

ADDRESSING THE "ELEPHANT" IN THE BUILDING ENVELOPE



BY HARRY RAHMAN, DIRECTOR, XPEL

Windows are the weakest part of the building envelope from a heat gain, heat loss, and safety/security perspective, yet they are neglected in most ESCO projects.

Per the National Fenestration Rating Council (NFRC), inefficient windows can cost the U.S. \$50 billion annually in energy waste. Some of the ways to address inefficient windows are replacing them with high-performance ones, using PV, using a shading device, or applying an all-season window film. Each has its pros and cons.

Type of improvement	Pros	Cons
Replacement windows	Great performance	Very high cost; ROI can be 30 plus years Can disrupt business
PV	Renewable	ROI is long and high capital expenditure Durability still needs improvement
Interior shades	Helps reduce glare Low cost	Ineffective for heat reduction, as heat is already inside Reduces natural light
All Season window films	Low cost Great ROI Multiple benefits (see below)	Better results if used on windows ten years or older

Window film technologies have come a long way and are now able to keep heat where it belongs: outside in the summer and inside in the winter. Vision™ All Season Intelligence 65 by XPEL can lower the solar summer heat gain of an existing double pane window up to 60% while increasing wintertime insulation by over 32%. Adding window film technologies to existing windows provides a sustainable and cost-effective solution to reducing the energy bills in a building. On single pane, the numbers are even more impressive, lowering solar heat gain by up to 75% and increasing wintertime insulation by up to 45%.

To fit into the Energy Service Company (ESCO) business model, XPEL offers all its services “at risk” including:

- turnkey solution
- project identification
- energy modeling
- commercial warranties up to 15 years covering product and labor costs
- help with rebates/tax incentives
- samples and sample installations
- measurements
- window frame sealing
- baseline window testing

XPEL’s portfolio of over 54 products also addresses safety/security, anti-graffiti, bird strike, decorative and upgrading the exterior look of the windows. To learn more, please contact Harry Rahman at hrahman@xpel.com. ❁

Harry Rahman has had many roles in the window film industry over the last 24 years, from marketing to product development. He has also served on the Board of the industry association in many positions and now heads XPEL’s global architectural division.



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