

Table A1: Toll Assumptions

<u>Toll Assumptions</u>	<u>Demand Toll (\$/GJ)</u>	<u>Commodity Toll (\$/GJ)</u>
FT Empress-EGD CDA ¹	1.566	0.000
Dawn-EGD CDA ¹	0.236	0.000
Peaking 1 ²	0.682	Iroquois + \$0.00
Peaking 2 ²	0.731	Iroquois + \$0.19
Peaking 3 ²	0.926	Dawn + CDA Transport + \$0.24
M12 Dawn-Parkway ³	0.091	0.000
Niagara-Parkway Enbridge CDA ⁴	0.153	0.000
Union Parkway Belt-Bram West CDA ⁴	0.088	0.000
¹ 2013-2017 Final Mainline tolls per TransCanada's Compliance Filing. ² Pricing based on peaking RFP responses for 12'-13' winter service. ³ Toll provided in EB-2013-0074 Union Gas Brantford-Kirkwall/Parkway D Project application. ⁴ 2013-2017 Toll provided by TransCanada. Toll based on costs and billing determinants contained in TransCanada's Compliance Filing.		

Table A2: Fuel Ratio Assumptions

Fuel Ratio Assumptions (%)	January	February	March	April	May	June	July	August	September	October	November	December
Empress-EGD CDA ¹	4.500	5.050	5.000	2.800	1.350	1.000	0.950	1.350	1.100	1.650	2.400	3.500
Dawn-EGD CDA ¹	0.590	0.510	0.760	0.400	0.240	0.000	0.150	0.180	0.020	0.090	0.360	0.360
M12 Dawn-Parkway ²	1.086	1.033	0.972	0.802	0.567	0.463	0.451	0.355	0.352	0.697	0.840	0.945
Niagara-Parkway Enbridge CDA ³	0.420	0.310	0.550	0.300	0.160	0.000	0.120	0.130	0.000	0.030	0.280	0.220
Union Parkway Belt-Bram West CDA ⁴	0.250	0.150	0.250	0.180	0.100	0.000	0.070	0.080	0.000	0.000	0.120	0.110

¹ Actual fuel ratios from June 2012 to May 2013.

² Fuel ratios per M12 rate schedule effective April 1, 2013. Dawn to Parkway (TCPI).

³ Actual fuel ratios from June 2012 to May 2013. Assumes Niagara to EGD CDA fuel ratios.

⁴ Actual fuel ratios from June 2012 to May 2013. Assumes Union Parkway Belt to EGD CDA fuel ratios.

Table A3: Commodity Price Assumptions

<u>Commodity Price Assumptions - Annual Average (\$/GJ)¹</u>	<u>Empress</u>	<u>Dawn</u>	<u>Niagara</u>	<u>Iroquois</u>	<u>EGD/CDA</u>
2015	3.69	4.40	4.30	5.51	4.64
2016	3.85	4.44	4.40	5.62	4.68
2017	4.02	4.57	4.55	5.77	4.81
2018	4.42	4.75	4.72	5.95	4.98
2019	4.47	4.94	5.01	6.00	5.18
2020	4.52	5.03	5.08	6.05	5.26
2021	4.56	5.07	5.12	6.09	5.30
2022	4.60	5.10	5.16	6.12	5.34
2023	4.64	5.15	5.20	6.17	5.38
2024	4.68	5.15	5.24	6.21	5.39
2025	4.72	5.19	5.28	6.24	5.42

¹Commodity prices based on forward curves from OpenLink as at May 6, 2013.

Table A4: GTA Project Benefit Calculations for Scenario 1 (\$ millions)

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Increased Firm Transportation Scenario											
Service Path											
TCPL FT - EGD	28.1	168.8	168.3	168.3	168.3	168.8	168.3	168.3	168.3	168.8	168.3
Empress-EGD CDA	2.1	10.8	11.2	12.3	12.4	12.4	12.7	12.8	12.9	13.1	13.1
Contract Demand	69.2	415.3	432.5	474.9	480.6	487.2	490.3	494.4	495.1	504.8	507.1
Total Cost	99.4	594.9	612.1	655.5	661.4	668.6	671.3	675.4	680.3	686.6	688.5
Service Path											
Peaking Supplies -EGD	0.1	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Empress-EGD CDA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Contract Demand	0.0	6.2	6.4	6.5	6.2	6.3	6.4	6.4	6.4	6.5	6.5
Total Cost	0.1	7.2	7.3	7.5	7.2	7.3	7.3	7.4	7.4	7.5	7.4
Service Path											
TCPL FT - Direct Purchase	15.7	94.1	93.8	93.8	93.8	94.1	93.8	93.8	93.8	94.1	93.8
Empress-EGD CDA, Dawn-EGD CDA	1.1	6.0	6.2	6.8	6.9	7.0	7.0	7.1	7.1	7.2	7.3
Contract Demand	48.6	291.2	302.2	327.6	333.7	338.7	340.8	343.5	346.7	350.0	351.6
Total Cost	65.4	391.2	402.3	428.2	434.4	439.8	441.6	444.4	447.6	451.3	452.7
A-Total Cost	164.9	993.3	1,021.6	1,091.2	1,102.9	1,115.7	1,120.2	1,127.2	1,135.3	1,145.4	1,148.7
Expected Contracting With GTA Project Facilities Approved											
Service Path											
Union M12 - EGD	1.1	6.7	6.6	6.6	6.6	6.7	6.6	6.6	6.6	6.7	6.6
Dawn-Parkway	0.2	1.2	1.2	1.2	1.3	1.3	1.3	1.3	1.3	1.3	1.3
Contract Demand	25.8	158.6	162.8	168.9	176.0	179.4	180.3	181.6	183.2	183.8	184.5
Total Cost	27.2	166.4	170.7	176.8	183.9	187.4	188.3	189.6	191.1	191.8	192.5
Service Path											
TCPL FT - EGD	1.9	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2
Niagara Falls-Enbridge Parkway CDA	0.1	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.8	0.8	0.8
Contract Demand	53.5	321.9	331.8	344.6	365.6	372.2	374.1	376.7	379.9	383.8	385.3
Total Cost	55.5	333.8	343.7	356.5	377.6	384.2	386.0	388.7	391.8	395.8	397.3
Service Path											
Union M12 - Direct Purchase	1.1	6.7	6.6	6.6	6.6	6.7	6.6	6.6	6.6	6.7	6.6
Dawn-Parkway	0.5	2.3	2.4	2.5	2.6	2.6	2.7	2.7	2.7	2.7	2.7
Contract Demand	54.7	325.3	333.9	346.5	360.9	368.0	369.9	372.6	375.7	377.1	378.5
Total Cost	56.3	334.3	343.0	355.7	370.2	377.3	379.2	381.9	385.1	386.4	387.9
Service Path											
TCPL FT - EGD & Direct Purchase	4.3	25.8	25.7	25.7	25.7	25.8	25.7	25.7	25.7	25.8	25.7
Parkway to Bram West CDA	0.1	0.5	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
Contract Demand	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Cost	4.4	26.3	26.3	26.3	26.3	26.4	26.3	26.3	26.3	26.4	26.3
B-Total Cost	143.4	860.8	883.5	915.3	957.9	975.3	979.8	986.5	994.4	1,000.4	1,004.0
Savings (A-B)	21.5	132.5	138.1	175.9	145.0	140.4	140.3	140.7	141.0	144.9	144.7

Table A5: GTA Project Benefit Calculations for Scenario 2 (\$ millions)

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Increased Firm Transportation Scenario											
Service Path											
TCPL FT - EGD		168.8	168.3	168.3	168.3	168.8	168.3	168.3	168.3	168.8	168.3
Empress-EGD CDA	28.1	10.8	11.2	12.3	12.4	12.8	12.7	12.8	12.9	13.1	13.1
Fuel Charges	2.1	10.8	11.2	12.3	12.4	12.8	12.7	12.8	12.9	13.1	13.1
Commodity Cost	69.2	415.3	432.5	474.9	480.6	487.2	490.3	494.4	495.1	504.8	507.1
Total Cost	99.4	594.9	612.1	655.5	661.4	668.6	671.3	675.4	680.3	686.6	688.5
Service Path											
Peaking Supplies -EGD	0.1	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Empress-EGD CDA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Fuel Charges	0.0	6.2	6.4	6.5	6.2	6.3	6.4	6.4	6.4	6.5	6.5
Commodity Cost	0.0	7.2	7.3	7.5	7.2	7.3	7.3	7.4	7.4	7.4	7.4
Total Cost	0.1	7.2	7.3	7.5	7.2	7.3	7.3	7.4	7.4	7.4	7.4
Service Path											
TCPL FT - Direct Prurchase	15.7	94.1	93.8	93.8	93.8	94.1	93.8	93.8	93.8	94.1	93.8
Empress-EGD CDA, Dawn-EGD CDA	1.1	6.0	6.2	6.8	6.9	7.0	7.0	7.1	7.1	7.2	7.3
Fuel Charges	48.6	291.2	302.2	327.6	333.7	338.7	340.8	343.5	346.7	350.0	351.6
Commodity Cost	65.4	391.2	402.3	428.2	434.4	439.8	441.6	444.4	447.6	451.3	452.7
Total Cost	164.9	993.3	1,021.6	1,091.2	1,102.9	1,115.7	1,120.2	1,127.2	1,135.3	1,145.4	1,148.7
A-Total Cost											
Expected Contracting With GTA Project Facilities Approved											
Service Path											
Union M12 - EGD	1.1	6.7	6.6	6.6	6.6	6.7	6.6	6.6	6.6	6.7	6.6
Dawn-Parkway	0.2	1.2	1.2	1.2	1.3	1.3	1.3	1.3	1.3	1.3	1.3
Fuel Charges	25.8	158.6	162.8	168.9	176.0	179.4	180.3	181.6	183.2	183.8	184.5
Commodity Cost	27.2	166.4	170.7	176.8	183.9	187.4	188.3	189.6	191.1	191.8	192.5
Total Cost	54.3	332.9	339.3	352.8	367.8	366.5	369.2	372.5	375.2	375.2	376.4
Service Path											
TCPL FT - EGD	1.9	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2
Niagara Falls-Enbridge Parkway CDA	0.1	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.8	0.8	0.8
Fuel Charges	53.5	321.9	331.8	344.6	365.6	372.2	374.1	376.7	379.9	383.8	385.3
Commodity Cost	55.5	333.8	343.7	356.5	377.6	384.2	386.0	388.7	391.8	395.8	397.3
Total Cost	111.0	780.3	790.6	826.4	860.2	867.6	874.3	883.4	891.8	899.6	904.3
Service Path											
Union M12 - Direct Purchase	1.1	6.7	6.6	6.6	6.6	6.7	6.6	6.6	6.6	6.7	6.6
Dawn-Parkway	0.5	2.3	2.4	2.5	2.6	2.6	2.7	2.7	2.7	2.7	2.7
Fuel Charges	54.7	325.3	333.9	346.5	360.9	368.0	369.9	372.6	375.7	377.1	378.5
Commodity Cost	56.3	334.3	343.0	355.7	370.2	377.3	379.2	381.9	385.1	386.4	387.9
Total Cost	112.6	773.6	785.9	810.3	834.6	842.6	844.4	848.1	851.4	853.9	856.7
Service Path											
TCPL FT - EGD & Direct Purchase	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pathway to Bram West CDA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Fuel Charges	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Commodity Cost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Cost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
B-Total Cost	139.0	834.5	857.3	889.0	931.6	948.9	953.5	960.2	968.0	974.0	977.6
Savings (A-B)	25.9	158.8	164.3	202.2	171.3	166.8	166.6	167.0	167.3	171.3	171.0

Table A6: GTA Project Benefit Calculations for Scenario 3 (\$ millions)

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Increased Firm Transportation Scenario											
Service Path											
Contract Demand	28.1	168.8	168.3	168.3	168.3	168.8	168.3	168.3	168.3	168.8	168.3
Demand Charges											
Fuel Charges	2.1	10.8	11.2	12.3	12.4	12.4	12.7	12.8	12.9	13.1	13.1
Commodity Cost	69.2	415.3	432.5	474.9	480.6	487.2	490.3	494.4	495.1	504.8	507.1
Total Cost	99.4	594.9	612.1	655.5	661.4	668.6	671.3	675.4	680.3	686.6	688.5
Service Path											
Contract Demand	0.1	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Demand Charges											
Fuel Charges	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Commodity Cost	0.0	6.2	6.4	6.5	6.2	6.3	6.4	6.4	6.4	6.5	6.5
Total Cost	0.1	7.2	7.3	7.5	7.2	7.3	7.3	7.4	7.4	7.5	7.4
Service Path											
Contract Demand	15.7	94.1	93.8	93.8	93.8	94.1	93.8	93.8	93.8	94.1	93.8
Demand Charges											
Fuel Charges	1.1	6.0	6.2	6.8	6.9	7.0	7.0	7.1	7.1	7.2	7.3
Commodity Cost	48.6	291.2	302.2	327.6	333.7	338.7	340.8	343.5	346.7	350.0	351.6
Total Cost	65.4	391.2	402.3	428.2	434.4	439.8	441.6	444.4	447.6	451.3	452.7
A-Total Cost	164.9	993.3	1,021.6	1,091.2	1,102.9	1,115.7	1,120.2	1,127.2	1,135.3	1,145.4	1,148.7
Expected Contracting With GTA Project Facilities Approved											
Service Path											
Contract Demand	2.2	13.3	13.3	13.3	13.3	13.3	13.3	13.3	13.3	13.3	13.3
Demand Charges											
Fuel Charges	0.7	3.5	3.6	3.7	3.9	4.0	4.0	4.0	4.0	4.1	4.1
Commodity Cost	80.5	483.9	496.7	515.5	536.9	547.4	550.2	554.2	558.9	560.9	563.0
Total Cost	83.5	500.7	513.6	532.5	554.1	564.7	567.5	571.5	576.2	578.2	580.4
Service Path											
Contract Demand	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Demand Charges											
Fuel Charges	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Commodity Cost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Cost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Service Path											
Contract Demand	1.1	6.7	6.6	6.6	6.6	6.7	6.6	6.6	6.6	6.7	6.6
Demand Charges											
Fuel Charges	0.5	2.3	2.4	2.5	2.6	2.6	2.7	2.7	2.7	2.7	2.7
Commodity Cost	54.7	325.3	333.9	346.5	360.9	368.0	369.9	372.6	375.7	377.1	378.5
Total Cost	56.3	334.3	343.0	355.7	370.2	377.3	379.2	381.9	385.1	386.4	387.9
Service Path											
Contract Demand	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Demand Charges											
Fuel Charges	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Commodity Cost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Cost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
B-Total Cost	139.7	835.0	856.6	888.1	924.2	942.0	946.7	953.4	961.2	964.7	968.2
Savings (A-B)	25.1	158.3	165.1	203.1	178.7	173.6	173.5	173.8	174.1	180.7	180.4