Purpose:

The purpose of this policy is to guide the Township decisions in current and future sustainable developments, in line with the Strategic Plan, the Energy Conservation and Demand Management Plan (ECDM), and relevant Provincial and Federal legislation.

The Green Development Policy (GDP) outlines procedures for staff to support Council's strategic objective of being an environmentally sustainable community and takes necessary action to make educated, modernized, and innovative decisions that will carry us to our 2040 goal of becoming a net zero municipal organization.

Benefits to Green Development Focus

1. More efficient use of municipal infrastructure and equipment
2. Green House Gas (GHG) emission reduction (buildings and transportation)
3. Increasing climate resilience
4. Improving resident health and wellness
5. Cost savings, grant opportunities

Green development allows for efficient and proactive efforts to be made to improve the environment, but also to improve the work and quality of service provided by the Township. The measures included in this policy are proven to save money, improve the condition of Township assets, and positively impact staff experience and operations. Whether it be with more comfortable and accommodating facilities, longer lasting equipment and assets, or improvements that streamline tasks, going green is the present and future of Municipal work.

Applicable Legislation

Broader Public Sector Energy Reporting (O.Reg. 25/23)
The Electricity Act, 1998
The Environmental Bill of Rights, 1993
The Environmental Protection Act, 1990
The Municipal Act, 2001
The Planning Act, 1990
The Resource Recovery and Circular Economy Act, 2016 (Bill 172)

Definitions:

Building Envelope – includes roof, doors, windows, floors and walls which serve to protect the interior while facilitating climate control

Embodied energy/carbon – refers to green house gas emissions arising from the manufacturing, transportation, installation, maintenance and disposal of building and infrastructure materials

Green House Gas (GHG) – category of gases that warm the atmosphere by absorbing heat energy emitted from Earth's surface, preventing it from releasing into space and reflecting it back towards the planet

Green Procurement – Choosing goods and services that have a reduced impact on the environment over their lifecycle, compared to similar competing products that serve the same purpose

Net-Zero buildings – produce as much energy as it consumes each year
Renewable Energy – energy derived from natural processes that are replenished at a rate equal to or faster than the rate they are consumed

Retrofit – to furnish something with new or modified parts of equipment not available or considered necessary at the time of manufacture

Policy:

1. Green Procurement

As it is a pillar of the Township's strategic plan, it is expected that parties in direct business and contractual agreements with the Township will make environmental consciousness a priority of theirs within the scope of their operations.

In conjunction with the requirements and expectations outlined in the Township's Purchasing Policy, staff will make every effort to consider and assess the environmental impact of goods and services in procurement processes, and when making purchases they will prioritize goods and services that:

- Reduce greenhouse gas emissions
- Reduce waste through packaging, and support reuse and recycling
- Reduce energy usage by maximizing efficiency
- Reduce hazardous and toxic waste, chemicals and substances

Specifically, the municipality will endeavor to:

i) Ensure that the objectives of green procurement are realized while maintaining compliance with all legislative, regulatory and policy obligations.
ii) Ensure environmental consideration in procurement planning, identification and definition of requirements, acquisition, operation and maintenance of assets, disposal of goods and/or closure of activities of services

iii) Buy environmentally preferable goods and services where value for money is demonstrated (balance of cost, performance, quality, and environmental performance)
iv) Encourage vendor transparency regarding major processes and their overall emissions and environmental impact mitigation for product or service delivery
v) Wherever possible, buy Canadian products and services over those from other producers or distributors

2. Green New Builds and Retrofits

With buildings being the largest contributor to a municipality's emissions and environmental impact, the necessity of efficient and future-proofed construction is a huge factor in responsible governance. Proper planning and sustainable forethought now will help preserve the facilities we rely on to keep the Township running for years to come with less money spent to do so. This policy provides a framework for new builds, retrofits, and the continued maintenance of Township-owned buildings to achieve targets endorsed by Council.

Where EV charging stations are installed at current and future facilities, all revenue from fees associated with these stations will be allocated to future green initiatives.

New energy projects and upgrades to buildings require a pre- and post-renovation energy evaluation, completed by a certified energy advisor to help determine the impact of the measures. The pre-evaluation should identify opportunities for energy savings, and the post-evaluation verifies the confirmed savings, and ensures the project was completed as planned.

As the Township is required to report its annual energy consumption for all properties as a broader public sector (BPS) organization, this information is available for staff to utilize when planning for new builds and retrofits to existing buildings/equipment. This data, available in LAS and Energy Star Portfolio Manager, should be evaluated annually to identify where conservation measures would be best implemented and factor those into the capital budget.

2.1 New Builds

Energy

i. Ensuring all future buildings have exceptional energy performance that either achieves net zero energy/emissions or can achieve net zero with only minor upgrades
ii. Utilizing renewable energy sources for building operations wherever possible, and designing new facilities with increased capabilities and capacity for renewable energy installation and upgrade
iii. Applying for all available energy incentives including electricity, natural gas (if applicable), renewable energy generation, and water
iv. Coordinating with utility providers to make sure energy data is easy to access, understand and utilize for demand management

v. Planning for electric vehicle integration at new government and mixed-use facilities by having EV charging stations factored into new builds and power requirements
vi. Ensuring adequate charge stations at new buildings, accommodating at least one (1) for the public and one (1) for staff, where appropriate

Construction

vii. Utilize low-embodied energy/carbon and recycled building construction materials where appropriate
viii. Ensure proper building envelope (walls, roof, windows, doors) resistance to exterior environment to maintain energy efficiency and moisture management inside the building
ix. Protecting and integrating green space for all new buildings, including tree planting and opportunities for active transportation if feasible
x. All lighting equipment must utilize LED or similarly efficient lighting technology
xi. Low flow or ultra-low flow plumbing fixtures should be used in all applications
xii. Use of recycle processes for road rebuilding and resurfacing
xiii. Efficient logistic planning to reduce fuel consumption and minimize greenhouse gas emissions and environmental footprint

2.2 Retrofits

A framework for converting existing buildings equipment/systems to energy efficient ones to meet GHG reduction targets, lower operating and maintenance costs, and transitioning to clean energy solutions. Retrofit timing will align with infrastructure renewal requirements, or when an asset comes to its end of life. The Township will:

- Retrofit with efficient and green appliances whenever possible
- Upgrade old or faulty equipment with newer, more efficient models
- Identify opportunities to incorporate energy efficiency improvements in maintenance/replacement process
- Continue to undertake retrofits that improve energy and water efficiency
- All lighting equipment should be replaced or upgraded to utilize LED or similarly efficient lighting technology
- Prioritize building envelope repairs, improvements or additions to reduce the amount of energy required to maintain building conditions and temperature
- Conduct feasibility studies to determine what would be required to add EV chargers to existing facilities, and then pursue these upgrades when resources allow

These provisions apply to all new buildings, expansions or renovations wholly or partially owned by the Township of Zorra, regardless of size, location or intended function.

Any exception to the provisions in Section 2 must be approved by Council.

3. Green Initiatives

As the Township continues to research, plan and invest in new initiatives in the future, it is important that the continual commitment to sustainable development and considerate growth be prioritized.

- Assess the sustainability considerations and environmental impacts of initiatives undergone by the Township as a base criterion for feasibility
- Green initiatives shall continue to be researched, proposed and adopted to keep the Township up to speed with sustainability trends and new projects

Green initiatives that the Township will pursue include but are not limited to:

- Waste reduction, diversion and management practices
- Regenerative and cyclical supply chains
- Paperless and digital solutions
- Green energy projects
- Emissions and pollution reduction
- Efficiencies and process improvements for regular operations
- Audits and assessments to establish baseline data and areas for improvement
- Grants and funding opportunities
- Green spaces and conservation efforts
- Partnerships and community outreach
- Active transportation
- Health and wellness

4. Green Fleet & Equipment

With the growth of the Township's operations and increased equipment usage, the focus on efficiency and sustainability will ensure cost savings, lowered emissions, and improved life cycle management for assets. Municipal emissions can be lowered through the upgrading of existing vehicles and equipment, as well as the future procurement of low-emission vehicles when it comes time for replacement or expansion of the fleet units. This initiative will be implemented to achieve as little impact on operational efficiency, the duties, and routines of Township staff. This is meant to be a gradual and well-integrated process to ensure assets at the end of life are thoughtfully replaced with better alternatives.

<u>Green Fleet Strategies</u>

i) Preventative maintenance program

Expand on current preventative maintenance programs for all Township vehicles as the fleet grows to improve fuel efficiency, maximize the asset's lifespan, avoid increased maintenance costs, and enhance safety. Preventative maintenance programs would entail regular:

- Top-ups and replacement of essential vehicle fluids (oil, transmission, brake, coolant)
- Inspection and maintenance of spark plugs, belts and hoses, tires and breaks, and the vehicle battery
- Filter replacements

ii) Replacement with EV or Hybrid whenever feasible

- The department managers will conduct evaluations and provide recommendations before vehicles are purchased, based on usage requirements and environmental targets.
- The department managers will also conduct life cycle cost analyses, maintenance practices, and emerging fuel and emission reduction technologies
- Increased capital costs for replacement should be offset by operational savings over the vehicles lifecycle
- Vehicles with the highest fuel efficiency and cost effectiveness based on life cycle costing and financial investment requirements will be prioritized when purchasing
- All future pickup ½ tons and compacts, SUVs and cargo vans will be either hybrid electric vehicles (HEV), battery electric vehicles (BEV), or compressed natural gas (CNG) vehicles.
- When replacing a vehicle, fuel efficiency and life cycle shall be considered
- Continue to explore and improve new technologies for "real time" equipment efficiency tracking and service requirements

The following resolution pertains to the Township visual requirements for green technology vehicles moving forward:

Resolution 27-11-2021 states "*THEREFORE IT BE RESOLVED that Council direct staff that vehicle base colour be changed to white when replacing fleet to green technologies, with the exception of the fire department fleet which is to remain red;*

And THAT staff consider alternate methods of communicating green technology fire fleet and equipment to the public;

AND THAT the appropriate Zorra Township brand be applied to the white base as outlined in the Zorra Brand and Communications Guide."

- As a visual change in the fleet will clearly communicate to residents our advancement in achieving our environmental goals, white shall be the new base colour when replacing fleet vehicles with green technology, with the exception of the fire department fleet which is to remain red
- As an alternate method of communicating environmental fire fleet and equipment technology to the public, a Zorra Township EV decal shall be applied to each vehicle, as well as a green license plate as a distinguishing feature.

iii) Downsizing and rightsizing vehicles

- Wherever possible, the Township will consider purchasing and using vehicles that meet but do not exceed the requirements of the task they are utilized for, and utilize light-duty or electric vehicles for high-use cars

iv) Efficient driver training

- Staff will ensure that new staff, including temporary positions, who will be operating Township vehicles in their roles undergo efficient driver training as part of their orientation process. This training will highlight the importance and easy implementation of efficient driving techniques (accelerating, braking, idling reduction, etc.)

v) Operational planning, GPS, etc. – route optimization

- Through operational planning, the length and frequency of necessary trips can be reduced to optimize travel

vi) Outfit existing vehicles with green tech

- Where electric or hybrid vehicles are not present, the Township will endeavor to equip existing vehicles with green technology solutions such as anti-idling and heating add-ons to assist with emissions reduction

vii) Anti-idling/reduction policies at municipal facilities

- Facilities will have signage in place to dissuade vehicles on the premises from remaining idle
- Idling should also be reduced on all vehicles where possible, and vehicles should be turned off if stopped for more than 10 seconds, except in the following circumstances:

a) When in traffic
b) While performing a specific job duty that requires the vehicle to be running
c) If doing so would compromise safety, or the mechanical integrity of the vehicle
d) Emergency service vehicles

viii) Monitoring and Reporting

The Township shall monitor the percentage of fleet and equipment using alternative fuels, as well as the total greenhouse gas emissions (in tonnes of CO2 emissions) produced by said assets to track trends over time and measure impact of intervention efforts. Monitoring and reporting are essential steps to awareness and accountability of the Township to its environmental goals and commitment as a green organization.

5. Exemptions to this policy

Exemptions to specific clauses of this policy are permissible where they conflict with critical operational, security or safety requirements.

Where exemptions are necessary, department managers are responsible for reporting to Council, and a resolution is necessary to proceed.

This policy shall be in effect on the date it is approved by resolution of Council.

Next Revision Date

This policy shall be reviewed every 2 years.

The next revision date is June 2027.

Accessible Formats

If you require this document to be in an accessible format, please contact the Director of Corporate Services at clerk@zorra.ca or 519-485-2490 ext. 7228.