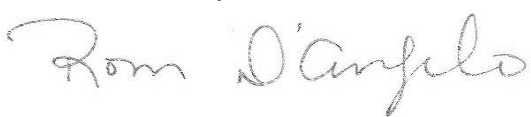




INFORMATION REPORT

TO:	Chair and Members Public Works Committee
COMMITTEE DATE:	July 6, 2022
SUBJECT/REPORT NO:	2021 Annual Energy Report (PW21049(a)) (City Wide)
WARD(S) AFFECTED:	City Wide
PREPARED BY:	Tom Chessman (905) 546-2424, Ext. 2494 Linda Campbell (905) 546-2424, Ext. 2810 Tracy Zmudczynski (905) 546-2424, Ext. 5356
SUBMITTED BY:	Rom D'Angelo Director, Energy, Fleet and Facilities Management Public Works Department
SIGNATURE:	

COUNCIL DIRECTION

As part of the City's Corporate Energy and Sustainability Policy (PW14050(a)) staff are directed to provide an annual energy report highlighting the progress and results of various City energy initiatives.

INFORMATION

The City of Hamilton's 2021 Annual Energy Report is attached as Appendix "A" to Report PW21049(a). The Report provides a summary of energy usage, performance comparisons and cost savings initiatives for the calendar year 2021. Additionally, as per the Corporate Air Quality & Climate Change Strategic Plan (PED06336(a)), wherein Council recommended reporting on Greenhouse Gas Emission inventories on an annual basis, the data for the 2020 calendar year are presented within the 2021 Annual Energy Report, under its own section. Although included in 2021 reporting. The data compiled for the GHG emissions inventory is one year behind the energy intensity, energy usage and other related energy data.

OUR Vision: To be the best place to raise a child and age successfully.

OUR Mission: To provide high quality cost conscious public services that contribute to a healthy, safe and prosperous community, in a sustainable manner.

OUR Culture: Collective Ownership, Steadfast Integrity, Courageous Change, Sensational Service, Engaged Empowered Employees.

Table 1: Corporate Energy and Sustainability Policy Targets

Targets By	Energy Intensity Reduction	GHG Emissions
2020	20%	20%
2030	45%	50%
2050	60%	100%*

*Net zero emissions Energy intensity (energy usage in equivalent kilowatt hours per square foot) is the key performance indicator for corporate buildings, and that was down 34% from the base year of 2005. The report includes updated results for the City's overall utility costs and energy conservation project updates. It is important to note that the results in 2021 were also impacted by changes in operational activity as a result of COVID-19 and related pandemic responses.

Table 2: 2021 Energy Intensity Comparison in Equivalent kilowatt hours per Square Foot (ekWh/sqft)

Energy Intensity	2005	2020	2021	2021 vs 2005	2021 vs 2020
City Total (ekWh/sqft)	45.7	29.5	30.0	-34%	2%

Table 3: 2021 Combined Energy Usage Comparison (Electricity and Natural Gas) in equivalent kilowatt hours (ekWh)

Combined Energy	2005	2020	2021	2021 vs 2005	2021 vs 2020
Total Energy (ekWh)	400,722,256	345,214,509	355,682,587	-11%	3%
Total Energy Cost (\$)	\$27,177,303	\$28,124,739	\$30,160,802	11%	7%

The overall results of the corporate emissions inventory for 2020 was a reduction of 51% as compared to the base year of 2005. Although meeting our target of a 50% reduction by 2030 is something to celebrate, we must also view this accomplishment with some caution as 2020 was not a typical year. The emissions inventory is impacted largely by energy usage, and therefore these results might not be sustained once regular operational activities return.

Table 4: 2020 GHG Emissions Inventory Comparison in tonnes CO₂e

GHG Emissions	2005	2019	2020	2020 vs 2005	2020 vs 2019
Corporate Total (tCO ₂ e)	122,699	67,969	60,674	-51%	-11%

The City of Hamilton's commitment to energy conservation and environmental sustainability plays an important role in supporting the City's Strategic Plan by contributing to a prosperous and healthy community; providing valued and sustainable services; and demonstrating innovation and leadership. Ongoing success of the energy program requires engagement of all Five Values of Our Culture - Collective Ownership; Steadfast Integrity; Sensational Service; Engaged, Empowered Employees; and Courageous Change.

The City's annual energy report will be posted on the City's website once the report has been received by Council at www.hamilton.ca/energy.

APPENDICES AND SCHEDULES ATTACHED

Appendix "A" to Report PW21049(a) – 2021 Annual Energy Report