780 CMR: MASSACHUSETTS AMENDMENTS TO THE *INTERNATIONAL BUILDING CODE 2015*

CHAPTER 13: COMMERCIAL ENERGY EFFICIENCY

1300.1 Add the following sections as follows:

1301.1.1 Revise subsection as follows:

[E] 1301.1.1 Criteria. Buildings shall be designed and constructed in accordance with the *International Energy Conservation Code*-2018 ("IECC") as modified by 780 CMR 13.00. These amendments are intended to expressly apply to the IECC, and are also applicable, in intent, to ANSI/ASHRAE/IESNA 90.1.

Exception 1: Temporary structures, as regulated by section 3103, do not need to comply with the building envelope requirements of 780 CMR 13.00.

Exception 2: Applications for building permits and related construction and other documents filed through November 7, 2020 may comply either with 780 CMR 13.00 and 780 CMR 115.00: *Appendix AA*, effective February 7, 2020, or with the versions of those provisions in effect immediately prior to February 7, 2020, but not a mix of both. After November 7, 2020, concurrency with the prior version of 780 CMR ends, and all applications for building permits and related construction and other documents shall comply with 780 CMR effective February 7, 2020 only.

Informational Note: Amendments to the IECC contained within 780 CMR 1300.1 are identified by the letter "C" followed by the applicable section number.

C103.2 Insert after Subsection C13.2(12) the following:

13. Solar Ready roof zone in accordance with Appendix CA
14. EV Ready Space locations in accordance with C405.10

C202 Revise Section by inserting the following definitions:

Electric Vehicle. An automotive-type vehicle for on-road use, such as passenger automobiles, buses, trucks, vans, neighborhood electric vehicles, electric motorcycles, and the like, primarily powered by an electric motor that draws current from a rechargeable storage battery, fuel cell, photovoltaic array, or other source of electric current.

Informational note: defined as in 527 CMR 12.00: Massachusetts Electrical Code (Amendments) section 625.2.

Electric Vehicle Supply Equipment (EVSE). The conductors, including the ungrounded, grounded, and equipment grounding conductors, and the electric vehicle connectors, attachment plugs, and all other fittings, devices, power outlets, or apparatus installed specifically for the purpose of transferring energy between the premises wiring and the electric vehicle.

Informational note: defined as in 527 CMR 12.00: Massachusetts Electrical Code (Amendments) section 625.2.

Electric Vehicle Charging Space ("EV Ready Space"). A designated parking space which is provided with one dedicated 50-ampere branch circuit for EVSE servicing Electric Vehicles.

C301.1 Replace the section with the following:

Massachusetts is a Climate Zone 5A

C301.1 Delete Table

C401.2 Revise section as follows:

C401.2 Application. Commercial buildings shall comply with one of the following:

1. The requirements of ANSI/ASHRAE/IESNA 90.1-2016, as modified by C402.3, C405.3, C405.4, C405.9, and C406.

13.00: continued

a. If following Appendix G, then use ANSI/ASHRAE/IESNA 90.1 - 2016 as modified by Massachusetts amended sections: C401.2, C402.1.5, C402.3, C405.3, C405.4, C405.9, and C406.

b. If following Stretch energy code section AA103.2 then use ANSI/ASHRAE/IESNA 90.1-2013 Appendix G as modified by Massachusetts amended sections: C401.2, C402.1.5, C402.3, C405.3, C405.4, C405.9, and C406.

2. IECC Prescriptive Path. The requirements of sections C402 through C405. In addition, commercial buildings shall comply with section C406 and tenant spaces shall comply with section C406.1.1.

3. Certified Performance Path The requirements of sections C407, C402.3, C405, and C408.

C401.2.3 Amend the subsection as follows:

C401.2.3 Performance Rating Method for Source Energy. Add exception to ANSI/ASHRAE/IESNA 90.1 Appendix G Performance Rating Method, section G1.1.

Exception: When Appendix G is used for the comparison of building energy consumption only, the comparison may be performed on site energy and/or on a source energy basis.

C401.2.3.1 Source Energy Method. For the purpose of quantifying the projected Source Energy consumption of a building, the Site to Source Fuel Conversion factors in Table 401.2.2 shall apply.

Table 401.2.3 Site to Source Fuel Conversion Factors

Load Type	Factor
Electricity (Grid Purchase) meter	2.80
Electricity (On-site Solar or Wind)	1.00
Natural Gas	1.05
Fuel Oil	1.01
LPG	1.01
Purchased District Heating Hot Water Steam	 1.20 1.20
Purchased District Cooling	0.91
Fossil fuels not listed	1.1
Purchased Combined Heat and Power District Heat	0

* A source fuel conversion for purchased district heat supplied by a combined heat and power central utility will be published by the Massachusetts Department of Energy Resources on a per district system basis.

C401.2.3.2 Approved Software for Source Energy Calculation with Combined Heat and Power.

1. Determination of the source energy consumption and usage intensity, when using purchased combined heat and power district heat, shall be performed as an exceptional calculation using the Department of Energy Resources ("DOER") approved Excel worksheet.

2. Determination of the source energy consumption and usage intensity for heat generated by a combined heat and power system located on-site shall be performed using software meeting the requirements of ASHRAE 90.1 Normative Appendix G Performance Rating Method, section G 2.2 Simulation Program, and has an explicitly stated capability to determine both the site and source energy use intensity for combined heat and power systems without the requirement for exceptional calculations as defined in ASHRAE 90.1 Appendix G section G2.5.