

Value of Lifetime ¹ GHG Emissions Reductions from 2018 DSM Residential Program																	
	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	Total
Forecast Annual Gas Savings m ³	16,756,884	16,756,884	16,756,884	16,756,884	16,756,884	16,756,884	16,756,884	16,756,884	16,756,884	16,756,884	16,756,884	16,756,884	16,756,884	16,756,884	16,756,884	16,756,884	268,110,144
Forecast Annual GHG Reductions (t CO ₂ e) ³	31,419	31,419	31,419	31,419	31,419	31,419	31,419	31,419	31,419	31,419	31,419	31,419	31,419	31,419	31,419	31,419	502,707
Forecast Carbon Price (\$/t CO ₂ e) ^{4,5}	\$17.00	\$18.00	\$18.00	\$19.00	\$20.00	\$21.00	\$31.00	\$36.00	\$43.00	\$50.00	\$57.00	\$60.88	\$69.44	\$74.16	\$79.20	\$79.20	n/a
Value of GHG Reduction	\$534,126	\$565,545	\$565,545	\$596,964	\$628,383	\$659,802	\$973,994	\$1,131,090	\$1,351,024	\$1,570,958	\$1,790,892	\$1,912,673	\$2,181,640	\$2,329,992	\$2,488,431	\$2,647,860	\$21,323,792
Cost of Gas (\$/m ³) ^{6,7}	\$0.1766	\$0.2112	\$0.1993	\$0.2038	\$0.2085	\$0.2133	\$0.2182	\$0.2232	\$0.2283	\$0.2335	\$0.2388	\$0.2443	\$0.2499	\$0.2556	\$0.2614	\$0.2674	n/a
Avoided Cost of Gas	\$2,958,938	\$3,538,779	\$3,339,368	\$3,415,781	\$3,493,944	\$3,573,894	\$3,655,675	\$3,739,326	\$3,824,892	\$3,912,416	\$4,001,943	\$4,093,518	\$4,187,189	\$4,283,003	\$4,381,010	\$4,481,259	\$60,880,935

Value of Lifetime ¹ GHG Emissions Reductions from 2018 DSM Commercial and Industrial Program																	
	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	Total
Forecast Annual Gas Savings m ³	59,891,949	59,891,949	59,891,949	59,891,949	59,891,949	59,891,949	59,891,949	59,891,949	59,891,949	59,891,949	59,891,949	59,891,949	59,891,949	59,891,949	59,891,949	59,891,949	958,271,184
Forecast Annual GHG Reductions (t CO ₂ e) ³	112,297	112,297	112,297	112,297	112,297	112,297	112,297	112,297	112,297	112,297	112,297	112,297	112,297	112,297	112,297	112,297	1,796,758
Forecast Carbon Price (\$/t CO ₂ e) ^{4,5}	\$17.00	\$18.00	\$18.00	\$19.00	\$20.00	\$21.00	\$31.00	\$36.00	\$43.00	\$50.00	\$57.00	\$60.88	\$69.44	\$74.16	\$79.20	\$79.20	n/a
Value of GHG Reduction	\$1,909,056	\$2,021,353	\$2,021,353	\$2,133,651	\$2,245,948	\$2,358,245	\$3,481,220	\$4,042,707	\$4,838,788	\$5,614,870	\$6,400,952	\$6,836,217	\$7,301,080	\$7,797,553	\$8,327,787	\$8,894,076	\$76,214,855
Cost of Gas (\$/m ³) ^{6,7}	\$0.1766	\$0.2112	\$0.1993	\$0.2038	\$0.2085	\$0.2133	\$0.2182	\$0.2232	\$0.2283	\$0.2335	\$0.2388	\$0.2443	\$0.2499	\$0.2556	\$0.2614	\$0.2674	n/a
Avoided Cost of Gas	\$10,575,746	\$12,648,197	\$11,935,467	\$12,208,582	\$12,487,948	\$12,773,706	\$13,066,002	\$13,364,988	\$13,670,815	\$13,983,640	\$14,303,623	\$14,630,929	\$14,965,724	\$15,308,180	\$15,658,473	\$16,016,781	\$217,598,801

Value of Lifetime ¹ GHG Emissions Reductions from 2018 Total DSM Program																	
	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	Total
Forecast Annual Gas Savings m ³	76,648,833	76,648,833	76,648,833	76,648,833	76,648,833	76,648,833	76,648,833	76,648,833	76,648,833	76,648,833	76,648,833	76,648,833	76,648,833	76,648,833	76,648,833	76,648,833	1,226,381,328
Forecast Annual GHG Reductions (t CO ₂ e) ³	143,717	143,717	143,717	143,717	143,717	143,717	143,717	143,717	143,717	143,717	143,717	143,717	143,717	143,717	143,717	143,717	2,299,465
Forecast Carbon Price (\$/t CO ₂ e) ^{4,5}	\$17.00	\$18.00	\$18.00	\$19.00	\$20.00	\$21.00	\$31.00	\$36.00	\$43.00	\$50.00	\$57.00	\$60.88	\$69.44	\$74.16	\$79.20	\$79.20	n/a
Value of GHG Reduction	\$2,443,182	\$2,586,898	\$2,586,898	\$2,730,615	\$2,874,331	\$3,018,048	\$4,455,213	\$5,173,796	\$6,179,812	\$7,185,828	\$8,191,844	\$8,748,889	\$9,343,814	\$9,979,193	\$10,657,778	\$11,382,507	\$97,538,648
Cost of Gas (\$/m ³) ^{6,7}	\$0.1766	\$0.2112	\$0.1993	\$0.2038	\$0.2085	\$0.2133	\$0.2182	\$0.2232	\$0.2283	\$0.2335	\$0.2388	\$0.2443	\$0.2499	\$0.2556	\$0.2614	\$0.2674	n/a
Total Program Cost ⁸	\$5,267,166	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	\$56,628,979
Avoided Cost of Gas	\$13,534,684	\$16,186,976	\$15,274,834	\$15,624,364	\$15,981,891	\$16,347,600	\$16,721,677	\$17,104,314	\$17,495,707	\$17,896,056	\$18,305,566	\$18,724,447	\$19,152,913	\$19,591,183	\$20,039,483	\$20,498,040	\$278,479,736

1. For simplicity assumes a 15 year measure life for all measures, although some components may have a longer measure life.
 2. Forecast residential gas savings (including low income Part 9 less gas savings from proposed O-Power Program, commercial and industrial gas savings (including Low Income Part 3) as filed in the Multi-Year DSM Plan (EB-2015-0049) escalated by 2% productivity factor.
 3. Assumes a conversion rate of 1.875kg of CO₂e per cubic meter of gas.
 4. Assumes the Mid-Range LTCPF 2018 - 2028 Carbon Price (Real 2017 CAD) per the "Long Term Carbon Price Forecast Report" (LCF, 2017).
 5. Assumes Mid-Range LTCPF 2029-2033 Carbon Price (Real 2017 CAD) escalated using the Minimum LTCPF methodology per the "Long Term Carbon Price Forecast Report" (LCF, 2017).
 6. The unit cost of gas relies on unaudited 2017 inputs converted to real dollars using the inflation value from the LTCPF.
 7. For simplicity the cost of gas is a reasonable average based on a combination of DSM measures.
 8. Administration costs attributed to programs that claim gas savings have been included.

Value of Lifetime GHG Emissions Reductions from Capped 2018 DSM Commercial and Industrial Program																	
	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	Total
Forecast Annual Gas Savings m ³	10,780,551	10,780,551	10,780,551	10,780,551	10,780,551	10,780,551	10,780,551	10,780,551	10,780,551	10,780,551	10,780,551	10,780,551	10,780,551	10,780,551	10,780,551	10,780,551	172,488,816
Forecast Annual GHG Reductions (t CO ₂ e) ¹	20,214	20,214	20,214	20,214	20,214	20,214	20,214	20,214	20,214	20,214	20,214	20,214	20,214	20,214	20,214	20,214	323,417
Forecast Carbon Price (\$/t CO ₂ e) ^{2,5,6}	\$17.00	\$18.00	\$18.00	\$19.00	\$20.00	\$21.00	\$31.00	\$36.00	\$43.00	\$50.00	\$57.00	\$59.85	\$62.84	\$65.98	\$69.28	\$72.75	n/a
Value of GHG Reduction	\$343,630	\$363,844	\$363,844	\$384,057	\$404,271	\$424,484	\$626,620	\$727,687	\$869,182	\$1,010,677	\$1,152,171	\$1,209,780	\$1,270,269	\$1,333,782	\$1,400,472	\$1,470,495	\$13,355,264
Cost of Gas (\$/m ³) ^{7,8}	\$0.1766	\$0.2112	\$0.1993	\$0.2038	\$0.2085	\$0.2133	\$0.2182	\$0.2232	\$0.2283	\$0.2335	\$0.2388	\$0.2443	\$0.2499	\$0.2556	\$0.2614	\$0.2674	n/a
Avoided Cost of Gas	\$ 1,903,634	\$ 2,276,676	\$ 2,148,384	\$ 2,197,545	\$ 2,247,831	\$ 2,299,267	\$ 2,351,880	\$ 2,405,698	\$ 2,460,747	\$ 2,517,055	\$ 2,574,652	\$ 2,633,567	\$ 2,693,830	\$ 2,755,472	\$ 2,818,525	\$ 2,883,021	\$ 39,167,785

1. For simplicity assumes a 15 year measure life for all measures, although some components may have a longer measure life.
 2. Capped participants represent approx. 18% of Commercial and Industrial customers per EB-2017 B-2-1, Table 1, p.6 and DSM volumes are proportional to total volumes.
 3. Forecast commercial and industrial gas savings (including Low Income Part 3) as filed in the Multi-Year DSM Plan (EB-2015-0049) escalated by 2% productivity factor.
 4. Assumes a conversion rate of 1.875kg of CO₂e per cubic meter of gas.
 5. Assumes the Mid-Range LTCPF 2018 - 2028 Carbon Price (Real 2017 CAD) per the "Long Term Carbon Price Forecast Report" (ICF, 2017).
 6. Assumes Mid-Range LTCPF 2029-2033 Carbon Price (Real 2017 CAD) escalated using the Minimum LTCPF methodology per the "Long Term Carbon Price Forecast Report" (ICF, 2017).
 7. The unit cost of gas relies on unaudited 2017 inputs converted to real dollars using the inflation value from the LTCPF.
 8. For simplicity the cost of gas is a reasonable average based on a combination of DSM measures.

Value of Lifetime GHG Emissions Reductions from Uncapped ² 2018 DSM Commercial and Industrial Program																	
	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	Total
Forecast Annual Gas Savings m ³	49,111,398	49,111,398	49,111,398	49,111,398	49,111,398	49,111,398	49,111,398	49,111,398	49,111,398	49,111,398	49,111,398	49,111,398	49,111,398	49,111,398	49,111,398	49,111,398	785,782,368
Forecast Annual GHG Reductions (t CO ₂ e) ⁴	92,084	92,084	92,084	92,084	92,084	92,084	92,084	92,084	92,084	92,084	92,084	92,084	92,084	92,084	92,084	92,084	1,473,342
Forecast Carbon Price (\$/t CO ₂ e) ^{5,6}	\$17.00	\$18.00	\$18.00	\$19.00	\$20.00	\$21.00	\$31.00	\$36.00	\$43.00	\$50.00	\$57.00	\$59.85	\$62.84	\$65.98	\$69.28	\$72.75	n/a
Value of GHG Reduction	\$1,565,426	\$1,657,510	\$1,657,510	\$1,749,594	\$1,841,677	\$1,933,761	\$2,854,600	\$3,315,019	\$3,959,606	\$4,604,194	\$5,248,781	\$5,511,220	\$5,786,781	\$6,076,120	\$6,379,926	\$6,698,922	\$60,840,645
Cost of Gas (\$/m ³) ^{7,8}	\$0.1766	\$0.2112	\$0.1993	\$0.2038	\$0.2085	\$0.2133	\$0.2182	\$0.2232	\$0.2283	\$0.2335	\$0.2388	\$0.2443	\$0.2499	\$0.2556	\$0.2614	\$0.2674	n/a
Avoided Cost of Gas	\$ 8,672,112	\$ 10,374,522	\$ 9,787,083	\$ 10,011,037	\$ 10,240,117	\$ 10,474,439	\$ 10,714,122	\$ 10,959,290	\$ 11,210,068	\$ 11,466,585	\$ 11,728,971	\$ 11,997,362	\$ 12,271,894	\$ 12,552,708	\$ 12,835,948	\$ 13,133,760	\$ 178,431,016

1. For simplicity assumes a 15 year measure life for all measures, although some components may have a longer measure life.

2. Uncapped participants represent approx. 82% of Commercial and Industrial customers per EB-2017 B-2-1, Table 1, p.6 and DSM volumes are proportional to total volumes.

3. Forecast commercial and industrial gas savings (including Low Income Part 3) as filed in the Multi-Year DSM Plan (EB-2015-0049) escalated by 2% productivity factor.

4. Assumes a conversion rate of 1.975kg of CO₂e per cubic meter of gas.

5. Assumes the Mid-Range LTCF 2018 - 2028 Carbon Price (Real 2017 CAD) per the "Long Term Carbon Price Forecast Report" (ICF, 2017).

6. Assumes Mid-Range LTCF 2029-2033 Carbon Price (Real 2017 CAD) escalated using the Minimum LTCF methodology per the "Long Term Carbon Price Forecast Report" (ICF, 2017).

7. The unit cost of gas relies on unaudited 2017 inputs converted to real dollars using the inflation value from the LTCF.

8. For simplicity the cost of gas is a reasonable average based on a combination of DSM measures.