

Fire Smoke Dampers for Elevator Shaft Vents

Date reviewed: 12/20/2016

Description of Technology	Energy Saving Opportunity	
Normally closed fire smoke dampers for elevator shaft vents are integrated into the building's fire alarm system and open upon smoke detection anywhere in the building or loss of power. Many existing elevator shaft vents are completely open. Energy savings come from reducing the amount of conditioned air that escapes the building via the stack effect and/or elevator operation.	Sector(s):	<input type="checkbox"/> Residential <input checked="" type="checkbox"/> Commercial & Industrial
	Applicability Criteria:	Commercial building retrofits
	Efficiency Improvement:	Reduced air leakage and infiltration through building envelope
	Energy (%) Savings Potential:	Variable based on vent free area and building height
	Demand (%) Reduction Potential:	Variable based on vent free area and building height

Strengths	Weakness
<ul style="list-style-type: none"> Short paybacks (usually 1-5 years) Relatively inexpensive (\$5,000-\$15,000 per vent) Improved building comfort through reduced infiltration, especially in lobbies. Increased safety with lobby doors that are easier to open. 	<ul style="list-style-type: none"> Required by current energy codes, meaning the technology is only eligible for retrofit programs only. Dampers must be maintained.

Third Party Analysis/ Previous MTAC Reviews	Suppliers Known to MTAC	MTAC Status
Report published by the USGBC for NYSERDA http://urbangreencouncil.org/spending	Vendor ₁ Greenheck Vendor ₂ Ruskin	Acknowledged to have energy savings potential and referred to individual PA for their own EE program consideration

Market Development Issues	
Cost:	\$5,000-\$15,000
Market Risk and Barriers:	
Time to Market:	Currently on market
Simple Pay-back: (Years)	1-5 years




Figure 4: A motorized, fully closing vent