Daylighting the New York Times Headquarters Building

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http://windows.lbl.gov/comm_perf/newyorktimes.htm

This website provides information on a collaboration between The New York Times Company, the Lawrence Berkeley National Laboratory, industry, and three major public funding agencies designed to transform the market for emerging automated window shade systems and daylighting controls so that these types of energy-efficient products become the norm. Project activities included documenting and demonstrating that the technology works and generates energy savings in real world applications, creating a market response so that these systems are available at commodity prices and are cost-effective, making third party performance data available to the public, and providing guidance to support widespread deployment.

Daylighting has long been identified as a strategy with the potential to create large energy savings in buildings as well as enhancing the workplace environment. For several reasons, much of that potential has not been realized. The major obstacles include: the costs of critical components (e.g., dimmable ballasts), the potentially complex and costly calibration of system controls and sensors, the uncertainty in achieving reliable savings, the necessity for systems to be flexible and adapt to the changing interior and exterior conditions, and the fact that solar gains and cooling loads need to be properly addressed with dynamic glazing systems.

With the U.S. building sector's energy consumption expected to increase by 35% between now and 2025 and commercial energy demand projected to grow at an average annual rate of 1.6% reaching 25.3 quads (10^{15} Btu) in 2025, there is a critical need to develop and deploy emerging energy-efficient technologies that can deliver reliable energy and peak demand reductions throughout the lifespan of a building while contributing to the comfort, satisfaction and productivity of the building occupants. Automated technologies such as motorized roller shades and daylight-controlled dimmable fluorescent lighting systems have the potential to deliver such value because they target the two largest energy end uses in commercial buildings: lighting and space conditioning (cooling/ heating) while having a major influence on occupant comfort. This website and referenced publications provide critical case study information and performance data that helped The New York Times decide to invest in these technologies for their new headquarters building in Manhattan, New York.

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Department of Energy's Office of Building Technology, State and Community Programs. Achieving widespread application of energy saving daylighting strategies in buildings is a goal of each of these organizations.