

UNDERTAKING J1.1

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TR 1, p.24

To update the Tables at Exhibit G, Tab 1, Schedule 1, Appendix A, Tables A1 And A2.

RESPONSE

Please see below the updated Tables A1 and A2 based on the cost of allowances of \$18.08/tonne CO₂e which represents the settlement price from March 2017 Ontario Auction #1.

Please note that Tables A1 and A2 use the forecast volumes and CO₂ emissions as filed in the Cap and Trade Application on November 15, 2016. Table A2 was updated on February 23, 2017 to correct CH₄ and N₂O emission factors for boilers and compressor fuel volumes resulting in a slight change to total facility-related emissions.

Should the Board approve the application as filed, then the interim Cap and Trade rates would become final Cap and Trade rates and any variance (everything else being equal) between the actual costs of emissions and the actual amount recovered through rates will be captured in the Greenhouse Gas Emissions Customer and Facility Costs Variance Account (GGECFCVA).

Witness: A. Kacicnik

TABLE A1
TABLE 1: 2017 CUSTOMER-RELATED VOLUMES, EMISSIONS, COST OF EMISSIONS AND UNIT RATE

Line	Rate	Budget Forecast Volumes ¹ (10 ³ m ³)	LFE, Voluntary Participants and Other Exempt Gas Volumes ² (10 ³ m ³)	Net Volumes ³ (10 ³ m ³)	Net CO ₂ e Emissions ⁴ (Tonnes CO ₂ e)	Assumed Cost of Allowances ⁵ (\$/tonne CO ₂ e)	Cost of CO ₂ e Emissions ⁶ (\$)	Unit Rate ⁷ (€/m ³)
1.1	1	4,911,477.9	0.0	4,911,477.9	9,207,189.1	18.08	166,465,978.6	
1.2	6	4,862,269.2	120,126.9	4,742,142.3	8,889,748.0	18.08	160,726,643.7	
1.3	9	262.8	0.0	262.8	492.7	18.08	8,907.1	
1.4	100	0.0	0.0	0.0	0.0	18.08	0.0	
1.5	110	861,434.8	403,080.8	458,354.0	859,242.8	18.08	15,535,109.5	
1.6	115	490,291.9	304,439.5	185,852.4	348,403.9	18.08	6,299,143.0	
1.7a	125	305,896.4	0.0	305,896.4	573,441.7	18.08	10,367,825.0	
1.7b	125D ⁸	325,082.3	0.0	325,082.3	609,408.1	18.08	11,018,097.7	
1.8	135	60,899.0	0.0	60,899.0	114,162.9	18.08	2,064,065.4	
1.9	145	63,318.2	14,091.0	49,227.2	92,282.6	18.08	1,668,470.1	
1.10	170	296,313.0	183,005.6	113,307.4	212,409.1	18.08	3,840,356.7	
1.11	200	170,842.7	170,842.7	0.0	0.0	18.08	0.0	
1.12	300	35,440.4	34,992.0	448.4	840.6	18.08	15,197.7	
1	Total Customer-Related	12,383,528.6	1,230,578.5	11,152,950.1	20,907,621.4	18.08	378,009,794.7	3.3893

Notes:

- (1) Exhibit B, Tab 2, Schedule 1, Table 1, Col. 1 - Col. 2
- (2) Exhibit B, Tab 2, Schedule 1, Table 1, Col. 4 and Col. 5. Rate 300 is landfill gas volume.
- (3) Col. 1 - Col. 2
- (4) Exhibit B, Tab 3, Schedule 1, Table 1, Col. 5
- (5) Internal forecast of carbon allowance pricing based on past auction data and Cap and Trade Regulation
- (6) Col. 4 x Col. 5
- (7) (Col. 6 / (Col. 3 x 1000)) x 100
- (8) Dedicated unbundled customers

Customer-Related Unit Rate Calculation

Cap and Trade Customer Related Charge = Cost of CO₂e Emissions / Net Volumes
 = \$ 378,009,794.7 / 11,152,950.1 10³m³
 = 3.3893 €/m³

TABLE A2
TABLE 2: 2017 FACILITY-RELATED VOLUMES, EMISSIONS, COST OF EMISSIONS AND UNIT RATES

Line	Col. 1 Volumes ¹ (10 ³ m ³)	Col. 2 CO ₂ e Emissions ² (Tonnes CO ₂ e)	Col. 3 Assumed Cost of Allowances ³ (\$/tonne CO ₂ e)	Col. 4 Cost of CO ₂ e Emissions ⁴ (\$)	Col. 5 Unit Rate (€/m ³)
2.1	Company Use				
2.1.1	Fleet	2,811.9	18.08	50,839.9	
2.1.2	Buildings	2,823.0	18.08	51,040.3	
2.1.3	Boilers	7,307.8	18.08	132,125.0	
2.1	Company Use	12,942.8	18.08	234,005.2	0.0019 ⁵
2.2	Unaccounted For Gas (UAF)	184,236.5	18.08	3,330,995.3	0.0277 ⁶
2.3	Compressor Fuel	31,966.0	18.08	577,944.6	0.0049 ⁷
2	Total Facility-Related	229,145.2	18.08	4,142,945.1	0.0344

Notes:
 (1) Exhibit B, Tab 2, Schedule 1, Table 2
 (2) Exhibit B, Tab 3, Schedule 1, Table 3, Col. 5
 (3) Internal forecast of carbon allowance pricing based on past auction data and Cap and Trade Regulation
 (4) Col. 2 x Col. 3
 (5) Cost of CO₂e emissions / Total customer-related volume = [Col. 4 / (Exhibit A1, Table 1, Line 1, Col. 1 x 1000)] x 100
 (6) Cost of CO₂e emissions / Total customer-related volume - Rate 125D customers - landfill gas volume = [Col. 4 / (Exhibit A1, Table 1, Line 1, Col. 1 - Line 1.7b, Col. 1 - Line 1.12, Col. 2) x 1000] x 100
 (7) Cost of CO₂e emissions / (Total customer-related volume excluding unbundled customers (Rates 125 and 300) + Rate 325 Volume) = [Col. 4 / ((Exhibit A1, Table 1, Line 1, Col. 1 - Line 1.7a, Col. 1 - Line 1.7b, Col. 1 - Line 1.12, Col. 1 + 190,328 10³ m³) x 1000) x 100

Facility-Related Unit Rate Calculations

$$\begin{aligned}
 \text{Company Use} &= \text{Cost of CO}_2\text{e Emissions for Company Use} / \text{Total Customer-Related Volume} \\
 &= \$ 234,005.2 / 12,383,528.6 \text{ } 10^3\text{m}^3 \\
 &= 0.0019 \text{ €/m}^3 \\
 \text{Unaccounted For Gas Volumes} &= \text{Cost of CO}_2\text{e Emissions for Unaccounted For Gas} / (\text{Total Customer-Related Volume Excluding Rate 125D and Landfill Gas}) \\
 &= \$ 3,330,995.3 / (12,383,528.6 - 325,082.3 - 34,992.0) \text{ } 10^3\text{m}^3 \\
 &= 0.0277 \text{ €/m}^3 \\
 \text{Compressor Fuel Volumes} &= \text{Cost of CO}_2\text{e Emissions for Compressor Fuel} / (\text{Total Customer-Related Volume Excluding Unbundled Customers} + \text{Rate 325 Volume}) \\
 &= \$ 577,944.6 / (12,383,528.6 - 305,896.4 - 325,082.3 - 35,440.4 + 190,328.0) \text{ } 10^3\text{m}^3 \\
 &= 0.0049 \text{ €/m}^3 \\
 \text{Facility-Related Charge} &= 0.0019 + 0.0277 + 0.0049 \text{ €/m}^3 \\
 &= 0.0344 \text{ €/m}^3
 \end{aligned}$$