

GWINNETT COUNTY

Community Energy Code Enforcement Policy

The design and construction of buildings in Gwinnett County for the effective use of energy are regulated by the “Georgia State Minimum Standard Energy Code”. Gwinnett County is granted authority by sections 8-2-26 and 8-2-27 of the Official Code of Georgia Annotated to administer the “Georgia State Minimum Standard Energy Code” for all construction located within the county except for incorporated cities. The International Energy Conservation Code, published by the International Code Council and adopted by the state of Georgia with Georgia Supplements and Amendments, constitutes the official “Georgia State Minimum Standard Energy Code”, herein referred to as “the energy code”. The energy code contains the mandatory requirements for buildings which establish the basis for this policy.

Responsible parties engaged in construction activities including but not limited to contractors, design professionals, and homeowners must comply with the energy code for both residential and nonresidential projects. Design, erection, construction and alteration of any building or interior space are typical activities which must be completed in accordance with the energy code.

The Department of Planning and Development actively enforces the energy code through plan review, permitting, and inspection of construction projects as described in the sections which follow.

Residential Building Energy Code Compliance

Prior to issuance of a building permit, residential contractors must submit to the department a completed “Affidavit for Residential Dwellings – Compliance with the Georgia State Energy Code” for each residential building and building addition to be constructed including single-family residences, townhomes, and duplexes. The contractor must select one of the following compliance methods on the affidavit:

1. GA State Amendments Table 402.1.1 Insulation and Fenestration Requirements by Component (Climate Zone 3)
2. RECA IECC Compliance Guide for Homes in Georgia based on GA State Amendments Table 402.1.1 (Climate Zone 3).
3. REScheck – Refer to GA State Amendments Table 402.1.4 for minimum R-values and maximum U-factors/SHGC allowed in REScheck. (REScheck is an energy code compliance software program developed by the U.S. Department of Energy.)
4. An Energy Code Compliance Table approved by Gwinnett County Building Construction Section.

5. IECC Section 405 Simulated Performance Alternative using REMRate, Energy Gauge.

The contractor must indicate the following product performance data on the affidavit:

- Flat ceiling insulation R-value.
- Sloped ceiling insulation R-value.
- Wall cavity insulation R-value.
- Wall sheathing insulation R-value.
- Mass wall basement insulation R-value.
- Attic knee wall insulation R-value.
- Floor insulation R-value over unconditioned space.
- Window U-factor.
- Window SHGC value.
- Heating efficiency % for furnaces.
- Cooling efficiency SEER for air conditioning equipment.

The contractor must also comply with the following additional residential energy code requirements:

- Heating and cooling equipment sized per Air Conditioning Contractors of America (ACCA) Manual J.
- Duct design per ACCA Manual D with R-8 insulated ducts in unconditioned attics.
- The energy code requires the posting of a permanent certificate in a readily accessible location on or near the electrical distribution panel or air handler. The certificate must be completed by the contractor or a registered design professional which lists the energy performance data for the installed insulation, windows, water heaters, and mechanical air handling equipment.

Energy code compliance is monitored by the structural, mechanical, and electrical Inspectors during appropriate stages of construction prior to issuance of the Certificate of Occupancy. In particular, department inspection staff routinely observe each building and building addition to verify that the insulation, windows, ductwork, furnaces, water heaters, and air conditioning equipment installed during construction are consistent with the product performance data stated on the affidavit.

Commercial and Multifamily Building Energy Code Compliance

Prior to issuance of a building permit, the building designer (Architect and/or Engineer) must submit construction drawings for each proposed commercial and multifamily building and building addition to the department for energy code compliance review which include an Energy Code Compliance Report for Envelope, Mechanical, and Electrical Interior

Lighting. The Energy Code Compliance Report must document compliance of the proposed construction by one of the following methods:

1. COMcheck – Georgia Code Version
2. COMcheck – ASHRAE 90.1 (2007) Standard Code Version

(Note: COMcheck is an energy code compliance software program developed by the U.S. Department of Energy).

Department plan review staff review the construction drawings for each proposed building and building addition to ensure that the following energy code performance documentation is included prior to authorizing issuance of a building permit:

- Attic ceiling insulation R-value.
- Flat roof insulation R-value.
- Sloped ceiling insulation R-value.
- Wall cavity insulation R-value.
- Wall sheathing insulation R-value.
- Mass wall insulation R-value.
- Floor insulation R-value over unconditioned space.
- Window/Fenestration U-factor.
- Window/Fenestration SHGC value.
- Cooling efficiency SEER/EER/HSPF/COP/AFUE for each mechanical air handling unit.
- Interior lighting schedule indicating watts per sq. ft. of each fixture.
- Insulation R-values for ductwork in unconditioned spaces and for all piping that serves as part of the heating or cooling system.
- Time-scheduling or occupant-sensing devices for automatic control of interior lighting in all spaces for buildings which exceed 5,000 square feet in area.
- Manual or occupant sensor controls for interior lights for each room/space depending upon floor area.

Energy code compliance is monitored by the structural, mechanical, and electrical inspectors during appropriate stages of construction prior to issuance of the Certificate of Occupancy or Certificate of Completion. In particular, department inspection staff routinely observe each building and building addition to ensure that the insulation, windows/fenestration, ductwork, water heating equipment, mechanical air handling units, and interior lighting and lighting controls installed during construction are consistent with that specified on the construction drawings authorized for issuance of a building permit.