

Permanent Window Retrofit System

Date reviewed: 06/04/2018

Description of Technology

Highly insulating interior window attachment panels are hermetically sealed to existing glass with a bond that prevents invasion of oxygen, moisture, humidity or other outside contaminants. Window insulation improvement in U and R values results in winter heating and summer cooling load reductions. Three window panel configurations are available for consideration in various climate / location applications. Factory manufactured, made in U.S.A., products with ten-year material warranty and two-year labor warranty

Energy Saving Opportunity

Sector(s):	<input type="checkbox"/> Residential
	<input checked="" type="checkbox"/> Commercial & Industrial
Applicability Criteria:	Buildings >40 years old with non-operable, single pane windows
Efficiency Improvement:	
Energy (%) Savings Potential:	30-40% Heating Load
Demand (%) Reduction Potential:	

Strengths

- Improves both R and U value of window assembly
- Lowers Solar Heat Gain Coefficient (SHGC)
- Reduces Sound Transmission (STC)
- Approx. 1 /2 cost of new replacement window installation
- Installation time ~20 – 40-min per window by manufacturer certified installers
- Requires prerequisite inspection and sealing of existing exterior window
- Requires prerequisite structural analysis, air/water infiltration and thermal stress report

Weakness

- Long payback period
- Existing window film (if any) must be removed
- Reduction in Visual Light Transmission (VLT) may result in increment of lighting load

**Third Party Analysis/
Previous MTAC Reviews**

- Ernest Orlando Lawrence Berkeley National Laboratory
- Department of Energy
- Green Proving Ground Program

**Suppliers Known
to MTAC**

RENOVATE by Berkowitz

MTAC Status

Acknowledged to have energy savings potential and referred to individual PA for their own EE program consideration

Market Development Issues

Cost:	\$20 to \$65 per sq ft
Market Risk and Barriers:	Attachments Energy Rating Council (AERC) certification / labeling pending
Time to Market:	Currently on market
Simple Pay-back: (Years)	5-9 years average (>50% Glass to Façade ratio for best ROI)

