

EPACT Tax Benefits on a New York Apartment Building Model

The model assumes a 12 story apartment building in New York City, measuring 42 feet deep by 75 feet wide running on an east/west axis. The exterior building envelope is masonry with 138 single glazed windows approximately 36" x 60", no thermal breaks, equally spaced on the north and south faces.

At a projected sale price of approximately \$36,000, return on investment is realized in only 7 years. (\$5,100 per year.)

EPACT formulations allow 37,800 sq. ft. of floor space to be deductible. At \$0.60 per sq. ft. this equals a tax benefit of \$22,680.

\$36,000	Sale Price
<u>- 22,680</u>	EPACT Deductions
\$13,320	Cost after EPACT Deductions
<u>- 5,100</u>	First year savings
\$ 8,220	ROI in 2 ½ years.

At an annual savings of \$5,100 across the remaining 17 ½ years (projected HeatSaver® life span of 20 years), the net gain would be \$89,000 not assuming increases in utility costs.

Immediate utility savings. Reduced loads on expensive heating and cooling plants. Client and/or tenant satisfaction – no more extreme temperature swings.

Your cost for capital is never going to be as affordable as it is right now.

Contact the [HeatSaver® Staff](#) to schedule a preliminary analysis of your building or for additional copies of the model mentioned and included below.

Prior to HeatSaver® Install

Primary Heating System

Space Name	Load (Btu/H)	Load (Btu/Hr-SqFt)	Distribution GPM	Ft of Baseboard
Flrs 1 – 12 Apts.	1,704,320	47	194	3,260
Flrs 1 – 12 Common	299,193	166	34	572

Required Heating Equipment Output Capacity: 2,203,899 Btu/hr

Available Heating Equipment Output Capacity: 3,960,000 Btu/hr

Total Flow: 220 GPM

Baseboard Capacity: 575 Btu/Hr-Ft

Heating Equipment Efficiency: 66%

Calculated Distribution Efficiency: 100%

Supply Temperature: 210 F

Temperature Drop: 20 F

Heating Safety Factory: 1.10

Distribution Safety Factor: 1.10

Cooling System

Space Name	Load (Btu/Hr)	Load (Btu/Hr-SqFt)	Distribution GPM	Ft of Baseboard
Flrs 1 - 12 Apts.	836,069	23		
Flrs 1 - 12 Common	0	0		

Required Cooling Equipment Output Capacity: 920,744 Btu/hr

Available Cooling Equipment Output Capacity: 1,800,000 Btu/hr

Total Flow: 30,448 CFM

Cooling Equipment Efficiency: 9 SEER

Calculated Distribution Efficiency: 100%

Temperature Drop: 28 F

Cooling Safety Factory: 1.10

Distribution Safety Factor: 1.10

1. The room heating/cooling loads do not include the equipment and distribution safety factor and distribution losses.
2. The room distribution includes distribution safety factor.
3. The load on the room is the peak load for this room in a year.
4. Available equipment output capacity includes equipment efficiency.
5. Required equipment output capacity includes diversity, distribution losses and equipment safety factor.
6. Overall distribution CFM/GPM for heating/cooling includes equipment safety factor, distribution losses and diversity.
7. TREAT load sizing has been tested in minimize calculation time mode and results were compared to Manual J. TREAT heating and cooling loads proved to be slightly more conservative. Please use professional judgment in applying the results to sizing heating and cooling systems.

After HeatSaver® Install

Primary Heating System

Space Name	Load (Btu/Hr)	Load (Btu/Hr-SqFt)	Distribution GPM	Ft of Baseboard
Floors 1 - 12 Apts.	1,616,230	45	184	3,092
Floors 1 - 12 Common	264,404	147	30	506

Required Heating Equipment Output Capacity: 2,068,685 Btu/hr

Available Heating Equipment Output Capacity: 3,960,000 Btu/hr

Total Flow: 207 GPM

Baseboard Capacity: 575 Btu/Hr-Ft

Heating Equipment Efficiency: 66%

Calculated Distribution Efficiency: 100%

Supply Temperature: 210 F

Temperature Drop: 20 F

Heating Safety Factor: 1.10

Distribution Safety Factor: 1.10

Cooling System

Space Name	Load (Btu/Hr)	Load (Btu/Hr-SqFt)	Distribution GPM	Ft of Baseboard
Floors 1 - 12 Apts.	795,101	22		
Floors 1 - 12 Common	0	0		

Required Cooling Equipment Output Capacity: 875,641 Btu/hr

Available Cooling Equipment Output Capacity: 1,800,000 Btu/hr

Total Flow: 28,956 CFM

Cooling Equipment Efficiency: 9 SEER

Calculated Distribution Efficiency: 100%

Temperature Drop: 28 F

Cooling Safety Factor: 1.10

Distribution Safety Factor: 1.10

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3. The load on the room is the peak load for this room in a year.
4. Available equipment output capacity includes equipment efficiency.
5. Required equipment output capacity includes diversity, distribution losses and equipment safety factor.
6. Overall distribution CFM/GPM for heating/cooling includes equipment safety factor, distribution losses and diversity.
7. TREAT load sizing has been tested in minimize calculation time mode and results were compared to Manual J. TREAT heating and cooling loads proved to be slightly more conservative. Please use professional judgment in applying the results to sizing heating and cooling systems.

Summary

Evaluated Packages

	Cost	Annual Savings		% Savings	Payback Years	Cashflow \$/Year	SIR
		MBTU	\$				
Install HeatSaver Shades	\$35,798	351.8	\$5,085	4%	7.0	\$1,933	2.81

Package Descriptions

Install HeatSaver Shades

	Cost	Annual Savings		Payback Years	Cashflow \$/Year	Imp. Life Years	SIR in Package
		MBTU	\$				
Install HeatSaver Shades	\$35,798	351.8	\$5,085	7.0	\$1,933	20	2.81
Total Package	\$35,798	351.8	\$5,085	7.0	\$1,933	N/A	2.81

Non Energy Benefits

1. Improve comfort (reduce drafts).
2. Increase value of building.
3. Extend life heating/cooling plants