

Vatican installs solar collectors for heating, cooling buildings

VATICAN CITY – As part of its long-term clean-energy initiatives, the Vatican has installed high-tech solar collectors to help heat and cool its buildings.

The installation came about a year after the tiny city-state turned the roof of its Paul VI audience hall into a giant solar-power generator to produce energy for the Vatican's power grid.

The new solar collectors will help the Vatican diversify the ways it develops its renewable energy program, said Pier Carlo Cuscianna, director of technical services for Vatican City.

In an article that appeared Sept. 11 in the Vatican newspaper, L'Osservatore Romano, Cuscianna said the new solar collectors are on three different rooftops inside Vatican City.

Two-inch-wide tubes snake across 110 solar collectors, which cover 3,767 square feet, he said.

Through a process called absorption cooling, the hot thermal energy produced can be used to cool buildings in the summer, he said.

Using the sun's intense heat in the summer to produce cool air inside a building is "a very valuable application" available with today's new technologies, he said.

Cuscianna said the new heating and cooling units are reliable, quiet and compact and require very low maintenance. With their use, about 80 tons of carbon dioxide emissions will be avoided and another 80 tons of petroleum will be saved each year, he said.