

# ESTIMATED HEATING COSTS IN FLORIDA: THROUGH WINDOWS ONLY

BASIC CALCULATION FROM BTUS FOR 10 AVG WINDOWS OVER AN 1 DAY FLORIDA COLD SPELL					
Window U factor (BTU/hr ft <sup>2</sup> F°)	3050 Windows Sq. ftg.	3050 Windows BTU at 25°/ 5 hrs	BTUs per House (10 windows)	Kw/House	Cost/house @ Avg. Cost .1165 for 5 hrs
0.1	15	187.5	1875	0.55	\$0.06
0.2	15	375	3750	1.10	\$0.13
0.3	15	562.5	5625	1.65	\$0.19
0.4	15	750	7500	2.20	\$0.26
0.5	15	937.5	9375	2.75	\$0.32
0.6	15	1125	11250	3.30	\$0.38
0.7	15	1312.5	13125	3.85	\$0.45
0.8	15	1500	15000	4.40	\$0.51
0.9	15	1687.5	16875	4.95	\$0.58
1	15	1875	18750	5.50	\$0.64
1.1	15	2062.5	20625	6.04	\$0.70
1.2	15	2250	22500	6.59	\$0.77

BASIC HEAT TRANSFER THROUGH 10 WINDOWS IN 3 MAJOR AREAS OF FLORIDA USING HEATING DEGREE DAY!								
*HDD Tampa	*HDD Miami	*HDD Jacksonville	***Tampa Kw / season	***Miami KW / season	***Jackson ville Kw / season	** \$Tampa	** \$ Miami	** \$ Jacksvl
683	214	1239	72.063	22.579	130.727	\$8.40	\$2.63	\$15.23
683	214	1239	144.127	45.158	261.454	\$16.79	\$5.26	\$30.46
683	214	1239	216.190	67.737	392.181	\$25.19	\$7.89	\$45.69
683	214	1239	288.253	90.317	522.907	\$33.58	\$10.52	\$60.92
683	214	1239	360.317	112.896	653.634	\$41.98	\$13.15	\$76.15
683	214	1239	432.380	135.475	784.361	\$50.37	\$15.78	\$91.38
683	214	1239	504.443	158.054	915.088	\$58.77	\$18.41	\$106.61
683	214	1239	576.506	180.633	1045.815	\$67.16	\$21.04	\$121.84
683	214	1239	648.570	203.212	1176.542	\$75.56	\$23.67	\$137.07
683	214	1239	720.633	225.791	1307.268	\$83.95	\$26.30	\$152.30
683	214	1239	792.696	248.370	1437.995	\$92.35	\$28.94	\$167.53
683	214	1239	864.760	270.950	1568.722	\$100.74	\$31.57	\$182.76

\*The HDD values above were based on values and formulas from "Residential Energy" John Krigger et al.  
 \*\* Costs were based on .1165/Kw electricity  
 \*\*\* Formula: (U-factor) x (15 sqft./window) x (10 windows) x (Heating Degree Days)/ (3412Kw per BTU)

## ORLANDO FL EXAMPLE HOUSE, 2000 SQ/FT DUCTS ATTIC, AH IN GARAGE

TOTAL ENERGY USE: HERS Simulations using Energy Gauge USA			
Window Description	HERS Index	Annual Cost(\$.12 avg/Kw)	
.80 U-FACTOR/.30 SHGC	92	\$1,645	
.65 U-FACTOR/.30 SHGC	92	\$1,642	\$3 SAVINGS
.30 U-FACTOR/.30 SHGC	92	\$1,633	\$12 SAVINGS
.80 U-FACTOR/.25 SHGC	91	\$1,631	\$14 SAVINGS
.60 U-FACTOR/.25 SHGC	91	\$1,627	\$18 SAVINGS
.40 U-FACTOR/.25 SHGC	90	\$1,622	\$23 SAVINGS
.80 U-FACTOR/.22 SHGC	90	\$1,619	\$26 SAVINGS

## ORLANDO FL EXAMPLE HOUSE, 2000 SQ/FT

WINDOW ENERGY USE: Whole house simulations using RESFEN			
Window Description	Annual Cost.12 avg/Kw		
.80 U-FACTOR/.30 SHGC	\$669		
.65 U-FACTOR/.30 SHGC	\$663	\$6 SAVINGS	
.80 U-FACTOR/.25 SHGC	\$657	\$12 SAVINGS	
.60 U-FACTOR/.25 SHGC	\$651	\$18 SAVINGS	
.80 U-FACTOR/.22 SHGC	\$650	\$19 SAVINGS	
.30 U-FACTOR/.30 SHGC	\$649	\$20 SAVINGS	
.40 U-FACTOR/.25 SHGC	\$641	\$29 SAVINGS	