

# **Residential Energy Code Compliance Paths**

Non Stretch Code Communities

2015 IRC Chapter 11 as amended by 780 CMR 51.001



#### **Energy Code Questions?**

Email: energycodesma@psdconsulting.com Call: 855-757-9717 (toll free) Visit: www.masssave.com/energycode

## Is your building type listed below?

- One- and two-family dwellings and townhouses
- Groups R-2, R-3, and R-4 three stories or less





See 2018 IECC [CE]

### Is it new construction<sup>3</sup>?

Yes



See IECC [RE] Ch. 5
Existing Buildings

## **Mandatory requirements:**

- Certificate (N1101.3)
- Air leakage (N1102.4)
- Max. fenestration U-factor & SHGC (N1102.5)
- Controls (N1103.1)
- Heat pump supplementary heat (N1103.1.2)
- Duct sealing (N1103.3.2)
- Duct testing (N1103.3.3)
- Building cavities (N1103.3.5)
- Mechanical system pipe insulation (N1103.4)
- Heated water circulation and temperature maintenance systems (N1103.5.1)
- Mechanical ventilation (N1103.6)
- Equipment sizing and efficiency rating (N1103.7)
- Systems serving multiple dwelling units (N1103.8)
- Snow melt and ice system controls (N1103.9)
- Pools and permanent spas (N1103.10)
- Portable spas (N1103.11)
- Lighting equipment (N1104.1)



• One option to the right

## **Prescriptive**

- Building Thermal Envelope (N1102)
- Systems (N1103)
- Electric Power & Lighting (N1104)
- Additional Efficiency Packages (N1107)

## **Prescriptive with Envelope Tradeoffs**

• Same as above + Envelope tradeoffs in **REScheck** 

## **Energy Rating Index<sup>2</sup>**

HERS Index

or

• ENERGY STAR v3.1

OI

Passive House Certified

<sup>&</sup>lt;sup>1</sup> The provisions of IECC Chapter 4 [RE] are equivalent to IRC Chapter 11.

<sup>&</sup>lt;sup>2</sup> See page 2 for more detail on each Energy Rating Index option.

<sup>&</sup>lt;sup>3</sup> Additions, alterations, repairs, and change of occupancy or use shall comply with IECC Chapter 5 Existing Buildings



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# HERS Index < 55<sup>2</sup>

- HERS Rating completed per the most recent version of ANSI/RESNET/ICC 301 by a RESNET-certified HERS Rater using RESNET-accredited software
- Permit application: Preliminarily HERS report, description of energy features, statement that rating is based on plans
- Final inspection: Final HERS report, rater verified ENERGY STAR Thermal Enclosure checklist, copy of certificate as required by R401.3

#### Certified ENERGY STAR Homes v3.1

- Verification completed by a RESNET-certified HERS Rater using RESNET-accredited software
- Permit application: Preliminary HERS Report, description of energy features, statement that rating is based on plans
- Final inspection: ENERGY STAR Homes certificate, Final HERS Report, signed ENERGY STAR Thermal Enclosure Checklist, copy of certificate as required by Section R401.3

### **Passive House Institute (PHI or PHIUS)**

- Verification completed by a Certified Passive House Consultant using PHI or PHIUS approved software
- WUFI or PHPP compliance report, statement that report is based on plans, and evidence of PHIUS or PHI precertification
- Final Inspection: Updated WUFI or PHPP compliance report, copy of Passive House Rater's test results, statement that results are based on 'as built' conditions

## Is your building type listed below?

• R-use building four stories or less





**See 2018 IECC [CE]** 

### Is it new construction<sup>3</sup>?

Yes



**See IECC [RE] Ch. 5 Existing Buildings** 

## **Mandatory requirements:**

- Certificate (N1101.3)
- Air leakage (N1102.4)
- Max. fenestration U-factor & SHGC (N1102.5)
- Controls (N1103.1)
- Heat pump supplementary heat (N1103.1.2)
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- Pools and permanent spas (N1103.10)
- Portable spas (N1103.11)
- Lighting equipment (N1104.1)



One option to the right

<sup>&</sup>lt;sup>1</sup> The provisions of IECC Chapter 4 [RE] are equivalent to IRC Chapter 11.

 $<sup>^2</sup>$  If onsite renewable energy is part of the design, the maximum HERS Index may be increased by 5 to 12 points in accordance with 780 CMR Table N1106.4.1

<sup>&</sup>lt;sup>3</sup> Additions, alterations, repairs, and change of occupancy or use shall comply with IECC Chapter 5 Existing Buildings