TO: Vancouver City Council

FROM: General Manager, Planning, Urban Design and Sustainability

SUBJECT: Zero Emissions Buildings Catalyst Tools

RECOMMENDATION

A. THAT the General Manager of Planning, Urban Design and Sustainability make application to amend the Zoning and Development By-law to:

(a) allow the Director of Planning to relax regulatory provisions of the Zoning and Development By-law; and

(b) to allow for an incremental increase of permitted floor area of up to 5% for buildings designed to achieve the Passive House or International Living Future Institute Zero Energy standard, generally in accordance with Appendix A;

FURTHER THAT the Director of Legal Services be instructed to prepare the necessary amendments to the Zoning and Development By-law, generally in accordance with Appendix A, for consideration at Public Hearing.

B. THAT Council approve the Zero Emissions Buildings Catalyst Policy (attached as Appendix B), which provides the Director of Planning with guidance to advance the Zero Emissions Building Plan, and direct staff to implement the tools provided in the policy to advance the design and construction of zero emissions buildings in Vancouver;

FURTHER THAT staff develop administrative guidelines as required to support implementation of the Zero Emissions Building Catalyst Policy;

AND FURTHER THAT Recommendations A and B be referred to Public Hearing.
REPORT SUMMARY

To inform action towards achieving the Renewable City Strategy goal of new buildings being zero-emissions by 2030, the Zero Emissions Building Plan was endorsed by Council in 2016. The Plan acts as the roadmap to require new buildings in Vancouver to use 100% renewable energy and have no operational greenhouse gas emissions. A key strategy of the Plan is to develop catalyst tools that support private builders and developers to demonstrate effective approaches to zero emissions new buildings.

In advance of building regulations that will achieve zero emissions, early private sector champions are needed to drive innovation in building design practice, test regulatory barriers, and stimulate the building supply chain. Effective catalyst tools will support voluntary leadership in the building industry, build capacity across the industry, and reduce costs through market transformation. In addition to this gradual transformation, new zero emission buildings significantly reduce operational costs for occupants.

Residential construction represents the largest sector of new building in Vancouver, and is therefore the focus of this policy. To develop a range of tools that will have an impact at different scales of development, residential buildings can be divided into two categories: lower density ground-oriented dwellings, and higher density multi-unit residential and mixed-used buildings. Each category faces different design and construction challenges, and is supported with different catalyst tools. The program in this report is focused on multi-unit residential and mixed-use buildings.

To support the higher-density residential building sector, this report recommends a new policy and two amendments to the Zoning and Development By-law (“Zoning By-law”) that are intended to catalyse the voluntary construction of zero emission multi-unit residential and mixed-use buildings in Vancouver, as follows:

1. The Zero Emissions Building Catalyst Policy will give direction to the Director of Planning to apply discretion to City regulations and policies, in equal consideration with other city policies and goals. The Policy will also provide clarity and guidance to staff and applicants on tools to advance early multi-unit near zero-emissions buildings.

2. An amendment to Section 3.2.1 of the Zoning By-law will authorize the Director of Planning to exercise discretion due to hardship to relax regulations for multi-family near zero-emissions projects. This will enable near zero-emission projects to be accommodated where there may be gaps or contradictions that arise when applying existing zoning regulations.

3. An amendment to Section 11 of the Zoning By-law will allow for an increase of up to 5% in permitted floor area for multi-unit residential and mixed-use Passive House and Zero Energy projects.

In anticipation of building code updates that will require near-zero emissions in 2026, this program will be time-limited.

By implementing these three time-limited catalyst tools, voluntary leaders who support the City’s climate action goals will be able to pursue near zero-emissions buildings with
reduced real or perceived risk, while advancing capacity in near-zero design practice and lowering cost in the building supply chain.

**COUNCIL AUTHORITY/PREVIOUS DECISIONS**

July 2006: Council unanimously initiated the EcoDensity program, defined at its launch as high quality and strategically located density to make Vancouver more sustainable, affordable, and livable.

June 2008: Council unanimously approved the Charter and the majority of initial actions for EcoDensity, a series of sustainability initiatives including affordable housing strategies, greenhouse gas reduction and climate change action plans, and a green building strategy.

November 2008: as part of the EcoDensity initiative, Council passed a resolution to amend the Zoning and Development By-law to remove certain barriers to new green buildings.

May 2009: Council endorsed the Passive Design Toolkit and the Passive Design Toolkit for Homes as official City of Vancouver publications, and directed staff to report back on ways to integrate this work in the City’s regulatory framework.

January 2011, March 2015: Council approved amendments to the Zoning and Development By-law to facilitate the removal of further barriers to green building approaches, with a specific focus on Passive House certified projects.

July 2016: Council approved the Zero Emission Building Plan, which laid out four action strategies that aim to ensure new buildings in Vancouver will have no operational greenhouse gas emissions by 2030. The third of these strategies focuses on the development of tools to catalyse leading private builders and developers to demonstrate effective approaches to zero-emission new buildings.

November 2017: Council approved regulatory amendments to remove barriers and authorize the Director of Planning to exercise discretion when considering the development of Passive House houses and other low-density residential in RS zones.

**CITY MANAGER’S/GENERAL MANAGER’S COMMENTS**

Rapid and effective transformation of the local building industry will enable the City to achieve its goals under the Greenest City Action Plan and the Renewable City Strategy. To support voluntary leadership, build capacity, foster market innovation leading to lower construction costs, and reduce energy costs for residents immediately, appropriate catalyst tools are required for the building industry to achieve near zero-emissions building practices until this requirement is achieved through Vancouver’s Building By-law. The City Manager supports the recommendations in this Report.
REPORT

Background/Context

A near zero-emissions level of performance for new buildings is not currently required in Planning policies or in the Building By-law, and most projects to-date have been done voluntarily by a small number of leading developers and builders. In July 2016, Council approved the Zero Emissions Buildings (ZEB) Plan, and directed staff to develop catalyst tools to support rapid and effective transformation of the local building industry in the transition to near zero-emissions buildings. To be successful, catalyst tools should support voluntary leaders in the building industry, as those champions navigate the challenges inherent in early innovation.

As established in the ZEB Plan (2016) one of the most effective and tested ways to achieve a near zero-emissions building is through the Passive House standard. A Passive House building is an ultra-low energy building that uses more insulation in walls, windows, doors and roofs that generally require 85% less heating energy and 60% less overall energy than typical buildings in Vancouver. For those projects not suited to Passive House or seeking an alternate standard, the International Living Future Institute (ILFI) also provides near-zero emissions certification through the Zero Energy standard (referred to in this report as ‘ILFI Zero Energy’). ILFI is a North American based non-profit organization that is the creator of the Living Building Challenge, which is a sustainable building certification program. The ILFI Zero Energy certification standard requires that a building’s net annual energy is met by on-site renewable energy without the use of on-site combustion.

Multi-Unit Residential Buildings

The need to catalyse the multi-unit residential sector to champion near zero-emissions buildings is crucial to achieving market transformation of the building industry. Multi-unit residential buildings now constitute the greatest proportion of new floor area that is built in the City. Between 2015 and 2017, multi-unit residential buildings made up 47% of new floor area that received building permits in Vancouver.

To date, only a handful of new multi-unit residential projects have been proposed or built as Passive House or net zero developments. Staff note that higher-density multi-unit residential buildings (MURBs) face different challenges than low-density residential buildings in a transition to a near zero-emissions standard. Examples of the practical challenges include: designing a multi-unit heat-recovery ventilation system without impacting useable space in residential units, construction practice and assemblies that support the weight of triple pane windows, and procuring exterior non-combustible doors that are certified for Passive House and are suitable for MURBs.

These implementation challenges require a new building design approach, removal of regulatory barriers, and evolution of the building material supply chain to improve selection of building components at a decreasing cost. The tools in the policy and the accompanying proposed by-law amendments are designed to mitigate the challenges voluntary leaders will have to overcome as they advance the transformation of near zero-emission multi-unit residential buildings. The tools also work as an immediate catalyst, supporting voluntary private sector champions who are ready to lead the transition to near-zero emissions buildings in Vancouver.
When structured properly, catalyst tools will support multi-unit residential developers pursuing Passive House or ILFI Zero Energy standards in working through real and perceived development and construction risks unique to the multi-unit residential and mixed-use building typologies. Once these shifts in the building industry are made, near zero-emissions standards can be more easily required in policy and the Building By-law. As zero emission buildings practise are broadly adopted, the catalyst tools can be discontinued.

One of the co-benefits of accelerating zero emission buildings is that it will create resilient green jobs and design expertise. Vancouver is a leader in North America for green buildings, but other cities, provinces and states are following closely behind. By catalyzing this new form of design and construction expertise, local employment opportunities will be created that will be marketable across North America.

**New Zero-Emissions Buildings – Perceived Industry Risks**

Although Passive House and standards like Zero Energy are well established for lower density forms, there are very few high density multi-unit residential and mixed-use buildings in North America. Early projects have already demonstrated that multi-unit Passive House is possible, but this limited number of projects are not able to initiate a full scale market transformation of the building industry. To enable successful market transformation, a critical number of early multi-unit residential and mixed use near zero-emissions buildings are required before policy and by-law requirements come into place.

Undertaking multi-unit residential or mixed-use construction to a near zero-emissions standard involves a number of different steps, including: developing new building design approaches, implementing a new construction process, and working with suppliers to source new building materials.

The steps to implementing a near zero-emissions standard all result in understanding new approaches, longer construction times, and in some instances additional labour and consulting resources to ensure that near zero-emission outcomes are successful. These factors can result in incremental costs when compared to a business-as-usual building.

In this pre-regulatory phase of transforming the building industry to a near zero-emissions standard, a significant obstacle is in persuading the private sector to take on a new voluntary building standard that has incremental cost for early adopters. Civic policy can play a bridging role in mitigating risk for early champions who are advancing the sustainability agenda.

The catalyst tools that are proposed represent bridging mechanisms that the City can provide to off-set the incremental cost risk that private sector champions must willingly take on to achieve early near zero-emissions projects. These tools do not have a financial cost to the city, but combined will counterbalance the incremental cost voluntary private sector leaders will take on.

**Strategic Analysis**

In evaluating catalyst tools, staff consulted with the building industry and internal departments on mechanisms that can be used to advance City initiatives. Some tools such as faster development and permit process times were proposed by the building industry. Although an accelerated development review program was established in 2017
resulting in the Social Housing or Rental Tenure (SHORT) list, this program is exclusively designed to prioritize affordable and social housing rental projects. Other proposed tools were evaluated as not being practical or effective in catalysing voluntary Passive House multi-unit residential buildings.

After assessing different catalyst tools in consultation with staff and the building industry, a suite of best approaches emerged. The following section provides a review of the catalyst tools being proposed, and how they will address the real and perceived risks related to building multi-unit residential near zero-emissions projects in advance of regulation.

The catalyst tools that are proposed are designed to apply city-wide, and work in conjunction with existing zoning regulations, city plans, policies and guidelines. The tools are in-line with standard City practices, and have been modelled on other incentive programs. The recommended Catalyst Policy and By-law amendments do not create new types of discretion or approval. Developments that are eligible to use the catalyst tools would be subject to the standard policy review and public consultation process.

In November 2017, Council endorsed regulatory amendments to remove barriers and provide discretion to the Director of Planning when considering the development of Passive House projects in RS (low-density residential) zones. However, policies that apply to multi-family buildings are different. The proposed use of discretion would bring an equal approach for multi-unit residential and mixed-use buildings.

All the catalyst tools are designed with a sunset clause, where they will cease to be in effect once near-zero emissions buildings become codified and are required in the Building By-law and other policies. The target date for codification is December 31, 2025. This rapidly approaching date also underlines the need to quickly adopt policy that will catalyse the development of more near-zero buildings in a short period.

Based on the foregoing background and analysis, staff recommend the following policy tools, as outlined in the Recommendations of this report.

**Zero Emissions Building Catalyst Policy**

As regulatory barriers are tested with early projects, there are some policy or by-law requirements which can present a real or perceived challenge to Zero Emissions Buildings. However, there is no policy that gives clarity or guidance on how the Director of Planning can apply the existing discretionary tools to enable near zero-emissions developments.

Early near-zero projects in Vancouver have demonstrated that there are opportunities to bring an energy efficiency lens to building envelope and systems, while still delivering a high standard of built form and design. At the same time, some design solutions may require relaxations to the Zoning By-law in order to allow near-zero emissions projects. The Catalyst Policy will provide guidance to the Director of Planning for how discretion can be applied, and clarity for staff and applicants in the design and review of near-zero emissions projects.

This report proposes the following two approaches to the Director of Planning’s discretion:
1. **Use of Existing Discretion in Planning Policies and By-laws:** Where the Director of Planning has existing discretion in policies, guidelines, and zoning by-laws, the Zero Emissions Building Catalyst Policy (Appendix A) clarifies that they can be used to advance near-zero emission buildings. For example, this discretion could be used to increase floor plate limits within a Planning policy to accommodate additional insulation. The policy will also set out principles that apply to the use of this discretion, for the benefit of staff and applicants.

2. **Regulatory Discretion for Near-Zero Emission Buildings:** Amendments to the Zoning By-law (Appendix B) will provide the Director of Planning with regulatory discretion to advance multi-unit residential buildings designed to achieve near-zero emissions, in the same way that discretion is provided to support other City goals such as tree retention and heritage preservation. For example, this discretion could be used to relax frontage requirements to facilitate a near-zero emissions building.

The ability to apply discretion to early projects will support innovative approaches and advance building design practice, in support of achieving near-zero emissions buildings.

**Limited Increase in Permitted Floor Area**

Since adoption of the Zero Emissions Building Plan, the development industry has identified an incremental density increase as the most effective catalyst to build to a Passive House or ILFI Zero Energy standard. This can help offset the incremental cost of near zero-emissions design and construction. Examples of incremental costs include building air-tight wall assemblies, triple-pane certified window and doors, multi-unit heat recovery ventilators (HRVs), and the cost of procuring other components which are not yet standard in the local supply chain. While the incremental construction cost varies with the size and complexity of the project, local estimates show the current incremental cost of construction for a multi-unit Passive House project as being 4 to 7% higher than business-as-usual construction.

Staff have worked with urban economic consultants to evaluate the effect of near zero-emissions standards on early development decisions from real and perceived risks such as incremental construction costs. After consideration of this advice and consultation with industry representatives, staff recommend an increase of up to 5% in permitted floor area to mitigate the cost premium and other risks for early Passive House or ILFI Zero Energy projects (Appendix A). The floor area incentive is designed to be modest enough to avoid conflict with other Planning programs, while still being sufficient to spur innovation and advancement in the industry. The following table provides examples of how a 5% floor space ratio increase would translate into the total permitted floor area:

<table>
<thead>
<tr>
<th>District</th>
<th>Conditional Density</th>
<th>+ 5% Floor Area Increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>RM-5</td>
<td>2.20</td>
<td>2.31</td>
</tr>
<tr>
<td>C-2</td>
<td>2.50</td>
<td>2.63</td>
</tr>
<tr>
<td>C-5A</td>
<td>7.00</td>
<td>7.35</td>
</tr>
</tbody>
</table>

This increase is separate from and applies in addition to previously approved floor area exclusions, such as those related to insulation, to ensure its intended effect. Staff will monitor the effectiveness of the amount to determine if it is an effective catalyst tool, and
may recommend adjustment to Council in the future if it is insufficient to support a timely transition to zero emission buildings.

To ensure that the Policy does not have unintended effects on existing rental housing stock, staff recommend that the Policy include a provision which allows the Director of Planning to decline applications that negatively impact existing rental units in a Rate of Change area as identified in the Zoning By-law. In addition, Housing Policy staff have identified the RM-3 district as a particular area of concern and recommend that the floor area increase not apply in this district.

**Case Study and Energy Reporting:**

Early zero emissions buildings provide practical examples for other voluntary leaders, and can help identify barriers or opportunities in City policy. Energy use data from early near zero-emission projects will help to build capacity and refine future policy and regulation. Accordingly, applicants that propose increased floor area as part of a near-zero emission building project will commit to providing a case study that includes standardized energy reporting, indoor air quality reporting as per the Green Building Rezoning Policy (2016) and lessons learned in building design and construction, as outlined in the Policy.

**Zero Emissions Buildings, and Reduced Energy Costs**

Extensive energy use modelling, and results from early multi-unit residential Passive House projects in climates similar to Vancouver’s, show that buildings built to Passive House certification achieve significantly lowered energy use and energy costs. Compared to conventional multi-unit buildings, a Passive House building will use 85-90% less energy to achieve the same comfortable internal building temperature.

Lower heat energy use also translates into lower heating bills. In 2012, RDH Building Science Laboratories undertook an energy use survey of 39 apartment buildings in the Lower Mainland and Victoria BC. This study found that the median energy use in existing multi-unit buildings was 217 kilowatt hours per m² per year. Translated into cost, a 74.3 m² (800 sq. ft.) apartment would spend an average of $72 per month on space heating, excluding plug-in appliances and hot water. In comparison, heating the same unit in a Passive House project would require only 15 kilowatt per m² per year, and would cost between $7 to $11 per month to heat. This saves hundreds of dollars per year and leads to enhanced affordability over time.

This is consistent with preliminary data from Vancouver’s first multi-unit Passive House purpose-built rental building, *The Heights* on Skeena Street. Energy modelling for the building indicates that heating bills for residents will be 85% lower heating costs than for conventional buildings.

Passive House produces the operational affordability of new housing, as the cost of energy in new construction is primarily borne by residential occupants. While low and stable heating costs do not address the cost of buying a dwelling unit, the ability to significantly reduce operating costs for the life-span of the building contributes to affordability for residents.

For this reason, the recommended increase in permitted floor area is only available for projects that meet the definition of *Low Operational Cost Housing* (attached as Appendix
A), which is a development that contains 6 or more dwelling units built to the Passive House or ILFI Zero Energy standards.

**Implications/Related Issues/Risk (if applicable)**

**Financial**

There are no financial implications.

**Human Resources/Labour Relations**

There are no HR implications.

**Environmental**

Developing catalyst tools will support industry leaders who are voluntarily pursuing higher than required levels of energy efficiency performance in multi-unit residential and mixed-use buildings. This is a crucial step to achieving the City’s GCAP and Renewable City Strategy building related GHG reduction targets.

**Legal**

This report proposes amendments to the Zoning By-law.

**CONCLUSION**

Approving the recommendations in this report will make the early development of multi-unit residential and mixed-use near-zero emissions building projects more feasible for private sector leaders who are voluntarily working to meet the City’s zero-emissions goals for buildings. By allowing for reasonable design flexibility, and by providing discretionary guidance to the Director of Planning and development review staff, innovative design approaches to zero-emissions building forms can be applied, and can inform future building regulation. A limited increase in floor area for Passive House and ILFI Zero Energy construction can offset present incremental costs as the building industry transitions to zero-emissions standards, which results in greatly reduced GHG emissions and significant energy cost savings for residents that contributes to affordability. The limited increase in floor area can also mitigate real and perceived risks of delivering new energy-efficient residential buildings. In establishing these catalyst tools that support voluntary leadership, build capacity and lower costs, the City of Vancouver is enabling a major shift in how multi-unit residential and mixed-use buildings are built in the City, ultimately driving towards a zero-emissions future.
BY-LAW NO. ______

A By-law to amend
Zoning and Development By-law No. 3575
regarding Zero Emission Buildings

THE COUNCIL OF THE CITY OF VANCOUVER, in public meeting, enacts as follows:

1. This By-law amends or adds to the indicated provisions of the Zoning and Development By-law.

2. In Section 2, Council inserts the following new definition, in correct alphabetical order:

   "Low Operational Cost Housing means a building that is designed for certification under the Passive House standard or the International Living Future Institute’s Zero Energy standard in order to lower energy use, reduce greenhouse gas emissions and energy costs, and is therefore considered to be a form of affordable housing under section 565.1(2) (b) of the Vancouver Charter;"

3. Council amends section 3.2.1 by deleting the period “.” that follows “enhanced accessibility” at the end of subsection 3.2.1(g) and replaces it with “; or”, and inserts as a new subsection 3.2.1 (h), as follows:

   (h) for Low Operational Cost Housing containing 6 or more dwelling units, except that permitted floor area or density of units may not be increased or relaxed above the maximum permitted within the district schedule under this By-law, and may be granted by the Director after consideration of all Council adopted policies and guidelines. This subsection (h) does not apply to Comprehensive Development zones, and shall not apply to applications made after December 31, 2025.

4. Council inserts a new section 11.34 as follows:

   “11.34 Permitted Floor Area Increase for Low Operational Cost Housing

   Notwithstanding the maximum permitted floor area regulation in any District Schedule, the Director of Planning may approve an addition of up to 5 per cent of the floor space ratio for Low Operational Cost Housing containing 6 or more dwelling units, excluding sites that contain rental housing units in the RM-3 zone, provided the Director of Planning first considers all applicable policies and guidelines adopted by Council. This section shall not apply to applications made after December 31, 2025.

5. A decision by a court that any part of this By-law is illegal, void, or unenforceable severs that part from this By-law, and is not to affect the balance of this By-law.
6. This By-law is to come into force and take effect on the date of its enactment.

ENACTED by Council this day of , 2018

____________________________________
Mayor

____________________________________
City Clerk
ZERO EMISSIONS BUILDING CATALYST POLICY

Authority - City Council
Effective May 23, 2018

1 Introduction
In July 2016, Vancouver City Council approved the Zero Emissions Building Plan, aimed at reducing emissions from new buildings by 90% in 2025. The Plan also adopted a target of reducing emissions from all newly permitted building to zero by 2030. In adopting the Plan, Council directed the development of new measures to facilitate the development of zero emission buildings and provide them with equal weight as other public policy objectives wherever such rules offer discretion to City officials or boards.

In May 2018, Council approved new catalyst tools to help builders and developers demonstrate zero emissions multi-unit residential and commercial buildings in advance of 2025. The purpose of this policy is to inform staff and applicants about the range of measures available to advance zero emission buildings at the rezoning and development permit stage, with reference to the Zoning and Development By-law and related Planning policies.

2 Limits
The Director of Planning may decline to apply this policy if the proposed development would detract from other civic goals, especially where the proposed development would affect:

- Buildings that are listed on the Vancouver Heritage Register
- Existing buildings with rental dwelling units in a Rate of Change area
- Council-approved view corridors, except where permitted in policy
- Lot assemblies that unduly restrict the development of remaining parcels

Council has directed that Vancouver’s Building By-law should be updated with time-stepped targets aimed at achieving zero emissions in line with the Zero Emissions Building Plan. Therefore, this policy will cease to be in effect on December 31, 2025.

3 Definitions
For the purpose of this policy, zero emissions buildings are projects designed for certification under the Passive House standard set by Passive House International (PHI), or the Zero Energy standard set by the International Living Future Institute (ILFI).

In this policy, reference to the Director of Planning includes the Development Permit Board.

4 General
Applications must respond to a wide range of policies including community plans, district schedules and design guidelines. Where appropriate, the Director of Planning may consider using discretion to facilitate
a zero emissions building. Examples of regulations, policies and guidelines that may be considered for relaxation or variance include frontage regulations, floor plate policies, and built form guidelines.

Relaxation or variance is discretionary, and the maximum amount proposed or permitted in policy or regulation may not be supported. Amounts will be evaluated based on the specifics of each proposal.

When making an enquiry or application under this policy, applicants should demonstrate the comprehensive integration of all other aspects of the relevant policies and regulations, including those on built form.

Passive House project teams must include a Certified Passive House Designer or Consultant. Zero Energy teams must include a consultant with relevant training and experience in net zero buildings. The project must be registered with ILFI or PHI, and the owner must commit to submitting the project for certification by those organizations.

5 Application

Discretion to vary policies and guidelines
Most policies and guidelines allow the Director of Planning to consider alternate approaches to their goals and intents.

Discretion to relax regulations
Regulations such as frontage requirements or site coverage may be relaxed as described in section 3.2.1(h) of the Zoning and Development By-law for specific zero emissions buildings. Where regulations include a reference to community and social goals, as in the RM-4 district schedule, discretionary increases may be considered to facilitate a zero emissions building.

Discretion to increase floor area
Density may be increased above the amount permitted in a district schedule, as described in section 11.33 of the Zoning and Development By-law, for specific zero emissions buildings. This increase will not be applied where the use of section 3.2.1(h) increases the permitted floor area.

6 Information Sharing

Early zero emissions buildings provide practical examples for other voluntary leaders, and can help identify barriers or opportunities in City policy. Data from these early examples will help to refine future practices. Therefore, applicants that propose increased floor area through this policy shall commit to providing a case study that includes lessons learned, along with reports on indoor air quality and building energy use. Reports should be consistent with the Green Buildings Policy for Rezonings.

7 Additional Resources

For additional information on the application of this policy including illustrative examples of the use of section 11.33 and 3.2.1(h) in the Zoning and Development By-law, see the Zero Emissions Building Catalyst Guidelines.

For additional information on the energy use and indoor air quality reporting requirements noted in section 6, see the Green Buildings Policy for Rezoning - Process and Requirements.
Applications using the Passive House building standard that propose the use of sections 10.7.3, 10.10.4, or 10.41 of the Zoning and Development By-law should also refer to the guide, *Passive House Relaxations - Guidelines for Larger Projects*.

Applications using the Passive House building standard that propose the use of discretionary sections of the RS district schedules in the Zoning and Development By-law should refer to the guide, *Passive House Relaxations - Guidelines for Residences in RS Projects*. 