



# GREEN BUILDING CRITERIA IN 2007 STATE LOW INCOME HOUSING TAX CREDIT PROGRAMS

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March 27, 2008

## INTRODUCTION

Significant progress is being made in the effort to make green building measures standard practice in affordable housing. This development is particularly apparent through a survey of the changes made in the last three years to the green building criteria found in state Qualified Allocation Plans (QAPs), which states develop to guide the distribution of federal Low-Income Housing Tax Credits (LIHTC). In Global Green USA's third annual analysis and ranking of each of the 50 states' QAPs, the trends are clear: more states are including green building criteria, and those criteria are becoming increasingly comprehensive.

The methodology used for analyzing and rating the 2007 QAPs is similar in general approach to that established in Global Green's 2006 report, *Making Affordable Housing Truly Affordable: Advancing Tax Credit Incentives for Green Building and Healthier Communities*<sup>1</sup>, a publication that also provides examples of best practices in green building along with recommended baseline green building standards for all QAPs. Global Green's analysis is based on QAPs obtained from the agency responsible for allocating low-income housing tax credits in each state, typically the housing finance agency. Each QAP is reviewed for the inclusion of green building strategies in each of four categories – Smart Growth, Energy Efficiency, Resource Conservation, and Health Protection. Points are awarded for addressing various issues in each category (the full scoring criteria are included on page 4). A bonus is provided to states that address multiple categories and, in a modification made for the 2007 analysis, include a reference to a comprehensive green building program, such as the US Green Building Council's Leadership in Energy and Environmental Design (LEED) Rating System, Enterprise Community Partner's Green Communities Initiative, or Southface Energy Institute's EarthCraft green building program. A maximum of 55 points are available. Based on the total score, each state is then assigned a letter grade based on deviation from the median score.

## TRENDS AND FINDINGS

The analysis shows an increase in the trend to include green building in QAP criteria. More states overall addressed green building requirements this year, and the average score increased by 15 percent. The number of states taking a comprehensive approach by including requirements in each of the four categories increased from 17 to 22. Nine states included a reference to an established green building program.

The top five states for 2007 are:

1. Georgia
2. Massachusetts
3. California
4. Maine
5. Pennsylvania

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<sup>1</sup> Available at [www.globalgreen.org/media/greenbuilding/qap\\_report\\_2006.pdf](http://www.globalgreen.org/media/greenbuilding/qap_report_2006.pdf)

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The distribution of points earned across the main categories and 32 subcategories of the scoring criteria remained similar to the results from 2005 and 2006. Proximity to transit and services, existing housing rehabilitation, and the use of revitalization plans were most consistently addressed. Other regularly addressed items included specifying energy efficient products, reducing proximity of housing developments to pollution hazards, and conducting environmental assessments. As in previous years, Resource Conservation was the least frequently addressed category. However, significant growth in the number of states including criteria related to resource conservation did occur, with an increase from a total of 50 points earned in the category in 2006 to 86 points in 2007. Significant increases were also made in the Energy Efficiency category, with an increase from 108 total points in the 2006 report to 184 points in the 2007 report.

Some key findings of the 2007 analysis are:

- The highest score is 44 points (for Georgia), which represents an increase of 6 points from last year's high score (also Georgia) of 38 points.
- Only one state entered the top ten in 2007 that was not present in the QAP top ten ranking of 2006, Arkansas climbed from 13 to 9, while Missouri dropped out of the top ten to a tie for 12.
- Several states increased their ranking significantly. Minnesota made the largest jump from an F to a B (20 points). Other states that experienced significant improvement include Connecticut (D to B, 13 points); Vermont (D to B-, 11 points); Montana (C to B, 8 points); and, Louisiana (C to B, 5 points).

The geographic distribution of states with green building requirements in their tax credit policies in 2007 remained similar to 2005 and 2006. Concentrations exist in the Mid-Atlantic, Southeast, and Pacific Southwest. The Pacific Northwest continued to score low despite its reputation for sustainable design innovation and exemplary individual green affordable housing projects. A number of states with large LIHTC allocations, including Florida, Michigan, and Illinois, continue to score poorly.

As in previous years, it should be noted that some states that scored only average or even poorly in this analysis – which focuses solely on QAPs – are making significant strides toward incorporating green building into their affordable housing funding mechanisms. For example, in 2005, the state of Washington passed legislation mandating green building standards for all state-funded projects, and later adopted a requirement to take effect in 2009 that all funded projects meet the State's "Evergreen" standard. Virginia strongly promotes the comprehensive EarthCraft standard in its QAP, rather than including more prescriptive criteria.

## **LOOKING FORWARD**

While the trend to include green building criteria in QAPs continues to grow steadily, several states that receive large LIHTC allocations (Florida, Michigan, Illinois, and New York) continue to receive low rankings. These states should be the focus of coordinated technical assistance and advocacy efforts. Increasing both the extent and the degree of comprehensiveness to which green building is addressed in all states is also a priority. In the 2007 QAP analysis, fewer than half of the states received the bonus for addressing all four categories and only nine received the bonus for referencing an established green building program. To accelerate the rate of adoption of comprehensive green QAP criteria, Global Green believes there is a need for a minimum national standard that can be used by all state housing finance agencies. This standard should include the core elements of green building – location efficiency, energy and water savings, resource conservation, and health protection – and provide clear reference standards. Incentives should be provided for projects that exceed minimum national standards for specific items, or that choose to pursue certification through the LEED for Homes, Green Communities, EarthCraft, or other established rating systems.

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**2007 QAP Green Building Rating Summary**

Grade	State	LIHTC Rank	Smart Growth									Energy Efficiency						Resource Conservation						Health Protection						Bonus	Score						
			BR	UI	AR	PT	PS	XH	RP	HP	FP	WP	PV	SP	IS	EP	HV	EC	EB	EF	RC	MF	WC	NM	UM	CD	SW	HZ	EA			HA	QP	QC	QF	QV	
A	GA	10	1	1	1	1	1	1	1	1	0	1	1	0	1	1	1	2	1	3	1	0	1	5	0	0	0	1	1	1	5	0	0	0	1	10	44
A-	MA	13	1	1	1	1	1	1	1	1	0	1	1	1	1	1	3	3	1	1	1	1	0	1	1	1	0	1	1	1	1	1	1	5	38		
	CA	1	0	0	0	1	1	1	1	1	0	0	0	1	1	1	1	0	3	0	0	1	1	5	1	1	1	1	0	1	1	1	1	1	5	33	
B+	ME	40	0	1	0	1	0	1	1	0	0	0	0	1	1	1	2	2	0	1	1	1	4	1	0	0	0	0	0	0	1	1	0	1	10	32	
	PA	6	0	0	1	1	1	1	1	1	0	0	0	0	1	1	1	2	0	3	0	0	1	5	0	0	0	0	0	1	2	1	1	1	5	31	
	MD	19	1	1	0	1	1	1	1	1	0	0	0	1	1	1	2	0	0	0	1	1	2	0	0	0	1	0	1	4	1	1	1	0	5	30	
	NV	35	0	0	0	1	1	1	1	1	0	0	0	0	1	1	1	2	2	3	0	0	0	3	0	0	0	0	0	1	1	1	1	1	5	28	
	AL	23	0	0	1	1	1	1	1	1	0	1	1	0	1	1	1	2	3	0	0	0	1	0	0	0	0	0	1	1	1	0	0	0	1	5	25
	NM	36	0	0	0	0	1	1	1	1	0	0	0	1	1	1	1	0	0	0	0	0	0	5	0	0	1	0	1	0	0	0	0	0	10	25	
B	AR	33	0	0	1	1	1	1	1	1	0	1	1	0	1	1	1	2	1	0	0	0	1	0	0	0	1	0	1	1	0	0	0	0	5	23	
	IA	30	1	1	1	1	1	1	1	1	0	1	1	0	1	1	0	1	1	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	7	22	
	KS	32	0	0	0	1	1	1	1	1	0	1	0	0	1	1	0	2	2	3	0	0	0	1	0	0	0	0	1	0	0	0	0	1	5	22	
	MN	21	0	0	0	0	1	1	1	1	1	0	0	0	1	1	1	1	0	0	0	0	0	1	0	0	0	1	1	0	0	0	0	1	10	22	
	WY	50	0	0	0	0	1	1	1	1	1	1	1	0	1	0	1	2	1	0	0	0	1	1	0	0	0	0	1	1	2	0	0	0	5	22	
	AZ	20	0	1	1	1	1	1	1	1	0	1	1	0	0	0	1	0	1	0	0	0	0	4	0	0	0	0	0	1	1	0	0	0	0	5	21
	IN	14	0	1	1	1	1	1	1	1	0	1	1	0	1	0	2	0	0	0	0	0	0	0	0	0	0	0	1	1	5	0	0	0	0	2	20
	LA	22	0	0	0	1	0	1	1	0	0	0	0	0	1	1	1	0	3	0	0	0	1	1	0	0	0	0	1	0	0	0	1	1	1	5	20
	MO	17	0	0	0	1	1	1	1	0	1	1	0	1	0	1	0	1	3	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	5	20
	CT	29	0	1	0	1	1	1	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	2	0	0	0	1	0	0	1	1	1	1	1	5	19
	MT	44	1	0	1	1	1	1	1	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	1	0	0	1	0	0	0	1	0	1	1	5	19
	NC	11	0	0	1	1	1	1	1	0	1	1	0	1	1	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1	0	0	0	0	1	5	18
SC	26	0	1	1	0	1	1	1	0	1	1	0	1	0	1	0	2	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	5	18	
B-	NJ	9	1	0	1	1	1	0	1	0	0	1	1	0	0	2	0	0	3	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	2	17	
	VA	12	0	0	1	1	0	1	1	0	0	0	0	0	1	0	1	2	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	7	17	
	VT	49	0	1	0	1	1	1	1	0	0	0	0	0	0	1	2	2	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	5	17	
	OH	7	0	0	0	1	1	1	1	0	0	0	0	0	0	0	1	0	3	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	7	16	
	SD	46	0	0	0	0	1	1	1	0	0	1	0	0	0	1	1	0	0	0	0	0	1	0	0	0	0	0	1	0	0	1	0	1	0	5	16
C	TX	2	0	0	0	1	1	1	1	0	0	0	0	1	1	1	2	1	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	2	14	
	UT	34	0	0	0	0	0	1	1	1	1	1	0	1	0	1	0	0	3	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	2	14	
	AK	48	0	0	0	0	0	1	1	0	0	0	0	0	0	0	3	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	13	
	CO	24	0	0	0	1	1	1	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	13	
	KY	25	0	0	1	0	1	1	1	0	0	0	0	0	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	12	
	DE	45	0	0	0	1	1	1	1	0	0	0	0	0	1	0	0	0	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	11	
	MS	31	0	0	0	0	0	1	1	0	0	0	0	0	0	1	1	0	0	0	0	0	0	1	0	0	0	0	0	2	1	0	1	0	2	11	
OR	28	0	1	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	2	9		
D	IL	5	0	0	0	1	1	0	1	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	2	8		
	ND	47	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	5	8		
	NY	3	0	0	0	0	1	1	1	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	2	8		
	OK	27	0	0	0	0	0	1	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	2	8	
	RI	43	0	0	0	1	1	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	2	8	
	WV	37	0	0	0	1	1	1	1	0	1	0	0	0	1	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	
	ID	39	0	1	0	0	0	1	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	2	7	
	NH	41	0	1	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0	0	0	0	0	7	
	TN	16	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	2	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	2	7	
	MI	8	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	5	
WI	18	0	1	0	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	5		
F	FL	4	0	1	0	0	0	1	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4		
	WA	15	0	0	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3		
	NE	38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	2		
	HI	42	Not reporting																																		
Totals:			6	15	16	31	35	44	46	4	15	15	6	32	20	30	30	36	30	5	5	15	46	2	2	5	6	22	26	35	10	8	10	13			

Research and analysis by Dekoven Ashley and Walker Wells  
 Report prepared through funding by The Home Depot Foundation

## **Analysis Criteria: 55 points total**

### **Smart Growth** – 10 pts

- BR: Brownfields Redevelopment – 1 pt
- UI: Urban Infill – 1 pt
- AR: Adaptive Reuse – 1 pt
- PT: Proximity to Public Transit – 1 pt
- PS: Proximity to Services – 1 pt
- XH: Existing Housing Rehabilitation – 1 pt
- RP: Revitalization Plans – 1 pt
- HP: Habitat Preservation – 1 pt
- FP: Floodplain Preservation – 1 pt
- WP: Wetlands Preservation – 1 pt

### **Energy Efficiency** – 12 pts

- PV: Photovoltaics – 1 pt
- SP: Specified Efficient Products (e.g. Appliances, Windows, H<sub>2</sub>O Heaters) – 1 pt
- IS: Insulation Standards – 1 pt
- EP: Energy Star Products – 1 pt
- HV: HVAC Performance – 1-2 pts
- EC: Energy Codes – 3 pts
- EB: Energy Star Homes – 3 pts

### **Resource Conservation** – 12 pts

- EF: Existing Flora Preservation – 1 pt
- RC: Recycled Content Materials – 1 pt
- MF: Maintenance Free Standard – 1 pt
- WC: Water Conservation – 5 pts (Fixtures – 3 pts; Irrigation – 1 pt; Landscaping – 1 pt)
- NM: Renewable Materials – 1 pt
- UM: Reused Materials – 1 pt
- CD: Construction & Demolition Recycling – 1 pt
- SW: Stormwater Protection – 1 pt

### **Health Protection** – 11 pts

- HZ: Hazard Proximity – 1 pt
- EA: Environmental Assessment – 1 pt
- HA: Hazard Abatement (Lead Based Paint, Asbestos Containing Materials, Radon, Groundwater/Soils Contamination) – 1-5 pts
- Indoor Air Quality
  - QP: Paint (No-VOC) – 1 pt
  - QC: Carpet (Low-VOC) – 1 pt
  - QF: Formaldehyde Free – 1 pt
  - QV: Ventilation (Outside Supply Location or Air Changes/Hr) – 1 pt

- Bonus:** 4 Categories – 5 pts, 3 Categories – 2 pts
- Reference established green building program – 5 pts