

2015 ECCCNY – POTENTIAL CHANGES

- Following identifies differences between 2012 IECC and 2010 ECCCNY
- These and additional items are under review by the ECCCNY Technical Subcommittee.

Chapter C4: Commercial (Includes Residential 4 & more stories in height)

C401.2 Application - Must select :

- C401.1(1) ASHRAE 90.1-2010 or,
- Sections C402-405 plus higher standards options
 - C406.2 (Higher HVAC efficiencies – eg. SEER 15), or
 - C406.3 (Reduced Interior Lighting Table C406.3 10-15% less lighting allowed), or
 - C406.4 (Provide min. 1.75 Btu, or 0.5 watts / sq ft, or 3 % of building max energy loads of HVAC, hot water, and lighting loads) of renewable power
- C401.2.1 Existing building renovations shall comply to Sections C402-405 or ASHRAE 90.1-2010
- C402.2.6 (Prescriptive Envelope)
 - Flat roof values indicate a *20 to 30% increase depending on Climate Design Zone.*
 - Attic Roof values- Climate Design Zone 5 and 6- *30% increase.*
 - Metal Buildings- *30% increase*
 - Fenestration – *20%- 25% increase*
 - Slab insulation min. R-10 2' down (or for heated slabs R-15 up to 3')
- C402.2.8 Insulation of R 3.5 required for all radiant floor heating
- C402.3 Vertical fenestration (not including opaque doors) shall be limited to 30% of wall area and skylights max. 3% (unless 50% of conditioned space is daylighting zone controlled with Visible Trans. (VT) of vert. glass \geq 1.1 times SHGC - see many new allowances for daylighting
- C402.4 Air leakage (Mandatory) Air barriers are to be specific materials, rated assemblies, or proven via a building blower door test.
- Table C402.4.3 Max. air infiltration rates for fenestration assemblies in CFM/ FT²
- C402.4.5 Specifies air leakage rates and minimum standards for larger (24" per side) dampers and openings in building envelopes.
- C403.2.5.1 Demand controlled ventilation (DCV) for spaces over 500 ft. sq. w/25 people per 1000 ft. sq. (with an economizer, auto modulating outdoor air, or design outdoor air rates > 3000 CFM) – See exceptions
- C403.2.6 Energy recovery ventilation systems when exceeding airflow rates of Table C403.2.6 (see zones 4A-6A).
- C403.2.10.1 Allowable fan floor horsepower limits – see new exceptions for 1 hp or less...
- C403.3.1 Economizers – see many new exceptions and control limits
- C405.1 Lighting systems for commercial buildings mandates power densities via Table C405.5.2(1) with the exception of dwelling units with 75% high efficacy lamps.
- C405.2.2.2 Occupancy sensors required for new building types listed
- C405.2.2.3 Daylight zone control zones independent of general lighting controls
- C408 System HVAC Commissioning for buildings systems where required in C408.2 (see also C403.2.9)

Chapter R4 : Residential less than 4 stories in height

Table R402.1.1- Insulation and Fenestration Requirements by Component (Prescriptive)

Fenestration- SHGC- 0.40 (CZ 4)
U -0.32 (CZ 5&6)
Skylights- U – 0.55 (CZ 4,5,6)
Basement wall- R-15/19 (CZ 5&6)
Wood framed wall- R- 13+5 or 20 (CZ 4) / R-20+5 (CZ 6)
Ceiling- R-49 (CZ 4)

For All Climate Design Zones

- R402.2.3 Eave Baffle added
- R402.2.6 /Table R402.2.6 -Increase in C_i for Steel framing
- R402.2.12 –Sunroom insulation- Fenestration requirements upgraded
- Table R402.4.1.1 – Air Barrier and Insulation installation upgraded
- R402.4 Air Leakage- Building envelope visual inspection and ACH 50- 3 ACH
- R402.4.4 Recessed Lighting- labeling modification (air leakage listed)
- R402.3 Ducts and air handlers required to be air sealed,
- Air handlers must be sealed must meet- ASHRAE 193. Building cavities may not be utilized as ducts or plenums. Duct testing required when outside of building envelope- tighter standard of 4 cfm/100 sf floor area.
- R403.4 Service hot water plumbing – insulated to R-3 dependent on pipe size and run out line length.
- R403.5. Whole–house Mechanical ventilation mandated – (Code mandate by IRC 2012 for ACH less than 5)
- Table R403.5.1 Mechanical Fan efficacy – mandated minimum
- R403.6 Equipment Sizing- ACCA Manual “S”, loads sized by Manual “J”
- R403.9 Pools - Permanently Installed Spas are added. R value removed (revert to ECCCNY-2010 for ARRA requirements)
- R404.1 Lighting- 75% minimum High efficacy lamps in fixtures.

Additional:

- Add references to IRC 2012 for;
 - Whole house ventilation,
 - Kitchen/bath ventilation,
 - Combustion and dilution air for naturally vented appliances.
 - Combustion efficiency testing mandate w/ ACH 50 of 3/hr and less.
- Class I vapor barrier- restrictions in CZ 4.

