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Introduction

Temperatures in Canada are rising faster than the global average. In Canada, the national average temperature has increased by 2 degrees Celsius between 1948 and 2023, making 2023 Canada's second warmest year. As global temperatures continue to rise as a result of climate change, so too will the duration, frequency, and intensity of extreme heat events.

Extreme heat is public health emergency. In 2023, Environment and Climate Change Canada recognized extreme heat as the deadliest weather-related event in Canada.4 When the body cannot maintain its healthy core temperature at approximately 36.6 degrees Celsius, various life threatening conditions can occur including dehydration, cramps, heat exhaustion, heat stroke, and premature death. Many municipalities have already recognized the risks of climate change and over 650 across Canada have declared a climate emergency.5 In this climate response, municipalities must address the dangers of extreme heat to reduce heatrelated illness and deaths.

People spend most of their time indoors at home. In 2014, the average Canadian spent 69.9% of their day indoors at home, and this number has only increased since the COVID-19 pandemic.⁶ Tenants are the most

susceptible to extreme heat events because many lack access to air conditioning or cooling and are therefore unable to control the temperature within their rental units. A 2024 ACORN Ottawa report surveyed 295 residents in Ottawa and nearly half of survey respondents reported that their units were too hot during the summer, and 40% of them reported not having air conditioning.⁷

Indoor Temperatures of 26 Degrees Celsius

A 2024 study of older adults in Ottawa found that core temperature and cardiovascular strain increased progressively above the indoor temperature threshold of 26°C.8 This finding is supported by a two-decade Statistics Canada study which finds that extreme heat is related to higher mortality risks for those aged 65 and older. 9 In 2022, the Government of British Columbia released report that identified high indoor temperature as the primary cause of injury and death in the province's 2021 heat wave.10 Moreover, the British Columbia Centre for Disease Control found that people were most danger when indoor temperatures remained above 26°C throughout the event.11 These reports add to the growing body of literature that identifies 26°C as the maximum safe temperature threshold for indoor environments.12

Why is Indoor Cooling Essential?

Public cooling centres are not adequate for vulnerable populations. This is especially true for people with disabilities, mobility challenges, or respiratory problems. Individuals from these groups frequently criticize the effectiveness and accessibility of cooling centres. This criticism is substantiated by the fact that 90% of the deaths in BC's heat wave were over the age of 60 and 98% of deaths occurred indoors.¹³ Vulnerable populations require resources in their homes to survive.

Legal Framework

There is legal authority for municipalities to pass a maximum temperature by-law pursuant to the *Municipal Act, 2001* and the *Building Code Act, 1992*. The Courts have interpreted municipal authority to act on environmental and property standards broadly. Many Ontario municipalities have passed minimum temperature standards and some municipalities have passed maximum temperature standards for some rental units.

The next crucial step is for municipalities to pass maximum temperature by-laws for all rental units. This document presents as a toolkit for activists seeking protections against extreme heat events from their local municipalities.



Model Maximum Heat in Rental Units By-Law

WHEREAS sections 8, 9, 10, and 11 of the *Municipal Act, 2001*, S.O. 2001, c.25, (the "Municipal Act, 2001") authorize a municipality to pass by-laws necessary or desirable for municipal purposes, and in particular, paragraphs 5, 6 and 8 of subsection 10(2) for single-tier municipalities, and paragraphs 5, 6, and 8 of subsection 11(2) for lower-tier and upper-tier municipalities provide that a municipality may pass by-laws respecting the economic, social and environmental well-being of the municipality, the health, safety and well-being of persons, and the protection of persons and property;

AND WHEREAS section 425 of the *Municipal Act, 2001* authorizes a municipality to pass bylaws providing that a person who contravenes a by-law of the municipality passed under that Act is guilty of an offence;

AND WHEREAS section 436 of the *Municipal Act, 2001*, provides that a municipality may pass a by-law providing that the municipality may enter on lands at any reasonable time for the purpose of carrying out an inspection to determine whether a by-law of the municipality has been complied with;

AND WHEREAS sections 444 and 445 of the *Municipal Act, 2001*, provide that the municipality may make an order requiring the person who contravened the by-law or who caused or permitted the contravention or the owner or occupier of the land on which the contravention occurred to discontinue the contravening activity or to do work to correct the contravention;

AND WHEREAS the City of *[insert name]* considers it necessary to regulate cooling in all rented or leased dwellings.

Adequate and Suitable Cooling

(1) Adequate and suitable cooling shall be provided and maintained so that the room temperature at 1.5 metres above floor level and one metre from exterior walls in all habitable spaces and in any area intended for normal use by tenants, including recreation rooms and laundry rooms but excluding locker rooms and garages, is a maximum of 26°C.

- (2) Every dwelling unit shall have cooling equipment capable of maintaining the temperature levels required by subsection (1).
- (3) Only cooling equipment approved for use by a recognized standard testing authority shall be provided in a room used or intended for use for sleeping purposes.
- (4) The landlord is responsible for the safe installation of the approved cooling equipment by a qualified tradesperson.
- (5) Subsection (4) does not apply to a rental unit in which the tenant can regulate the temperature and a maximum temperature of 26°C can be maintained.
- (6) **Subsections 1-4** shall be implemented by the landlord within one year of the passing of this by law.

Definitions

In this bylaw:

Adequate and suitable cooling: indoor air temperature in the dwelling unit that does not exceed 26 degrees Celsius (26°C).

Dwelling unit: one or more habitable rooms used or designed to be used for human habitation.

Habitable space: a room or area used or intended to be used for living, sleeping, cooking, or eating purposes and includes a washroom.

Landlord:

- (a) The owner of a rental unit or any other person who permits occupancy of a rental unit, other than a tenant who occupies a rental unit in a residential complex and who permits another person to also occupy the unit or any part of the unit.
- (b) The heirs, assigns, personal representatives, and successors in title of a person referred to in clause (a).
- (c) A person, other than a tenant occupying a rental unit in a residential complex, who is
 entitled to possession of the residential complex and who attempts to enforce any of the
 rights of a landlord under a tenancy agreement or the Residential Tenancies Act, including
 the right to collect rent.

Qualified Tradesperson: someone who is a licensed Refrigeration and Air Conditioning Systems Mechanic or Electrician, including apprentices of the trade, as per the Skilled Trade Public Register, or someone else who is qualified to professionally install the approved cooling device.

Tenant: includes a person who pays rent in return for the right to occupy a rental unit and includes the tenant's heirs, assigns, and personal representatives, but "tenant" does not include a person who has the right to occupy a rental unit by virtue of being, (a) a co-owner of the residential complex in which the rental unit is located, or (b) a shareholder of a corporation that owns the residential complex.



Template for Deputation on Extreme Heat in Rental Housing

This deputation template is designed to help you address the critical issue of extreme heat in rental housing when speaking to municipal authorities, such as your City Council. It provides a structured format for presenting your concerns, supported by data and recommendations, to help you advocate for policies that ensure adequate indoor cooling for renters.

Please adjust the details and recommendations according to the specific context and needs of your community.

Dear City Council Members,

My name is [Insert Name], and I am here today to speak on behalf of [Name of Group/Organization] to address the critical issue of extreme heat in rental housing and its impact on vulnerable populations within our community. I wish to discuss the urgent need for a maximum temperature by-law that ensures adequate indoor cooling for renters to prevent heat-related illnesses and deaths.

1. Background

Extreme heat is an escalating concern in Canada, with over 650 municipalities declaring a climate emergency as of January 18, 2022. As global temperatures rise due to climate change, extreme heat events are becoming more frequent, intense, and prolonged.

These rising temperatures pose severe health risks. Extreme heat can lead to severe dehydration, heat cramps, heat exhaustion, heat stroke, and death. Hundreds of people have died from extreme heat. During the record-breaking summer of 2018, Quebec recorded 86 heat-related deaths.¹⁸ In British Columbia, the heatwave from June 25 to July 1, 2021 resulted in 619 heat-related deaths.¹⁹ Extreme heat is a public health emergency and action must be taken by municipalities to reduce heat-related deaths.

2. Extreme Heat and Vulnerable Populations

Vulnerable populations, including seniors, infants, individuals with chronic illnesses, individuals with mobility challenges, and those who are socially disadvantaged, are at higher risk for heat-related illnesses and death. Therefore, equity must be at the forefront of any policy addressing extreme heat.

In British Columbia, 90% of the 619 deaths during the 2021 heatwave were individuals over 60 years old, with 91% registered with at least one chronic disease. Most deaths occurred indoors in homes without adequate cooling systems, particularly affecting those in low-income neighborhoods.

Similarly, in Quebec's 2018 heatwave, elderly people, socially isolated individuals, and those with chronic diseases or psychotic disorders were the most affected.²¹ Most of the deaths were people living in an urban heat island without access to air conditioning.

3. Why Is Indoor Cooling Essential?

Public cooling centers, while essential for some, are not sufficient for those with mobility challenges, disabilities, or respiratory problems. These individuals require cooling within their homes to avoid the dangerous impacts of extreme heat. Unfortunately, landlords are currently not obligated to provide cooling systems, despite the severe health risks associated with high indoor temperatures.

Studies have shown that maintaining indoor temperatures below 26°C is critical for health. High indoor temperatures have been linked to increased emergency calls for cardiovascular and respiratory distress, exacerbated dementia symptoms, and impaired mobility among the elderly.

4. Model By-Law

To address this issue, I strongly encourage City Council to adopt and implement a maximum temperature by-law. Key provisions of such a by-law should include:

- 1. **Definition of Adequate Cooling:** Indoor air temperature in dwelling units should not exceed 26°C.
- 2. **Landlord Obligations:** Landlords must provide and maintain cooling systems capable of maintaining the required maximum temperature in all rental units.
- 3. **Implementation Timeline:** Landlords shall comply with the by-law's requirements within one year of the by-law's passing.

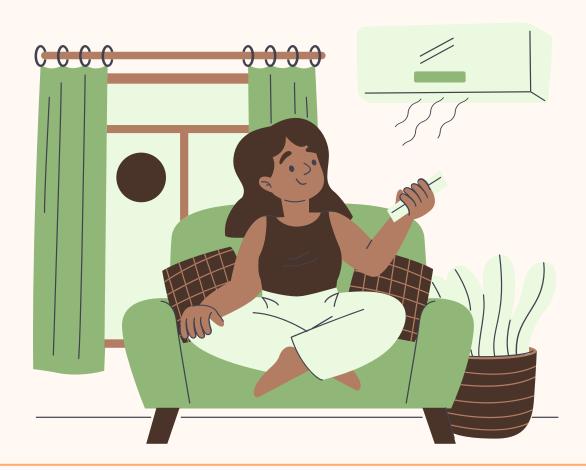
5. Additional Recommendations

In addition to a maximum temperature by-law that applies to all rental units, municipalities should implement additional measures, such as:

- 1. Free Public Transportation to Cooling Centers: Increase accessibility to public cooling centers by providing free transportation.
- 2. **Distribution of Bottled Water:** Partner with community organizations to distribute water to high-risk populations.
- 3. **Protection of Outside Workers:** Modify work schedules and provide sun protection for outdoor workers.
- 4. **Mapping Vulnerable Populations:** Use heat vulnerability maps to target resources effectively.
- 5. **Establish a Vulnerable Persons Registry:** Communicate proactively with vulnerable individuals and their caregivers during extreme weather.

I urge the City Council to consider these recommendations, in addition to a maximum temperature by-law, to protect the health and well-being of all residents from the increasing danger of extreme heat.

Thank you for your attention to this critical issue. I look forward to discussing this matter further.



Notes

- ¹ Environment and Climate Change Canada, "Canadian Environmental Sustainability Indicators: Temperature Change in Canada" (2024), online (pdf): https://www.canada.ca/content/dam/eccc/documents/pdf/cesindicators/temperature-change-en.pdf [Sustainability Indicators].
- ² Sustainability Indicators (note 1), at 5.
- ³ Christina Koppe et al., "Heat-waves: risks and responses," (2004) 2 *World Health Organization* at 14; Yuming Guo et al., Heat Wave and Mortality: a Multicountry, Multicommunity Study" (2017) *Environmental Health Perspectives* at 1.
- ⁴ Sustainability Indicators (note 1).
- ⁵ Random Acts of Green, "650 Municipalities Have Declared a Climate Emergency in Canada" (2022), online: https://raog.ca/climate-emergency-declarations-canada/. [Climate Emergency].
- ⁶ Carlyn Matz et al. "Effect of Age, Season, Gender and Urban-Rural Status on Time-Activity: Canadian Human Activity Pattern Survey 2 (CHAPS 2)" (2014) *Int J Environ Red Public Health online*: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3945588/#:~:text=Combining%20time%20spent%20indoors%20at,waking%20hours%20spent%20at%20home.>.
- ⁷ ACORN, "Engaging Tenants in Climate Action: A report on tenants' biggest climate issues, barriers and solutions" (2024), online (pdf): < https://acorncanada.org/wp-content/uploads/2024/07/Ottawa-Climate-Report-2024.pdf>.
- ⁸ Meade RD. et al., "Effects of Daylong Exposure to Indoor Overheating on Thermal and Cardiovascular Strain in Older Adults: a Randomized Crossover Trial" (2024) *Environ Health Perspect*, online: https://ehp.niehs.nih.gov/doi/10.1289/EHP13159>.
- Statistics Canada, "The impacts of extreme heat events on non-accidental, cardiovascular, and respiratory mortality: An analysis of 12 Canadian cities from 2000 to 2020" (2024), online: at 8.">https://www150.statcan.gc.ca/n1/en/pub/82-003-x/2024006/article/00001-eng.pdf?st=jzCexIUi>at 8.

- ¹⁰ Government of British Columbia, "Extreme Heat and Human Mortality: A Review of Heat-Related Deaths in B.C. in Summer 2021" (2022), online (pdf): < https://www2.gov.bc.ca/assets/gov/birth-adoption-death-marriage-and-divorce/deaths/coroners-service/death-review-panel/extreme heat death review panel report.pdf> at 22. [Heat-Related-Deaths in BC].
- ¹¹ Heat-Related Deaths in BC (note 10), at 22.
- See also: Uejio C., et al., "Summer indoor heat exposure and respiratory and cardiovascular distress calls in New York City, NY, US." (August 2016) Indoor air, 26(4), at 594-604, online:

 https://pubmed.ncbi.nlm.nih.gov/26086869/;

 Tartarini F., et al., "Indoor air temperature and agitation of nursing home residents with dementia."

 (April 2017) Am J Alzheimers Dis Other Demen, 32(5), at 272-281, online

 https://pubmed.ncbi.nlm.nih.gov/28429641/;

 Lindemann U., et al., "Effect of indoor temperature on physical performance in older adults during days with normal temperature and heat waves." (February 2017) Int J Environ Res Public Health, 14(2), at 186, online: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5334740/.
- ¹³ Heat-Related Deaths in BC (note 10), at 5 and 13.
- ¹⁴ Municipal Act, 2001, SO 2001, c 25, at ss 8, 10, and 11; Building Code Act, 1992, SO 1992, c 23, at ss 15.1(3), 15.2.
- See: 114957 Canada Ltée (Spraytech, Société d'arrosage) v. Hudson (Town), 2001 SCC 40 (CanLII);
 Croplife Canada v. Toronto (City), 2005 CanLII 15709 (ON CA);
 Kenora (City) v. Eikre Holdings Ltd., 2018 ONSC 7635 (CanLII).
- Skilled Trades Ontario, "Public Register Search" online: https://services.skilledtradesontario.ca/STOportal/app/public-search>.
- ¹⁷ Climate Emergency (note 5).
- Annick Poitras, "Extreme Heat Waves in Quebec" online: https://climatedata.ca/case-study/extreme-heat-waves-in [Quebec Heat Wave].
- ¹⁹ Heat-Related Deaths in BC (note 10), at 4.
- ²⁰ Heat-Related Deaths in BC (note 10), at 13 and 14.
- ²¹ Quebec Heat Wave (note 18).

Canadian Environmental Law Association

55 University Avenue, Suite 1500, Toronto, ON M5J 2H7

Tel: 416-960-2284 or 1-844-755-1420

cela.ca

Low Income Energy Network

55 University Avenue, Suite 1500 Toronto, Ontario, M5J 2H7

Tel: 416-597-5855 or 1-866-245-4182

lowincomeenergy.ca

Advocacy Centre for Tenants Ontario

55 University Avenue, Suite 1500 Toronto, Ontario, M5J 2H7

Tel: 416-597-5855 or 1-866-245-4182

acto.ca