City of Courtenay Corporate Facilities Energy Management Plan

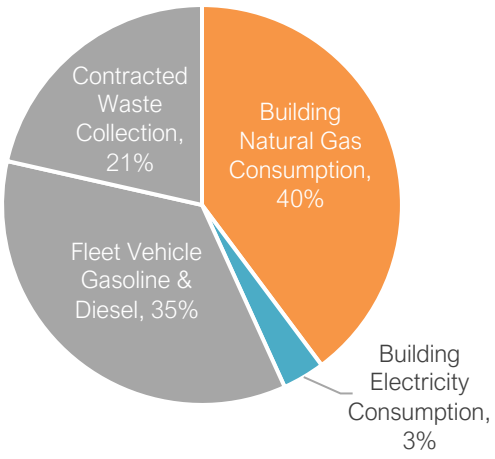
What is the Corporate Facilities Energy Management Plan?

A roadmap that identifies the building upgrades and retrofits required to achieve greenhouse gas (GHG) emission reduction targets in City owned buildings.

Background

The City of Courtenay is committed to maintaining high quality facilities for the community while addressing the climate crisis. This plan informs investments in our facilities.

Corporate Emissions Breakdown by Source



Key facts About Our Facilities

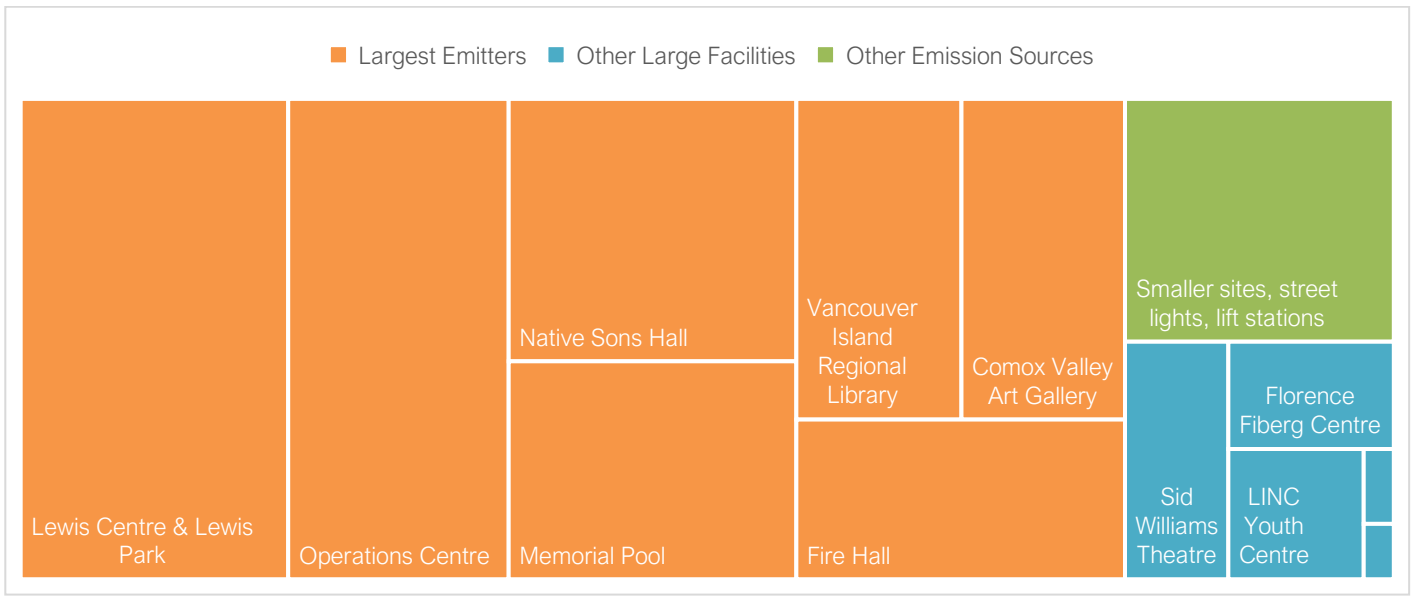
Natural gas use in buildings is the greatest source of greenhouse gas emissions.

Where do building emissions come from?

Our Largest Emitters: Lewis Centre & Lewis Park, Operations Centre, Native Sons Hall, Memorial Pool, Vancouver Island Regional Library, Comox Valley Art Gallery, Fire Hall.

Other Large Facilities: Sid Williams Theatre, Florence Filberg Centre, LINC Youth Centre, City Hall, Courtenay & District Museum.

Other Emission Sources: Municipal park buildings and washrooms, training and storage buildings, electricity consumption from streetlights, pump and lift stations.

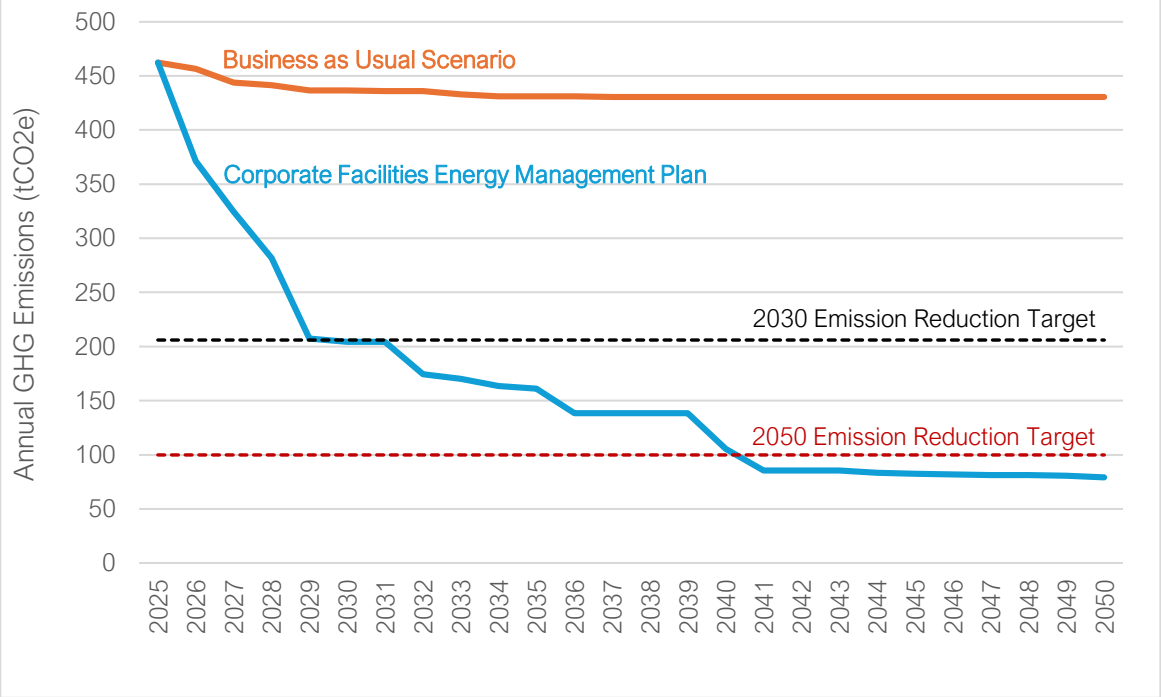


What is the proposed approach?

1) Reduce waste and optimize existing systems – Optimize existing building systems with minimal capital investment. Projects include: lighting, controls, equipment recommissioning, sizing HVAC appropriately, and replacing end-of-life equipment with energy efficient options.
2) Replace natural gas equipment with electric equipment – Once the existing systems are optimized, replace end-of-life natural gas equipment with high-efficiency heat pumps and other electric alternatives.
3) Onsite Renewable Energy – Install rooftop solar with optional battery storage to generate electricity onsite and improve resilience.

What is the plan for the City's portfolio?

The figure below shows how the building upgrades and retrofits identified in the Corporate Facilities Energy Management Plan will impact the emissions of the City's largest facilities (largest emitters and other large sites), compared to a Business-As-Usual Scenario, where equipment is replaced with like-for-like equipment as it comes due for renewal.



How is the City going to ensure success?

1. Start with buildings that use the most natural gas. These buildings offer the greatest emission reductions.
2. Align replacements and upgrades with end of life of equipment. This will resolve known maintenance issues and provide the most value from existing equipment.
3. Work with BC Hydro. Ensure there is enough electricity supplied to each building for the planned upgrades and retrofits.
4. Engage building occupants. Understand how people use the buildings and seek to improve comfort wherever possible.

5. **Apply for grants and seek external funding:** Monitor grants, rebates and funding opportunities offered by federal and provincial agencies, including the Federation of Canadian Municipalities, CleanBC, and BC Hydro, and FortisBC.
6. **Track progress over time.** Develop systems for measurement and verification to assess building performance over time. Update infrastructure plans every 3-5 years.

What This Means for the City of Courtenay

The City of Courtenay is committing to a practical, staged approach to improve facilities for our community, and meet greenhouse gas reduction targets.