



GREEN
MUNICIPAL
FUND

FONDS
MUNICIPAL
VERT

ACHIEVING ENERGY AND CARBON REDUCTION IN COMMUNITY BUILDINGS THROUGH ASSET MANAGEMENT PLANS

Asset management plans help local governments make the best possible decisions regarding the construction, operation, maintenance, renewal, replacement, expansion and disposal of municipal infrastructure assets while minimizing risk and cost to the community and maximizing service delivery. While their focus is on keeping assets in a good state of repair and maintaining high levels of service, asset management plans also present a strategic opportunity to support energy and carbon reduction goals.

By identifying and implementing energy and carbon reduction measures in alignment with existing asset management schedules, municipalities can achieve cost savings while improving asset performance and resilience. This knowledge product aims to give municipalities an understanding of asset management planning, including the benefits of integrating energy and carbon reduction into asset management planning and some steps to make this happen.

ASSET MANAGEMENT PLANNING

Asset management planning is an ongoing and long-term process that helps municipalities make strategic investment decisions about their community buildings. This process typically produces asset management plans, policies and tools that collect critical information and guide maintenance activities. Critical information may include an asset's condition, age, remaining service life, risks and replacement costs. Collecting this information facilitates informed decisions, ensuring assets are maintained and can deliver intended services while meeting safety, environmental and



financial objectives. For more information on asset management planning see the FCM publication [Guide: How to develop an asset management policy and strategy](#).

BENEFITS OF INTEGRATING ENERGY AND CARBON REDUCTION INTO ASSET MANAGEMENT PLANNING

- 1 Cost savings:** Incorporating energy and carbon reduction measures during a community building renewal or renovation can lead to long-term cost savings thanks to energy efficiency improvements, reduced operational expenses, lower maintenance costs and avoided carbon costs.
- 2 Improved climate resilience and impact:** Strategically integrating new, efficient and renewable technologies throughout the lifecycle of a community building can help enhance its resilience to climate impacts like extreme weather events. Doing so can also help a municipality reduce the greenhouse gas (GHG) emissions of its overall operations.
- 3 Public perception and leadership:** Embracing energy and GHG reduction measures demonstrates municipal climate accountability and shows that municipalities are committed to following through on their corporate climate responsibilities.
- 4 Interdepartmental collaboration:** Integrating energy and carbon reduction measures into asset management plans strengthens interdepartmental coordination and collaboration. Interdepartmental teams may include climate, energy, finance, asset department and building management departments.

HOW TO REDUCE ENERGY AND CARBON THROUGH ASSET MANAGEMENT PLANNING

To integrate energy and carbon reduction measures into asset management plans, municipalities should consider the following steps.

- 1 Assess the current energy consumption and carbon emissions of community buildings.** This process provides a baseline of a community building's overall energy and emissions and highlights areas for improvement. If you do not have a building monitoring and analysis system in place or updated energy performance data for community buildings, consider applying for the Green Municipal Fund's (GMF) **Capital project: GHG reduction pathway retrofit** Community Building Monitoring and Analysis grant funding.
- 2 Identify and assess measures for energy and carbon reduction.** Look for opportunities to implement energy and carbon reduction measures within the community building portfolio. This can include energy-efficient equipment upgrades, building envelope improvements, fuel-switching and renewable energy installations. For each measure, estimate the associated costs, potential savings, payback periods and carbon emission reductions. For community buildings, GMF's **GHG reduction pathway feasibility study grant** provides funding to assess the feasibility of projects that reduce energy, GHGs and cost of ownership and extend a building's life.

- 3 Integrate measures into the asset management plan.** Align these measures with the community building's maintenance schedule and identify the specific actions, timelines and people required to implement them.

- 4 Seek funding and financing.** Develop a funding strategy to support the implementation of the identified energy and carbon reduction measures. Explore available grants, incentives and financing options to offset upfront costs. Funding programs such as GMF's **Community Buildings Retrofit initiative** can support energy and carbon reduction measures in community buildings.

- 5 Implement and monitor.** Execute the planned energy and carbon reduction measures according to the scheduled renewal or renovation activities. Establish robust monitoring and tracking mechanisms to measure energy savings, carbon emission reductions and cost performance. Regularly review and report progress to stakeholders, ensuring transparency and accountability.



RESOURCES

- + **Webinar recording: Asset management and energy conservation—BC Non-Profit Housing Association (BCNPHA)**: The BCNPHA outlines three pathways it took to use asset management to improve energy performance in affordable housing.
- + **Resource library: Municipal Asset Management Program**: A collection of resources to support you at all stages of your asset management process.
- + **Resource library: Community Buildings Retrofit**: A practical knowledge hub to support your local facility upgrade.
- + **Asset Management Resource Library: Association of Municipalities of Ontario**: A collection of national and international resources and tools on Asset Management.
- + **Guide: Building Sustainable and Resilient Communities with Asset Management: An introduction for municipal leaders**: This guide helps municipalities embed sustainability and climate change considerations into asset management practices to improve the efficiency and effectiveness of service delivery.
- + **Canada Community-Building Fund**: Projects eligible under the Community Energy Systems category are those that result in the construction, material enhancement or renewal of infrastructure that generates energy or increases energy efficiency.
- + **Canada Infrastructure Bank Building Retrofits Initiative**: Provides loans to help to finance capital costs of retrofits, using savings from energy savings, efficiencies and operating cost savings for repayment.
- + **First Nation Infrastructure Fund**: The Energy Systems category under the First Nation Infrastructure Fund provides funding to construct, restore or improve local band-owned infrastructure that optimizes the use of energy sources. For example, the installation of energy efficient retrofits to community buildings and projects that connect communities to provincial energy grids to reduce greenhouse gas emissions and other air contaminants.
- + **First Nations Community Building Retrofit Program (Ontario only)**: The Save on Energy First Nations Community Building Retrofit Program (FNCBRP) provides funding and technical support to on-reserve First Nation communities to undertake energy-efficiency projects.