



Crews at the 1063 Capitol Way project began drilling GeoWells in November 2016.

106 11th Avenue Building Geothermal Wells

Throughout the year, the sun's energy is absorbed by the earth. Just a few feet below the ground, the temperature is constant. Effectively harnessing this constant temperature allows the 106 11th Avenue Building to use the earth's energy for heating and cooling.

In order to take advantage of that energy, the team used a GeoWell system combined with a vertical loop system. The team drilled 30 GeoWells

at a depth of 300 feet, each 6 inches in diameter. Within each well, crews installed a vertical loop — a 1-inch diameter tube connected to the geothermal heating and cooling system inside the building. Vertical loops require little land space for installation and are primarily used in urban areas.

During the summer months, unwanted heat indoors will be transferred through the GeoWells to be cooled by the

earth and then recirculated to the building's geothermal system, providing efficient air conditioning.

In the winter, the process will be reversed, with the earth heating the cool fluid circulating through the vertical loops to provide indoor heating.

It's estimated that the use of geothermal systems will help avoid approximately \$21,000 in energy costs per year.