MA Net Zero Buildings Coalition - Net Zero Stretch Code Framework February 2022

These definitions and principles have been developed and agreed upon by the MA Net Zero Buildings Coalition and its members.

NET ZERO DEFINITION

An energy-efficient, all-electric, low embodied carbon building that achieves carbon neutral building operations through the production and/or procurement of renewable energy.

CARBON NEUTRALITY GOAL

Achieve statewide carbon neutrality per the Global Warming Solutions Act which calls for emissions reductions from 1990 levels of at least 50% by 2030 and at least 75% by 2040, leading to "net zero" by 2050. Support municipalities in meeting or exceeding these emission reduction goals.

EQUITY GOAL

Prioritize net zero stretch code adoption and energy-efficient affordable housing in energy-burdened communities. Ensure "No community left behind."

COMMERCIAL & RESIDENTIAL

PRINCIPI F

Transition all building types to 100% renewable energy. Ensure "No square foot left behind."

NEW CONSTRUCTION & RENOVATION

PRINCIPLE

Electrify all buildings starting with new construction and major renovations.

ENERGY EFFICIENCY

IMPORTANT NEW CODE PROVISION

Set energy efficiency standards consistent with leading benchmarks to reduce greenhouse gas emissions, operational expenses, and grid load.

ELECTRIFICATION

IMPORTANT NEW CODE PROVISION

Require primary heating/cooling systems, appliances and other systems to be 100% electric to take full advantage of renewable energy and provide cost-effective heat and air-conditioning.

RENEWABLE ENERGY

IMPORTANT NEW CODE PROVISION

Require buildings to be powered by 100% renewable energy which can be on-site or off-site, generated and/ or purchased from approved sources, so that building operations are carbon neutral.

EMBODIED CARBON

IMPORTANT NEW CODE PROVISION

Require Whole Building Life Cycle Assessment (WBLCA) to account for and minimize embodied carbon in the sourcing, production, and transportation of building materials.

BUILDING ENERGY REPORTING & COMMISSIONING

IMPORTANT NEW CODE PROVISION

Require building energy reporting and disclosure, together with initial and periodic commissioning, to ensure that building systems operate as designed.

REFRIGERANTS

IMPORTANT NEW CODE PROVISION

Require the selection of low-impact refrigerants and refrigerant recycling (prohibiting disposal) to limit ozone depletion and carbon emissions.

EXEMPTIONS & WAIVERS

IMPORTANT NEW CODE PROVISION

Exemptions should be narrowly defined, fully justified, and subject to review as technology changes. Waivers should only be available in limited instances through a clearly defined process. These might include emergency generation and process gases or other instances of technological infeasibility.