HOTtips

How to Reduce HVAC System Energy Costs

Colleges seeking to reduce HVAC system expenses may try to save money by reducing air filter change-outs or downgrading to a lower-priced (and lower-efficiency) filter. But the small amount of money saved by doing so pales in comparison to the energy and operating costs saved via robust air filtration maintenance. While purchasing fewer filters may reduce initial expenses, delaying filter change-outs causes the filter to run more days at peak energy usage. It doesn't take long for peak usage cost to offset savings in the filter price.

The energy used to operate filters is directly proportional to their airflow resistance. The more resistance (due to clogged filters that aren't changed as needed), the more energy needed by the HVAC system motor to push air through the filter.

One of the easiest ways to reduce HVAC-related energy costs is to switch to a filter with a lower resistance to airflow. For example, a 0.05-in. water gauge (WG) reduction in a filter's initial airflow resistance can reduce energy costs by up to 3.5 percent, or about $7 per filter, while a 0.20-in. WG reduction in a filter's initial airflow resistance can reduce energy costs by up to 10 percent, or about $28 per filter. While an energy cost savings of $28 per year may not sound like a lot, keep in mind that those cost savings are per filter, not for an entire HVAC system.

Upgrading from panel filters to pleated filters also saves money through decreased routine maintenance and energy costs. For years, it was believed panel filters provided adequate filtration to keep HVAC systems running efficiently. However, a study found panel filters allow for particle deposits to build on fans and heating/cooling coils. This "fouling" reduces airflow through the HVAC system and prevents heat transfer in the coils, which can increase energy costs.

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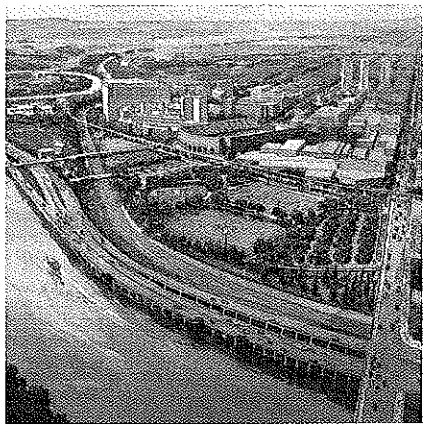
George Washington University's ISS Earns Industry Honor

The George Washington University's (GW) Information Systems and Services (ISS) division was recently named to InfoWorld's 100 Awards for 2009. InfoWorld, a leader within the information technology (IT) media industry, recognized the University's GWireless Project as an IT exemplar that utilizes technology to achieve the University's objectives.

"Being named to InfoWorld's Top 100 Awards is an extraordinary accomplishment for the Information Systems and Services division," said David Steinour, GW chief information officer. "The University's GWireless Project has transformed how students, faculty, and staff collaborate and optimize the unique learning opportunities offered by our urban campus. I am honored to accept this distinction on behalf of our hardworking staff and The George Washington University."

"This year's recipients of InfoWorld's highest honor are shining examples of IT projects undertaken by tech leaders committed to pushing their organizations forward," said Jason Snyder, InfoWorld features editor. "The GWireless Project has deployed over 2,200 wireless access portals to support the work and learning needs of 28,000 users. GW students, faculty, and staff can now take full advantage of the University's many resources without losing a secure wireless signal."



University of Pennsylvania Establishes 24-Acre Park

The University of Pennsylvania (Penn) recently broke ground on its 24-acre Penn Park, a $46M project at the eastern edge of its Philadelphia campus that features open space, athletic fields, and tennis courts. The parcel consists of 14 acres of land Penn purchased from the U.S. Postal Service in 2007, as well as 10 acres the University already owned.

Penn Park, the centerpiece of Penn Connects, the University's 30-year master plan, should be completed by 2011. The park will bring 20 percent more green space to the urban campus, while creating a new gateway uniting University City with Center City.

"For far too long, these 24 acres of pure potential … have been buried under a cold carpet of asphalt and concrete," Penn President Amy Gutmann said. "After 25 years in the making, Penn Park is finally becoming a reality, and it will put Penn, yet again, at the forefront of innovative land use and responsible urban design."

A team led by landscape-architecture firm Michael Van Valkenburgh Associates of Cambridge, MA, along with 13 consultants, designed the space to include three athletic fields, a 12-court outdoor tennis facility, a multi-level elevated walk to allow pedestrian movement throughout the site, and a raised central plaza with Center City skyline views.