

**ITEMS FOR ECCCNYTS TECHNICAL SUBCOMMITTEE REVIEW**  
**2006 ENERGY CODE TECHNICAL SUBCOMMITTEE REVIEW**  
**DIVISION OF CODE ENFORCEMENT AND ADMINISTRATION - DEPARTMENT OF STATE**  
5/3/07

ITEM NO. (✓ - done)	ECCCNYTS SECTION	2006 IECC SECTION	TITLE	SUMMARY
	<b>CHAPTER 1</b>		<b>GENERAL</b>	
	<b>CHAPTER 2</b>		<b>DEFINITIONS</b>	
2-01				The following Chapter #2 review is a comparative listing of definitions which indicate definitions which are present in the ECCCNYTS, and not in the IECC, or present in the IECC, and not in the ECCCNYTS.
	Agricultural building			
	Alteration (removed portion for mechanical alteration)	Alteration (includes portion for mechanical alteration)		

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	Addition (includes portion for mechanical alteration)	Addition (removed portion for mechanical alteration)		
	Building	-----		
	Code Enforcement Official	Code Official		
	-----	Curtain wall		
	Electric resistance heat	-----		
	Electricity use Ratio	-----		For oil furnaces, this term will be used as a trade for other levels of envelope insulation given the definitions level of efficiency found later in the code. The term blends the AFUE (burn efficiency) Annual Fuel Utilization Efficiency and the motor efficiency, into one number.
	-----	Entrance door		
	Factory Assembled Glazed Fenestration	-----		

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	Modulating Aquastat	-----		By definition, this allows the user an understanding of a “trading” of a modulating boiler for some wall insulation understanding the extreme benefit from such modern technology for a slightly lower and easier to comply with less costly wall.
	Registered Design Professional	-----		
	Renewable energy sources	-----		
	Site Built glazed products	-----		
	-----	Sleeping Unit		
	-----	Store Front		
	Substantial Alteration	-----		
	System or Subsystem	-----		
	Transformer	-----		
	<b>CHAPTER 3</b>		<b>CLIMATE ZONES</b>	

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3-01	301.1	301.1	General.	The table found in the last 2 versions of the (original and newer) NYS Energy Codes would be fully replaced with a Department of Energy sponsored map change which would be used in New York for both the residential and commercial code compliance methods with the same 3 zones (4-6) in the state.
3-02		301.2	Warm humid counties.	The 2006 IECC code includes a new Table 301.2 which warm humid climates - does not apply in NYS.
3-03		301.3.1	International climate zones.	Provides for a new more complex set of criteria to determine warm humid climates outside the USA - does not apply in NYS.
	<b>CHAPTER 4</b>		<b>RESIDENTIAL ENERGY EFFICIENCY</b>	
4-01		403.1.1	Heat pump supplementary heat.	A new and specific control requirement designed to keep heat pumps running in their efficient mode as opposed to a standard thermostat could allow for electric resistance heat an delete the benefit of a heat pump. New York would benefit to adopt.
4-02	Table 402.1(1)	Table 402.1.1	Insulation and Fenestration Requirements by Component.	For the prescriptive insulation method, this Table alteration changes for Zones 5&6 R-21 to R-19 for walls and for Zone 4 changes R-15 to R-13. This will allow a more flexible set of materials to apply directly into 2x4 or 2x6 standard wall cavity methods.
	<b>CHAPTER 5</b>		<b>COMMERCIAL ENERGY EFFICIENCY</b>	

ITEM NO. (✓ - done)	ECCCNYS SECTION	2006 IECC SECTION	TITLE	SUMMARY
5-01	801.1	501.1	Scope.	The Reference Standard option for commercial buildings is updated to a 3 year update version of ASHRAE 90.1 2004 (previously was 2001) which updates the lighting efficiency requirements to match the ECCC commercial chapter. This level of consistency would aide in the ability to review and inspect for compliance.
5-02	802.2.1	502.2.3	Above-grade walls.	The new code quantifies the intent of what is termed “Mass walls” into the relevant section where it is applied. This is more clearly detailed than in the prior code.
5-03	802.2.4	502.2.1	Roof Assembly.	The 2006 IECC now includes an Exception which clarifies a note found on the current DOS web site allowing for an area weighted R-value that matches the required table value found in Table 502.2(1). The section further interprets within the code that insulation over a suspended ceiling with removable tiles does not add any R-value toward credit for code compliance thus acknowledging the fact that the air movement would delete the value of the insulation.
5-04	802.2.6	502.2.5	Floors over outdoor air or unconditioned space.	The new code quantifies the intent of what is termed “Mass floors” into the relevant section where it is applied. This is more clearly detailed than in the prior code.
5-05	802.2.2	502.2.7	was Nonglazed doors. now Opaque doors.	This new treatment of doors is correctly requiring higher insulating value (lower U-factor) for “opaque” doors which have their own category in Table 502.2(1) and are now to be added to the wall area calculation. This makes more sense than the prior code treating these type of better insulated doors the same as glazed glass doors.
5-06	Tables 802.2(1-7)	Table 502.2(1)	BUILDING ENVELOPE REQUIREMENTS (for climate zones) new Table additional label - OPAQUE ASSEMBLIES	This new table collapses 14 pages of tables in the current ECCC and provides one table in it’s place making the code much easier to use without being in the wrong climate zone and making it much easier to find what is needed in the chapter.

5-07	802.2.3	502.3	was Windows and glass doors. now title is Fenestration. (Prescriptive)	The full prescriptive requirements for “Fenestration” (windows, doors, and skylights) has been pulled out into there own section and table making this key information more easily found in the code.
5-08		Table 502.2(2)	METAL BUILDING ASSEMBLY DESCRIPTIONS	The treatment of metal buildings (with thermal bridging consideration) are called out separately for the 2006 IECC thus providing a mitigating amount of higher insulation for these types of buildings knowing that metal transmits heat so much quicker. This code change levels to amount of required insulation to a better equivalent value and was worked out by industry participation as well.
5-09	Tables 802.2(1-7)	Table 502.3	BUILDING ENVELOPE REQUIREMENTS : FENESTRATION	The new table will be much easier to utilize as window-to -wall ratio calculations are no longer a consideration to the use of the table. In other words, before the user needed to calculate the percent of glazing up to 10%, 10-25%, 25-40%, and 40-50%. The 2006 IECC has only one table for all percentages up to 50% for all commercial buildings.
5-10		502.5	Moisture control (Mandatory).	This new code section for the 2006 Commercial Buildings will effectively require the same moisture control consideration for the design of commercial buildings as has been applied to the residential building set for many years. The use of metal stud walls in increasing volume and the variety of material choices today which may or may not contain “natural” materials and this mandate to consider, with protection where needed, should assist in the mitigation of mold formation.
5-11	803.2.1.1	503.2.2	Equipment and system sizing.	This section has 2 new exceptions to the solid limit to not have multiple heating and cooling systems that exceed the loads of a building where running them at the same time is at issue. Given the computer systems and servers, as an example, there may be times that almost require the flexibility.
5-12	803.2.7	503.2.4.4	Shutoff damper controls.	The new code limits the exceptions to three very specific uses of gravity dampers to not having motorized dampers that are normally closed.
5-13		503.2.6	Energy recovery ventilation systems.	A new section for individual fan systems, over 5000 CFM in size & 70% outdoor air capable, shall be provided with an energy recovery system with very specific criteria for change in “enthalpy” and bypass for economizer modes. Specific exceptions (8) are included for laboratories and certain areas fo use.

5-14	803.2.8	503.2.7	Duct and plenum insulation and sealing.	Additional approved types of “duct-tape” are allowed for in the IECC 2006 which include UL 181 A-P for pressure sensitive tape and UL 181 A-H for heat sensitive tape.
5-15	803.3.3.5	503.4.1	Economizers.	A much condensed table and criteria are provided bringing together the new climate zones and equipment efficiency performance exception for the need of an economizer for many zones and for all cooling systems.
5-16		504.7	Pools.	A new section for the commercial buildings in the IECC 2006 one finds a very similar section to that found in New York in the original residential code founded in 2002 based upon the IECC 2001. The latest change moved the requirement away from single family homes and instead controls the larger pool systems found in commercial building that have heating equipment where covers and automatic time controls are required.
5-17	805.2.2.2	505.2.2.2	Automatic lighting shutoff.	The motion sensors which were in the original New York Energy Code thru the 1991 Energy Code version are brought back as an option in the IECC 2006 as an option instead of a time-of-day clock system running remotely in the building which New York “lost in adopting a model code”. This is a good addition to flexible design.
5-18	805.6	505.6 505.6.1	Exterior lighting. (Mandatory). Exterior building grounds lighting.	The IECC 2006 raises the required efficacy of 60 lumens per watt when the wattage is over 100 watts or controlled by a motion sensor or qualifies for exceptions in section 505.6.2.
5-19		505.6.2	Exterior building lighting power.	A new criteria of total exterior power densities is controlled for installation out-of-doors in commercial building in the IECC 2006. Detailed wattage limits will now be based upon the new Table 505.6.2. Note, there are 9 exceptions to the rule.
5-20		Table 505.6.2	LIGHTING POWER DENSITIES FOR BUILDING EXTERIORS	A new table with 7 main categories and many more sub-categories of “APPLICATIONS” or area use categories - new to the Energy Code.