



Advanced Buildings: Criteria for Performance

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A not-for-profit public benefits corporation helping to
make buildings better for people and the environment

<http://www.newbuildings.org>




What is an Advanced Building?



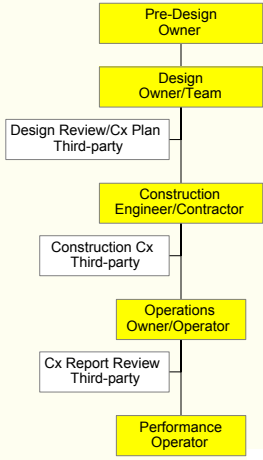
- ◆ Nationally recognized efficiency targets
 - Envelope
 - Mechanical
 - Lighting
 - Power
 - Commissioning
- ◆ Two levels
 - Prescriptive and Simulation
- ◆ Optional Criteria
 - Renewables
 - Demand-responsiveness
 - Equipment load reductions




How do you get one?





- ◆ Pre-design Certification
 - Statement of goals and principles
- ◆ Design Certification
 - Final plans/specs and Cx plan
- ◆ Construction Certification
 - Submittal/Cx Report
- ◆ Operations Certification
 - Trend-log/Warranty
- ◆ Performance Certification
 - Measurement and Verification





Achieving Performance






Performance Target and Design Assistance

Voluntary

Acceptance Testing



Regulatory

Building Code

Operations


Sell	Design	Construct	Start-up	Operate	Maintain
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Industry

Building Design Team

Construction Team

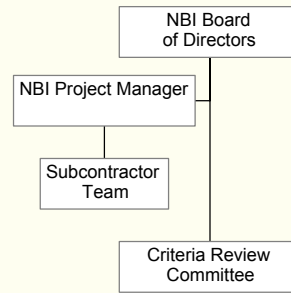
Building Operations Team



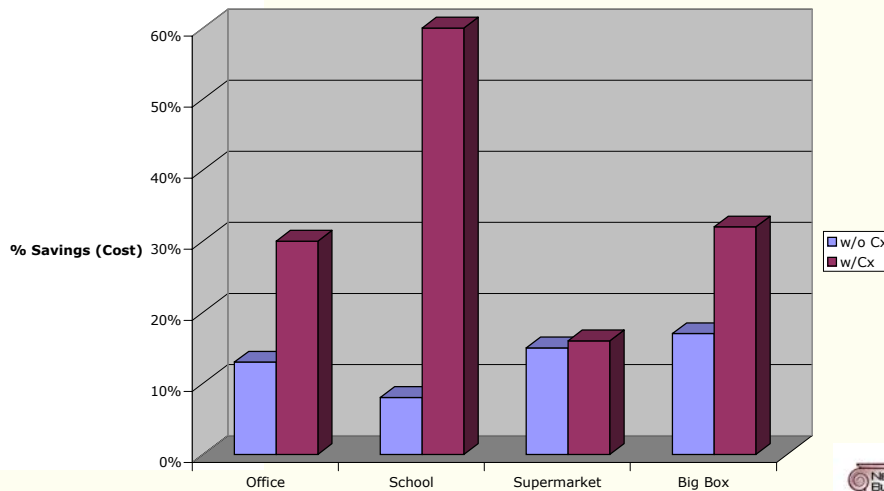
Criteria Review Process




- ♦ ANSI Procedure
 - Committee Balance
 - Public Review Process
- ♦ Committee Participation
 - Face-to-face
 - Conference Calls
- ♦ Schedule
 - September 02 Draft
 - Chicago Review (October)
 - February 03 Draft
 - Atlanta Review (March)
 - NBI Board Review
 - Location TBD - May
 - Publish
 - June 2003



Energy Savings






Links to



Comparison of ABG Criteria Guide with LEED				ALL CRITERIA		
LEED CreditID				LEED Summary		
			Total Credits Addressed	Total points earned	Total points partial	
Sustainable Sites						
SSc72	Credit 7.2	Landscape & Exterior Design to Reduce Heat Islands	0	0	0	
SSc80	Credit 8	Light Pollution Reduction	0	0	1	
Water Efficiency						
Energy & Atmosphere						
EAp10	Prerequisite 1	Fundamental Building Systems Commissioning	x	0	0	
EAp20	Prerequisite 2	Minimum Energy Performance	x	0	0	
EAc1	Credit 1.1	Optimize Energy Performance, 20% to 50% New	x	10	10	
EAc2	Credit 2.1	Renewable Energy, .5% to 20%	x	2	3	
EAc30	Credit 3	Best Practice Commissioning	x	1	1	
EAc50	Credit 5	Measurement and Verification	x	1	1	
EAc60	Credit 6	Green Power	x	1	1	
Materials & Resources						
Environmental Quality						
EQp10	Prerequisite 1	Minimum IAQ Performance	x	0	0	
EQc10	Credit 1	Carbon Dioxide (CO ₂) Monitoring	0	0	1	
EQc20	Credit 2	Increase Ventilation Effectiveness	0	0	1	
EQc31	Credit 3.1	Construction IAQ Management Plan, Prior	0	0	1	
EQc32	Credit 3.2	Construction IAQ Management Plan, During	0	0	1	
EQc50	Credit 5	Indoor Chemical and Pollutant Source Control	0	1	1	
EQc61	Credit 6.1	Controllability of Systems, Operable Window	0	1	1	
EQc62	Credit 6.2	Controllability of Systems, Individual Controls	x	1	1	
EQc71	Credit 7.1	Thermal Comfort, Comply with ASHRAE 55-1992	0	0	1	
EQc72	Credit 7.2	Thermal Comfort, Performance Monitoring System	x	1	1	
EQc81	Credit 8.1	Daylight and Views, Diffuse Sunlight to 90%	0	0	1	
EQc82	Credit 8.2	Daylight and Views, Direct Line of Site to 90%	0	0	1	
Design Excellence						
IDc1	Credit 1.1	Innovation in Design	0	0	0	
TOTAL			17	17	22	

LEGEND	
LEED Credit Fully Addressed	x
LEED Credit Partially Addressed	o
LEED Points Earned	0



- ## Benefits
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- ◆ Single definition of “Advanced Building” from an energy perspective
 - ◆ Lower cost per transaction
 - High quality materials and pre-defined path provide economical access to smaller buildings
 - ◆ Connections to LEED
 - ◆ Assist in implementing market transformation strategy
 - Criteria “pull” market beyond standard practice
 - Codes “push” market to standard practice
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Sponsor Status



- ◆ Current Sponsors
 - NEEA (NW)
 - WI Dept of Admin (WI)
 - Iowa Energy Center
 - Energy Foundation
 - National Grid (MA)
 - CA Energy Commission
 - Efficiency Vermont
- ◆ CY 03 Prospects
 - NSTAR (Boston)
 - Savings by Design (CA)
 - NYSERDA/LIPA (NY)
 - US EPA
 - Maine Public Utility Commission

