U.S. DEPARTMENT OF ENERGY | Energy Efficiency & Renewable Energy

Energy Efficient Commercial Buildings – Exteriors B-Roll

Scene-by-Scene Description

Get the facts behind the footage available on the U.S. Department of Energy's (DOE) Office of Energy Efficiency and Renewable Energy (EERE) B-Roll Web site at **eere.energy.gov/news/b_roll.cfm**.

Video Title: Energy Efficient Commercial Buildings – Exteriors
Video Only/No Audio
CG: National Renewable Energy Laboratory Research Support Facility, Golden, Colorado
Shoot Date: September 2, 2010
Total Running Time: 2:58

Scene 1: 00:05: Exterior of the Research Support Facility (RSF) building. The east-west building orientation and narrow building width take advantage of south-facing daylighting and thermal effects.

Scene 2: 00:47: South-facing window hoods allow daylighting while controlling glare and heat. This aggressive window shading is designed to address different orientations and positions of glazed openings.

Scene 3: 01:26: Transpired solar collectors passively preheat air before delivery to interior space.

Scene 4: 02:12: On-site solar photovoltaic system generates about 1.6 MW of power for the building's use.

Learn More about Energy Efficient Commercial Building Strategies

Buildings designed and constructed with attention to energy efficiency under Leadership in Energy & Environmental Design (LEED) standards promote sustainability while minimizing operating costs and increasing asset value. The EERE Building Technologies Program's Commercial Building Initiative promotes a whole-building design approach to achieve these standards. The continued development of energy efficient equipment, lighting systems, and windows as well as advances in passive solar, photovoltaics, fuel cells, advanced sensors and controls, and combined heating, cooling, and power will enable buildings to reduce energy use while assisting the nation in reaching its goals for sustainability, environmental protection, and energy security.

The National Renewable Energy Laboratory's (NREL) Research Support Facility (RSF) in Golden, Colorado is an example of these energy efficient building strategies put into practice. The 222,000 ft^2 office building showcases numerous high-performance design features, passive energy strategies, and renewable energy technologies. Dubbed the "Workplace of the Future," the RSF is a prototype for the future of large-scale ultra-efficient buildings.

More information about how DOE is working with alliances and partners to significantly improve commercial building efficiency and quality can be found at the EERE Building Technologies Program Web site at **eere.energy.gov/buildings/**.