



ENERGY CONSERVATION

By Peter Davey, American Window Film, Inc.

AN OUNCE OF CONSERVATION IS WORTH A BARREL OF CRUDE OIL:

Energy Conservation Action Plan Includes Window Film

We know all too well the cost of fuel is rising. We're rudely reminded every time we pull into a gas station. Historically, Americans have adjusted to fuel shortages and energy crises. In some ways, today is no different. We need to conserve. However, the means to that end are far more sophisticated. Innovative technologies allow us to conserve in ways we never dreamed. But now is crunch time. At \$55 per barrel for crude oil, energy conservation action plans are paramount for businesses to protect their bottom lines.

Following a systematic approach to conserving energy can yield impressive results. Start with a baseline. A formal energy assessment will facilitate an effective plan to lower energy consumption...so record your utility bills. Identify equipment noted for high-energy consumption. Once identified, contact the manufacturer or local service provider. Request information on best practices for energy conservation. For high energy-consumption heating systems, a simple tune-up, additional insulation or heat recovery system may increase efficiency of your particular system and net substantial results. In addition, stay abreast of emerging technologies that may save in ways you had not considered.

Advances in window films to reduce heat loss through windows in winter months and heat gain in warmer months have been significant. Low-E (emissivity) window films are inexpensive compared to window replacement. They not only save energy, they also reduce fading of fabrics and furnishings, increase occupant comfort, reduce glare, and improve a building's safety and security as well as its overall aesthetics. Spectrally



*Peter J. Davey, President
American Window Film, Inc.*

selective window films can filter out a significant amount of heat normally transmitted through clear glass while allowing light to be fully transmitted. Applied to various types of glass, they produce customized glazing systems capable of increasing or decreasing solar gains according to climate, aesthetics, security enhancements, and U.V. protection desired.

3M Company has produced a series of window films designed with energy conservation in mind. Some feature unique Wavelength-Selective metals which block more of the solar spectrum than conventional metals enabling better performance and light transmission. In cooler climates, 3M's Scotchtint™ Plus All Seasons film works to save energy by reflecting indoor heat back into the room. This can reduce heat loss by up to 23% to 30% and can reduce air conditioning costs by blocking 55% to 73% of the sun's heat. 3M films are also protected with an effective abrasion resistant coating for long-term durability and maintained appearance. Applied to the inside of windows, a quick, clean installation of window film creates little disruption to the flow of

business. The savings in energy costs will pay for a quality window film installation in short order.

3M is the only window film manufacturer that produces their own raw materials such as polyesters, metals, scratch-resistant coatings and adhesives. Window film is only as good as its adhesive. A bad adhesive will produce bubbling and blistering—distortions created by thermal cycling that can ultimately result in seal failure. Unlike others, 3M's ultraviolet inhibitors are included directly in their adhesive. This ensures lifelong clarity and reduces UV degradation, thus providing long-lasting protection from fading of fabrics and furnishings.

3M Company began the history of window film in 1961 when a patent application was made and subsequently granted in 1966 for a metalized solar control window film. Responding to demand, 3M introduced solar control films, ultraviolet light control films, and low reflectivity, high optical clarity and shatter-resistant films over ensuing decades. Currently an \$18 billion diversified technology company and an ISO9002 certified facility, 3M continues to place emphasis on research and development.

Building owners and facilities managers may serve themselves well by following an "ounce of prevention is worth a pound of cure" with a 21st century update: "an ounce of conservation is worth a barrel of crude oil." Advancements in new technology such as Low-E window films should not be overlooked...they can provide more than a pound of "energy conservation" cure.

Peter J. Davey is president of American Window Film, Inc., a 3M Authorized Window Film Dealer, located in Foxboro, MA, 800-274-TINT, www.americanwindowfilm.com.