Welcome to today's CHBA Net Zero Webinar!

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Our Next Webinar

December 15, 2022 from 10:30-11:30 PT / 1:30-2:30 ET

Learn about the growing demand for EV chargers in new homes

Presented by:

Shannon Bertuzzi, Director of Builder Markets, Reliance Home Comfort, and Tyler Corso, Product Manager, B2B Channels, Reliance Home Comfort

With over 40% of buyers in the new housing market considering an electric vehicle (EV) charger a “Must Have,”* EV chargers can increase the desirability of new homes.

In this webinar you will learn how to get ahead of the market with pre-installed EV chargers in your new homes. With seamless ordering and delivery, find out how you can bundle your EV charger with other mechanical equipment from Reliance to simplify equipment sourcing plus receive a generous allowance.

Discover how your homeowners can receive competitive rental rates and access to in-home service experts post move-in with 24/7/365 call support.

**CHBA / Avid Ratings Canada 2021 Homebuyer Preference Study.*

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Today's Webinar

November 21, 2022 from 1:30-2:30pm ET / 10:30-11:30am PT

New Indoor Air Quality Requirements for Net Zero Program

Presented by:

- **Brett Cass**, Technical Manager, Net Zero Energy Housing, CHBA
- **Carl Pawlowski**, Senior Manager, Sustainability, Minto Communities
- **Derek Satnik**, Vice President of Technologies, s2e Technologies Developments Inc.

The Net Zero Home Labelling Program will launch its Indoor Air Quality (IAQ) Picklist in 2023. The new technical criteria will help promote better IAQ and will help builders to achieve one of our key brand promises: exceptional indoor air quality for healthier living. Join us to learn about the IAQ Picklist, when it will become effective, and how your Net Zero and Net Zero Ready Homes can comply with the new requirements. The new IAQ requirements will be completed voluntarily by builders in 2023 and will become mandatory for labelling in 2024.

Members will be able to access the recording & slide deck at chba.ca/NZwebinars

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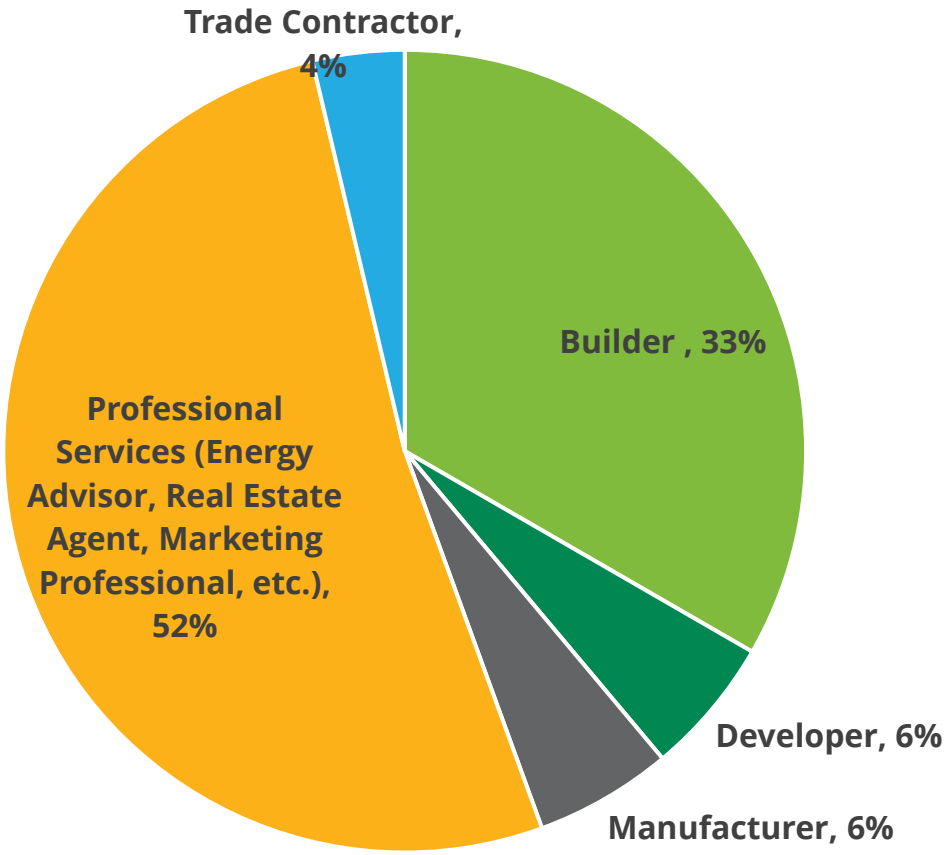
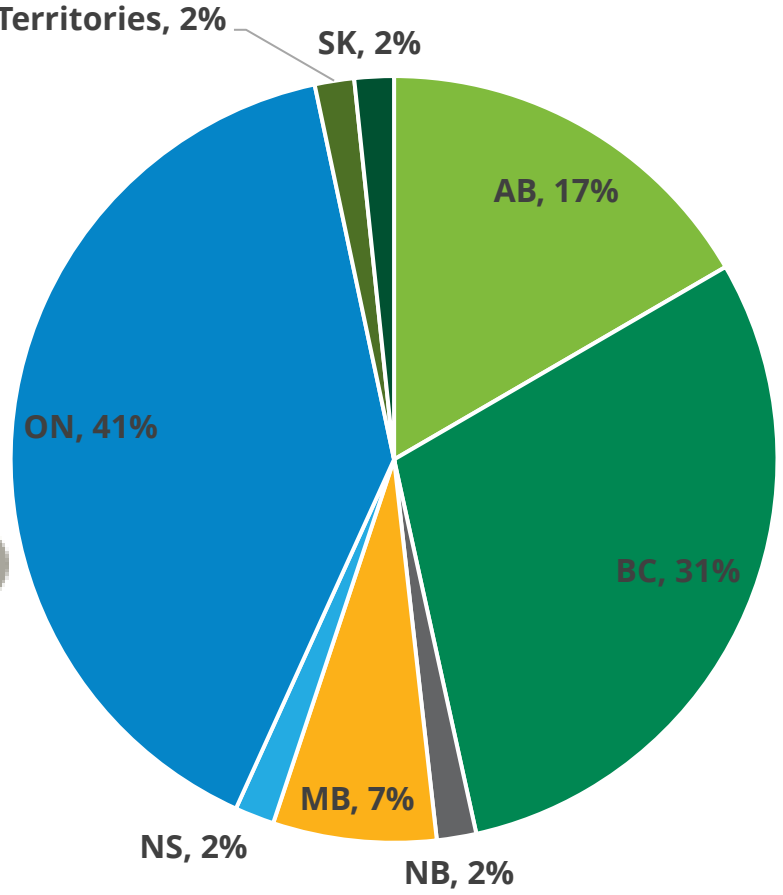
POLLS





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Agenda

1. **Introduction & Priorities**
   - Why Indoor Air Quality?

2. **Development of IAQ Checklist**
   - Who? What? Where? How?

3. **Review of New Requirements**
   - How is compliance achieved?
   - What are the timelines?

4. **Examples from Net Zero Builders**
   - How are builders meeting the checklist?

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Introduction & Priorities

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Why Indoor Air Quality?

What is a Net Zero Home?

- Better energy performance.
- More comfortable.
- Healthier indoor environment.

“Greater comfort, healthier living”

“Exceptional indoor air quality”

“The ultimate in comfort and energy efficiency”

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Indoor Air Quality – Overview

- October 19, 2021, NZC voted to establish the IAQ Working Group (IAQ-WG).
- IAQ-WG would explore feasibility of adding further IAQ measures into the Technical Requirements.
- Additional IAQ measures would not be cost prohibitive and would serve to better meet our brand promise: “A Net Zero Home delivers exceptional energy efficiency, comfort, and indoor air quality”
- Approved by TC and MC for adoption January 1, 2023 (optionally).

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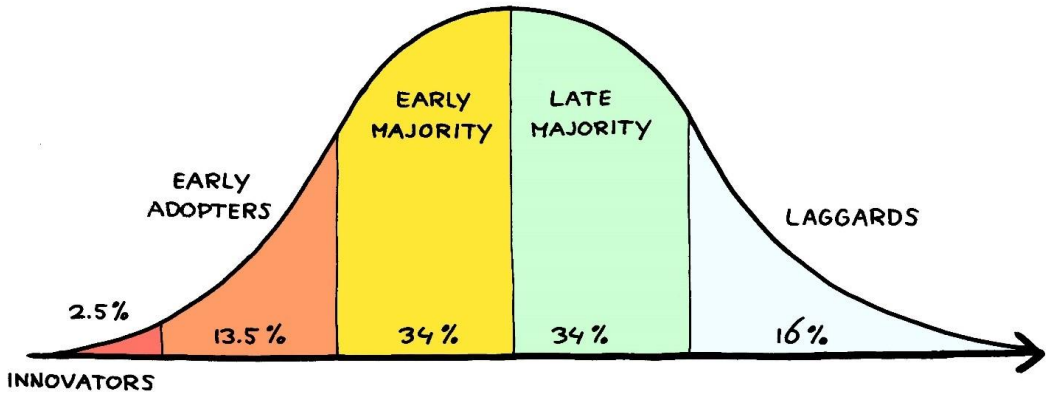
Scope of IAQ - Working Group

The purpose of the IAQ-WG is to explore the feasibility of including additional indoor air quality measures into the CHBA Net Zero Home Labelling Program.

The IAQ-WG will be required to address the following questions:

- What, if any, IAQ measures should be added to the Program to ensure the brand promise is met?
- Are these additional measures cost-effective?
- Should all of these additional measures be mandatory or optional?



Indoor Air Quality - Working Group (IAQ-WG)

Voting Members

- **Angela Bustamante**, Building Knowledge Canada
- **Arthur Lo**, Insightful Healthy Homes
- **Bettina Hoar**, Sage Living Toronto
- **Carl Pawlowski**, Minto Communities
- **Derek Satnik**, s2e Technologies Development
- **Gary Hamer**, BC Hydro
- **Gord Cooke**, Building Knowledge Canada
- **Mallory Epstein**, Centrotherm Eco Systems
- **Miyoko Oikawa**, Doug Tarry Ltd.
- **Ron Isaac**, Mattamy Homes
- **Sonny Pirotta**, Panasonic
- **Stephen Downs**, Map Energy Inc.
- **Stephen Magneron**, Homesol Building Solutions
- **Tim Prevost**, Energy Savings Products Ltd.

Ex-Officio Members

- **Anil Parekh,** NRCan
- **Liang Grace Zhou,** NRC

CHBA Staff

- **Brett Cass,** Technical Manager, NZE
- **Jack Mantyla,** Director, Technical Services
- **Lynne Strickland,** Director, Initiatives, NZE
- **Sonja Winkelmann,** Sr. Director, NZE

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Development

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Indoor Air Quality – Working Group

- Review existing programs that have IAQ requirements.
- Impact assessment of each IAQ requirement.
- Develop optional picklist with wider scope.
- Allow builders & renovators to determine stringency.

IAQ – WG Process

Goal: Prioritize the "low hanging fruit" IAQ measures. (Most impact for least cost.)

			Potential Impact			
			1	2	3	4
			Minor impact on IAQ	Moderate impact on IAQ	Major impact on IAQ	Maximal impact on IAQ
Likelihood	1	Unlikely	2	3	4	5
	2	Possible	3	4	5	6
	3	Likely	4	5	6	7
	4	Very Likely	5	6	7	8

Cost **Stringency**

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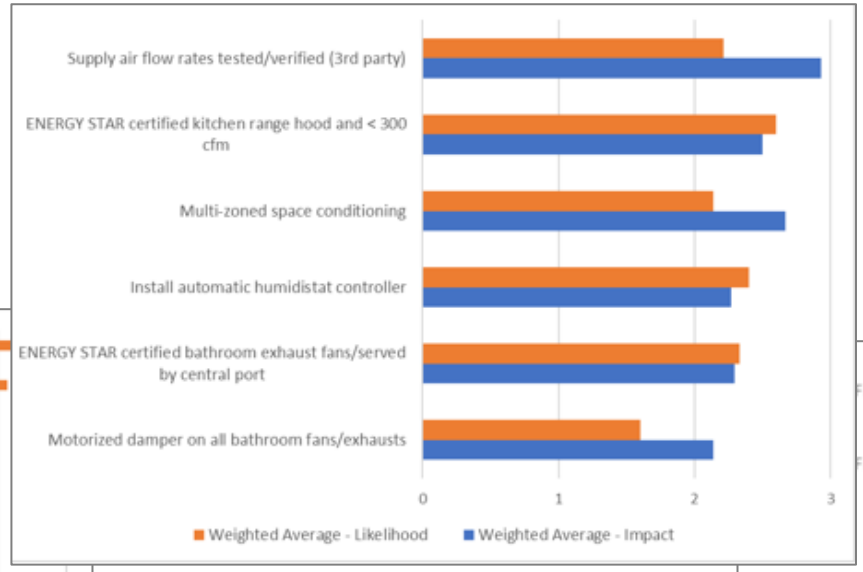
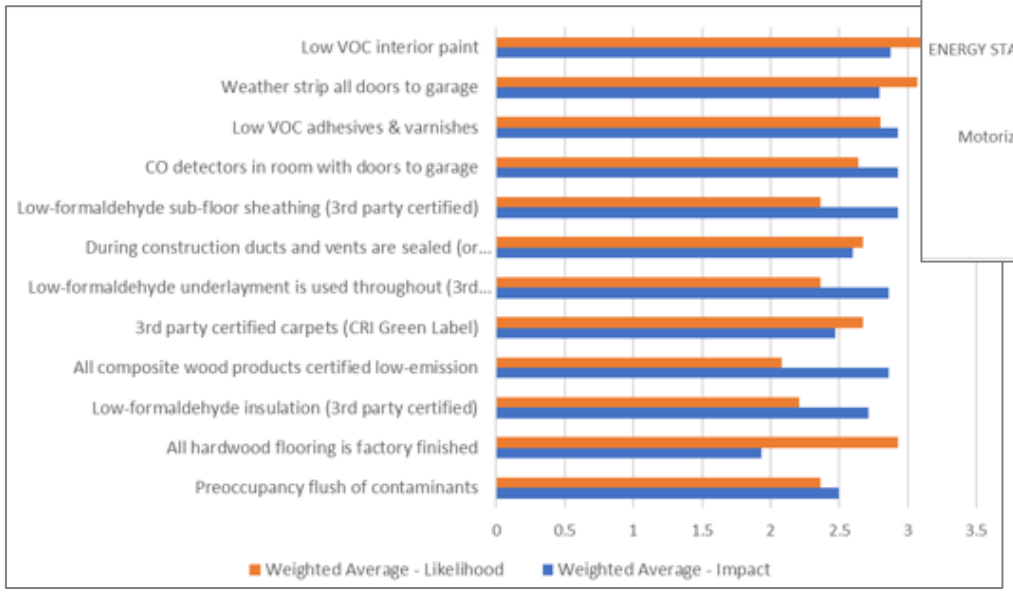
Air Quality Impact Assessment

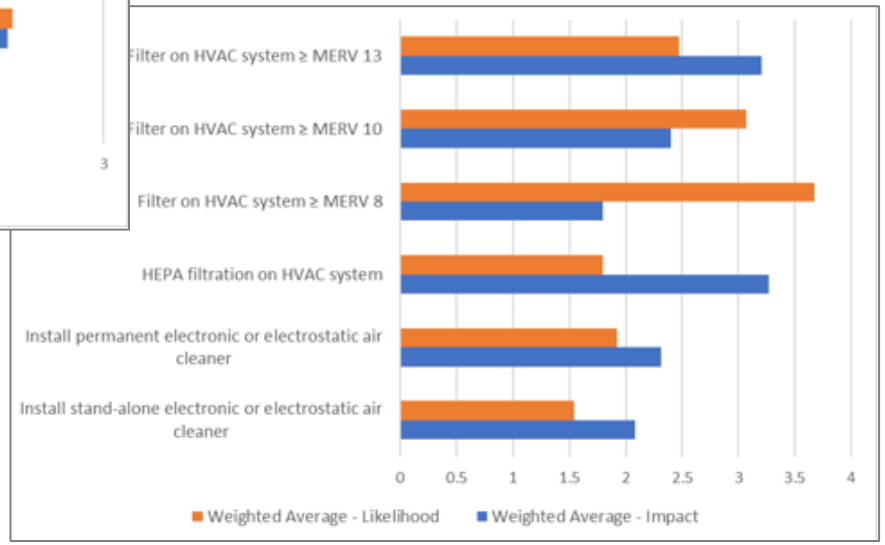
Ventilation & Distribution



Contaminant Control



Air Filtration



Weighted Average Impact of Measures

Rank	IAQ Requirement	Weighted Average			Strategy
		Impact	Likelihood	Total	
1	Low VOC interior paint	2.87	3.33	6.2	Contaminant
2	Flashing or an equivalent drainage system on exterior walls	2.79	3.15	5.94	Moisture
3	Weather strip all doors to garage	2.79	3.07	5.86	Contaminant
4	Low VOC adhesives & varnishes	2.93	2.8	5.73	Contaminant
5	Continuous drainage plane behind exterior wall cladding (flashed/sealed)	2.64	3.08	5.72	Moisture
6	Filter on HVAC system ≥ MERV 13	3.2	2.47	5.67	Filtration & Cleaning
7	CO detectors in room with doors to garage	2.93	2.64	5.57	Contaminant
8	Low VOC or damp proofing on foundation walls	2.58	2.92	5.5	Moisture
9	Install 10-mil radon barrier + rough in	2.57	2.93	5.5	Radon
10	Filter on HVAC system ≥ MERV 8	1.8	3.67	5.47	Filtration & Cleaning
11	Filter on HVAC system ≥ MERV 10	2.4	3.07	5.47	Filtration & Cleaning
12	Low-formaldehyde sub-floor sheathing (3rd party certified)	2.93	2.36	5.29	Contaminant
13	During construction ducts and vents are sealed (or vacuumed)	2.6	2.67	5.27	Contaminant
14	Isolate a crawl space to minimize the transmission of moisture/soil gases	2.86	2.38	5.24	Moisture
15	Low-formaldehyde underlayment is used throughout (3rd party certified)	2.86	2.36	5.22	Contaminant

Review of New Requirements

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Technical Requirements: IAQ Checklist

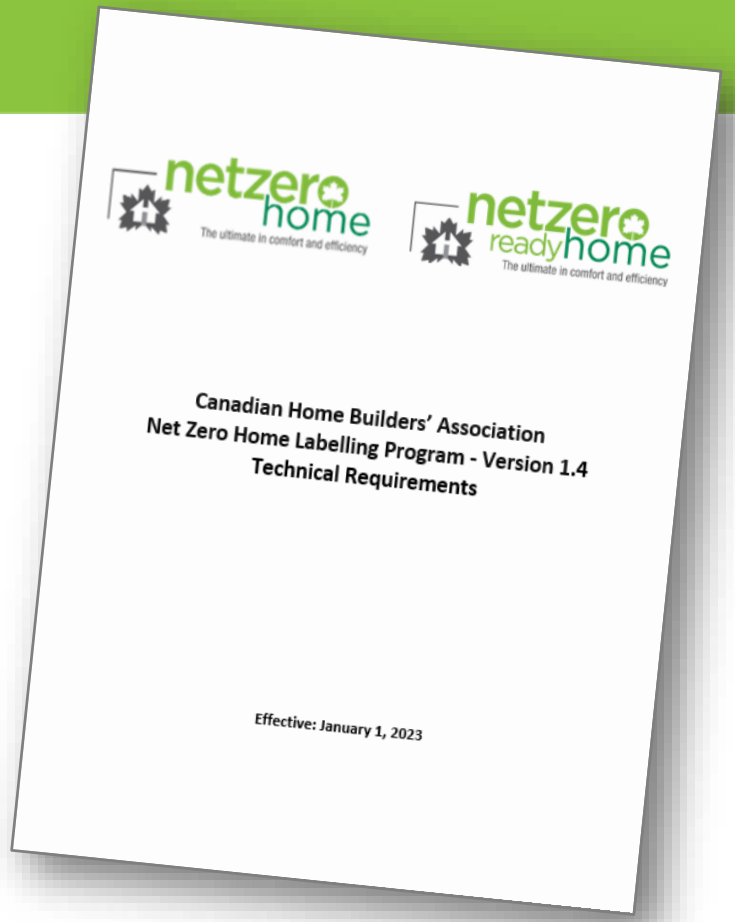
2.6 Indoor Air Quality (IAQ)

2.6.1 General

1. The house shall comply with the requirements of the *CHBA Net Zero Home Labelling Program IAQ Checklist* by
   (a) meeting all seven (7) mandatory requirements, and
   (b) achieving a minimum of six (6) points from the optional requirements list.

NOTE:

1. Compliance with the *CHBA Net Zero Home Labelling Program IAQ Checklist* is optional prior to January 1, 2024.
2. Tab 7: IAQ Checklist in the Project Registration Workbook shall be used to show compliance.
3. Net Zero and Net Zero Ready Renovations using an entirely exterior approach are only required to meet the seven mandatory requirements.
4. The IAQ Checklist has been introduced to ensure that good building practices which promote healthy indoor air quality have been used in Net Zero and Net Zero Ready labelled homes. CHBA recognizes that compliance with the IAQ Checklist does not guarantee cleaner indoor air, and that there are many external factors that will impact the indoor air quality in the home after construction.



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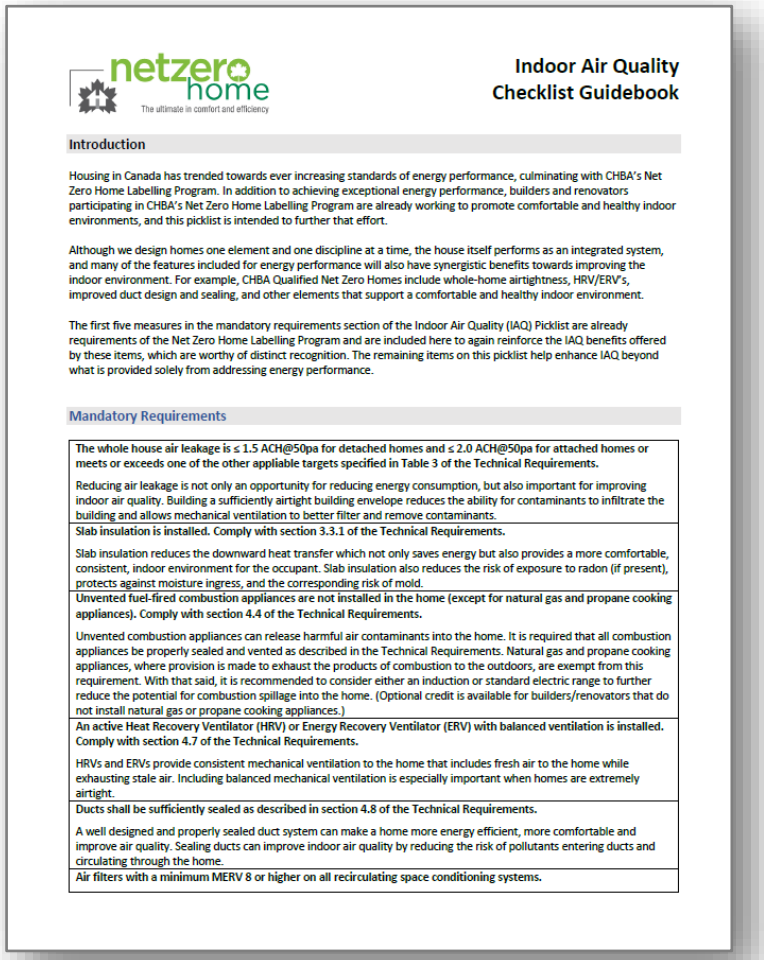
IAQ Checklist



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Indoor Air Quality Checklist Guidebook

Introduction

Housing in Canada has trended towards ever increasing standards of energy performance, culminating with CHBA's Net Zero Home Labelling Program. In addition to achieving exceptional energy performance, builders and renovators participating in CHBA's Net Zero Home Labelling Program are already working to promote comfortable and healthy indoor environments, and this picklist is intended to further that effort.

Although we design homes one element and one discipline at a time, the house itself performs as an integrated system, and many of the features included for energy performance will also have synergistic benefits towards improving the indoor environment. For example, CHBA Qualified Net Zero Homes include whole-home airtightness, HRV/ERV's, improved duct design and sealing, and other elements that support a comfortable and healthy indoor environment.

The first five measures in the mandatory requirements section of the Indoor Air Quality (IAQ) Picklist are already requirements of the Net Zero Home Labelling Program and are included here to again reinforce the IAQ benefits offered by these items, which are worthy of distinct recognition. The remaining items on this picklist help enhance IAQ beyond what is provided solely from addressing energy performance.

Mandatory Requirements

The whole house air leakage is ≤ 1.5 ACH@50pa for detached homes and ≤ 2.0 ACH@50pa for attached homes or meets or exceeds one of the other appliable targets specified in Table 3 of the Technical Requirements. Reducing air leakage is not only an opportunity for reducing energy consumption, but also important for improving indoor air quality. Building a sufficiently airtight building envelope reduces the ability for contaminants to infiltrate the building and allows mechanical ventilation to better filter and remove contaminants.
Slab insulation is installed. Comply with section 3.3.1 of the Technical Requirements. Slab insulation reduces the downward heat transfer which not only saves energy but also provides a more comfortable, consistent, indoor environment for the occupant. Slab insulation also reduces the risk of exposure to radon (if present), protects against moisture ingress, and the corresponding risk of mold.
Unvented fuel-fired combustion appliances are not installed in the home (except for natural gas and propane cooking appliances). Comply with section 4.4 of the Technical Requirements. Unvented combustion appliances can release harmful air contaminants into the home. It is required that all combustion appliances be properly sealed and vented as described in the Technical Requirements. Natural gas and propane cooking appliances, where provision is made to exhaust the products of combustion to the outdoors, are exempt from this requirement. With that said, it is recommended to consider either an induction or standard electric range to further reduce the potential for combustion spillage into the home. (Optional credit is available for builders/renovators that do not install natural gas or propane cooking appliances.)
An active Heat Recovery Ventilator (HRV) or Energy Recovery Ventilator (ERV) with balanced ventilation is installed. Comply with section 4.7 of the Technical Requirements. HRVs and ERVs provide consistent mechanical ventilation to the home that includes fresh air to the home while exhausting stale air. Including balanced mechanical ventilation is especially important when homes are extremely airtight.
Ducts shall be sufficiently sealed as described in section 4.8 of the Technical Requirements. A well designed and properly sealed duct system can make a home more energy efficient, more comfortable and improve air quality. Sealing ducts can improve indoor air quality by reducing the risk of pollutants entering ducts and circulating through the home.
Air filters with a minimum MERV 8 or higher on all recirculating space conditioning systems.

Indoor Air Quality Checklist

This checklist shall be filled out upon completion of each Net Zero or Net Zero Ready Home by the Qualified Net Zero Builder/Renovator with the Qualified Net Zero Energy Advisor. As per the Qualified Net Zero Participant Agreement and Attestations, each participant must attest that the homes they submit for labelling meet all of the Program Requirements. Additional detail for each IAQ measure can be found in the notes in column A.

Home Address:

Verify completion of all Mandatory IAQ Requirements.

	Mandatory IAQ Requirements	Builder/Renovator	EA
Section 3.2	The whole house air leakage is ≤ 1.5 ACH@50pa for detached homes and ≤ 2.0 ACH@50pa for attached homes or meets or exceeds one of the other appliable targets specified in Table 3 of the Technical Requirements.	☐	☐
Section 3.3	Slab insulation is installed. Comply with section 3.3.1 of the Technical Requirements. (renovation exemption)	☐	☐
Section 4.4	Unvented fuel-fired combustion appliances are not installed in the home (except for natural gas and propane cooking appliances).	☐	☐
Section 4.7	An active Heat Recovery Ventilator (HRV) or Energy Recovery Ventilator (ERV) with balanced ventilation is installed.	☐	☐
Section 4.8	Ducts shall be sufficiently sealed as described in the Technical Requirements. (renovation exemption)	☐	☐
	Air filters with a minimum MERV 8 or higher on all recirculating space conditioning systems.	☐	☐
	Newly applied interior paints and painting finishes are low-VOC or no-VOC emitting products.	☐	☐

Select an additional 6 points from the Optional Picklist below.

Note: Net Zero and Net Zero Ready Renovations using an entirely exterior approach are only required to meet the Mandatory IAQ requirements shown above.

	Optional Picklist	Builder/Renovator	EA
1.1	Site-applied interior adhesives and sealants are low-VOC or no-VOC emitting products.	*(1 point)* ☐	☐
1.2	Natural interior coatings are used.	*(1 point)* ☐	☐
1.3	Wood sheeting products used within the building envelope (e.g.: sub-flooring) are certified UF free.	*(1 point)* ☐	☐
1.4	Insulation is low-VOC, non-emitting, or exterior to the vapour barrier.	*(1 point)* ☐	☐
1.5	No carpeting is installed, or carpeting is certified Green Label Plus by the Carpet and Rug Institute (CRI).	*(1 point)* ☐	☐
1.6	Hard surface flooring is factory finished and low-VOC or non-emitting.	*(1 point)* ☐	☐
1.7	Gypsum boards are low-VOC or no-VOC emitting products.	*(1 point)* ☐	☐
1.8	No combustion-based cooking appliances installed in the home.	*(1 point)* ☐	☐
1.9	No natural gas, propane, or wood fireplaces installed in the home.	*(1 point)* ☐	☐
1.10	During construction all ducts and vents are sealed.	*(½ point)* ☐	☐
1.11	Following construction all ducts and vents are vacuumed (including fan blades).	*(½ point)* ☐	☐
2.1	Recirculated air is filtered to minimum MERV 10 (*1 point*), MERV 13 (*2 points*), or HEPA (*3 points*).	*(1,2 or 3 points)* ☐	☐
2.2	ENERGY STAR certified air purifier with a minimum Clean Air Delivery Rate of 100 cfm. When unit(s) are sized for less than 50% of the home (*1 point*) and when sized for greater than 50% of the home (*2 points*).	*(1 or 2 points)* ☐	☐
3.1	Supply air flow rates are 3rd party tested and verified. (Includes both ventilation and space conditioning)	*(2 points)* ☐	☐
3.2	ENERGY STAR certified kitchen range hood and < 300 cfm.	*(½ point)* ☐	☐
3.3	Multi Zoning of HVAC systems installed.	*(1 point)* ☐	☐
4.1	Permanent dehumidification installed in HVAC system (ERV is not acceptable).	*(2 points)* ☐	☐
4.2	Energy Recovery Ventilator (ERV) is installed.	*(1 point)* ☐	☐
4.3	ENERGY STAR certified stand-alone dehumidification system provided to occupant.	*(1 point)* ☐	☐
5.1	Passive (*0-1 point*) or active (*1-2 points*) radon mitigation system is installed. See note.	*(1 or 2 points)* ☐	☐
6.1	Constant indoor air quality monitoring that is connected to ventilation controls.	*(1 point)* ☐	☐

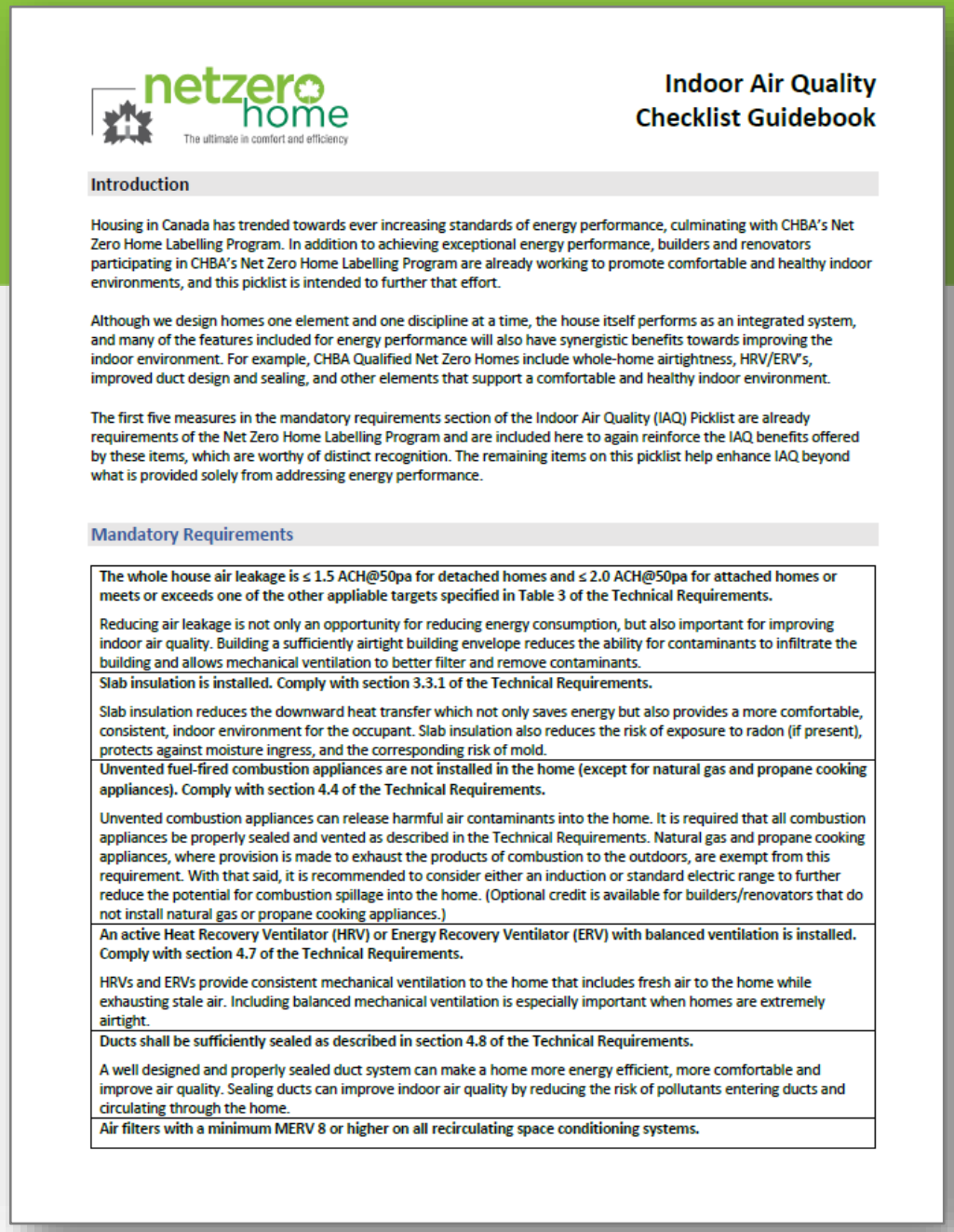
IAQ Checklist

Mandatory Requirements

- 7 IAQ measures are mandatory in all homes.
- 5 of 7 are existing Net Zero Program criteria.

Optional Requirements

- 6 pts required (25.5 pts available).
- Measures are worth from 0.5 to 3 pts each.



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Indoor Air Quality Checklist Guidebook

Introduction

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Although we design homes one element and one discipline at a time, the house itself performs as an integrated system, and many of the features included for energy performance will also have synergistic benefits towards improving the indoor environment. For example, CHBA Qualified Net Zero Homes include whole-home airtightness, HRV/ERV's, improved duct design and sealing, and other elements that support a comfortable and healthy indoor environment.

The first five measures in the mandatory requirements section of the Indoor Air Quality (IAQ) Picklist are already requirements of the Net Zero Home Labelling Program and are included here to again reinforce the IAQ benefits offered by these items, which are worthy of distinct recognition. The remaining items on this picklist help enhance IAQ beyond what is provided solely from addressing energy performance.

Mandatory Requirements

The whole house air leakage is ≤ 1.5 ACH@50pa for detached homes and ≤ 2.0 ACH@50pa for attached homes or meets or exceeds one of the other appliable targets specified in Table 3 of the Technical Requirements. Reducing air leakage is not only an opportunity for reducing energy consumption, but also important for improving indoor air quality. Building a sufficiently airtight building envelope reduces the ability for contaminants to infiltrate the building and allows mechanical ventilation to better filter and remove contaminants.
Slab insulation is installed. Comply with section 3.3.1 of the Technical Requirements. Slab insulation reduces the downward heat transfer which not only saves energy but also provides a more comfortable, consistent, indoor environment for the occupant. Slab insulation also reduces the risk of exposure to radon (if present), protects against moisture ingress, and the corresponding risk of mold.
Unvented fuel-fired combustion appliances are not installed in the home (except for natural gas and propane cooking appliances). Comply with section 4.4 of the Technical Requirements. Unvented combustion appliances can release harmful air contaminants into the home. It is required that all combustion appliances be properly sealed and vented as described in the Technical Requirements. Natural gas and propane cooking appliances, where provision is made to exhaust the products of combustion to the outdoors, are exempt from this requirement. With that said, it is recommended to consider either an induction or standard electric range to further reduce the potential for combustion spillage into the home. (Optional credit is available for builders/renovators that do not install natural gas or propane cooking appliances.)
An active Heat Recovery Ventilator (HRV) or Energy Recovery Ventilator (ERV) with balanced ventilation is installed. Comply with section 4.7 of the Technical Requirements. HRVs and ERVs provide consistent mechanical ventilation to the home that includes fresh air to the home while exhausting stale air. Including balanced mechanical ventilation is especially important when homes are extremely airtight.
Ducts shall be sufficiently sealed as described in section 4.8 of the Technical Requirements. A well designed and properly sealed duct system can make a home more energy efficient, more comfortable and improve air quality. Sealing ducts can improve indoor air quality by reducing the risk of pollutants entering ducts and circulating through the home.
Air filters with a minimum MERV 8 or higher on all recirculating space conditioning systems.

Mandatory Requirements

Existing Requirements

- Airtightness.
- Slab Insulation.
- No unvented fuel-fired combustion appliances.
- Ventilation: HRV or ERV.
- Duct sealing.

New Requirements

- Filters ≥ MERV 8.
- Low-VOC paint.

	Mandatory IAQ Requirements
Section 3.2	The whole house air leakage is ≤ 1.5 ACH@50pa for detached homes and ≤ 2.0 ACH@50pa for attached homes or meets or exceeds one of the other appliable targets specified in Table 3 of the Technical Requirements.
Section 3.3	Slab insulation is installed. Comply with section 3.3.1 of the Technical Requirements. (renovation exemption)
Section 4.4	Unvented fuel-fired combustion appliances are not installed in the home (except for natural gas and propane cooking appliances).
Section 4.7	An active Heat Recovery Ventilator (HRV) or Energy Recovery Ventilator (ERV) with balanced ventilation is installed.
Section 4.8	Ducts shall be sufficiently sealed as described in the Technical Requirements. (renovation exemption)
	Air filters with a minimum MERV 8 or higher on all recirculating space conditioning systems.
	Newly applied interior paints and painting finishes used have low-VOC content.

Mandatory Requirements: Detailed Criteria

Example #1:

Mandatory IAQ Requirements
Newly applied interior paints and painting finishes are low-VOC or no-VOC emitting products.

At least 90% of the interior surface area covered by site-applied paints and finishes (e.g. liquid coatings and varnishes) shall use low-VOC or no-VOC products certified by one of the following 3rd party standards or certifications: ECOLOGO, GREENGUARD, Green Seal, or Indoor Advantage.

Optional Picklist – 6 Points Required

Optional Picklist	
Site-applied interior adhesives and sealants are low-VOC or no-VOC emitting products.	*(1 point)*
Natural interior coatings are used.	*(1 point)*
Wood sheeting products used within the building envelope (e.g.: sub-flooring) are certified UF free.	*(1 point)*
Insulation is low-VOC, non emitting, or exterior to the vapour barrier.	*(1 point)*
No carpeting is installed, or carpeting is certified Green Label Plus by the Carpet and Rug Institute (CRI).	*(1 point)*
Hard surface flooring is factory finished and low-VOC or no VOC.	*(1 point)*
Gypsum boards are low-VOC or no-VOC emitting products.	*(1 point)*
No combustion-based cooking appliances installed in the home.	*(1 point)*
No natural gas, propane, or wood fireplaces installed in the home.	*(1 point)*
During construction all ducts and vents are sealed.	*(½ point)*
Following construction all ducts and vents are vacuumed (including fan blades).	*(½ point)*
Recirculated air is filtered to minimum MERV 10 (*1 point*), MERV 13 (*2 points*), or HEPA (*3 points*).	*(1,2 or 3 points)*
ENERGY STAR certified air purifier with a minimum Clean Air Delivery Rate of 100 cfm. When unit(s) are sized for less than 50% of the home (*1 point*) and when sized for greater than 50% of the home (*2 points*).	*(1 or 2 points)*
Supply air flow rates are 3rd party tested and verified. (Includes both ventilation and space conditioning)	*(2 points)*
ENERGY STAR certified kitchen range hood and < 300 cfm.	*(½ point)*
Multi Zoning of HVAC systems installed.	*(1 point)*
Permanent dehumidification installed in HVAC system (ERV is not acceptable).	*(2 points)*
Energy Recovery Ventilator (ERV) is installed.	*(1 point)*
ENERGY STAR certified stand-alone dehumidification system provided to occupant.	*(1 point)*
Passive (*0-1 point*) or active (*1-2 points*) radon mitigation system is installed. See note.	*(1 or 2 points)*
Constant Indoor air quality monitoring that is connected to ventilation controls.	*(1 point)*

Optional Picklist

1 Point IAQ Measures

- Low-VOC adhesives and sealants.
- No carpeting or green label carpeting.
- Low-VOC hard surface flooring.
- No combustion cooking appliances.
- ERV installed.
- Smart IAQ controls/monitoring.

>1 Point IAQ Measures

- Filters are MERV 10, 13, or HEPA.
- Dehumidification system.
- Radon mitigation system.
- Verified airflow rates.

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Optional Picklist: Detailed Criteria

Example #1:

	Optional Picklist
1.1	Site-applied interior adhesives and sealants are low-VOC or no-VOC emitting products.

At least 90% of site-applied interior adhesives and sealants are low-VOC or no-VOC products certified by one of the following 3rd-party standards or certifications: ECOLOGO, EU Ecolabel, Green Seal, GREENGUARD, GREENGUARD GOLD.

1 point

Optional Picklist: Detailed Criteria

Example #2:

Optional Picklist	
2.1	Recirculated air is filtered to minimum MERV 10 (*1 point*), MERV 13 (*2 points*), or HEPA (*3 points*).

Meet one of the following criteria:

a) For fully ducted systems, filters should be at the central air handling system (e.g.: furnace);
b) For non-ducted systems, filters should be at the main ventilator (e.g.: HRV / ERV).

Filtering the air helps remove airborne contaminants and keeps the air handling system clean. Ductwork and central blower must be designed to account for the pressure drop across the filter. Filter housings must be airtight to prevent bypass or leakage. Homeowner should be made aware of the associated maintenance cost and schedule of utilizing higher performing MERV rated filters.

1, 2 or 3 points

Optional Picklist: Detailed Criteria

Example #3:

	Optional Picklist
5.1	Passive (*0-1 point*) or active (*1-2 points*) radon mitigation system is installed. See note.

Where a full passive vertical radon stack or active soil depressurization system is installed following the best practice procedures described in the Canadian General Standards Board (CGSB) 149.11 “Radon control options for new construction in low-rise residential buildings”. These systems also improve the general air quality in basement storeys by helping to reduce entry of moisture and odours.

Note: This credit is meant to apply when builders go beyond minimum code requirements. Therefore, this credit may not be available in regions where codes require an active soil depressurization system. In regions where codes require a passive system, one point can be earned by installing an active soil depressurization system

1 or 2 points

Compliance & Verification

- The IAQ checklist is completed within the Project Registration Workbook.
- Builder's sign Annual Agreement & Attestation.
- Energy Advisor's sign Annual Agreement & Attestation.

Builder/Renovator	EA
☑	☑
☑	☐
☑	☑
☐	☐
☐	☐
☑	☑
☑	☐

Compliance Dates

2023 – Optional

2024 – Mandatory

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Compliance Examples

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Compliance Scenario: Example #1

Production home, No homeowner priorities/restrictions.

- ✓ **1 point:** No carpeting in the home. (Item 1.5)
- ✓ **1 point:** No combustion-based cooking appliances. (Item 1.8)
- ✓ **1 point:** No gas, propane, or wood fireplace. (Item 1.9)
- ✓ **1 point:** ERV is installed. (Item 4.2)
- ✓ **1 point:** MERV 10 filters are used. (Item 2.1)
- ✓ **0.5 point:** Seal ducts during construction. (Item 1.10)
- ✓ **0.5 point:** Vacuum ducts after construction. (Item 1.11)

Total = 6 points

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Compliance Scenario: Example #2

Custom home, homeowner has prioritized carpets in all bedrooms, a natural gas fireplace, and a gas cooktop.

- ✓ **1 point:** All carpeting is certified Green Label Plus by CRI. (Item 1.5)
- ✓ **1 point:** ERV is installed. (Item 4.2)
- ✓ **1 point:** MERV 10 filters are used. (Item 2.1)
- ✓ **0.5 point:** Seal ducts during construction. (Item 1.10)
- ✓ **0.5 point:** Vacuum ducts after construction. (Item 1.11)
- ✓ **1 point:** Use Low-VOC adhesives and sealants. (Item 1.1)
- ✓ **1 point:** ENERGY STAR range hood <300 cfm. (Item 3.2)

Total = 6 points

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S2e Technologies

All mandatory requirements met

Optional Picklist Score:

- ✓ **1 point:** Insulation is low-VOC, non-emitting, or exterior to the VB.
- ✓ **1 point:** All carpeting is certified Green Label Plus by CRI.
- ✓ **1 point:** gypsum boards are low/no-VOC.
- ✓ **1 point:** ERV is installed.
- ✓ **1 point:** no combustion-based cooking appliances.
- ✓ **1 point:** No gas, propane, or wood fireplace.
- ✓ **0.5 point:** Vacuum ducts after construction.
- ✓ **1 point:** ENERGY STAR range hood <300 cfm.
- ✓ **1 point:** Multi zoning of HVAC systems.

Total = 8.5 points

EVE PARK
LONDON, ON

s2e technologies

Minto Communities

All mandatory requirements met

Optional Picklist Score:

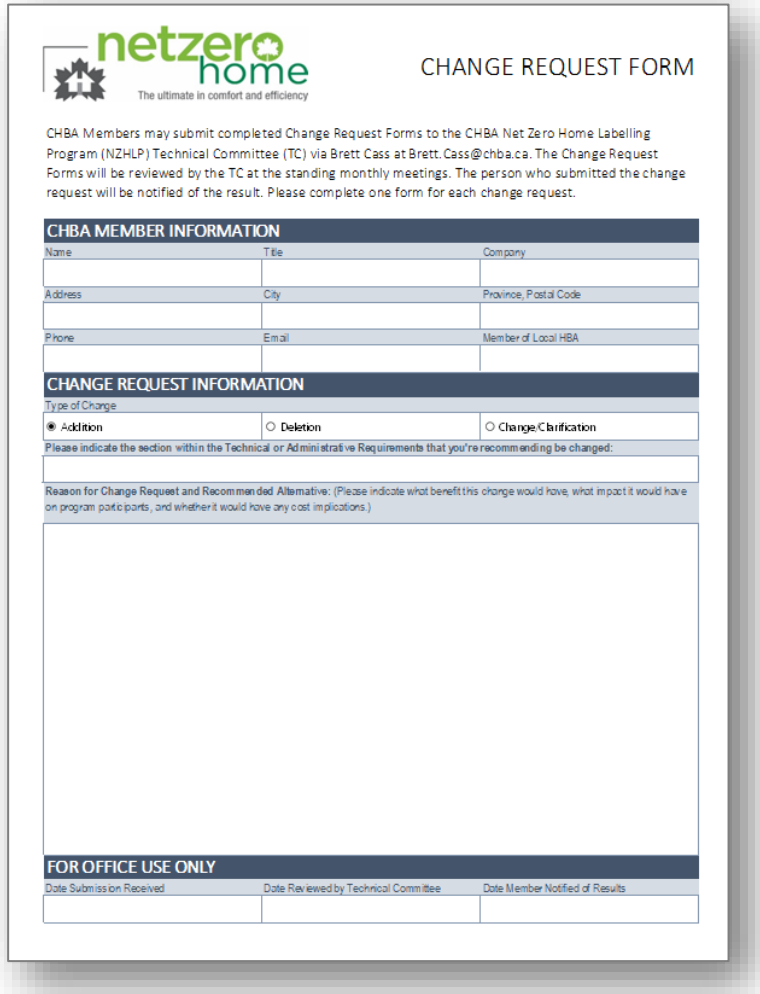
- ✓ **1 point:** Use Low-VOC adhesives and sealants.
- ✓ **1 point:** Carpeting is certified Green Label Plus by CRI.
- ✓ **1 point:** No gas, propane, or wood fireplace.
- ✓ **0.5 point:** Vacuum ducts after construction.
- ✓ **1 point:** ENERGY STAR range hood <300 cfm.
- ✓ **1 point:** Multi zoning of HVAC systems.
- ✓ **1 point:** ERV is installed.

Total = 6.5 points

minto Communities

Change Request Process

- Process is in place to promote constant Program improvement.
- Changes are voted on by the NZ Technical Committee.
- Changes must impact all homes to be approved.
- No project specific exemptions.
- Requests for new optional IAQ checklist points are welcome.



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CHANGE REQUEST FORM

CHBA Members may submit completed Change Request Forms to the CHBA Net Zero Home Labelling Program (NZHLP) Technical Committee (TC) via Brett Cass at Brett.Cass@chba.ca. The Change Request Forms will be reviewed by the TC at the standing monthly meetings. The person who submitted the change request will be notified of the result. Please complete one form for each change request.

CHBA MEMBER INFORMATION

Name	Title	Company
Address	**City**	**Province, Postal Code**
Phone	**Email**	**Member of Local HBA**

CHANGE REQUEST INFORMATION

Type of Change

◉ Addition	○ Deletion	○ Change/Clarification

Please indicate the section within the Technical or Administrative Requirements that you're recommending be changed:

Reason for Change Request and Recommended Alternative: (Please indicate what benefit this change would have, what impact it would have on program participants, and whether it would have any cost implications.)

FOR OFFICE USE ONLY

Date Submission Received	Date Reviewed by Technical Committee	Date Member Notified of Results

RECAP

How to comply with the IAQ Checklist:

- All 7 mandatory requirements.
- 6 points from the optional picklist.

When to comply with the IAQ Checklist:

- Optional = January 1, 2023.
- Mandatory = January 1, 2024.

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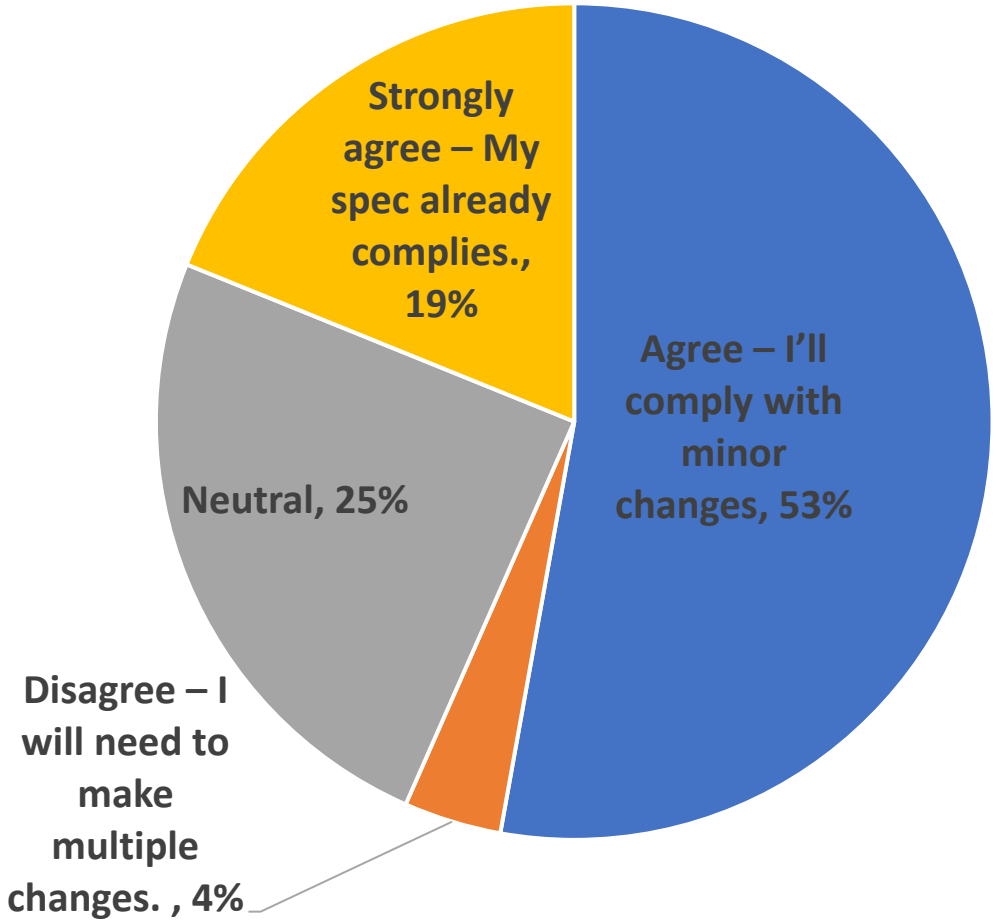
Polls



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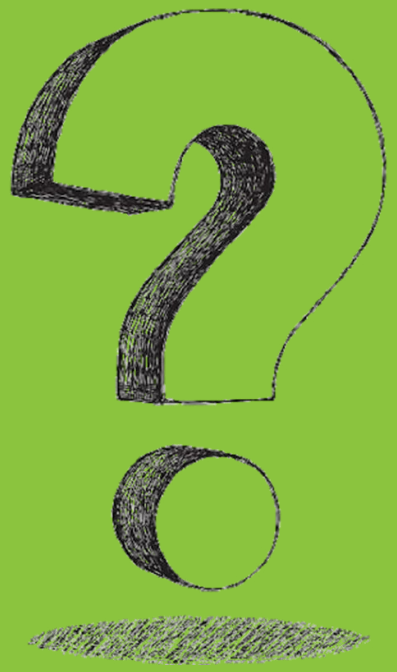
Questions



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