

# Game-Changing Advancements in Modern Windows

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Today's advanced window materials, designs, and engineering innovations have produced a generation of house window types that far exceed the energy efficiency and durability of outdated models. Energy-efficient alternatives for house window replacement and commercial buildings offer superior thermal insulation value, energy cost savings, noise reduction, and preservation of indoor air quality.

Here are some of the modern innovations that enable contemporary state-of-the-art energy-efficient replacement windows to deliver far superior insulation quality and longer product life than past models. These advancements in window technology upgrade beautiful stylish windows that ideally suit their design tastes to high-efficiency, virtually maintenance-free windows that deliver a number of important comfort, security, health, and cost savings benefits for today's homeowners:

## Increased Thermal Insulation

For many generations, wood was standard in all types of window frames for residential and commercial construction. Eventually, aluminum framing became popular, due to the easier maintenance and comparatively low cost. But, aluminum does not provide the insulation quality that wood delivers. Vinyl framing competes well with wood framing for thermal value and is relatively maintenance-free. With the advancement of construction-grade virgin vinyl windows, homeowners and business owners now have strong solutions for both insulation and maintenance needs.

## Solar Heat Control

One of this generation's most exciting technological advancements in window efficiency is the addition of low thermal emissivity glass or low-E glass coating. Low-E is a micro layer of metal oxide applied to block solar heat penetration in hot weather periods and alternatively help block interior heat energy from escaping in cold winter weather. Low-E glass windows also filter the damaging effects of ultraviolet light, which helps protect furniture, floors, artworks, and other possessions from fading due to window light.

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## Reduced Energy Costs

Many of today's energy efficient windows contain one or two sealed layers of argon gas. Non-toxic, colorless, and odorless argon gas used for filling energy-efficient argon gas windows is denser than air, which means it provides significantly increased window insulation quality. Adding argon gas layers in triple- or double-pane windows, combined with the marvel of low-E glass and the superior insular property of construction-grade vinyl framing, produces highly energy-efficient windows that afford homeowners greater comfort and energy cost savings up to 30%.

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## Advanced Structural Strength

In addition to the durability of modern window framing materials, energy-efficient designs are often built with double or triple glass panes. This design advancement increases energy efficiency, but it also strengthens the window structure, for improved reliability in extreme weather conditions and additional security against unwanted entry.

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## Improved Sound Insulation

Some of the same advanced technologies that provide superior thermal insulation in today's state-of-the-art energy-efficient windows also serve as sound insulators. Urban homeowners notice a significant difference in their quieter, more serene living spaces after energy-efficient house windows installation. Better sound-insulated, more peaceful interiors are an important and often unexpected benefit of replacing old windows with updated models.

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## Improved Interior Air Quality

Because modern windows are built for maximum energy efficiency, their design renders a bonus benefit of more tightly sealing interior spaces. Optimal sealing around windows and doors means a significant reduction in the amount of desert dust and urban air pollutants that can enter your home. As a result, less house cleaning time is necessary to maintain clean, dust-free living spaces, and occupants benefit from cleaner, healthier indoor air quality. This advantage is especially important for people with respiratory conditions.

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## Reduced Maintenance

Traditional wood framed windows require routine cleaning, and need repainting or re-staining periodically. But, even when diligently maintained, through years of exposure to harsh weather conditions in more extreme climates, wood windows ultimately lose

functionality. By contrast, there is very little involved in maintaining vinyl windows. Vinyl further withstands the perpetual seasonal onslaught of moisture, dirt, baking sun, and extreme temperature fluctuations longer than wood.

## **Advanced Window Products, Salt Lake City, Utah**

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We are Utah's leading window manufacturer. We provide our beautiful energy-efficient windows factory-direct to our customers, which means no retail markup or common warranty issues. All our windows and doors are built from the highest quality of construction-grade window manufacturing materials. All Advanced Window Products installers are NFRC, AAMA, lead-safe, and Energy Star® Certified.

We offer our customers many important benefits, including:

- No down payment and zero-interest financing for 24 months (with approved credit)
- Double lifetime warranty on all windows and doors
- \$2000 discount on the purchase of 10+ windows

Visit our showroom downtown, or our online gallery, or call Advanced Window Products, Salt Lake City, UT at (801) 505-9622 for more information or to schedule a free no-hassle in-home estimate.

*Advanced Window Products is a green business. We also support multiple charities, including Utah Habitat for Humanity and Utah Make A Wish Foundation. We are also a part of Buy Local First Utah.*