

Market Condition 2050 NetZero Commitment

By 2050 the UK government has committed to reducing greenhouse gas emissions to 80% of 1990 levels. In the UK 44% of CO² emissions derive from buildings, of which 27% is residential (DECC,2008). Of the estimated 26 million UK homes, 80% will still be in use by 2050 (DCLG, 2012). With one of the oldest housing stocks in Europe, the UK faces a significant obstacle to success.

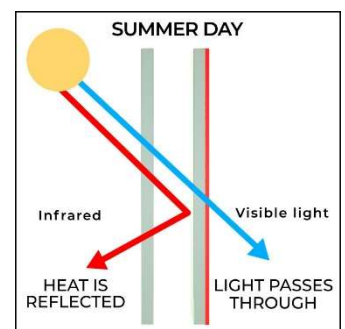
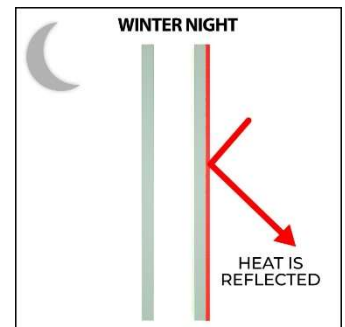
- Funded energy improvement measures often overlook window upgrades.
- Wall insulation treatments are funded, but subsequent additional window replacement costs are too high.
- A single aluminium window costs >£400 (installed) and produces >480 Kg of CO² to manufacture.
- Meanwhile, the UK suffers 2,000 heat-related deaths each year and high indoor temperatures increase risks of fatalities and ill health.



Mass replacement of glazing with improved Low-E alternatives is problematic as installation is slow and expensive. The low cost to benefit ratio and long payback period will disincentivise property owners from investing.

Market Solution Window Insulation Coating

- Simple coating onto existing glass
- U-Value improvement of existing glass
 - Example: Older double glazing U-value from 2.6 to 1.4 W/m²K
- Optional Air & Draft Seal replacement during Window Coating
- Contributing to EPC point uplift via RdSAP
- Reduces condensation up to 50%, saving costly repairs from mould & rot, while improving user wellbeing and comfort.
- Blocks 99% of skin & eye damaging Ultraviolet wavelength range (UV).
- Blocks >85% Infrared (IR) light which causes overheating & damage to furnishings.
- Alternative solution to building Overheating – UK Building Regulations: Approved Documents L, F & O. (Future Homes Standard for Residential & Non-Residential)
- Multiple training sites with PAS 2030, 2035 & 2038 accreditation.
- 10-year manufacturer warranty with approved contractor installations.
- Over 20 years of proven energy saving projects across 33 countries
- **Best Cost/Benefit ratio** of any energy improvement measure.



Support Enterprise, Research & Grants

WI is supported locally by Greater Birmingham & Solihull Growth Hub & Innovate UK Edge. Grants secured with Midlands Engine, I-Construct & UK IPO. Development with Aston, Nottingham Trent, and Wolverhampton Universities with ongoing testing across multiple test houses with consulting via BRE & Evora Edge. Product demonstrators with Energy Catapult Living Labs & planned Heritage Buildings in Shrewsbury.