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## New Arena Pharmaceuticals building achieves LEED Gold

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Construction is now complete on the new home of **Arena Pharmaceuticals Inc.**, a five-story office building totaling 75,260 square feet.

The building has been designed and constructed to be LEED Gold certified by the U.S. Green Building Council. Numerous "green" features have been integrated into the facility, with perhaps the most eye-catching sustainable and energy efficient feature being the photovoltaic harvest located on the rooftop.

The 184 kwh photovoltaic system will provide nearly 20 percent of the building's electrical use and has a payback period of approximately 10 years. According to Arena Pharmaceuticals (Nasdaq: ARNA), the electricity reduction will be 637,938 kwh.

The annual estimated gas that will be used by the building would be 2,828 therms. The savings will represent 71 percent of the total gas used, and the CO2 reduction of 454 metric tons represents 92 percent of the total CO2 emissions resulting from electricity and gas use.



Arena's new five-story office building has been designed and constructed to attain LEED Gold certification.

Under the photovoltaic harvest, the building's roof has a urethane foam system. It allows the roof insulation to be placed entirely above the structural diaphragm so that no insulation is located within the sidewalls of the building. According to Arena Pharmaceuticals, by removing the insulation within the occupied areas of the building, the amount of off-gassing from building materials is reduced, creating better interior air quality for employees.

**Smith Consulting Architects** designed the project, which contains several other amenities that make it a sustainable facility.

Dual-glazed laminated glass is utilized all over the building. The glass lowers heat gain and provides interior comfort while also significantly reducing exterior noise pollution from the nearby military airport.

Several solar-tubes allow natural light to come into the building through the roof and are located in the building's "core areas." The Solamaster 21-C skylight captures sunlight by using a specifically placed reflector.

Dual-flush toilets, waterless urinals and water restricting features like drought tolerant desert plants incorporated into the landscaping are in place, and will save approximately 32 percent of water when compared to normal use.

Reusable materials were also used in the project.

Fly ash and recycled reinforced steel are integrated in the foundation of the building. In addition, the contractor recycled an estimated 60 percent of the construction debris used on this project.

The project also has vanpool parking and bike racks to encourage alternative transportation methods -- another criteria needed to reach LEED Gold certification.

The building's outer skin is made of 1-inch stucco and stone on a 6-inch metal stud, 3/4-inch resilient metal channel with two layers of 5/8-inch drywall on the

interior face.

The project used the design-build method of construction, which helped get it completed on time and on budget.



The building's solar arrays will provide nearly 20 percent of the building's electrical use.

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