.30%	-4.98%	-4.33%	-3.51%	-4.06%	-4.64%	-5.98%
	Benefit/Cost	0.19	0.16	0.23	0.26	0.20	0.19	0.19	0.20	0.21	0.23	0.23	0.21	0.18
With Indirect	NPV	-333,459,458	-356,437,964	-310,480,951	-287,502,445	-332,725,835	-333,497,005	-335,276,521	-323,523,813	-296,780,053	-258,504,830	-365,516,918	-349,488,188	-317,430,728
and Induced	IRR	-1.42%	-2.53%	-0.44%	0.44%	-1.44%	-1.41%	-1.42%	-0.83%	0.63%	2.27%	-2.72%	-2.05%	-0.82%
Impacts	Benefit/Cost	0.52	0.49	0.55	0.59	0.52	0.52	0.52	0.53	0.57	0.63	0.47	0.50	0.54

			Capital Costs % of Base Case				Operating Costs % of Base Case		
Results		Original	-30%	-15%	15%	30%	50%	150%	200%
Operating Cash Flow	NPV	-647,922,996	-449,019,117	-548,471,057	-747,374,936	-846,826,875	-632,489,456	-663,356,536	-678,790,075
	IRR	-9.53%	-8.33%	-8.99%	-9.99%	-10.39%	-11.77%	-8.16%	-7.16%
	Benefit/Cost	0.07	0.09	0.08	0.06	0.05	0.07	0.06	0.06
Direct	NPV	-559,155,170	-360,251,291	-459,703,231	-658,607,110	-758,059,049	-543,721,631	-574,588,710	-590,022,250
Economic Impact	IRR	-5.28%	-4.15%	-4.77%	-5.71%	-6.08%	-5.76%	-4.84%	-4.42%
	Benefit/Cost	0.19	0.27	0.23	0.17	0.15	0.20	0.19	0.19
With Indirect	NPV	-333,459,458	-134,555,579	-234,007,518	-432,911,397	-532,363,337	-320,200,967	-346,717,949	-359,976,440
and Induced	IRR	-1.42%	1.42%	-0.28%	-2.20%	-2.85%	-0.81%	-1.99%	-2.64%
Impacts	Benefit/Cost	0.52	0.73	0.61	0.45	0.40	0.53	0.51	0.50
Financing	Total Amt. To Finance	1,707,787,952	1,195,451,566	1,451,619,759	1,963,956,145	2,220,124,338	1,707,787,952	1,707,787,952	1,707,787,952
	Grant Amount	1,395,000,000	960,000,000	1,180,000,000	1,615,000,000	1,830,000,000	1,340,000,000	1,449,000,000	n/a
	IRR on project costs	8.0%	8.0%	8.4%	8.4%	8.0%	8.1%	3.0%	n/a

			Nominal Social Discount Rate				
Results		Original	4.0%	6.0%	8.0%	10.0%	12.0%
Operating Cash Flow	NPV	-647,922,996	-984,640,405	-858,432,186	-745,872,604	-647,922,996	-563,636,529
	IRR	-9.53%	-9.53%	-9.53%	-9.53%	-9.53%	-9.53%
	Benefit/Cost	0.07	0.17	0.12	0.09	0.07	0.05
Direct	NPV	-559,155,170	-829,396,451	-737,273,212	-643,553,095	-559,155,170	-486,404,183
Economic Impact	IRR	-5.28%	-5.28%	-5.28%	-5.28%	-5.28%	-5.28%
	Benefit/Cost	0.19	0.30	0.24	0.21	0.19	0.18
With Indirect	NPV	-333,459,458	-325,029,272	-367,116,721	-359,460,061	-333,459,458	-302,354,102
and Induced	IRR	-1.42%	-1.42%	-1.42%	-1.42%	-1.42%	-1.42%
Impacts	Benefit/Cost	0.52	0.72	0.62	0.56	0.52	0.49
Financing	Total Amt. To Finance	1,707,787,952					
	Grant Amount	1,395,000,000					
	IRR on project costs	8.0%					

			Interest During Construction			Inflation Rate			
Results		Original	2.5%	7.5%	10.0%	1.0%	2.0%	4.0%	5.5%
Operating Cash Flow	NPV	-647,922,996	-647,922,996	-647,922,996	-647,922,996	-583,509,141	-625,626,986	-720,033,612	-800,318,280
	IRR	-9.53%	-9.53%	-9.53%	-9.53%	-9.53%	-9.53%	-9.53%	-9.53%
	Benefit/Cost	0.07	0.07	0.07	0.07	0.05	0.06	0.08	0.10
Direct	NPV	-559,155,170	-559,155,170	-559,155,170	-559,155,170	-503,512,895	-539,874,591	-621,403,245	-689,624,191
Economic Impact	IRR	-5.28%	-5.28%	-5.28%	-5.28%	-5.28%	-5.28%	-5.28%	-5.28%
	Benefit/Cost	0.19	0.19	0.19	0.19	0.18	0.19	0.21	0.23
With Indirect	NPV	-333,459,458	-333,459,458	-333,459,458	-333,459,458	-310,234,162	-325,864,248	-353,961,865	-366,932,552
and Induced	IRR	-1.42%	-1.42%	-1.42%	-1.42%	-1.42%	-1.42%	-1.42%	-1.42%
Impacts	Benefit/Cost	0.52	0.52	0.52	0.52	0.50	0.51	0.55	0.59
Financing	Total Amt. To Finance	1,707,787,952	1,573,548,963	1,853,946,116	2,013,109,759	1,516,869,042	1,641,790,856	1,920,913,413	2,158,595,010
	Grant Amount	1,395,000,000	1,395,000,000	1,395,000,000	1,395,000,000	1,245,000,000	1,345,000,000	1,556,000,000	1,725,000,000
	IRR on project costs	8.0%	8.1%	7.9%	7.8%	7.8%	8.2%	8.0%	8.0%