Energy Analysis

Saving Energy Through Strawbale Construction

Ball State University

Project Name	Reference Case	As-Built
Energy Cost	$1.40/Therm - $0.082/kWh - $0.0 kW	$1.40/Therm - $0.082/kWh - $0.0 kW
Simulation Dates	Jan. 1 - Dec. 31	Jan. 1 - Dec. 31
Energy Use (kBtu)	101,386	57,220
Energy Cost ($)	$1,786	$1,063
Total Electric (kW)	9,298	6,958
Internal/External lights (kwh)	2,420/117	2,051/117
Saved by Daylighting (kWh)	-NA	-NA
Heating/Cooling/Fan (kWh)	0/2,551/1,655	0/1,814/422
Hot Water/Other (kWh)	0/2,554	0/2,554
Peak Electric (kW)	5.3	4.0
Fuel, hw/Heat/Total (kBtu)	2,986/66,674/69,660	2,896/30,490/33,475
Emissions, CO2/SO2/NOx (lbs.)	20,723/81/47	13,306/59/33

Awards Competition 2007

Overall, our building seems to perform quite well in energy use. It is very successful relative to standard construction methods.
To fully grasp the implications of these charts, we must keep in mind the complexities inherent in real construction, in geometry, siting and function