



## Residential Energy Code Compliance Form

Project Address:
Project Type: <input type="checkbox"/> New Building <input type="checkbox"/> Addition <input type="checkbox"/> Renovation
Owner/Agent:

**Required Documentation for Permit Submittal.** Choose a method to verify compliance with the 2012 IECC as adopted by the State of Iowa (661 Iowa Administrative Code, Chapter 303). Check one of the three boxes below and provide all of the appropriate information for that method.

- PRESCRIPTIVE METHOD** – Input the proposed efficiency values, as applicable, in the table below. Values shall meet or exceed the values listed in Prescriptive Standard column.

Building Components	Prescriptive Standard*	Actual Value	Remarks
<b>Insulation</b> – Prescriptive Standard is Minimum R-Value			
Ceilings with Attic Spaces	R-49		R-49 for standard trusses, can be reduced to R-38 with raised heel or energy trusses
Ceilings without Attic Spaces	R-30		Limited to 500 S.F. or 20% of the total insulated ceiling area, whichever is less
Wood Framed Walls	R-20 or R-13+5		R-20 cavity insulation or R-13 cavity insulation plus R-5 sheathing
Basement Walls	R-19 or R-15		R-19 cavity insulation or R-15 continuous insulation (inside or outside)
Crawl Space Walls	R-19 or R-15		R-19 cavity insulation or R-15 continuous insulation (inside or outside)
Floors Over Unconditioned Space	R-30		Floor cavities unable to fit R-30 shall be filled with insulation, but no less than R-19
Slab on Grade Floors	R-10		Minimum insulation depth shall be 24" from top of slab
<b>Fenestration</b> – Prescriptive Standard is Maximum U-Factor			
Windows and Doors with > 50% Glazing	U-0.32		An area weighted average may be permitted to satisfy requirements
Skylights	U-0.55		An area weighted average may be permitted to satisfy requirements
<b>*Sunroom</b> – Prescriptive standard for isolated sunroom: R-24 Ceilings, R-13 Walls, and U-0.45 Windows			

- TRADE-OFF METHOD** – Use a computer analysis, such as REScheck, to show compliance. Input the proposed square footages and efficiency levels for all ceilings, walls, floors and windows. The website for a free download of REScheck software can be found at [www.energycodes.gov/REScheck](http://www.energycodes.gov/REScheck). Attach the resulting documentation, including the compliance form, inspection checklist, and panel certificate.
- PERFORMANCE METHOD** – Get a “HERS Rating” by a certified rater. Compliance verification shall be based on simulated energy performance. The proposed home must be shown to have an annual energy cost that is less than or equal to the energy cost of a version of the proposed design that would meet the minimum code requirements. Attach the resulting documentation to show compliance, including the proposed design and the standard reference design.

*See back page for mandatory requirements (regardless of compliance method selected above)*

**Mandatory Requirements of the IECC.** Please read below for a simplified summary of code requirements for a single family dwelling. Where a 3<sup>rd</sup> party inspection is required to verify compliance, the supporting documentation (Compliance Report, Inspection Checklist, and Panel Certificate) shall be supplied to the inspector before the Certificate of Occupancy will be issued.

1. **Mechanical Ventilation** – Provide ventilation meeting IRC or IMC requirements. Outdoor intakes/exhaust will require dampers.
2. **Equipment Sizing** – Heating and cooling equipment shall be professionally sized in accordance with ACCA Manual S based on building loads calculated in accordance with ACCA Manual J.
3. **Hot water piping Insulation** –Insulation for hot water piping with a minimum value of R-3 shall be applied to the following:
  - a. Piping larger than ¾” nominal diameter.
  - b. Piping from the water heater to kitchen outlets.
  - c. Piping from the water heater to the distribution manifold.
  - d. Piping located outside the conditioned space.
4. **Duct Sealing** – Joints and seams for all ductwork shall be sealed. If any part of the furnace or ductwork is located outside of the building thermal envelope (attics or crawl spaces), tightness shall be tested. If framing cavities (such as floor joists or wall studs) are used for return-air ducts, tightness shall be tested. Testing shall be performed at a Rough-in Test or a Post-construction Test by a certified 3<sup>rd</sup> party. A list of certified HERS/BPI located in Iowa can be found at the link [www.iowacodediagnostics.com](http://www.iowacodediagnostics.com).
5. **Air Leakage** – The building’s thermal envelope shall be tested and verified as having an air leakage rate not exceeding 4 air changes per hour. Testing shall be done by a certified 3<sup>rd</sup> party. A list of certified HERS/BPI located in Iowa can be found at the link [www.iowacodediagnostics.com](http://www.iowacodediagnostics.com).
6. **HVAC Controls** – A programmable thermostat shall be provided where the primary heating system is a forced air furnace.
7. **Lighting Equipment** – A minimum of 75% of lamps in permanently installed lighting fixtures shall be high efficacy. Recessed lighting installed in the building thermal envelope shall be sealed to limit air leakage between the conditioned and unconditioned spaces.
8. **Access Doors** – Access doors from conditioned space to unconditioned space, such as attics or crawl spaces, shall be weather stripped and insulated.
9. **Certificate** – A certificate listing the predominant R-values of all insulation and U-factors for all fenestration components shall be completed and posted on or in the electrical panel by the builder or a registered design professional.

If you have questions about any of the above items, please inquire at the Johnson County Planning, Development & Sustainability Department @ 319-356-6085 before proceeding.