

DOE-Funded Research Leads to New Manufacturing Breakthrough for Energy-Saving Windows

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As part of the Administration's support for innovations in American manufacturing, the Energy Department today highlighted a recent breakthrough in residential window manufacturing that cuts down production time, while creating better-insulating, highly energy-efficient windows. This innovative manufacturing design was partially funded by DOE and developed by GED Integrated Solutions, Inc. (GED), a worldwide supplier of insulating glass and vinyl window and door manufacturing systems. The Energy Department partners with companies like GED to help harness American ingenuity to commercialize and deploy cutting-edge building technologies that will help boost competitiveness in the U.S. manufacturing [industry](#), create jobs for American workers, and save money for families.

DOE awarded over \$1.2 million to GED in 2009 to fund the design and development of a high volume, efficient manufacturing system to build high performance, energy-saving insulating glass units for residential windows. The innovative new system enhances the [window](#) industry's ability to provide homeowners with affordable and efficient residential windows that can reduce their energy bills.

In September 2011, GED introduced its new Automated Tri-Lite Assembly System (ATLAS). Considered a revolutionary insulating glass fabrication system by industry experts, ATLAS produces a triple pane insulating glass unit in 20 seconds, improving on conventional methods that can take two minutes or longer. PPG Industries, Inc., a major U.S.-based glass manufacturer and developer of advanced window technologies, has assisted GED with unit design support and analytical testing, and has commissioned the first ATLAS system to validate performance in an actual production environment.

The system can be installed in most existing window manufacturing facilities and can produce a wide variety of window sizes. The ATLAS production process was awarded "Best in Show" last September at GlassBuild America, a major glass and window industry event.

The Energy Department's [Office of Energy Efficiency and Renewable Energy](#) (EERE) accelerates development and facilitates deployment of energy efficiency and renewable energy technologies and market-based solutions that strengthen U.S. energy security, environmental quality, and economic vitality. Learn more about EERE's support of [building technologies](#).

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