

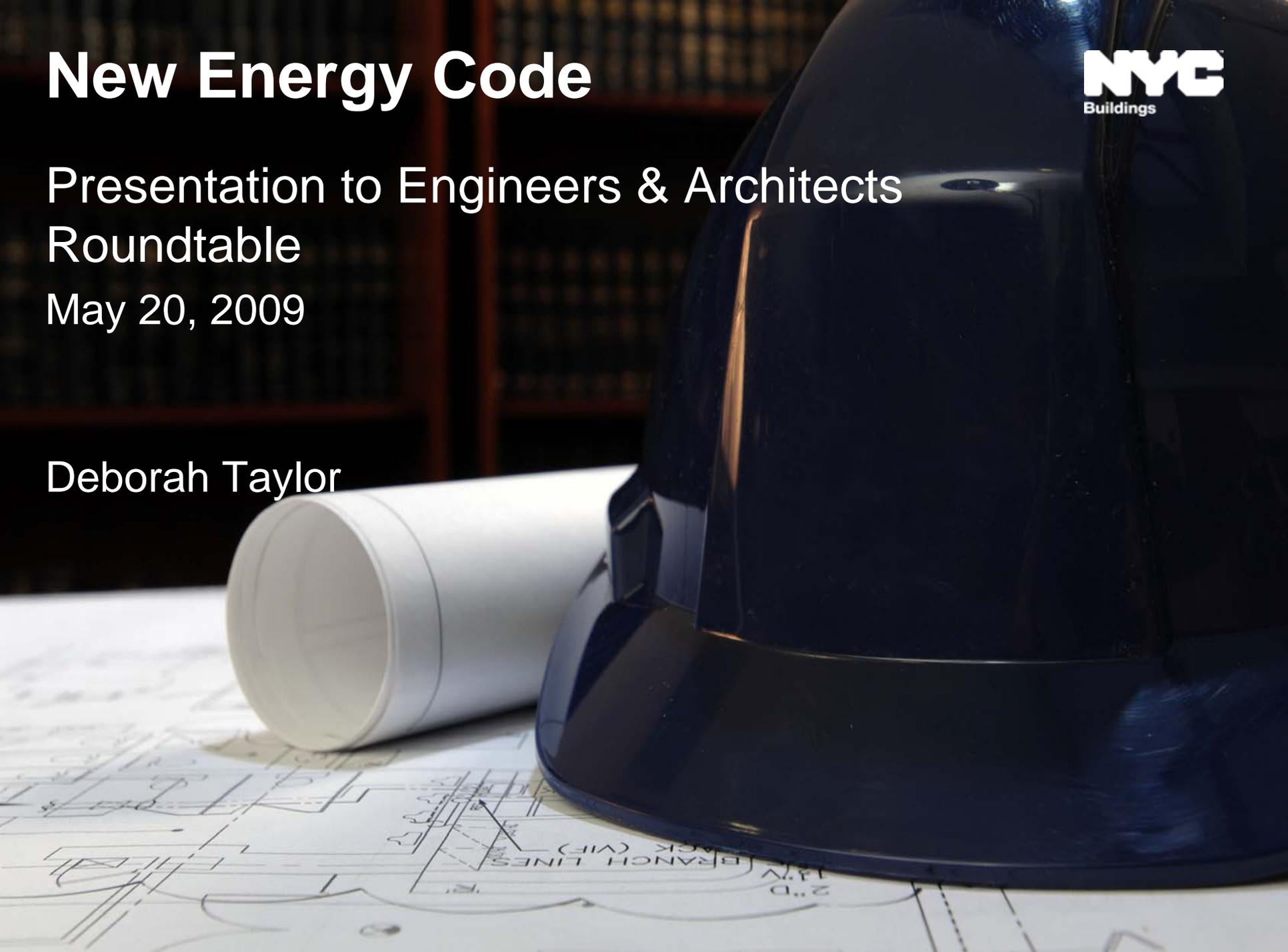
New Energy Code



Presentation to Engineers & Architects
Roundtable

May 20, 2009

Deborah Taylor



On April 22nd, Mayor Bloomberg and Speaker Quinn announced new legislation for a NYC Energy Conservation Code

- Requires both new buildings and all existing building alterations to comply
- Expected passage this summer, effective 1/1/2010
- Int 564-A / 2007
(<http://www.nyccouncil.info/html/legislation/legislation.cfm>)

Energy Code will become part of New York City Construction Codes:
Title 28, Chapter 10

By NYS law, Energy Code of a local jurisdiction may be no less
stringent than ECCCNY

Primary change: Withdraws exemption for alterations other than
“substantial alterations”

Sets forth overall compliance requirements

Establishes the basis for additional legislation to reduce energy
consumption in buildings

Two Challenges

Demonstrating compliance

May-June 2007 and since: Training to all borough AIAs, NYSA, ACECNY, NYSSPE, etc.

September, 2007: Initiated new procedures

September, 2008: Began “soft audits”

September, 2009: Begin “hard audits”

Complying

Soft audits indicate that professional community does not know the Energy Code -- 100% failure

We urge professional associations to educate members regarding the Energy Code and energy-conserving design -- engage in intensive effort to bring up the level of professional community's practice

Demonstrating Compliance

Professional Statement: On PW1

Owner Statement: On PW1; Yes/No will go away with NYCECC

Energy Analysis: Elements are Envelope; Mechanical/Service Hot Water; and Lighting/Power

REScheck

COMcheck

Energy Cost Budget Method (sophisticated energy modeling)

Tabular comparative analysis for alterations

Supporting Documentation: Construction Drawings must match values in Energy Analysis and show mandatory controls

Frequent Errors - EA

- No Energy Analysis provided
- The applicant used REScheck or COMcheck but this is an alteration or addition and applicant should have used tabular analysis
- No heating and cooling systems provided in Energy Analysis
- No lighting provided in the Energy Analysis

Frequent Errors - SD

- Notes relate to old editions of ECCCNYC and conflict with Energy Analysis, current Energy Code and/or drawings
- Building wall sections fail to label insulation R values
- R values in building wall sections fail to match those in Energy Analysis
- Door and window schedules fail to include columns for U factors and SHGC
- U factors and SHGC fail to match those in Energy Analysis
- Mechanical equipment missing or deficient
- No reflected ceiling plans or lighting controls provided to match Energy Analysis (could also be satisfied by electrical drawings)

Next Steps

Since December, 2008, we have been training some plan examiners in each borough to audit for Energy Code compliance -- will continue

Available to speak to your professional associations

September, 2009

- Hard audits of up to 10% of applications

- All applications must meet ECCCNYC 2007 for approval (including those filed prior to September, 2007)

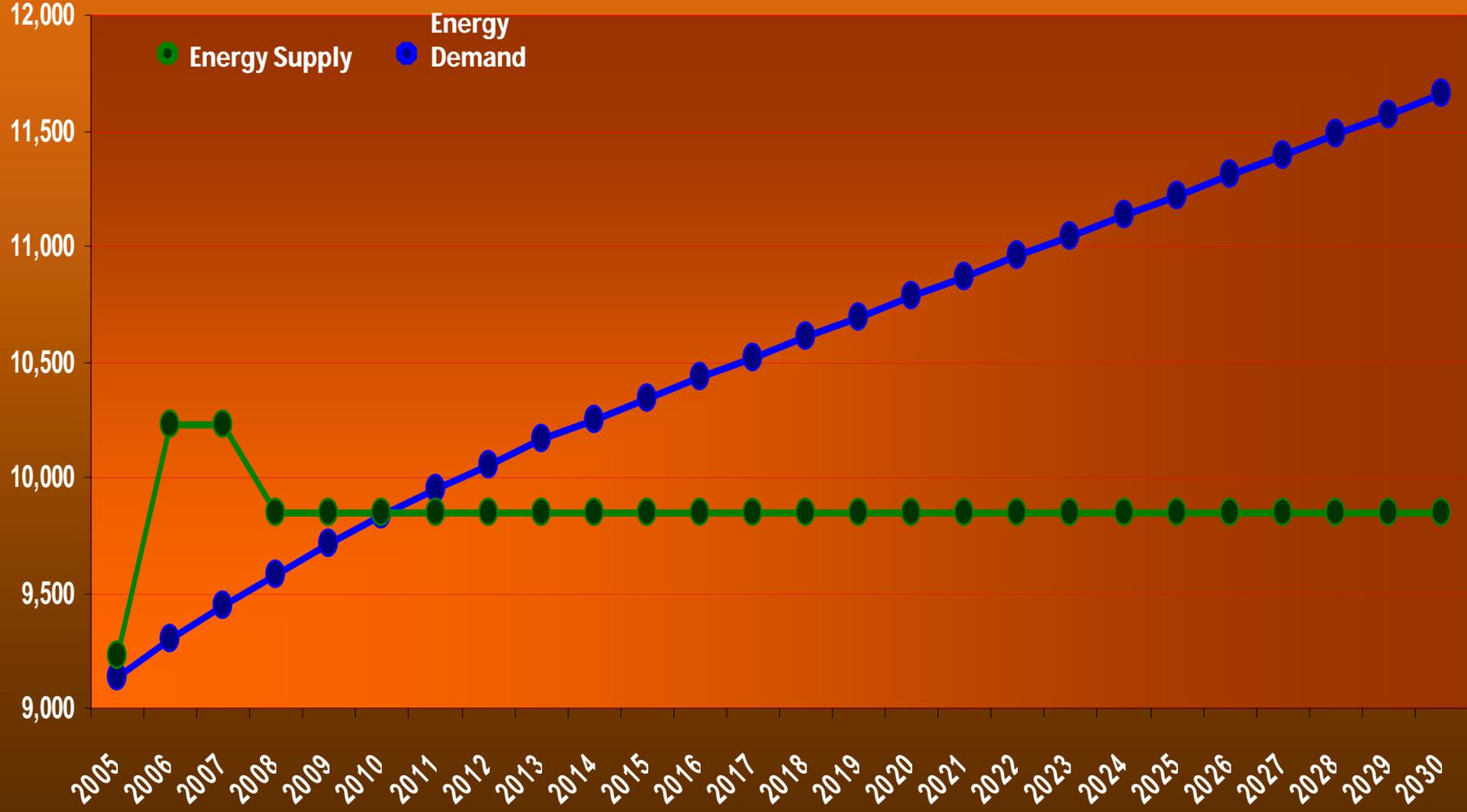
January 1, 2010: New York City Energy Conservation Code effective

<u>Error</u>	<u>Manhattan</u>	<u>Bronx</u>	<u>Brooklyn</u>	<u>Queens</u>	<u>Staten Island</u>	<u>TOTALS</u>
PROFESSIONAL STATEMENT (“PS”): Registered design professional states that project complies, or is exempt and why						
Professional Statement missing or wrong	3	2	5	2	0	12
Exempt project	3	2	0	0	0	5
OWNER STATEMENT (“OS”): Affirms that this is or is not a “substantial alteration”						
Owner statement wrong	1	0	1	1	0	3
ENERGY ANALYSIS (“EA”): Establishes strategy for compliance, i.e. how compliance will be achieved						
Missing	5	1	5	5	2	18
Wrong format	4	2	2	5	0	13
Not NYS version	0	1	6	2	5	14
Wrong year	1	0	4	2	4	11
Wrong county/climate zone	0	1	2	2	2	7
No insulation listed						0
Insulation incomplete (roof, walls, foundation, basement/cellar)	0	0	0	1	1	2
No fenestration listed						0
Fenestration incomplete (doors, windows, skylights)	0	0	2	3	0	5
No mechanical	2	2	3	2	0	9
Mechanical incomplete	0	0	1	0	0	1
No lighting/power for “commercial” building	1	2	3	2	0	8
Lighting/power incomplete						0
SUPPORTING DOCUMENTATION: Construction drawings must match descriptions and values in Energy Analysis						
Energy Code Notes contrary to Energy Code in effect	0	1	2	3	4	10
Energy Code Notes contrary to EA	0	1	1	2	0	4
Energy Code Notes contrary to drawings	0	0	1	1	0	2

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Energy Code Notes quote code and assign responsibility for compliance to contractor	0	2	2	4	4	12
Roof insulation missing or not labeled	7	3	5	4	3	22
Roof insulation R value contrary to EA	0	1	3	4	1	9
Wall insulation missing or not labeled	7	1	4	3	5	20
Wall insulation labeled contrary to EA	0	2	6	7	3	18
Foundation insulation missing or not labeled	6	2	5	3	4	20
Foundation insulation labeled contrary to EA	0	0	0	2	1	3
Basement/cellar insulation missing or not labeled	5	2	6	8	6	27
Basement/cellar insulation labeled contrary to EA	0	1	3	5	2	11
U factors missing from fenestration performance specifications or separately located	6	5	12	13	9	45
U factors contrary to EA	0	0	2	1	0	3
SHGC missing from fenestration performance specifications or separately located	6	5	12	14	9	46
SHGC contrary to EA						0
Heating/cooling capacities or efficiencies missing	5	5	10	6	5	31
Heating/cooling capacities or efficiencies contrary to EA						0
Lighting layouts and descriptions of fixtures, lamps, wattages and square feet missing	6	4	12	0	0	22
Lighting layouts and descriptions of fixtures, lamps, wattages and square feet contrary to EA					0	0
COMING UP:						
HVAC controls						
Lighting controls						
Progress inspections						

megawatts

In-City Energy Supply and Demand



Source: NYC Economic Development Corporation

**30% carbon emissions reduction
from 2005 levels
by 2030**

