Summary of Proposed New 225 CMR 22.00 and 23.00 (Updated September 22, 2022)

2023 Stretch Energy Code Update and Municipal Opt-in Specialized Code

1. Background

The Stretch energy code (Stretch Code) regulations have since 2009 been published in MA 780CMR chapters 115.aa and previously 780 CMR 110.aa under the jurisdiction of the Board of Building Regulations and Standards. The climate act of 2021 moved the authority for the Stretch Code promulgation to the Department of Energy Resources (DOER) and at the same time required the development of a new Municipal Opt-in Specialized energy code (Specialized Code). These appear as new regulations in 225 CMR 22.00 and 225 CMR 23.00.

- CMR 22.00 covers Residential low-rise construction and
- CMR 23.00 covers Commercial and all other construction (including most multi-family).

This document provides an overview and explanation of these draft regulations. In the following sections, this document summarizes:

- **Section 1: Background and Timeline.**
- **Section 2: Structure.**
- **Section 3: Stretch Code.** The modifications to the Base Energy Code that form the Stretch Code amendments in Residential Low Rise (Section 3.A) and Commercial and all other buildings (Section 3.B).
- **Section 4: Specialized Opt-in Code.** The modifications to the Stretch Code that form the Specialized Code appendices in Residential Low Rise (Section 4.C) Commercial and all other buildings (Section 4.D).

1.1 Timeline for Stretch and Specialized Code adoption

The Stretch code has been available since late 2009 and has already been widely adopted by cities and towns in Massachusetts. As a result, the update to the Stretch code will not require an additional bylaw vote in those existing Stretch code municipalities, some of whom are on their 3rd update already. The Specialized code is a new option and is adopted as a municipal opt-in code similar to the Stretch code process. Cities and towns seeking to adopt will require an active vote by City council or Town meeting to opt-in to the Specialized Code.

1.2 Energy code options

The current energy code options in Massachusetts are as follows:

- **Current Base Energy Code =** IECC 2018 with MA amendments
- **Current Stretch Code =** IECC 2018 with MA amendments + Stretch Code amendments

The current Base Energy Code is being updated along with the rest of the BBRS regulated building codes to a 10th edition MA code that will be based on the International Code Council (ICC) 2021 edition. Combined with the Stretch Code update and new Specialized Code contained in DOER's proposed regulations, this results in a tiered set of 3 energy code options for municipalities as follows:

- **Updated Base Energy Code** = IECC 2021 with MA amendments
- **Updated Stretch Code** = IECC 2021 with MA amendments + Stretch Code amendments
- **Specialized Code** = IECC 2021 with MA amendments + Stretch Code amendments + Specialized Code appendices

2. Structure

The updated Stretch Code as newly incorporated into DOER regulations (225 CMR) is divided into 2 chapters, following the format of the IECC.

A. 225 CMR 22 - Residential Low-rise Construction Stretch Energy Code
B. 225 CMR 23 - Commercial (and all other) Construction Stretch Energy Code

The Specialized Code includes additional requirements that form an Appendix to each of the chapters of the Stretch Code.

C. 225 CMR 22 Appendix RC – Residential Low-rise Construction Specialized Code
D. 225 CMR 23 Appendix CC – Commercial (and all other) Construction Specialized Code

3. Stretch Code Summary

A. 225 CMR Chapter 22: Residential Low-Rise Construction Stretch Code

Code Compliance Pathways

The current Base Energy Code for residential low-rise construction allows 3 different pathways for code compliance. The current Stretch Code requires code compliance through 2 of those pathways:

A1. Home Energy Rating Scores (HERS) index certification
A2. Passive house certification

The updated Stretch Code maintains these 2 pathways for compliance, but amends certain requirements in the HERS (Section R406) and Passive house (Section R405)[1] pathways.

A1. HERS Pathway (Section R406)

The updated Stretch Code lowers the maximum allowable HERS ratings to reflect improvements in energy efficiency as shown in Table 1 below.

TABLE 1: CHANGES TO MAXIMUM HERS INDEX (SEE TABLE R406.5)

On-site Clean Energy Application	**Maximum HERS Index score** (before renewable energy credit)				
	New construction			**Alterations, Additions and Change of use**	
	Updated Stretch Code July 1, 2024	Updated Stretch Code (Same as base code)	Current Stretch Code	Updated Stretch Code	Current Stretch Code
None (Fossil fuels)	**42**	52	55	**52**	65
Solar		55	60	**55**	70
All-Electric	**45**	55	60	**55**	70
Solar & All-Electric		58	65	**58**	75

[1] Key sections of the Stretch Code and Specialized Code are referenced in parentheses based on their IECC section number. For example: Updated HERS ratings (Section R406).

As shown in Table 1, the current Stretch Code allows a 5-point higher HERS rating for homes using heat pumps for space and water heating compared to homes using fossil fuels (natural gas, propane or heating oil) for space heating.

The updated Stretch Code maintains differential HERS ratings, and after a phase-in period until July 1, 2024 requiring HERS 45 for all-electric homes and HERS 42 for homes with any use of fossil fuels (Section R406.5). The updated Stretch Code is simplified and emphasizes energy efficiency and electrification by dropping the 5 HERS point credit for rooftop solar and 2 HERS point credit for solar thermal in the current Stretch Code.

The updated Stretch Code also updates HERS requirements for alterations, additions and change of use for existing homes. Additional detail on alterations, additions and change of use can be found in A5 below (Section R503.1.5).

A2. Passive House Pathway (Section R405)

Passive House certification is an optional code compliance pathway in the Base Energy Code and the current Stretch Code. The current Base Energy Code and current Stretch Code allow certification through the Passive House Institute US (Phius) Phius+ 2018 standard or the Passive House International (PHI) standard. The updated Base Energy Code and updated Stretch Code will align with the most recent Phius standards, allowing the Phius CORE 2021 standard (efficiency) or the Phius ZERO 2021 standard (efficiency and renewables). The PHI standard remains unchanged as an option.

New Residential Stretch Code Requirements

A3. Energy or heat recovery ventilation (Section R403.6.1)

The updated Stretch Code adds ventilation requirements through either heat recovery or energy recovery to the HERS Pathway. There is no change to the Passive house Pathway because heat or energy recovery is already required.

A4. Wiring for Electric Vehicle (EV) charging (Section R404.4)

The proposed updated Base Energy Code requires at least 1 space per home or a minimum of 10% of spaces in a new multi-family parking lot be provided with electric wiring to allow for future EV charging. The updated Stretch Code requires the same 1 space per home and increases the requirement to a minimum of 20% of spaces in a new multi-family parking lot.

A5. Existing buildings: Alterations, Additions and Changes of use (Section R503.1.5)

The updated Stretch Code clarifies when alterations to existing homes trigger compliance with different requirements. The requirements are as follows:

- Additions over 1,000 square feet (sf) must follow the HERS Pathway and meet the HERS requirements for Additions in Table 1 above. Additions under 1,000 square feet will continue to follow Base Energy Code.

- Additions that exceed 100% of the conditioned floor area of the existing dwelling unit (ie. more than double the size of the house) must follow the HERS Pathway and meet the HERS requirements for Additions in Table 1 above.
- Level 3 Alterations (over 50% of the home is renovated and reconfigured) as defined in the International Existing Building Code (IEBC 2021) must meet the HERS requirements in Table 1 above. Level 1 and Level 2 alterations will continue to follow the Base Energy Code.

B. 225 CMR chapter 23: Commercial (all other) Stretch Code amendments

Code Compliance Pathways

The current Base Code for commercial construction has multiple code compliance pathways from the IECC as well as the ASHRAE 90.1 standard. The current Stretch Code requires a 10% improvement over the ASHRAE 90.1 Appendix G pathway for buildings over 100,000-sf (limit is 40,000-sf for labs, hospitals, supermarkets, refrigerated warehouses and data centers) but allows smaller commercial buildings to choose from the other Base Code IECC pathways.

The updated Stretch Code includes 5 code pathways for new construction. These new requirements will go into effect on the following schedule:

1. All non-residential commercial buildings: any building applying for permit on or after July 1, 2023 subject to updated stretch code provisions
2. Multi-family commercial buildings follow schedule below:

	Updated Stretch Code July 1, 2023 through June 30, 2024	**Updated Stretch Code Beginning July 1, 2024**
Targeted Performance	Optional	Optional
HERS	Optional HERS 52/55	Optional HERS 42/45
Passive House	Optional	Optional
Relative Performance	Optional	Not allowed

Allowable use of each pathway is based on the type of building, with 4 major categories of buildings:

B1. TEDI Pathway: Offices, residential, and schools over 20,000-sf are required to use a new Thermal Energy Demand Intensity (TEDI) Pathway. The updated Stretch Code sets forth specific TEDI limits by building type. This uses the same energy software tools as the current ASHRAE 90.1 Appendix G pathway but with significantly more focus on heating, cooling and the building envelope. Building uses adjacent to office and residential use, such as post offices, town hall, and other similar buildings are also covered under this pathway.

B2. 10% better than ASHRAE Appendix G: High ventilation buildings such as labs and hospitals can continue to use a 10% better than ASHRAE appendix G pathway or opt to use the TEDI pathway. Multi-family buildings may follow the ASHRAE appendix G pathway until July 1, 2024. The updated Base Code and updated Stretch Code change the underlying ASHRAE standard 90.1 to the more recent 2019 edition.

B3. Prescriptive pathway: Small commercial buildings (any building use except multi-family) under 20,000-sf will be able to continue to comply through an updated prescriptive pathway, or can opt to use the TEDI pathway. The prescriptive pathway is being updated in the Base Energy Code, and the updated Stretch Code includes additional amendments to improve efficiency beyond Base Energy Code for small buildings.

B4. HERS and Passive House: Multi-family buildings larger than those covered by the residential low-rise code can choose between HERS and Passive House pathways that contain the same energy efficiency requirements as the updated Residential low-rise Stretch Code. The Passive House certification options remain available as an option for all building types.

Mixed-use buildings can use a combination of code pathways as appropriate for different portions of the building, or choose a whole-building approach through the TEDI or Passive House pathways.

Additional Commercial energy efficiency requirements:

B5. Efficient electrification (Section C401.4)

The updated Stretch Code mandates partial electrification of space heating for highly ventilated buildings which follow the ASHRAE Appendix G compliance pathway. The updated Stretch Code mandates full electrification of space heating for buildings not following the ASHRAE pathway which choose to utilize the less stringent curtainwall envelope UA[2] performance option (See B6 below).

B6. Mandatory envelope "Area-weighted U value[2] (Section C402.1.5) **(btu/hr-sf-F) of an envelope section**

The proposed Base Code and updated Stretch Code updates and simplifies the existing mandatory envelope UA provisions that are currently in the MA Base Code and Stretch Code. Mandatory area-weighted U value provisions replace UA provisions and are simplified and strengthened compared to existing provisions for all buildings not using curtain wall. Mandatory area-weighted U value provisions remain at the same stringency as existing provisions for curtain wall buildings. However, buildings which opt for the curtainwall U value limit are required to have full efficient electrification of space heating (see B5 above).

[2] 'Area-weighted U value' designates the average effective insulation level measured by the 'U' value across an exterior area 'A' of multiple elements (walls, windows, doors, etc).

B7. Air leakage (Section C402.5)

The updated Stretch Code strengthens the air leakage limit compared to the updated Base Energy Code. Code language of this section adopts proposed IECC 2024 language which clarifies requirements.

B8. Thermal bridges (Section C402.7)

Thermal bridge accounting is added to the updated Stretch Code to more accurately represent the insulation performance of a fully constructed wall or building envelope. Prescriptive and tailored accounting approaches are available.

B9. Economizers (Section 403.5)

Economizer requirements (which permit the use of outside air for free night-time cooling) are expanded in the updated Stretch Code compared to the updated Base Energy Code.

B10. Ventilation energy recovery (Section C403.7)

Ventilation energy recovery requirements are strengthened in the updated Stretch Code compared to the updated Base Energy Code. New provisions are also added to better accommodate high ventilation buildings and toxic exhaust requirements.

B11. Wiring for Electric Vehicle (EV) charging (Section C405.13)

The updated Base code requires wiring for future EV charging to 10% of new parking spaces. The updated Stretch Code raises the minimum number of spaces requiring EV wiring to 20% in Group R and B occupancies[3], with 10% for all other occupancies. EV charging can be met with either dedicated electric branch circuits, or with an automatic load management service (ALMS) that allows multiple spaces to be served by a higher amperage circuit, thus improving overall charging capacity at a lower installed cost.

B12. Additional efficiency requirement (Section C406)

Section C406 in the base code mandates certain additional efficiency measures, allowing designers to choose from a number of equivalent efficiency options. The updated Stretch Code modifies the existing IECC 2021 language to further incentivize efficient electrification, primarily by removing fossil fuel options from contributing toward the C406 points system.

B13. Existing buildings

Additions (Section C502)

The updated Stretch Code allows building additions which are less than 20,000-sf to continue to follow Base Energy Code. Additions greater than 20,000-sf will be required to meet applicable Stretch Code requirements for that building type and size.

[3] Group R = Residential use, Group B = Business use – as defined in International Building Code (IBC) chapter 3

Alterations (Section C503)

The current Stretch Code requires commercial building alterations to meet Base Energy Code prescriptive requirements because there is no prescriptive commercial pathway in the current Stretch Code. The updated Stretch Code will require commercial building alterations to follow the new Stretch Code prescriptive pathway but allow for 10% reduced envelope requirement for alterations compared to true new construction.

The updated Stretch Code eliminates an existing exception in Base Energy Code which allows exterior walls which have any amount of insulation to remain non-code compliant, even when the alteration scope includes alterations to the exterior walls. The updated Stretch Code will require that any altered walls be brought up to prescriptive stretch code, although historic buildings remain exempt from these provisions.

Change of use Occupancy (Section C503)

The current Stretch Code requires buildings going through change of use or occupancy to meet Base Energy Code prescriptive requirements because there is no prescriptive commercial pathway in the current Stretch Code. The updated Stretch Code will require buildings of any size which undergo change of use or occupancy to follow the new Stretch Code prescriptive pathway, but allows for a 10% reduced envelope requirement for change of use compared to true new construction.

Historic Buildings (R501.6)

The Stretch Code will maintain R501.6 from Base Code: Provisions of this code relating to the construction, repair, alteration, restoration and movement of structures, and change of occupancy shall not be mandatory for historic buildings provided that a report has been submitted to the code official and signed by the owner, a registered design professional, or a representative of the State Historic Preservation Office or the historic preservation authority having jurisdiction, demonstrating that compliance with that provision would threaten, degrade or destroy the historic form, fabric or function of the building.

4. Specialized Code Summary

Background

4.1 Timeline for Specialized Code adoption

Cities and towns will require an active vote by City council or Town meeting to opt-in to the Specialized Code. The Specialized Code must be available for adoption by December 24, 2022. When a municipality votes to adopt the Specialized Code, DOER recommends that the requirements take effect for new building permit applications beginning on the next January 1st or July 1st, whichever is a minimum of 6 months after the municipal vote. This phase-in period, also utilized by new Stretch Code municipalities, allows an orderly transition for developers, designers and builders as well as additional training time for municipal code officials.

4.2 Designed to achieve Massachusetts GHG emission limits and sub-limits

The Specialized Code is required by statute (MGL *Session Laws of 2021 Chapter 8: Section 31)* to be designed to achieve MA GHG emission limits and sub-limits set every five years from 2025 to 2050. As a result, all compliance pathways under the Specialized Code are designed to ensure new construction that is consistent with a net-zero Massachusetts economy in 2050, primarily through deep energy efficiency, reduced heating loads, and efficient electrification.

Regardless of the on-site renewable potential, the largest emissions impact for many buildings stems from the heating loads and choice of heating fuel for the building. Buildings reliant on fossil fuel combustion equipment have no clear path to zero emissions, while electrically heated buildings do due to the steady increase in renewable and clean energy sources on the ISO-NE electric grid. In drafting the Specialized Code, DOER recognizes that many building construction sites and high-rise building structures do not currently lend themselves to achieving net-zero energy or emissions on-site. For example, urban infill multi-family housing close to transit can greatly assist in achieving a net-zero economy in 2050 while not meeting a net-zero on-site building definition at the building level. Where on-site renewable energy generation is not practical, or is limited relative to the building load and available solar access, there is still potential for siting additional renewable energy in the community, however as renewable sites and procurements become distant from the building site it stretches the feasibility of local building officials to regulate them under the energy code. Accordingly, the Specialized Code requires all new buildings to be designed with electric service and wiring sufficient for future electrification of space and water heating as well as any combustion equipment appliance loads.

4.3 Definition of net-zero building and net-zero building performance standards

The statute stipulates that the specialized code must include both

a) A definition of net-zero building
b) net-zero building performance standards

The Specialized Code appendices are a set of **net-zero building performance standards** that adopts a broad **Net-zero Building** definition intended to cover all new buildings in the Specialized Code that is consistent with Executive Office of Energy and Environmental Affairs

2050 Roadmap Study and Buildings Technical Report, which utilized the following definition net zero new construction.

Net Zero new construction is defined as being consistent with the electrification and deep efficiency benchmarks described in the All Options pathway, discussed in the Energy Pathways Report – that is, that the new construction is compatible, as-built, with the Commonwealth's net-zero emissions economy in 2050. Its focus is on-site emissions; it does not necessitate onsite or offsite renewables, nor the assumption that a building is net-zero energy...These assumptions include enhanced energy efficiency compared to current code and effective elimination of on-site emissions from space heating, domestic hot water, cooking and other process uses. (Buildings Technical Report, p. 39)

Therefore, the Specialized Code adopts a definition of **Net-zero Building** as follows:

A building which is consistent with achievement of MA 2050 net zero emissions, through a combination of highly energy efficient design together with being an all-electric or Zero Energy Building, or where fossil fuels are utilized, a building fully pre-wired for future electrification and that generates solar power on-site from the available Potential Solar Zone Area.

Appendix RC and Appendix CC, which together form the Specialized Code, are Net-zero building performance standards and are summarized in sections C and D below.

C. 225 CMR 22 Appendix RC: Residential low-rise Construction Specialized Code

C1. Requirements by residential building size and fuel.

The Residential low-rise Specialized Code offers 3 pathways to demonstrate energy code compliance with varying sets of additional requirements over and above the updated Stretch code:

1. **Zero Energy pathway**: (Section RC102)
2. **All-Electric pathway:** (Section RC103)
3. **Mixed-Fuel pathway:** (Sections RC104 and RC105)

New homes up to 4,000 sf in size may follow any of the three pathways. New homes over 4,000 sf in size shall follow either pathway 1 or pathway 2. Table 2 below summarizes the low-rise residential Specialized Code requirements by home size and fuel use. All buildings are required to install wiring for electric vehicle (EV) charging in a minimum of 20% of new parking spaces, and one space per home in one and two family homes. Buildings with any combustion equipment designed for fossil fuel use are termed 'mixed-fuel' buildings.

TABLE 2: Residential Specialized code requirements summary by building/dwelling unit size

Building Size	Fuel Type	Minimum Efficiency	Electrification	Min. EV wiring	Renewable Generation
Dwelling units up to 4,000 sf	All Electric	HERS 45 or Phius CORE or PHI	Full	1 parking space	Optional
Dwelling units up to 4,000 sf	Mixed-fuel	HERS 42 or Phius CORE or PHI	Pre-wiring	1 parking space	Solar PV (except shaded sites)
Dwelling units > 4,000 sf	All Electric	HERS 45 or Phius CORE or PHI	Full	1 parking space	Optional
Dwelling units > 4,000 sf	Mixed-fuel	HERS 0 or Phius ZERO	Pre-wiring	1 parking space	Solar PV or other renewables
Multi-family >12,000 sf	All Electric	Phius CORE or PHI	Full	20% of spaces	Optional
Multi-family >12,000 sf	Mixed-fuel	Phius CORE or PHI	Pre-wiring	20% of spaces	Optional

C1.2 All Electric building performance standard (Section RC103)

All electric buildings are defined in the updated Stretch Code, and comply with the 2050 net-zero emissions performance standard by meeting the minimum efficiency standards of either HERS 45 or the Passive house pathway and using either air source or ground source heat pumps for primary space heating and heat pump or solar thermal water heating, as well as all electric appliances. All electric buildings are not required to install on-site solar panels but roofs must be solar-ready in accordance with the base and stretch code requirements. This pathway is laid out in Section RC103.

C1.3 Mixed-fuel building performance standard (Sections RC104 & RC105)

C.1.3a Homes and Units less than 4,000-sf

New low-rise buildings using fossil fuels for any on-site use including space heating, water heating, cooking or drying must meet minimum efficiency requirements of HER 42 or the Passive House pathway. In order to demonstrate alignment with the 2050 net-zero emissions mandate, all homes or units using fossil fuels for space heating, water heating, cooking, or drying must install sufficient electrical service, space and wiring to allow for future conversion to all electric buildings.

These mixed-fuel homes and buildings utilizing the HERS pathway are also required to install solar panels that provide no less than 4kw for single family and not less than 0.75 W/ft2 for multi-family, to mitigate these near-term emissions, with an exemption for shaded sites. Homes

and buildings utilizing the Passive House pathway are exempt from additional solar install requirements, but must have solar-ready roofs consistent with both the stretch and base code provisions. These requirements are set forth in Sections RC104, and RC105.

C.1.3b Homes and Units greater than 4,000-sf

New low-rise buildings containing one or more dwelling units over 4,000 sf and using fossil fuels for any on-site use including space heating, water heating, cooking, or drying must meet HERS 0 or Phius ZERO requirements described in C1.4 below.

C1.4 Zero Energy Buildings

The Specialized Code also contains a definition of **Zero Energy Building** based on how this term is used in the IECC 2021 in the appendices for both residential and commercial chapters, as follows:

A building which through a combination of highly energy efficient design and onsite renewable energy generation is designed to result in net zero energy consumption over the course of a year as measured in MMBtus or KWh_{eq}*, on a site energy basis, excluding energy use for charging vehicles.*

This definition is intended to cover exemplary buildings, and building uses for which achieving zero energy on-site is feasible.

C1.4a HERS 0 performance standard (Section RC 102)

For the HERS index pathway, the Specialized Code adopts and modifies the definition of zero energy building published in the IECC 2021 Appendix RC – Residential building Provisions.

Appendix RC uses the HERS rating scale to set a zero energy building at HERS 0 or lower after on-site solar generation is factored in. The required minimum level of energy efficiency without solar in the IECC is currently HERS 47, the Specialized Code adjusts the required minimum energy efficiency level down to HERS 42. The gap between HERS 42 and HERS 0 is made up with renewable energy from on-site power production (OPP) typically with solar panels.

C1.4b Phius ZERO performance standard (Section RC 102)

For the Passive House pathway, the Specialized Code adopts the Phius ZERO building performance standard for zero energy buildings. Phius ZERO certification includes the Phius CORE efficiency requirements while adding a requirement to net out energy use on an annual basis with renewable energy. The Specialized Code excludes contracts for Renewable Energy Credits (RECs) or off-site Renewable Energy Sources which are otherwise allowed under the Phius ZERO certification.

D. 225 CMR 23 Appendix CC: Commercial Construction Specialized Code

D1.1 Energy Efficiency Requirements

The Specialized Code maintains the same energy efficiency requirements as the Updated Stretch Code for all building types except multi-family, including adoption of the ASHRAE 90.1-2019 pathway for high ventilation buildings, TEDI requirements for offices and schools, and a new prescriptive path for small buildings.

Multi-family buildings built to the Commercial Specialized Code must achieve precertification to Passive House standards (either from PHI or Phius). These requirements are phased-in for buildings up to 5 stories required to meet Passive House requirements if applying for permits after January 2023, and taller buildings 6 stories and above required to meet Passive House for permit applications beginning in January 2024.

D1.2. All Electric Building Performance Standard (Section CC104)

This is the simplest compliance pathway under the Specialized Code, requiring the energy efficiency requirements described in D1.1, and requiring that all space heating, water heating, cooking equipment and drying equipment is powered by electricity and meets minimum efficiency standards.

D1.3. Mixed-Fuel Building Performance Standard (Sections CC105 and CC106)

This pathway establishes minimum requirements for new buildings designed with any space heating systems, water heating systems or appliances capable of using fossil fuels such as natural gas, heating oil or propane fuel. While allowing these fossil-fired systems, the Specialized Code requires mitigation of these emissions with the following requirements:

a) Minimum efficiency requirements for space and water heating, including both fossil fuel and clean biomass boilers and furnaces systems.
b) Solar development of the available on-site solar potential, specifically through one of 2 options:
    i. *Not less than 1.5W/ft2 for each sq foot of the 3 largest floors* (the threshold proposed in solar requirements in the forthcoming IECC2024), or
    ii. *not less than 75% of the Potential Solar Zone Area*
c) Pre-wiring and electrical service provision to the building to allow for future electrification of space and water heating and cooking and drying equipment.

D1.4 Zero Energy Building Performance Standard (Section CC103)

This is the most stringent of the 3 pathways in that it requires net zero energy on an annual basis from the 1st year of construction. The Specialized Code amends the IECC commercial appendix CC: Zero Energy Commercial Building Provisions by simplifying the allowable renewable options. As a result, zero energy may be demonstrated only with on-site generation (typically

solar PV), and all buildings must meet minimum energy efficiency requirements prior to renewable offsets.

The option to show compliance using HERS 0 or Phius ZERO certification as used in the low-rise residential Specialized Code is also eligible under the Zero Energy pathway for multi-family residential buildings.