



**SUPPLEMENTAL FILING**

**on**

**Need For and Alternatives to the Wuskwatim  
Project  
(NFAAT)**

**August 8, 2003**

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**LEVELIZED COST OF: CCCT**

**CAC/MSOS/NFAAT/S/1a**

**1. PLANT CHARACTERISTICS**

Annual Av. Capacity (@ South) = 248 MW      Discount Rate = 10.00%      Capacity Factor = 65%  
 Life = 30 years      In-Service-Date = 2009  
 Present Value Year = 2002

**2. LEVELIZED COST BY ITEM**

	Generation & Transmission Capital	Fixed Costs	Variable Costs w/ low NG scen	Base Cost	Incremental High NG Price scenario	Incremental High Environ. Premium	TOTAL
\$/MWh	22.06	1.01	37.56	60.63	8.32	10.24	79.19
c/kWh	2.21	0.10	3.76	6.06	0.83	1.02	7.92

**I. CASHFLOW (mm CDN 2002 Base Dollars)**

Fiscal Year	Plant Outputs @ South		Generation & Transmission Capital	Fixed Costs	Variable Costs (w/ low NG scen)	Base Cost	Incremental High NG Price scenario	Incremental High Environ. Premium	TOTAL
2001	Average MW	Average GWh							
2001									
2002									
2003									
2004									
2005									
2006			28.15			28.15			28.15
2007			188.31			188.31			188.31
2008			52.25			52.25			52.25
2009	248	1416	1.03	1.43	50.01	52.47	10.05	6.30	68.81
2010	248	1416		1.43	50.53	51.97	10.98	7.91	70.85
2011	248	1416		1.43	50.87	52.30	11.36	9.47	73.13
2012	248	1416		1.43	51.23	52.66	10.41	11.02	74.09
2013	248	1416		1.43	51.58	53.02	10.05	12.57	75.64
2014	248	1416		1.43	51.95	53.38	9.69	14.13	77.20
2015	248	1416		1.43	52.31	53.74	9.62	15.68	79.05
2016	248	1416		1.43	52.68	54.11	10.45	16.46	81.02
2017	248	1416		1.43	53.05	54.48	11.12	17.23	82.84
2018	248	1416		1.43	53.42	54.86	12.83	18.01	85.70
2019	248	1416		1.43	53.80	55.23	14.24	18.79	88.26
2020	248	1416		1.43	54.18	55.61	14.61	19.57	89.79
2021	248	1416		1.43	54.56	55.99	14.97	19.57	90.53
2022	248	1416		1.43	54.95	56.38	15.33	19.57	91.28
2023	248	1416		1.43	55.34	56.77	15.84	19.57	92.17
2024	248	1416		1.43	55.73	57.16	15.44	19.57	92.17
2025	248	1416		1.43	56.12	57.55	15.05	19.57	92.17
2026	248	1416		1.43	56.52	57.95	14.65	19.57	92.17
2027	248	1416		1.43	56.92	58.35	14.25	19.57	92.17
2028	248	1416		1.43	57.33	58.76	13.85	19.57	92.17
2029	248	1416		1.43	57.73	59.17	13.44	19.57	92.17
2030	248	1416		1.43	58.15	59.58	13.03	19.57	92.17
2031	248	1416		1.43	58.56	59.99	12.61	19.57	92.17
2032	248	1416		1.43	58.98	60.41	12.20	19.57	92.17
2033	248	1416		1.43	59.40	60.83	11.77	19.57	92.17
2034	248	1416		1.43	59.82	61.25	11.35	19.57	92.17
2035	248	1416		1.43	60.25	61.68	10.92	19.57	92.17
2036	248	1416		1.43	60.68	62.11	10.49	19.57	92.17
2037	248	1416		1.43	61.12	62.55	10.06	19.57	92.17
2038	248	1416		1.43	61.12	62.55	10.06	19.57	92.17

**LEVELIZED COST OF: 2x NEW FUTURE SCCT**

**CAC/MS0S/NFAAT/S/1a**

**1. PLANT CHARACTERISTICS**

Annual Av. Capacity (@ South) = 240 MW      Discount Rate = 10.00%      Capacity Factor = 65%  
 Life = 40 years      In-Service-Date = 2009      Present Value Year = 2002

**2. LEVELIZED COST BY ITEM**

	Generation & Transmission Capital	Fixed Costs	Variable Costs (w/ low NG scen)	Base Cost	Incremental High NG Price scenario	Incremental High Environ. Premium	TOTAL
\$/MWh	12.43	0.80	59.24	72.47	13.49	16.89	102.85
c/kWh	1.24	0.08	5.92	7.25	1.35	1.69	10.29

**3. CASHFLOW (mm CDN 2002 Base Dollars)**

Fiscal Year	Plant Outputs @ South		Generation & Transmission Capital	Fixed Costs	Variable Costs (w/ low NG scen)	Base Cost	Incremental High NG Price scenario	Incremental High Environ. Premium	TOTAL
	Average MW	Average GWh							
2001									
2002									
2003									
2004									
2005									
2006			15.60			15.60			15.60
2007			65.79			65.79			65.79
2008			70.17			70.17			70.17
2009	240	1367	5.27	1.10	75.57	81.93	15.81	9.92	107.66
2010	240	1367		1.10	76.40	77.49	17.28	12.45	107.23
2011	240	1367		1.10	76.92	78.02	17.89	14.90	110.81
2012	240	1367		1.10	77.48	78.58	16.39	17.35	112.32
2013	240	1367		1.10	78.05	79.15	15.82	19.79	114.76
2014	240	1367		1.10	78.62	79.72	15.25	22.24	117.21
2015	240	1367		1.10	79.19	80.29	15.15	24.68	120.12
2016	240	1367		1.10	79.77	80.87	16.45	25.91	123.22
2017	240	1367		1.10	80.35	81.45	17.51	27.13	126.09
2018	240	1367		1.10	80.94	82.04	20.20	28.35	130.59
2019	240	1367		1.10	81.53	82.63	22.42	29.58	134.63
2020	240	1367		1.10	82.13	83.23	23.00	30.80	137.03
2021	240	1367		1.10	82.73	83.83	23.57	30.80	138.20
2022	240	1367		1.10	83.34	84.44	24.14	30.80	139.37
2023	240	1367		1.10	83.95	85.05	24.93	30.80	140.78
2024	240	1367		1.10	84.57	85.67	24.31	30.80	140.78
2025	240	1367		1.10	85.19	86.29	23.69	30.80	140.78
2026	240	1367		1.10	85.82	86.92	23.07	30.80	140.78
2027	240	1367		1.10	86.45	87.55	22.43	30.80	140.78
2028	240	1367		1.10	87.09	88.18	21.80	30.80	140.78
2029	240	1367		1.10	87.73	88.83	21.16	30.80	140.78
2030	240	1367		1.10	88.38	89.47	20.51	30.80	140.78
2031	240	1367		1.10	89.03	90.13	19.86	30.80	140.78
2032	240	1367		1.10	89.69	90.78	19.20	30.80	140.78
2033	240	1367		1.10	90.35	91.45	18.54	30.80	140.78
2034	240	1367		1.10	91.02	92.11	17.87	30.80	140.78
2035	240	1367		1.10	91.69	92.79	17.19	30.80	140.78
2036	240	1367		1.10	92.37	93.46	16.52	30.80	140.78
2037	240	1367		1.10	93.05	94.15	15.83	30.80	140.78
2038	240	1367		1.10	93.05	94.15	15.83	30.80	140.78
2039	240	1367		1.10	93.05	94.15	15.83	30.80	140.78
2040	240	1367		1.10	93.05	94.15	15.83	30.80	140.78
2041	240	1367		1.10	93.05	94.15	15.83	30.80	140.78
2042	240	1367		1.10	93.05	94.15	15.83	30.80	140.78
2043	240	1367		1.10	93.05	94.15	15.83	30.80	140.78
2044	240	1367		1.10	93.05	94.15	15.83	30.80	140.78
2045	240	1367		1.10	93.05	94.15	15.83	30.80	140.78
2046	240	1367		1.10	93.05	94.15	15.83	30.80	140.78
2047	240	1367		1.10	93.05	94.15	15.83	30.80	140.78
2048	240	1367		1.10	93.05	94.15	15.83	30.80	140.78