

Scottsdale Building Trends

1998 – 2010

- Energy Efficiency
 - Cathedralized attics (insulation at roof deck)
 - All buildings are at least 15% better than baseline energy codes
 - Half of green homes are 25% or better than energy code
- Heat Island Mitigation
 - Shaded building entrances, courtyards, outdoor living spaces and limited hardscape surfaces
- Water Efficiency
 - Low water use landscaping and efficient irrigation
 - Hot water recirculation systems
 - High efficiency plumbing fixtures
- Active Solar Systems
 - Significant increase in permits for photovoltaic (solar electric) and solar hot water system

Energy Performance Study

Scottsdale Green Homes

Project	Building Completion Date	Size (sq. ft.)	Governing Building Code (at time of permit)	Energy Audit, Performance Testing and Rating (8/09 to 5/10)
Becker Residence (exterior insulated masonry wall construction)	8/02	2,654	UBC 1997	HERS Index - 73 27% better than 2006 IECC
Loloma 5 Town Homes (exterior insulated masonry & wood frame construction)	10/04	1,612	UBC 1997	HERS Index - 76 24% better than 2006 IECC
McDonnell Infill Office/Residence (exterior insulated masonry wall construction)	12/04	2,241	UBC 1997	HERS Index - 61 39% better than 2006 IECC
Krahman/Wallenmeyer Residence (exterior insulated wood frame wall construction)	8/08	5,508	IRC 2003	HERS Index - 10 (65 w/o solar) 90% better than 2006 IECC
Moore Remodel (exterior insulated masonry wall construction)	4/10	1,842	IRC 2003	HERS Index – 8 (55 w/o solar) 92% better than 2006 IECC



Becker Residence



Krahman/Wallenmeyer Residence



McDonnell Infill Office/Residence



Loloma 5 Town Homes

Scottsdale's Energy Performance

Estimated energy savings and equivalent greenhouse gas reduction resulting from houses completed under the Green Building Program.

Energy Measures	Savings and Pollution Reduction	
	1998 to 2009	
	Per Home	Annual Cumulative Savings for 1,240 homes
Sample Home Size	3,800 square feet	
Average Annual Energy Reduction	2,830 Kilowatt hours (kWh) per year	42,110,400 Kilowatt hours (kWh)
Average Annual Energy Savings	\$283 per year	\$4,211,040
Annual Greenhouse Gas Reduction	2,700 pounds of carbon dioxide (CO ₂)	40,176,000 pounds of carbon dioxide (CO ₂) avoided
Equivalent Cars removed from Street	1/5 the annual emission of an average car	annual emission of 2,976 average cars

For More Information



Office of Environmental Initiatives

Planning, Neighborhoods and Transportation Division

Green Building Program

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