



CITY OF CONCORD

New Hampshire's Main Street™
Community Development Department
Code Administration

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BULLETIN #	TITLE	DATE ISSUED
2022-01	Concord Energy Code – Requirements, Inspections & Testing	August 11, 2022
SUPERSEDES	SOURCE	SUPERSEDES
2020-02	2018 International Residential Code - As Amended	November 5, 2020

Informational Bulletin 2022-01 Concord Energy Code – Requirements, Inspections, Testing & Resources

Purpose and Scope:

This bulletin helps to clarify energy code requirements, required inspections, and required testing for all building permit applications for new single family, two-family, and townhouse dwelling units built using the 2018 IRC, as amended¹. This bulletin does not cover dwelling units constructed using the 2018 IBC².

Energy Code:

In July of 2022 the [State Building Code](#), and thus the energy efficiency code, was updated; this includes NH amendments. The City of Concord requires compliance with the State Building Code, including energy efficiency requirements, for all new dwelling units. Below is a link to Chapter 11 (Energy Efficiency) of the 2018 IRC:

<https://codes.iccsafe.org/content/IRC2018/chapter-11-re-energy-efficiency>

Please see Appendix A of this bulletin for NH amendments to Chapter 11. The key changes transitioning from the 2015 IRC to the 2018 IRC pertaining to the energy code are summarized here:

- The requirement for some thermal envelope continuous insulation is now in effect (Climate Zone 6).
- The building or dwelling unit maximum air leakage rate was reduced to 3 Air Changes Per Hour.
- The maximum duct leakage rates remain higher than the code (by NH amendment).
- The requirement for mechanical ventilation is now in effect.

Building Permit Energy Code Submittals:

We continue to require the [New Hampshire Residential Energy Code Application \(EC-1 Form pages 1 & 2\)](#) to be submitted as part of your new building permit application. Please note that form EC-1 should no longer be sent to the State PUC. While most applicants will use the EC-1 form, simulated performance alternatives that comply with IRC section N1105 (R405), such as [ResCheck software](#) calculations, are also accepted.

Required Inspections:

Visual inspections of all insulating materials for slabs, basements, crawl spaces, floors, walls, and ceilings are still required.

Required Testing:

Blower door and duct leakage tests are required. Successful blower door and duct leakage test results are required to be submitted before a certificate of occupancy can be issued for the dwelling unit.

Exception: A duct air leakage test shall not be required where the ducts and air handlers are located entirely within the building thermal envelope. If you plan to use this exception you must do so in writing, and have it approved, when the building permit application is submitted.

6 Month Concurrency Period: (July 1, 2022 to December 31, 2022)

Per RSA 155-A:1, during the concurrency period, a building permit applicant may choose to show compliance with the 2015 based codes or the 2018 based codes, including energy, but not a combination of the 2 codes. Please note that the amendments to the 2015 energy code expired March 15, 2022; the result is that there is very little difference in the energy code between the 2015 and the 2018 codes.

Utility Sponsored Energy Saving and Rebate Programs:

For most residential new construction, including multi-family projects, the four utilities serving NH provide their own ENERGY STAR programs. They also offer other money saving programs that exceed the minimum building code requirements, but are not as strict as ENERGY STAR. Some programs may cover the costs of an energy design, blower door test, duct test, and offer possible rebates. We strongly encourage you to check with ~~you~~your local provider.

Unitil:	https://unitil.com/energy-efficiency/energy-efficiency-resources/
Eversource:	https://www.eversource.com/content/nh/residential/save-money-energy/manage-energy-costs-usage/new-homes-renovations
Liberty:	https://new-hampshire.libertyutilities.com/concord/residential/smart-energy-use/natural-gas/home-energy-savings-tips.html
NH Electric Coop:	https://www.nhec.com/new-equipment-construction/

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1. The BCRB (Building Code Review Board) has amended Chapter 11 of the 2018 International Residential Code and the amendments have received all legislative approvals.

2. The International Energy Conservation Code shall apply to all dwelling units constructed using the 2018 International Building Code (IBC).

Appendix A – 2018 IRC Chapter 11 NH Amendment

(Please note that this appendix only shows the amended sections of Chapter 11)

1. Amend Section N1103.3.4 as follows:

N1103.3.4 (R403.3.4) Duct leakage (Prescriptive).

The total leakage of the ducts, where measured in accordance with Section R403.3.3, shall be as follows:

1. Rough-in test: The total leakage shall be less than or equal to 46 (from four to six) cubic feet per minute (113.3 L/min) per 100 square feet (9.29 m²) of conditioned floor area where the air handler is installed at the time of the test. Where the air handler is not installed at the time of the test, the total leakage shall be less than or equal to 34 (from three to four) cubic feet per minute (113.3 L/min) per 100 square feet (9.29 m²) of conditioned floor area.
2. Postconstruction test: Total leakage shall be less than or equal to 48 (from four to eight) cubic feet per minute (113.3 L/min) per 100 square feet (9.29 m²) of conditioned floor area