

# Using Less Energy by ‘Daylighting’ While Maintaining User Comfort and Productivity

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SyracuseCoE is collaborating with Siemens to compare two different technologies for controlling the amount of daylight that enters a room: “smart” glass that can change tint via “electrochromic” technologies, and automated window blinds. The project will study the interactions between daylighting, occupant comfort, and energy used for lighting, heating, and cooling.

Researchers from Syracuse University, Siemens and SyracuseCoE will develop, test, and document an optimization control scheme for integrating daylighting and electrical lighting, while using different technologies for dynamic, or responsive, exterior façades. The goal of the study is to minimize total energy consumption while maintaining glare control and a comfortable temperature for the occupants.

One of the cornerstones of the intended project is a side-by-side comparison of two different dynamic façade systems: electrochromic glass and automated window shades. The SyracuseCoE Headquarters in Syracuse, NY is already equipped with window blinds that change angle based on the position of the sun, clouds, and outdoor and indoor temperatures. In preparation for the new study, electrochromic glass developed by SAGE Electrochromics, Inc., also known as SageGlass, is being installed this week in an office suite on SyracuseCoE’s 3rd floor.

Watch the SyracuseCoE HQ this week, and tune in for more information as we transform our living laboratory façade to study energy efficiency and human comfort in a whole new way.

Learn more about the project here: <http://syracusecoe.org/coe/whatsnew.html?skuvar=110>