
Brambleton Safety Center Touted As Climate Change Project

By Erika Jacobson

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Supervisors and county staff members gathered at the Dulles South Public Safety Center Monday to promote the energy efficient design of the future Brambleton Public Safety Center, which will employ a geothermal heating and cooling system and sustainable design practices.

"We've got to get our energy future right," Supervisor Andrea McGimsey (D-Potomac), who hosted the event, said. "This geothermal public safety center is a great example."

Through the geothermal system the station will be using the heat from the earth, estimated to be around 57 degrees, to help heat and cool the facility. By using the earth's temperature, the water running through a network of underground pipes is preheated and pre-cooled, depending on the time of year, Michael F. Maher, unit manager for commercial construction for REHAU, said.

"It is much more effective than that air-based heating and cooling system," he said.

The geothermal system, since it is pulling the temperature from the earth, will heat the public safety center from the ground up.

"So you're not heating the high levels of the apparatus bays," Maher said.

Estimates are that the initial costs of constructing the public safety center with the geothermal system will be offset by lower electric bills within three years. The center is being constructed on a rocky surface, which, while good for the use of the geothermal system, is more expensive to drill, approximately \$10 to \$12 per linear foot. But county staff said the quality of the geothermal system built on rock, means there will be less drilling required to complete the system.

"The longevity of the equipment is very good," Maher said. "So there will be savings also in the operational maintenance."

The new center, which is almost completely through the design phase and will be put out to bid soon, will not only have a geothermal mechanical system, but also will include a rainwater and wastewater reclamation system. Deputy Chief Howard Dawley said the water intensive uses at a fire and rescue station, including filling tankers and washing equipment, can be very wasteful and the new system will allow the station to reuse its water supply. The station also will use increased solar lighting, Dawley said.

"The building will be situated on the property to increase the availability of solar lighting," he said.

The facility will also include waterless and low-volume plumbing, semi-permeable pavement in parking lots, recycled materials for the station's countertops and designated recycling areas.

Early estimates show that the station will reduce its water consumption by 30 percent annually and its energy consumption by 25 to 30 percent annually, Dawley said. Maher said the energy reduction could be much higher than anticipated.

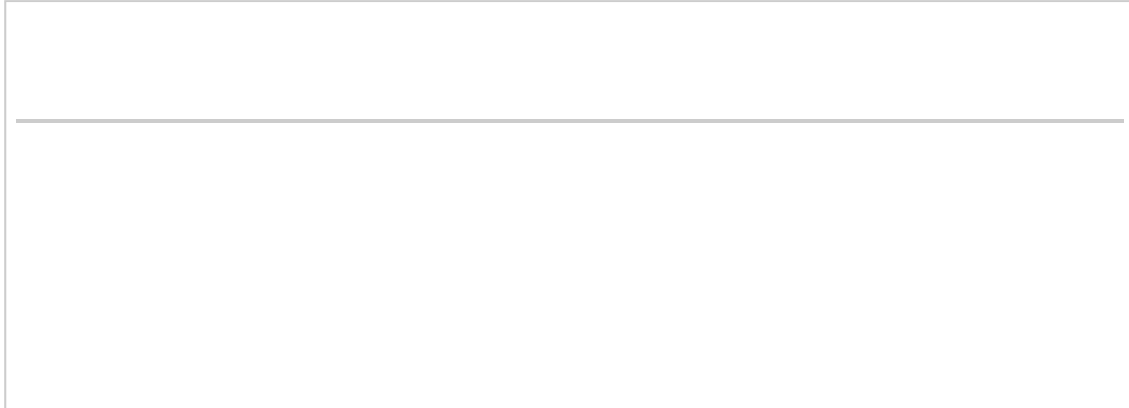
The county leaders at Monday's event were also holding up the Brambelton Public Safety Center as a part of Local Climate Action Week, which began Dec. 8. The week-long event is designed to let localities show what local government can do to help address the issue of climate change and help to develop the green economy.

"Now conservation is all about innovation," Supervisor Stevens Miller (D-Dulles) said. "It's not going to be about doing with less. This is something that allows the earth to work with us."

Miller and McGimsey also took the opportunity to endorse the Climate Action Blueprint, which was created through **Climate Communities** for president-elect Barack Obama and the 111th Congress. The blueprint calls on local governments to take a leadership position on climate change and the green economy while pushing the federal government to adopt progressive policies.

"We are taking on an important leadership role," McGimsey said. "When it comes to climate prosperity, we want Loudoun citizens and companies to lead the way."

"This is leadership by example," Miller said. "It's the government showing the way for the people."



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