A Town Hall Challenge 20 by '15 Case Study

Caledon Town Hall

South wing constructed 1974

North wing constructed 2005

60,000 sq. ft.

2012 energy intensity: 33.6 ekWh/sq.ft.

2013 Energy intensity: 26.2 ekWh/sq.ft. (after re-commissioning)

TOWN HALL CHALLENGE



The Challenge: Re-Commissioning to move up the benchmarking chart and reach the 20 by '15 target

Plan of Action

1. Benchmark/Data Analysis

Mayors' Megawatt Challenge benchmarking and energy assessment informs Caledon of their saving opportunity inherent in re-commissioning.

- 2. Adopt THC 20 by '15 goal to spur enthusiasm and commitment.
- 3. Full building re-commissioning





"Energy conservation is a municipal priority for **cost, efficiency, leadership and environmental**

reasons. In our ongoing efforts to make our communities sustainable, it is crucial that we municipalities **live green** by pursuing energy efficiencies in our own facilities. I can't think of a more prominent and symbolic place to start than our town/city halls.

I respectfully encourage all Mayors and Councils across Canada to join the **Town Hall Challenge 20 by '15**. Together, we can show leadership, save money and move our municipalities towards sustainability."

Mississauga Mayor, Hazel McCallion



TOWN HALL CHALLENGE

Why Re-Commission?

- Objective is to increase facility efficiency as well as improve the working environment.
- Directs effects of this are: reduction in GHG emissions and lower utility costs.
- Audits in 2007 and 2008 for the facility revealed that Heat and HVAC systems as the largest energy usage; lighting as the second largest.

Re-Commissioning objectives	 To identify faults and ways to address them. Identify malfunctioning equipment. To identify practices that can be implemented to reduce gas and electricity consumption. To reduce the ecological footprint of operating the building.
HVAC recommendations	 Over 70 recommendations, including: rescheduling AHUs airflow adjustments change setpoint timing addition of sensors to monitor temperatures reduced heating setpoints for unoccupied zones
Hot water system recommendations	 put water heaters and circulation pump on BAS and program for operating time and monitoring
Lighting Recommendations	 add more controls for lighting of zones occupancy sensors photo sensors to control lighting on bright days de-lamping

Visit <u>www.trca.on.ca/mmc</u>, or email Brian

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