



RESORT MUNICIPALITY OF WHISTLER

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STAFF REPORT TO COUNCIL

PRESENTED: January 25, 2021 **REPORT:** 22-007
FROM: Planning Department – Projects **FILE:** 7733.03
SUBJECT: GREEN BUILDING POLICY G-23 UPDATE

RECOMMENDATION FROM THE CHIEF ADMINISTRATIVE OFFICER

That the recommendation of the General Manager of Resort Experience be endorsed.

RECOMMENDATION(S)

That Council direct staff to proceed with an update to Green Building Policy G-23 and an associated stakeholder and community engagement process, as described in this Administrative Report 22-007.

PURPOSE OF REPORT

The purpose of this report is to provide Council with an overview of the proposed update to the Green Building Policy and outline a community and stakeholder engagement process.

Information Report Administrative Report (Decision or Direction)

DISCUSSION

Background

In 2008, Council approved the current Green Building Policy G-23 (Appendix A), which established green building objectives and performance goals for new construction in Whistler. Green building and sustainable design practices, technologies, and standards have evolved since 2008, and as a result the existing policy is outdated, and Whistler's green building requirements are no longer consistent with leading sustainability practices.

Local governments regulate land use and administer building code standards through bylaw, which can influence building efficiency, encourage compact, pedestrian-friendly, transit-oriented communities, and address basic requirements for safe and functional buildings. Through a Green Building Policy, the Resort Municipality of Whistler (RMOW) can establish additional standards and performance goals for new construction, at the scale of individual buildings and their sites, to advance Whistler's sustainability goals. The 2008 Green Building Policy is organized around three broad goals:

1. Use local government authority to create compact, efficient developments whenever possible
2. Support provincial efforts to incorporate green building requirements
3. Work with landowners and developers to set high standards for building performance.

The existing Green Building Policy was based on a Leadership in Energy and Environmental Design (LEED) framework, and establishes six broad objectives for the design, construction, and operation of buildings:

1. Site and Landscape, that seeks to minimize disturbance to soils, vegetation and hydrology through careful location, design, construction practices and site rehabilitation.
2. Energy, aiming to decrease energy requirements and associated GHG emissions, as well as lower the share of energy supplied by non-renewable sources.
3. Water, that strives to reduce the total volume of water used for buildings and associated landscaping.
4. Materials, which seeks to increase the application of renewable, recycled and locally-sourced materials and to reduce the use of new material through material reuse, efficient design and engineering.
5. Waste, which tackle the community's goal of generating no landfill waste and lower the total volume of waste sent to landfills during construction and occupancy.
6. Indoor Environment, aiming to provide excellent ventilation and air exchange equipment as well as minimizing chemical emissions from materials used in buildings.

Depending on the type of building proposed (single family, multi-family, mixed-use), applicants are requested to use one of three checklists (LEED standard, Built Green, or Whistler Green). The checklists are mandatory for rezoning application and used as reference for Development and Building Permit application; applicants may also choose their own approach to describe how the project meets the six objectives of the Green Building Policy.

Staff review the checklist and work with applicants to ensure that the proposal is consistent with the RMOW's Green Building Policy and typically secure the green building commitments through an S.219 development covenant.

Since the Green Building Policy was adopted in 2008, Whistler has identified updated sustainability and climate action goals, captured in the 2016 Community Energy and Climate Action Plan (CECAP), the 2018 Official Community Plan and the 2020 Climate Action Big Moves Strategy. Provincially, BC has adopted a new approach to energy efficiency in new building with the BC Energy Step Code. The Green Building Policy needs to be updated to reflect these new goals and targets.

The CECAP sets out strategic directions and practical actions to reduce Whistler's contribution to climate change, as well as recommending prioritized adaptation strategies to prevent or minimize the key potential impacts of projected local climate change effects. Since several green building and site design principles also target climate change adaptation and mitigation, the CECAP will be considered to ensure that Whistler moves towards its climate action and energy goals.

The 2008 Green Building Policy references [Whistler 2020](#), which was replaced by the 2018 Official Community Plan. Whistler's OCP includes specific goals that relate to sustainability and green building, including greenhouse gas (GHG) emissions reduction from buildings and infrastructure, reduction of environmental and energy impacts at a neighbourhood level, and land development approaches that minimize impact on the natural environment. The current Green Building Policy was developed in 2008 and adoption of the current OCP (with its associated and updated climate targets) triggered the need to update tools to advance climate action in Whistler.

The 2020 Climate Action Big Moves Strategy outlines Whistler's climate change mitigation priorities to accelerate climate action in Whistler and establishes six Big Moves to get us there. The Green Building

Policy should be updated to address the Big Moves and their corresponding key initiatives, with a focus on:

- Big Move #1: Move beyond the car, by ensuring that building and site designs address active transportation facilities;
- Big Move #2: Decarbonize passenger and commercial transport, by introducing requirements for electric vehicle charging infrastructure;
- Big Move #4: Build zero emission buildings, by aligning the Green Building Policy requirements with Whistler's Step Code implementation roadmap; and
- Big Move #6: Close the loop and shift toward lower carbon consumption, by updating demolition and construction waste diversion requirements, recycled and renewable building material requirements, and waste room requirements in mixed-use and multi-unit buildings.

Provincial Policy and Building Code

The provincial Climate Leadership Plan (August 2016) identifies a goal for all buildings to be Net Zero Energy Ready¹ by 2032. Current British Columbia Building Code (BCBC) requirements are typically met by adhering to a “prescriptive” approach. In 2017, an option for compliance with a “performance path” was added to the BCBC, in the form of the BC Energy Step Code framework. The objectives of this framework are to improve consistency in green building requirements among local governments, to introduce future BCBC updates, and to work toward a goal of net-zero energy ready buildings by 2032. In 2019, Whistler demonstrated early leadership by adopting the Energy Step Code level 3 to 4 for Part 9 buildings (step 4 with In-Ground Basement Floor Area Exclusion). The next steps towards increased energy efficiency will be to adopt the BC Energy Step Code for Part 3 buildings with the goal to achieve top step of ESC by or before 2030.

As a result of adoption of the BC Energy Step Code, the building emissions and energy component of the Green Building Policy is implemented through the municipality's building bylaw, rather than through the policy. Meaning that, lowering building GHG emissions and energy use is incentivized through the step code adoption and compliance pathway ([BC Energy Step Code in Whistler](#)). The Green Building Policy scope should be updated to reflect this change as the updated policy will cover additional important environmental objectives that can also be achieved through new building design and construction such as water conservation, construction and demolition waste reduction, sustainable (i.e. recycle, low-carbon, low-emitting) building materials and finishes, and ecosystem/site protection and enhancement.

Analysis

The OCP and the Big Moves Strategy, as well as the provincial Climate Leadership Plan, set precise climate targets and goals. These new municipal and provincial climate goals triggered the need to modernize and update the Green Building Policy framework. Therefore, staff used these documents to identify priorities for Whistler's Green Building Policy. These areas of priorities form a framework for an updated Green Building Policy.

In addition to the Climate Action Big Moves, the updated policy will support key goals from the OCP. Specifically, staff identified six goals contained in three different chapters that can be directly addressed through the Green Building Policy update.

¹ Net-zero energy ready means that energy use is reduced to the extent that all the building's energy needs could be supplied by on-site renewable energy (e.g. solar).

First, in Chapter 5, Goal 5.4 that seeks to “reduce the environmental and energy impacts of residential neighbourhoods to improve the quality of life and sustainability of the resort community” can be directly tackled by encouraging more environmentally-friendly and energy efficient design through the Green Building Policy. Then, the policy, through appropriate guidelines and requirements, can effectively help support Goals 7.1, 7.2 and 7.3 from Chapter 7. These goals seeks to protect and proactively manage Whistler’s sensitive natural environment.

Finally, the Green Building Policy can also support Goal 10.2 and 10.3 from Chapter 10 by establishing requirements and development guidelines that can contribute to reducing GHG emissions from buildings, infrastructures and transportation.

Proposed Approach

In order to group the guidelines and requirements according to their targeted goals (e.g. GHG reduction, reduction of potable water usage, etc.), staff propose organizing the updated Green Building Policy around six sections:

1. **Building Energy and Emissions**
 - This section will focus on buildings and their energy performance. In each of the municipal framework reviewed, energy was invariably found to be a predominant focus area. It will be aligned with the updated Building Bylaw and reference the Energy Step Code in order to reduce the total building energy demand and target net zero energy consumption. The guidelines of this section will focus on innovative strategies (i.e. passive design strategies) to decrease energy requirements and associated greenhouse gas emissions, and lower the share of energy supplied by non-renewable sources.
2. **Material Intensity**
 - Targeted goal of this section is to reduce solid waste generation during demolition and construction. It will also address the use of environmentally-friendly materials and techniques.
3. **Sustainable Site Design**
 - This section focuses on the preservation, restoration, and enhancement of the site and surrounding areas. It will encourage landscaping strategies promoting biodiversity and enhancing the natural spaces surrounding the built environment, supporting and reinforcing existing Development Permit Area guidelines, and mitigating the impact of development activities on the natural environment.
4. **Green Mobility**
 - This section focuses on scaling up EV charging infrastructures, reducing car dependency, encouraging alternative transportation modes and pedestrian friendly design.
5. **Water Conservation and Rainwater Management**
 - Targeted goal of this section is to reduce the use of potable water for indoor and outdoor water uses, as well as rainwater management. Reducing potable water use, harvesting, and re-using stormwater, and managing the quantity and quality of stormwater are all topic areas of this section.
6. **Solid Waste**
 - This section will focus on reducing the solid waste generation during operational phases of the development.

These six sections will allow the policy to cover and support effectively all priorities identified within the OCP and the Big Moves Strategy. The proposed sections were also benchmarked against what other municipalities have in place and compared to other local government frameworks. Based on staff analysis, the proposed sections will allow the policy to cover all important aspects of sustainable development in Whistler, and are aligned with form and character Development Permit Area guidelines. In addition, the sections still allow the updated policy to cover the same areas that were previously covered by the current Green Building Policy.

This approach will set a framework that will ensure that developments continue to deliver innovative sustainability measures that align with the RMOW's current priorities while improving and simplifying the process for developers. Applicants can currently choose their own approach to describe how the project meets the six objectives of the Green Building Policy, this means that staff often have to analyze a wide variety of responses from project teams in how they intend to meet the objectives. Providing developers and applicants with clear guidelines and requirements as well as a clear pathway, will simplify the process and eliminate added requirements and time for staff and applicants.

Overall, the proposed approach reflects sustainability best practices, informed by green building frameworks, and is based on other local government approaches. It encourages an integrated design approach and considers the building as a whole. It will contribute to develop a holistic approach for development in Whistler with clear targets and requirements for designers and builders.

Each section will include specific guidelines, requirements and targets that will support OCP goals mentioned above, and their associated objectives and policies. An example of potential guidelines for the "Material Intensity" section is provided in Appendix B.

The proposed framework focuses on establishing guidelines and requirements to achieve higher sustainability standards as a condition for rezoning applications and will help staff and council evaluate rezoning and development applications through a sustainability lens. It will help identify and leverage opportunities for improved energy performance. Furthermore, the framework will ensure consistency in future updates to related Development Permit Area guidelines and municipal bylaws.

Industry and Community Engagement

Engagement with industry, key stakeholders, and the community is proposed to occur before the policy update is adopted, through a combination of industry workshops, in-person meetings with key stakeholders, and information sharing via the RMOW's website, supported by social media, with an opportunity for input by members of the public.

Stakeholder and industry engagement seeks to collect their input and advice on the proposed approach, proposed sections and topic areas. Launching in February 2022, staff will engage industry and community key stakeholders. Industry engagement will be important to understand industry's experience in other jurisdictions, and with sustainable design and construction.

Key stakeholders will be approached to share thoughts on the proposed approach and guidelines. Stakeholders to be targeted for engagement include members of the construction and development industry and relevant non-profit organizations (e.g. Canadian Homebuilders Association, Association of Whistler Area Residents for the Environment (AWARE)). Committees including the Advisory Design Panel, CECAP Advisory Group, Transportation Advisory Group, and Zero Waste Committee will also be consulted.

Staff will work with relevant departments within the RMOW to ensure that the updated Green Building Policy is aligned with sustainability and green building initiatives planned and underway in Whistler including the RMOW Solid Waste Management Strategy, Transportation Action Plan, and Zero Waste Action Plan.

Industry input will identify opportunities and constraints and feasibility of proposed targets, metrics, strategies, and requirements. This input will inform refinements to the policy.

Staff also plan to inform the public and members of the community through a project page on the RMOW's website. This is a great opportunity to demonstrate concrete actions that the municipality is taking to tackle climate change and meet its climate related targets. This project page will also provide community members with an input opportunity on the proposed policy and associated guidelines.

Staff will return to council to share results of the engagement, and bring forward the Green Building Policy for consideration and approval by Council.

POLICY CONSIDERATIONS

Relevant Council Authority/Previous Decisions

On October 20, 2008, RMOW council received Administrative Report No. 08-155 (Appendix C) [Revised Green Building Policy and Whistler Green Checklist Report No. 08-155, File No. 7733] to adopt the current Green Building Policy.

[Whistler Solid Waste Management Strategy](#), received by council in July 2013, was created to help reduce Whistler's solid waste costs primarily through increased waste diversion. The Strategy provides a list of recommendations that are relevant for the update of the Green Building Policy.

On [July 10, 2018](#), RMOW council received [Administrative Report No. 18-093](#) [Building and Plumbing Regulation Amendment Bylaw (Energy Step Code) No. 2197, File No. A073] to seek first, second and third readings for, "Building and Plumbing Regulation Amendment Bylaw (Energy Step Code) No. 2197, 2018" to enable the BC Energy Step Code within Whistler.

[Whistler Transportation Action Plan 2018-2028](#) is the long-term transportation plan for the RMOW. It was developed to identify initiatives and projects to be implemented over the next ten years to continue to improve our transportation system. Considerations for this plan shall be included in the updated Green Building Policy, especially in the Green Mobility section.

On [December 15, 2020](#), RMOW council received [Administrative Report No. 20-126](#) [Climate Action Big Moves Strategy, Report No. 20-126 File No. 5290] and adopted the [2020 Climate Action Big Moves Strategy](#) that aims to focus on climate change mitigation priorities that will accelerate climate action in Whistler and achieve significant greenhouse gas (GHG) reductions. The Big Moves Strategy serves as a basis for establishing priorities within the Green Building Policy. As previously mentioned, the Green Building Policy seeks to land the Big Moves and will serve as a tool to accelerate climate action in Whistler and meet RMOW's climate targets.

[Whistler Zero Waste Action Plan 2021-2026](#) is an update to the 2013 Zero Waste Plan and aligns with other existing plans and policies for reducing waste and the accompanying greenhouse gas (GHG) emissions. The updated Green Building Policy will have to align with the targets and strategies comprised in this plan.

Corporate Plan

The RMOW Corporate Plan is updated annually and articulates strategic direction for the organization. This section identifies how this report links to the plan.

Council Focus Areas

- Community Balance

*Effectively **balance resort and community needs** through deliberate planning, partnerships and investment*

- Climate Action

*Provide leadership to **accelerate climate action and environmental performance** across the community*

- Housing

*Advance strategic and innovative initiatives to enable and **deliver additional employee housing***

- Not Applicable

Community Vision and Official Community Plan

The Official Community Plan (OCP) is the RMOW's most important guiding document that sets the community vision and long-term community direction. This section identifies how this report applies to the OCP.

Chapter 5: Land Use and Development addresses residential and tourist accommodation, commercial and industrial space, and agricultural and extractive uses. In particular, Goal 5.4 seeks to reduce the environmental and energy impacts of residential neighbourhoods to improve the quality of life and sustainability of the resort community.

5.4.1	Objective	Encourage environmentally-friendly and energy efficient design, construction and renovation standards for both new developments and redevelopment of residential areas.
5.4.1.1	Policy	Encourage all new buildings and renovations to be built with environmentally sustainable methods, standards and technologies including by implementing the BC Energy Step Code

Chapter 7: Natural Environment aims at protecting, monitoring and restoring Whistler's natural environment. Specifically, Goal 7.1 seeks to protect, manage and restore Whistler's sensitive ecosystems, wildlife, habitat and biodiversity.

7.1.1	Objective	Implement land development approaches that minimize negative impacts on the natural environment.
7.1.1.7	Policy	During development or significant redevelopment, the preferred outcome is avoidance of negative environmental impacts, followed by minimization

or mitigation, thirdly, by restoration and, lastly, by compensation for impacts.

- 7.1.1.12 Policy Reduce the use of night-time lighting and contain glare to retain the quality of the night sky, while meeting safety needs.

Goal 7.2 is also relevant for the Green Building Policy, since it seeks to proactively manage natural areas and make them resilient to climate change.

- 7.2.2 Objective Manage, protect and restore native species, habitat and biodiversity in response to climate change forecasts and impacts.
- 7.2.2.3 Policy Encourage the use of native plant species that minimize the necessity for significant watering as a means of protecting local biodiversity and adapting to climate change.
- 7.2.2.4 Policy Prohibit the use of invasive plant species and support eradication of existing invasive plants.

Goal 7.3 outlines a commitment to protect water quality and quantity in local water bodies, streams and groundwater.

- 7.3.2 Objective Maintain overland and in-stream water flows after development and significant redevelopment.
- 7.3.2.4 Policy Require a stormwater management plan for development and significant redevelopment that balances pre- and post-development surface flows.

Chapter 10: Climate Action and Energy confirms the community's belief that climate change is real, that reducing GHG emissions is beneficial to our broader well-being and that governments should act promptly to mitigate the negative impacts of climate change. In relation with the Green Building Policy, Goal 10.2 aims at substantially reduce GHG emissions from vehicles and transportation.

- 10.2.3.1 Policy Integrate support for electric vehicle charging infrastructure into relevant municipal development policies, including electric vehicle-readiness requirements for parking areas and garages in new, or significant redevelopment, projects.

Goal 10.3 seeks to substantially reduce GHG emissions from buildings and infrastructure, and therefore should be considered in updating the Green Building Policy.

- 10.3.1 Objective Make energy conservation and energy efficiency initiatives the core strategy and highest priority for achieving our GHG emission reduction goals.
- 10.3.1.1 Policy Maintain, update and apply the Green Building Policy to reflect leading practices in energy efficiency and local government jurisdiction, including a broad, progressive integration of the BC Energy Step Code.

Chapter 13 establishes Development Permit Areas designated for the protection of the natural environment, its ecosystems and biological diversity, and for the establishment of objectives for the form and character of developments. The updated Green Building Policy will align with and reinforce relevant Development Permit Areas guidelines. In addition, the Green Building Policy will guide future DPA updates.

DPA guidelines for the protection of the environment seek to protect, restore and enhance natural areas from the effects of residential, commercial and industrial development. Green Building Policy sections 3 (Sustainable Site Design) and 5 (Water Conservation and Management) relate directly to the environmental protection DPAs.

Development Permit Areas designated for the establishment of objectives for the form and character encourage visually attractive developments that respond to natural features and strengthen the character of existing neighbourhoods. Green Building Policy sections 1 (Energy and Emissions), 2 (Material Intensity), 3 (Sustainable Site Design) and 4 (Green Mobility) will relate directly to form and character DPAs.

By supporting effectively the Development Permit Area, both for the protection of the environment and for the form and character, the Green Building Policy can help anticipate future updates to the DPA guidelines. This alignment will allow the policy to avoid inconsistency between guidelines.

Finally, the 2016 RMOW's Community Energy and Climate Action Plan (CECAP) sets out several recommended actions to reduce Whistler's contribution to climate change that can be supported by the Green Building Policy. Relevant actions for the policy are mostly found within section 6.2 *Stationary Energy Use – Buildings & Infrastructure GHG Emissions*:

- 6.2.1.6 Advance opportunities to reduce the direct heating of outdoor areas (i.e. heated driveways, heated stairs, patio heaters, outdoor gas fireplaces)
- 6.2.1.8 Actively investigate the development of a new district energy system for Whistler Village that increases energy efficiency, increases the share of energy production from renewable sources, reduces operating costs and decreases GHG emissions.
- 6.2.2.4 Maintain and update the RMOW Green Building Policy to require higher energy performance standards during rezoning for new residential buildings.
- 6.2.2.10 Maintain and update the RMOW Green Building Policy to modernize the framework and ensure that opportunities to increase energy performance outcomes are identified and leveraged during permit approval and rezoning processes (commercial, institutional and residential).

Relevant actions can also be found within section 6.4 *Solid Waste System-based GHG Emissions*:

- 6.4.1.3 Evaluate opportunities to require new development or significant redevelopment to incorporate meaningful measures to minimize solid waste during design and construction, deconstruct rather than demolish, and encourage alternative and evolving methods of waste diversion during building operation.

BUDGET CONSIDERATIONS

Staff time and related resources required for this work is covered by the Planning Department budget.

LIL'WAT NATION & SQUAMISH NATION CONSIDERATIONS

The RMOW is committed to working with the Lil'wat People, known in their language as *L'il'wat7úl* and the Squamish People, known in their language as the *Skwxwú7mesh Úxwumixw* to: create an enduring relationship; establish collaborative processes for Crown land planning; achieve mutual objectives; and enable participation in Whistler's resort economy.

There are no specific considerations to include in this report.

COMMUNITY ENGAGEMENT

Level of community engagement commitment for this project:

Inform Consult Involve Collaborate Empower

Staff has outlined an engagement strategy to inform and consult public and stakeholders as part of the Green Building Policy Update proposal.

REFERENCES

Appendix A – Green Building Policy G-23
Appendix B – Potential Guidelines (example)
Appendix C – Administrative Report No. 08-155

SUMMARY

This report outlines proposed updates to the RMOW Green Building Policy G-23, bringing it into alignment with provincial guidelines, industry best practices, and municipal sustainability initiatives, and outlines a community and stakeholder engagement process. It creates a framework to ensure that new development delivers sustainability measures consistent with best practices and is aligned with the RMOW's sustainability and climate action priorities, while improving and simplifying the process for applicants.

SIGN-OFFS

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