

## September 2006 *Green Guide for Health Care* Quarterly Update

### Green Guide Geographic Distribution

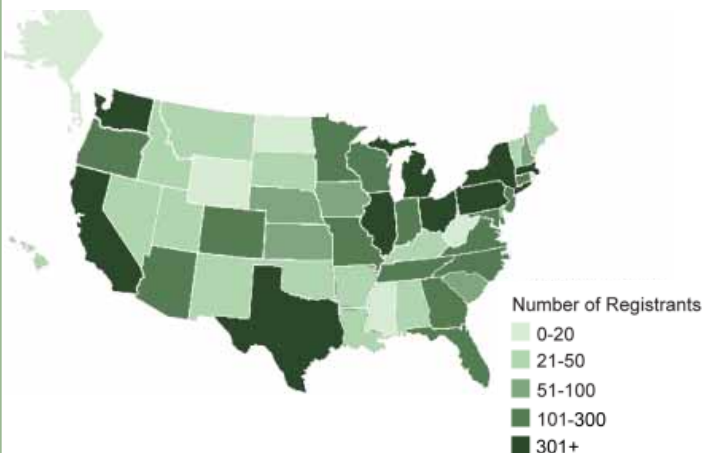
Over the past quarter, the *Green Guide for Health Care* online community has continued to grow at a fast pace, averaging 220 new registrants each month. The total number of website registrants is poised to pass the 9,500 mark by the end of October.

The *Green Guide's* international reach has expanded substantially in the past quarter, from 63 countries to 83: every continent in the world is represented, except Antarctica.

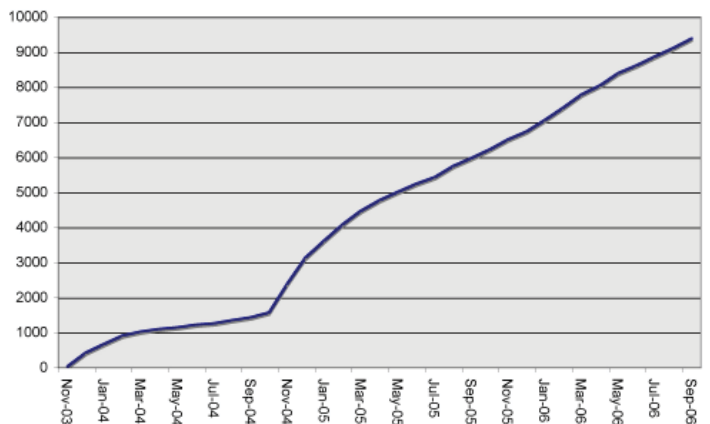
A few example international locations where the *Green Guide* has been downloaded include:

ARGENTINA	INDONESIA
AUSTRALIA	IRAQ
BAHRAIN	IRELAND
BANGLADESH	ITALY
BELGIUM	JAPAN
BRAZIL	KENYA
CANADA	LITHUANIA
CHILE	MEXICO
CHINA	NIGERIA
COLOMBIA	PAKISTAN
DENMARK	SAUDI ARABIA
DOMINICAN REPUBLIC	SINGAPORE
EGYPT	SOUTH AFRICA
FRANCE	SOUTH KOREA
GERMANY	TURKEY
INDIA	UNITED KINGDOM

### Green Guide Website Registrants in the U.S.

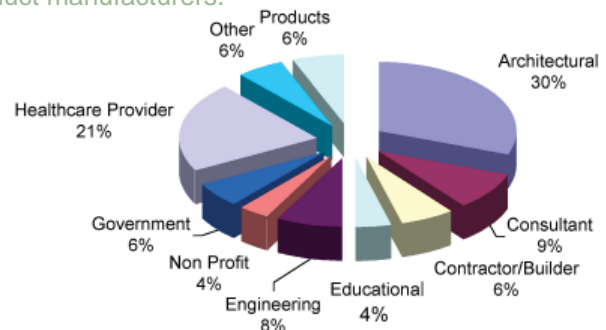


### Green Guide Website Registrant Growth



### Green Guide Website Registrant Affiliations

Even with the growth in the number and location of *Green Guide* website registrants, the demographic composition of the *Green Guide's* online community remains relatively constant, considering the growth in the number and location of Green Guide website registrants: in round numbers, 20% healthcare providers, 30% architects, and the remaining 50% divided between engineers, contractors, government and education, green consultants, non-profits, and product manufacturers.



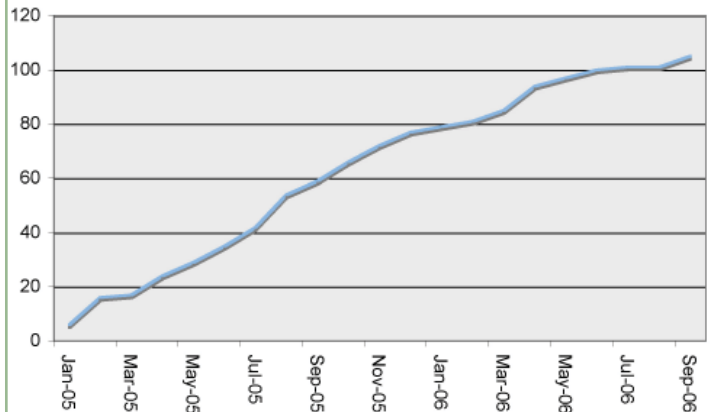
### Benefits of Website Registration

Registrants on the *Green Guide* website have access to a free, downloadable copy of the *Green Guide*, an archive of the *Green Guide's* monthly newsletter, an Events calendar that advertises *Green Guide* educational events around the country, and the ability to register projects with the *Green Guide* Pilot program. Occasionally, *Green Guide* website registrants participate in nationwide polls that measure current priorities in the green healthcare market.

### Green Guide Pilot Project

105 Pilot projects have registered with the *Green Guide* Pilot Program since its inception in early 2005, representing 28 million square feet of construction. The Pilot experience illustrates the *Green Guide's* flexibility as a best practices toolkit for projects that range in size, scope and location. While the average credit achievement for all types and sizes of *Green Guide* projects is currently 31 credits for the Construction section and 18 credits for the Operations section (with over 1/2 of all Pilot projects pursuing both the Construction and Operations sections of the *Guide*) much can be learned from focusing on the different project types participating in the *Green Guide* Pilot.

### Green Guide Pilot Growth

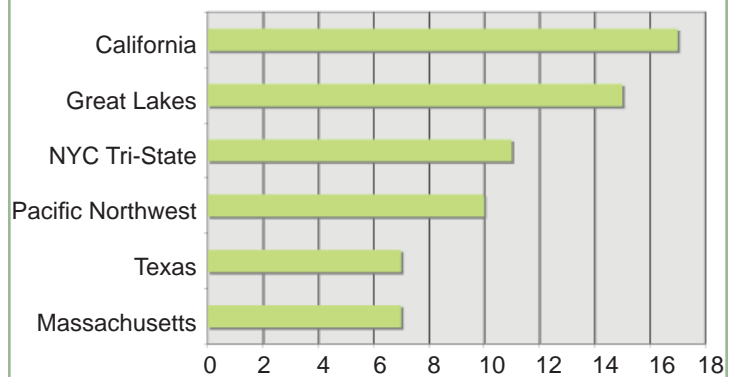


### Green Guide Pilot: Geographic Distribution



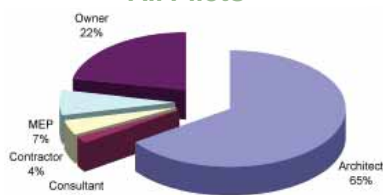
NASA ESIP funded project  
(Image Source: Mission to Planet Earth Education Series)

### Green Guide Pilots: Regional Concentrations

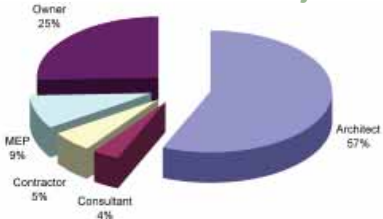


### Green Guide Pilot: "Green Leaders"

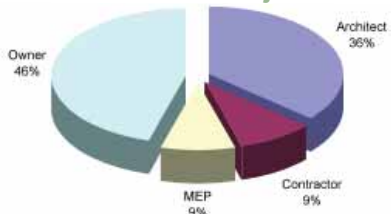
#### All Pilots



#### New Construction Projects



#### Renovation Projects



### Green Guide Pilot Project "Green Leaders"

Architects play a seminal role in leading the application of the *Green Guide* for New Construction Pilot Projects – 57% Architect Green Leaders / 25% Owners. On the other hand, Owners have been much more active in spearheading the green side of Renovation projects, – 46% Owner Green Leaders to only 36% Architects. It is possible that the different leadership pushes different priorities for credit achievement in these projects.

While New Construction projects tend to score higher than Renovations on the Construction section of the *Green Guide* – 33 average credit achievement to Renovation's 28 – Renovations tend to score higher in the Operations section, perhaps reflecting the priorities of their owner/green leader – 24 average credit achievement v. New Construction's 18.

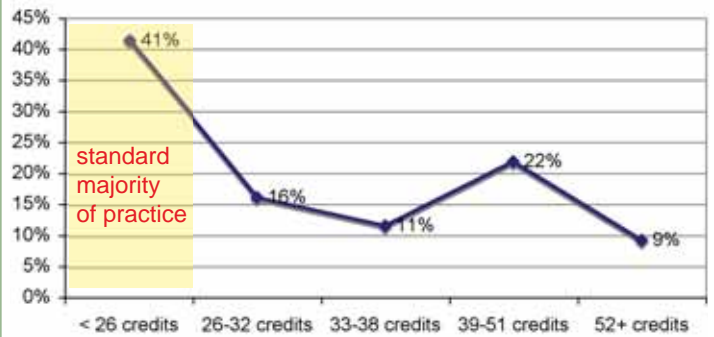
Owner Green Leaders are also more likely to pursue both the Construction and Operations section of the *Green Guide*. Fully 65% of Owner-lead projects are pursuing both the Construction and Operations section, in comparison to 52% of Architect-lead projects. The *Green Guide* encourages all projects to identify a Green Leader on both the design & construction team and the owner's team to facilitate parallel advancement in green strategies such as energy efficiency and indoor air quality that require attention during both the design & construction phase and facility operations.

### Green Guide Pilot

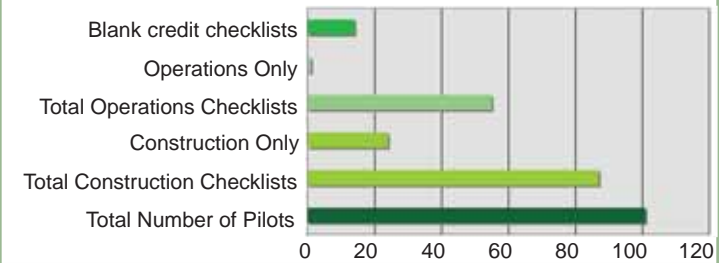
The flexibility offered by the *Green Guide* attracts both early adopters and mainstream healthcare facilities pursuing green principles for the first time. Due to the voluntary nature of the *Green Guide* and its emphasis on continuous improvement, over 40% of *Green Guide* Pilot projects are integrating green strategies into their construction and operations protocols a few credits at a time. While these projects would not reach the Certification level in a hypothetical threshold marker mirroring LEED® for New Construction, the majority of these projects could reach the 26 credit marker with minimal additional effort.

The most striking characteristic of the *Green Guide* Pilots that break past the 26 point threshold is their ability to reach into the upper levels of credit achievement. The sharp uptick in the equivalent of a LEED® Gold certification (22% of all *Green Guide* Pilots) illustrates the power of integrated design to capitalize on synergistic strategies across building systems.

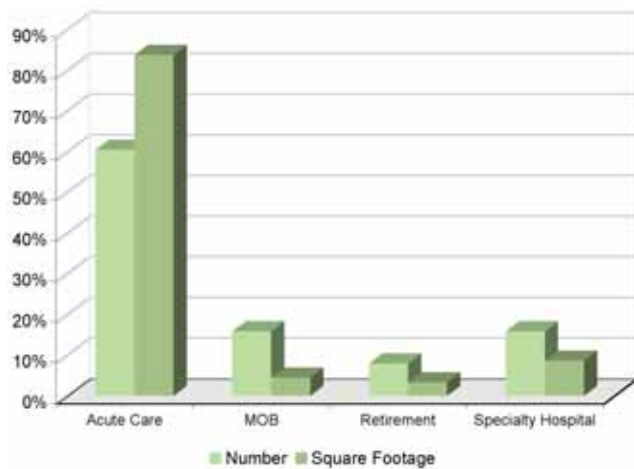
### Green Guide Pilot Credit Achievement: Comparison to LEED® for New Construction



### Green Guide Pilot Checklists



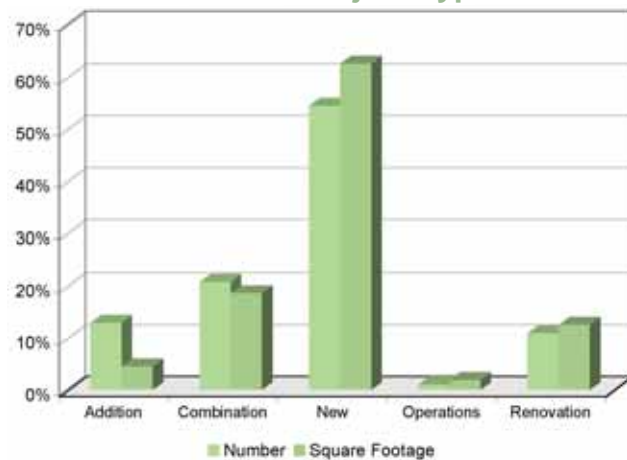
### Green Guide Pilot: Facility Type



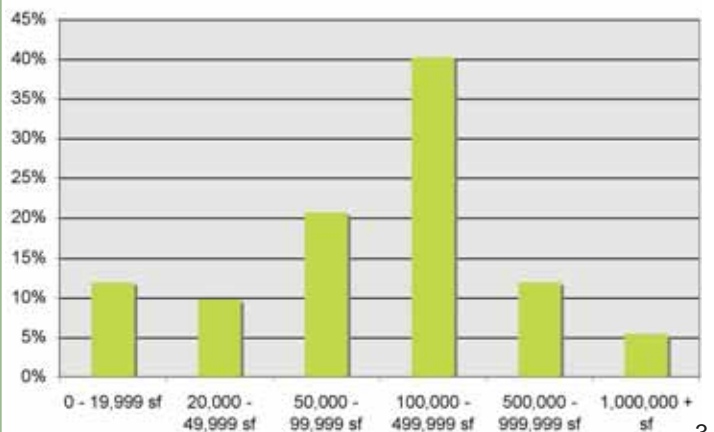
### Green Guide Pilot

The smallest *Green Guide* Pilot project is 1,900 sq. ft.; the largest is 3 million sq. ft. In spite of the wide range of sizes, the bulk (40%) fall within the 100,000-500,000 sq. ft. range. Current data suggest that the average size *Green Guide* project achieves roughly the same number of Construction credits (29 credits) as all other project sizes except for two: 50,000-100,000 sf (39 average credits) and the largest projects, 1 million sf and above (38 average credits). On the Operations side, the smallest projects, under 50,000 sq. ft., achieve, on average, much higher than other project sizes (29 average credit achievement) in comparison to 15 credits for the 100,000-1,000,000 sq. ft. range and 18 or 19 credits for 20,000-100,000 sq. ft. and projects over 1 million sq. ft.

### Green Guide Pilot: Project Type



### Green Guide Pilot: Project Size



### Green Guide Pilot Achievements by Category

	Number of Pilots	Smallest Project Size	Largest Project Size	Average Project Size	Average Construction Credits	Average Operations Credits
<b>Project Type</b>						
Acute Care	63	4,000	3,000,000	394,400	29	16
MOB	17	1,900	407,000	99,000	33	18
Retirement	8	5,000	350,000	125,500	33	14
Specialty Hospital	17	5,000	483,000	165,200	34	26
<b>Construction Type</b>						
Addition	14	5,000	350,000	111,700	22	18
Combination	23	21,500	1,050,000	272,000	34	16
New	56	3,300	2,100,000	330,300	33	18
Operations	1	507,000	507,000	507,000	0	17
Renovation	11	1,900	3,000,000	375,000	28	24
<b>Regional Concentrations</b>						
Texas	7	21,500	471,000	205,300	23	13
Massachusetts	7	54,000	483,000	187,000	43	22
Tri-State Area (NY, NJ, CT)	9	28,000	3,000,000	468,000	22	15
Pacific NW (OR, WA, BC)	10	1,900	600,000	190,000	33	20
Great Lakes (WI, OH, MI, IL)	15	5,000	1,100,000	209,000	30	19
California	17	45,000	1,500,000	439,000	30	17
<b>Green Leader</b>						
Architect	69	3,300	1,050,000	189,000	33	17
Consultant	2	290,000	347,000	318,500	26	0
Contractor	4	150,000	1,500,000	594,000	20	8
MEP	7	106,000	3,000,000	792,000	25	12
Owner	23	1,900	2,100,000	334,000	31	21
<b>Size</b>						
0 - 19,999 sf	11				29	25
20,000 - 49,999 sf	9				28	19
50,000 - 99,999 sf	19				39	19
100,000 - 499,999 sf	40				29	15
500,000 - 999,999 sf	11				27	15
1,000,000 + sf	5				38	18

### Planning a Green Guide Pilot Project

The table to the left and the two graphs on page 5 represent aggregate data gathered from the *Green Guide* Pilot program.

New healthcare projects can use the data provided to compare their own scope and expectations with average *Green Guide* Pilots following the same criteria.

For example, a project located in Massachusetts will see that conditions in that state (both in terms of green construction infrastructure, availability of green building materials, and regional competition) have allowed healthcare institutions to achieve very high marks using the *Green Guide* toolkit.

Likewise, a Specialty Hospital may have cause to review its mission and special health concerns (such as pediatric or chemo patients) for incentives to reach the high average credit achievements in both Construction and Operations that its peers have demonstrated across the country.

### Green Guide Public Pilots

Note: The *Green Guide* only releases the name of projects that have expressed interest in being publicly recognized as Pilots.

- Beverly Hospital, Beverly, MA
- Bon Aqua Health Nursing and Assisted Living Homes, Bon Aqua, TN
- Brigham and Women's Hospital, Boston, MA
- Children's Hospital, Boston, MA
- Christus St. Catherine Hospital, Katy, TX
- CSSS de la Montagne, Montréal, Quebec, Canada
- The Christ Hospital, Cincinnati, OH
- Dell Children's Medical Center of Central Texas, Austin, TX
- Denver Health Medical Center, Denver CO
- Donald Dexter Dental Clinic, Eugene, OR
- Hackensack University Medical Center Gabrellian Women's and Children's Pavilion, Hackensack, NJ
- Indianapolis Community Hospital, Indianapolis, IN

- Kaiser Permanente Modesto Medical Center, Modesto, CA
- Longmont United Hospital, Longmont, CO
- McGill University Health Centre - Glen Campus, Montréal, Quebec, Canada
- Metropolitan Hospital, Grand Rapids, MI
- New Edison Lakes Medical Campus, Mishawaka, IN
- New York Presbyterian Hospital, New York, NY
- Oregon Health & Science University Patient Care Facility, Portland, OR
- Palomar Pomerado Health, San Diego County, CA
- Salem Community Hospital, Salem, OH
- Saint John Owasso Hospital, Owasso, OK
- Santa Barbara Cottage Hospital, Santa Barbara, CA
- Spaulding Rehabilitation Hospital, Charlestown, MA
- U.S. Department of Health and Human Services Critical Access Hospital Prototype (200 nationwide)
- Veterans Homes of California, West Los Angeles, CA
- Veterans Homes of California, Ventura County, CA
- Washington Hospital, Fremont, CA
- Wellspring Medical Center, Woodburn, OR

Green Guide Pilot Project Average Credit Achievements



Green Guide Pilot Project Size by Project Type

