

Item 8.1

HALIFAX

On-Site Energy Manager Update

Environment and Sustainability
Standing Committee
December 06, 2018

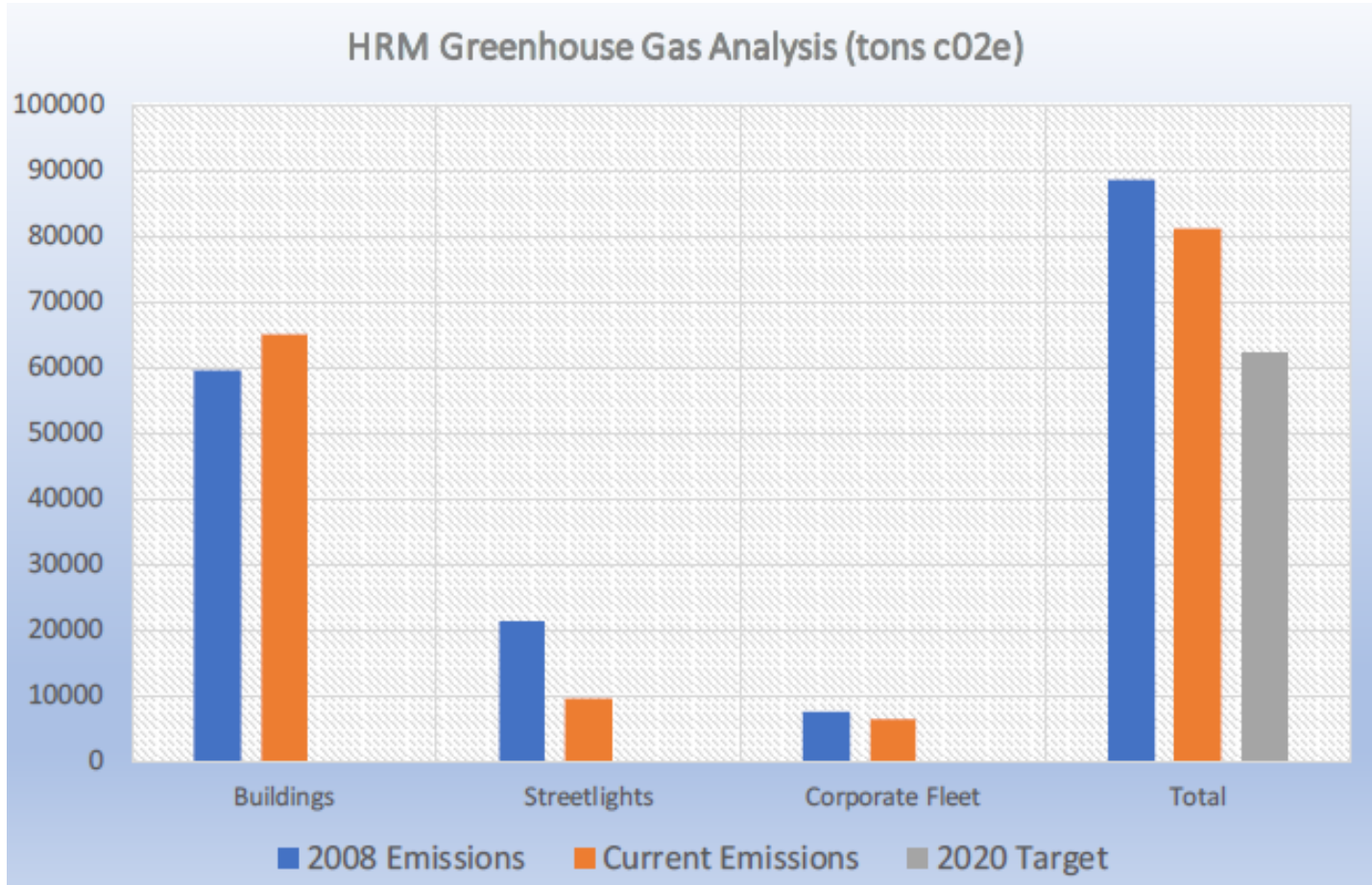
Introduction

- On-Site Energy Manager (OEM) since April 2018
- Partnership with Efficiency Nova Scotia (ENS)
- Salary recovered through energy savings and rebates

Background

- Approximately 250 corporate owned buildings
- \$13.5 million in annual energy costs
- Annual energy consumption of 136 eGWh
- Corporate Greenhouse Gas Emissions Reduction Plan
 - 30% greenhouse gas (GHG) reductions below 2008 baseline by 2020

Background



OEM Objectives

- Benchmark current energy consumption using Portfolio Manager
- Identify and implement 1 GWh in annual energy savings measures (approx. \$120,000 in annual savings)
- Strategic energy management enabling continuous improvement
- Maximize available incentives from ENS and others

Current Progress

- 46 identified energy efficiency projects
- Capital cost of \$1.15 million
- ENS rebate of \$370,000
- Net cost to the Municipality: \$780,000
- 5 eGWh of energy savings in year one
- \$750,000 saved in year one
- 1 year payback

Energy Benchmarking

- ENERGYSTAR Portfolio Manager
- Compare buildings of similar size, usage and climate
- 100 buildings currently benchmarked

LED Lighting Upgrades

Ragged Lake & Burnside Transit Centres

- Capital cost of \$135,000
- ENS rebate of \$48,000
- Net cost to the Municipality: \$87,000
- \$170,000 saved in year one
- 6 month payback



Recommissioning

- Conducting recommission studies on six municipal buildings
 - Fall River Community Centre
 - Dartmouth 4Pad
 - Sackville Sports Stadium
 - Centennial Pool
 - Captain William Spry Community Centre
 - Canada Games Centre
- ENS to pay for 100% of study costs

Recommissioning

- Capital cost of \$124,000
- ENS rebate of \$36,000
- Net cost to the Municipality: \$88,000
- 1 eGWh of energy savings in year one
- \$102,000 saved in year one
- 9 month payback

New Construction

- McIntosh depot replacement
- Woodside Ferry Terminal renovations
- Energy model to be developed for both facilities
- Expected to exceed the National Energy Code for Buildings by 15%

Canada Games Centre

- Cost sharing with board
- \$150,000 secured through Canadian Green Council
- Upgrade fieldhouse and pool lighting
- Recommission study completed
- 700 MWh of energy savings in year one

Low and No Cost Measures

Eric Spicer Hot Water

- 100 kW reduction & \$10,000 in savings

Dartmouth 4 Pad

- Lighting reduction resulting in \$10,000 in savings

Compressed Air Sealing

- \$4,000 capital with \$10,000 in savings

Rate Code Optimization

- \$60,000 in savings

Awareness & Engagement

- Key to strategic energy management
- Empower decision makers
- Strategic communications plan

Thank You

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