



STATE OF DELAWARE  
**DEPARTMENT OF NATURAL RESOURCES AND  
ENVIRONMENTAL CONTROL**

RICHARDSON & ROBBINS BUILDING  
89 KINGS HIGHWAY  
DOVER, DELAWARE 19901

OFFICE OF THE  
SECRETARY

PHONE  
(302) 739-9000

**Secretary's Order No: 2020-CCE-0014**

**RE: Proposed Regulation Amendments to 7 DE Admin. Code 2101: *Regulations for State Energy Conservation Code***

**Date of Issuance: April 28, 2020**

**Effective Date: June 11, 2020**

Under the authority vested in the Secretary of the Department of Natural Resources and Environmental Control ("Department" or "DNREC") pursuant to 7 *Del.C.* §§6006 and 6010, and all other relevant statutory authority, the following findings of fact based on the record, reasons and conclusions are entered as an Order of the Secretary in the above-referenced regulatory proceeding.

**Background, Procedural History and Findings of Fact**

This Order relates to 7 DE Admin. Code 2101: *Regulations for State Energy Conservation Code* ("Amendments"). Pursuant to 16 *Del.C.* §7602, *Delaware's Energy Conservation Code Act*, the Department proposes to adopt the most recent and/or highest available version of the International Energy Conservation Code ("IECC"), and the latest American Society of Heating, Refrigerating and Air-Conditioning Engineers/Illuminating Engineering Society of North America ("ASHRAE") energy standard, as determined by the Department on a triennial basis. In addition, the regulations set out procedures for certification of compliance with these codes and standards to be utilized by the respective local governments.

In 2014, the Department adopted the 2012 IECC with Delaware-specific amendments for the home building industry, due to the substantial variety and number of changes present in the 2012 IECC, relative to the 2009 IECC. At that time, the Department recognized that the Delaware building industry would have to significantly adapt many of its residential building, design, and construction practices following the 2012 IECC adoption. The Delaware-specific amendments to the 2012 IECC were intended to give builders additional time to learn the more stringent energy efficiency requirements, and to adapt their construction techniques and materials, while taking a conservative approach to reduce the risk of updating the code with negative impacts on housing prices (despite the overall cost-effectiveness of the 2012 code, in its entirety). While the 2012 IECC was adopted, these amendments were not intended to be permanent modifications to the code in every code cycle.

In accordance with 16 *Del.C.* §7602, *Delaware's Energy Conservation Code Act*, the Department convened the triennial review of the available energy conservation codes in March 2017, with the Delaware Energy Code Coalition (“Coalition”). The Department’s Division of Climate, Coastal, and Energy (“DCCE”) and the Coalition met over a 2-year period and evaluated the impacts of adopting the 2015 or 2018 IECC standards, in addition to the 90.1-2013 or 90.1-2016 ASHRAE standards. During this time the DCCE and Coalition collected input from stakeholders who offered opinions, proposed revisions, and identified potential impacts to the updated versions of the available energy codes. The Coalition and stakeholders specifically expressed concerns with the residential provisions (particularly the more stringent air leakage limits). To address the concerns of the Coalition and stakeholders and provide technical support, the Department sought technical assistance from the U.S. Department of Energy’s Pacific Northwest National Lab, Northeast Energy Efficiency Partnerships, and Optimal Energy, Inc.

A technical analysis of the 2018 IECC residential requirements, conducted by a consultant, estimated a 40% reduction in air leakage associated with adopting the 2018 IECC energy conservation code. The 2012 IECC (as amended) limits air leakage to 5 Air Changes per Hour (“ACH”), while the 2018 IECC reduces the limit to 3 ACH. The air sealing requirements set forth in the 2018 IECC, specifically reducing the ACH limit from 5 to 3 ACH, will increase construction costs by \$150-\$225 per home, but will result in energy savings of \$68 per year. Through this annual savings, it will take approximately three years to recoup the initial investment of \$150-\$225.

The Department has reviewed the energy savings, construction costs, and payback period associated with the more stringent air sealing requirements in the 2018 IECC and ASHRAE 90.1-2016 model codes and expects a modest increased cost with the implementation of the aforementioned energy codes; however, the increased cost will be offset by the benefits accrued to the building owners and occupants over the life of the home.

The Department finds that adopting the 2018 IECC and ASHRAE 90.1-2016 energy conservation codes, in their entirety, will increase building sector energy efficiency, bring energy cost savings for building owners and occupants, increase occupant comfort, and reduce emissions in Delaware. With consideration of the stakeholders’ concerns, the Department acknowledges that there will be transitional change between the 2012 IECC (as amended) and the 2018 IECC and the Department’s DCCE is prepared to provide training.

Following promulgation of these regulations, the Department’s DCCE will provide training to the local code enforcement officials, builders, and design professionals. A transition period of 6 months shall allow stakeholders to adapt to the 2018 IECC and ASHRAE 90.1-2016 energy conservation codes, in addition to the training that will be offered. Specifically, the Department will provide training on practical compliance strategies for new building requirements, construction and design strategies for air sealing smaller homes, hot water pipe insulation and heating, ventilating, and air conditioning duct design, the new Energy Rating Index compliance pathway, and other topics as needed, to transition to the new codes.

The Department has the statutory basis and legal authority to act with regard to the formal promulgation of these proposed Amendments, pursuant to 16 *Del.C.* §7602.

The Department published its initial proposed regulation Amendments in the November 1, 2019 *Delaware Register of Regulations*. Thereafter, the public hearing regarding this matter was held on December 3, 2019. There were nine (9) members of the public in attendance with five (5) comments provided at the public hearing. Pursuant to 29 *Del.C.* §10118(a), the hearing record remained open for receipt of additional written comment for 15 days following the public hearing. The hearing record formally closed for comment in this matter at close of business on December 18, 2019, with a total of 23 comments received by the Department during the phase of this formal promulgation.

It should be noted that all notification and noticing requirements concerning this matter were met by the Department. Proper notice of the hearing was provided as required by law.

Hearing Officer Theresa Newman prepared her Report dated March 20, 2020 (“Report”), which expressly incorporated the Department’s proposed Amendments into the hearing record generated in this matter. The Report documents the proper completion of the required regulatory amendment process, establishes the record, and recommends the adoption of the proposed Amendments as attached to the Report as Appendix “A.”

### **Reasons and Conclusions**

Based on the record developed by the Department’s experts in the Division of Climate, Coastal, and Energy, and established by the Hearing Officer’s Report, I find that the proposed regulatory Amendments to 7 DE Admin. Code 2101: *Regulations for State Energy Conservation Code*, are well-supported. I further find that the Department’s experts fully developed the record to support adoption of these Amendments. Therefore, the recommendations of the Hearing Officer are hereby adopted, and I direct that the proposed Amendments be promulgated as final.

The following reasons and conclusions are entered:

1. The Department has the statutory basis and legal authority to act with regard to this proposed regulatory promulgation, pursuant to 16 *Del.C.* §7602;
2. The Department has jurisdiction under its statutory authority, pursuant to 7 *Del.C.* Chapter 60, to issue an Order adopting these proposed Amendments as final;
3. The Department provided adequate public notice of the initial proposed Amendments and all proceedings in a manner required by the law and regulations, and provided the public with an adequate opportunity to comment on the same, including at the time of the public hearing held on December 3, 2019, and during the 15 days subsequent to the hearing (through December 18, 2019), before making any final decision;
4. Promulgation of the proposed Amendments to 7 DE Admin. Code 2101, *Regulations for State Energy Conservation Code*, will enable the Department to adopt by reference the 2018 IECC and ASHRAE 90.1-2016 in their entirety, pursuant to 16 *Del.C.* §7602, Delaware's Energy Conservation Code Act;
5. The Department has reviewed the proposed Amendments in the light of the Regulatory Flexibility Act, consistent with 29 *Del.C.* Ch. 104, and believes the same to be lawful, feasible and desirable, and the recommendations as proposed should be applicable to all Delaware citizens equally;
6. The Department's proposed regulatory Amendments, as initially published in the November 1, 2019 Delaware Register of Regulations, and as set forth in Appendix "A" hereto, are adequately supported, are not arbitrary or capricious, and are consistent with the applicable laws and regulations. Consequently, they should be approved as final regulatory Amendments, which shall go into effect ten days after their publication in the next available issue of the Delaware Register of Regulations; and

7. The Department shall submit the proposed Amendments as final regulatory amendments to the Delaware Register of Regulations for publication in its next available issue and provide such other notice as the law and regulation require, and the Department determines is appropriate.



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Shawn M. Garvin  
Secretary