

Supplementary Material

Supplementary Figure 1. EPA energy-carbon equivalency calculator.

<https://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator#results>

SecureAire Energy Calculator

Manufactures Representative:

Project Name:

Building size: SF

HVAC Operation:

Hours: per week
 Weeks: per year
 Utility rate: per kWh
 Potential Utility rebate:

HVAC System Details:

Air Handler:
 Fan Static w/o Filter: w.g.
 Motor/Blower Efficiency:
 Air Handler Size: CFM
 Filter Positions: Number

Published Filter Data:

	SecureAire	Varicel RF
Manufacturer:	SecureAire	Varicel RF
Model:	ACS	M14
Initial Pressure Drop:	0.25	0.50
Final Pressure Drop:	0.80	1.25
Avg Prefilter Pressure Drop:	0.00	0.00
Filter Life:	18	6
Power Consumption:	5 W	
Replacement Filter Price:	\$85	\$120
Annual filter cost:	\$3,400	\$14,400

Energy Savings Calculations

Annual Energy Savings:	80,288 kWh	\$15,255
SecureAire Usage:	2,621 kWh	(\$498)
Annual Filter Cost Savings:		\$11,000
Net Total Annual Savings:		\$25,757
Annual CO2 savings:	104,850	pounds
CO2 savings / SF:	0.87	pounds / SF
Peak Energy Reduction:	13 kW	

SecureAire Payback and Costs

	SecureAire	Varicel RF
Material First Cost:	\$1,000	\$120
Installation Cost:	\$60	\$60
Total Installation Cost:	\$63,600	\$10,800
SecureAire System Net First Cost:	\$52,800	

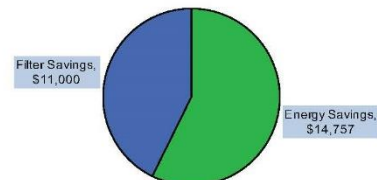
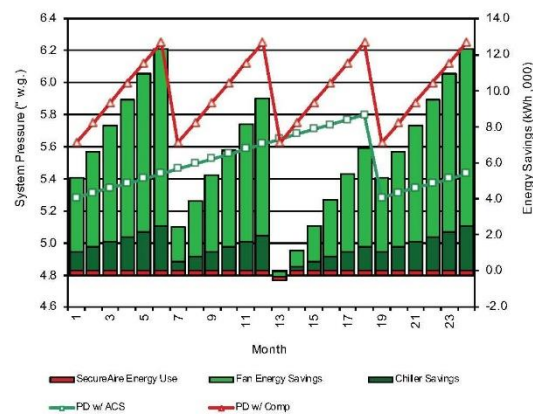
Simple Payback: Years

Estimated Utility Rebate: By Peak kW Savings

First Cost, Net of Rebate:

Payback w/ Rebate: Years

SecureAire



Supplementary Figure 2. Cumulative Direct Savings from healthcare-associated infection (HAI) avoidance, energy and maintenance savings, and retained revenue with ACTIVE Particle Control™ (APC) technology. Realized savings for 2019, 2020, and 2021. Calculated savings for 2022. All data is independent of COVID-19 impact.

