



Energy Code Compliance Software

This issue of the Code Outreach Program will serve as a reminder to code users that compliance with the State Energy Conservation Construction Code (Energy Code) can be demonstrated using specific Energy Code Compliance Software developed by the United States Department of Energy (US DOE) in accordance with Sections C101.5.1(1) and R101.5.1(1) of the 2020 ECCCNY or with other software that is approved by the New York Secretary of State (the Secretary) in accordance with Sections C101.5.1(2) and R101.5.1(2) of the 2020 ECCCNY.

Prescriptive compliance paths.

The provisions of Sections C101.5.1(1) and R101.5.1(1) allow the use of software developed by the US DOE specifically for the 2020 ECCCNY to show compliance with the 2020 ECCCNY. COMcheck with the specific dropdown of 2020 ECCCNY meets the criteria. *

A list of other software, which is currently approved by the Secretary in accordance with Sections C101.5.1(2) and R101.5.1(2) of the 2020 ECCCNY, is shown below and is current as of the posting of this Code Outreach Program; noting, however, that new approvals may be issued at any time. The Secretary’s software-specific approval letters include, where necessary, specific details surrounding the approval, such as the specific version, the selections that must be made when using that software, and the specific compliance paths to which it applies.

For commercial buildings:	Software Developer	United States Department of Energy
	Software	COMcheck is approved to demonstrate compliance with ASHRAE 90.1—2016 compliance path of Sections 5.4, 5.6, and Sections 6, 7, 8, 9, 10, as applicable. *
	Software Developer	Integrated Environmental Solutions - Virtual Environment (IES-VE)
	Software and version	IES-VE Version 2021
For residential buildings:	Software Developer	United States Department of Energy
	Software	REScheck, select the 2018 IECC from the drop-down menu. **
	Software Developer	Ekotrope
	Software and version	Ekotrope Rater Version 3.2; and Ekotrope Rater Version 4.0

Approval letters are available on the DBSC website at <https://dos.ny.gov/technical-support> (use the “Energy Code Software Advisory” filter). Training courses on the use of COMcheck or REScheck are available at www.energycodes.gov/technical-assistance/training.

Performance-based compliance paths.

While Energy Code Compliance Software requires the approval of the Secretary, modeling software developed by the US DOE specifically for the 2020 ECCCNY does not require approval from the Secretary, as it is specifically allowed by Section C101.5.1(1). Other performance analysis tools used to document performance-based design for a specified application or limited scope must be approved by the AHJ. Performance analysis tools used in commercial buildings are required to meet the specific approval provisions of C407.6.1 and, if they are used for residential buildings, they are required to comply with the provisions of R405.6.2. The versions of Ekotrope Rater noted above are also approved for demonstrating compliance with the performance-based compliance paths.

Energy Rating Index (ERI) analysis.

The software used to determine ERI, in accordance with Section R406 of the 2020 ECCCNY, shall be “Approved Software Rating Tools in accordance with RESNET/ICC 301-2014.” The term “Approved Software Rating Tool” is defined in RESNET/ICC 301-2014 as “a computerized procedure that is approved for the purpose of conducting home energy ratings and calculating the annual energy consumption, annual energy costs and an Energy Rating Index for a home.” The versions of Ekotrope Rater noted above are also approved for demonstrating compliance with the Energy Rating Index analysis.

Mandatory Code provisions

Please be aware, all code provisions identified as “mandatory” are applicable regardless of the type of software being used to demonstrate Energy Code compliance, as indicated in Sections C101.5.2 and R101.5.2 of the 2020 ECCCNY. The practice of submitting (or accepting) the Envelope Compliance page only, Performance Rating Index only, or Energy Rating Index only, lacking the mandatory code provisions is insufficient to demonstrate compliance.

* The US DOE has not developed COMcheck using ASHRAE 90.1-2016 as amended by NYS. However, the Secretary’s approval does allow the use of the COMcheck ASHRAE 90.1-2016 drop-down for the specific sections noted. For a full description of amendments to ASHRAE 90.1-2016 see 19 NYCRR Section 1240.3.

** The residential building envelope provisions of the 2020 ECCCNY are substantially the same as those of the 2018 IECC, which is the basis for the Secretary’s approval.