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## **Don Maggioli - Geothermal: A Ground Floor Opportunity To Reduce Energy Costs**

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When it comes to using alternative heating sources, commercial building owners often overlook geothermal heating and cooling as an option. Truth be told, geothermal is more cost-efficient to install and offers a substantial return on investment for commercial building owners.

Geothermal heating and cooling relies on an energy exchange between the building being heated or cooled and the ground. Once you dig deeper than 10 feet, the earth's temperature is fairly constant, generally around 50°F in the northeast. During the summer, heat generated from cooling is rejected to the ground and during the heating season the heat is reused to heat the building. The ground is basically a heat exchange system.

So, how much does it cost to install and what kind of savings can commercial building owners expect?

Let's use a 50,000 s/f building as an example. The cost to install a basic geothermal heating system can range between \$500,000 and \$1 million. Yet many geothermal heating systems can reduce heating and cooling costs by as much as 40%. That can enable commercial building owners to pay for an entire system out of savings accrued in roughly seven to 10 years.

A geothermal heating system also increases the value of your property and can make you eligible for a number of state and federal tax incentives. Most importantly, geothermal heating systems can drastically reduce greenhouse emissions. In fact, the U.S. EPA reports that geothermal heating systems reduce emissions anywhere from 40 to 70%, which is far superior to any other green technology on the market today.

Sure, we all want to be greener and lessen our carbon footprint. Geothermal is a way to accomplish that and improve your bottom line.

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