

STRATEGIC INITIATIVE AND UPDATE**Greenhouse Gas Reduction****Report Purpose**

To provide the Priorities Committee with an approach and update toward reducing the County's greenhouse gas emissions through a Fleet Emissions Reduction Strategy and Development of a Strategic Energy Master Plan for municipal facilities.

Our Prioritized Strategic Goals

Goal 2 - Manage, invest and plan for sustainable municipal infrastructure

Goal 3 - Cultivate economic diversification, within the petro-chemical industry and beyond, through a business-friendly environment

Goal 4 - Ensure effective stewardship of water, land, air and energy resources

Goal 5 - Foster collaboration through regional, community and governmental partnerships

Goal 6 - Provide facilities and services that are available and accessible to residents

Goal 7 - Provide opportunities for public engagement and communication

Report

While global climate change is influenced by a number of factors, scientists attribute the cause of climate change to greenhouse gas (GHG) emissions. G7 countries, a group of the seven largest and most advanced economies in the world, which includes Canada, have recommended that all developed countries reduce emissions by 80 per cent or more by 2050.

Local governments have influence over approximately 50 per cent of Canada's GHG emissions. Many are stepping up to take on the social and moral investment of tackling climate change. Taking a simplistic view, GHG emissions from municipal operations stem from fleet, civic buildings, street lighting and waste.

From the fleet and municipal buildings perspective, work is underway to define and guide Strathcona County's efforts toward further greenhouse gas reduction and improved operational efficiency. Strategies for energy project investments are also being developed.

The Fleet Emissions Reduction Strategy has been developed and is in the implementation stages. The strategy prepares Strathcona County for action and identifies ways to minimize risk to the organization. The processes laid out in this strategy will also help to determine and address important factors that are currently unknown, such as:

- a corporate emissions target
- needs that will arise from the Transit Master Plan as it is completed
- public desire and willingness to pay for emissions reduction programs
- emerging actions of the Edmonton Metropolitan Region
- implications of the Transit Commission

To help reduce Strathcona County's buildings impacts on the environment and reduce energy use in our facilities, a Strategic Energy Master Plan (SEMP) is in development. It will set energy management objectives, performance targets, capacity building and performance monitoring to reduce energy waste and greenhouse gas creation. It will also prepare the County for the adoption of renewal energy systems in municipal buildings where necessary to achieve performance targets.

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A further presentation to the Council will be provided on the Strategic Energy Management Plan, with the objective of confirming energy management objectives and performance targets.

Components considered or to be addressed within these strategies include:

1. Emission Reductions/Energy Management Leadership
 - Council guidance in energy and environmental objectives
 - Emissions target policy development aligned with federal and provincial policy
 - Energy use targets for current and future facilities
 - Objectives and direction for renewable energy inclusion in energy portfolio mix
 - Idling guideline and eco-driving as implemented in the County
2. Investment
 - Commitment to fleet preventative maintenance investment
 - Evidence-based decisions on alternative fuels investments
 - Investment strategy for energy improvement projects
 - Energy project evaluation criteria using operational, social, economic, environmental weightings
3. Human Resources
 - Training for staff in emissions and energy use reduction strategies and programs
 - Advanced training in renewable technologies including solar, energy efficient lighting, geo thermal, combined heat and power systems and other emerging technologies
4. Technology Improvements/Innovation
 - Systems software for data collection, monitoring and reporting on energy use, and measuring total fuel consumed/level of emissions created
 - Real time energy monitoring for larger facilities (smart meters or monitoring of existing interval meters through a centralized system)
 - Current building automation systems to provide advanced system diagnostics
 - Autonomous vehicles, primarily electric, emerging as future new technology
5. Procurement
 - Proven emerging technologies and right-sizing vehicles to match their intended functions/service delivery needs
 - Green energy through renewable energy credits or direct purchase from renewable generator
 - Onsite generation using solar or combined heat power systems to reduce market/distribution impacts
6. Community engagement/Communication
 - Awareness programs on energy/emissions reduction
 - Stewardship, performance and change improvements reporting

Strathcona County can lead with evidence-based decision-making to be a global citizen that examines all the true costs to the environment and maintains responsible use of tax dollars.

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Other Impacts**Policy:** N/A**Legislative/Legal:** N/A**Interdepartmental:** Facility Services and Fleet Services**Master Plan/Framework:** N/A**Enclosures**

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| 1 | Emissions Reduction Strategy Document |
| 2 | Greenhouse Gas Reduction Presentation |