

how geothermal helps

By definition, Geothermal heating and cooling is the way of making use of the earth's crust to heat or cool establishments. The main reason why geothermal is an effective and energy efficient heating and cooling technology is because the crust of the earth has reliable and stable temperatures. While aboveground temperatures often vary from one geographical location to another, the temperatures belowground typically remain constant irrespective of changes in weather seasons.

How Geothermal Works

Geothermal heating and cooling systems work because during the cold season, the temperatures in the earth's crust are warmer than the air aboveground. However, there are times when the below ground is cooler than the temperature above and this is when warm seasons occur. By inserting small pipes below ground, companies that provide commercial geothermal services in are able to transfer warm or cold air into homes or buildings depending on the different seasons. It is important to point out that the geothermal process merely transports energy and does not create it. This makes it a fuel-free process. As such, it is very efficient in terms of saving energy costs.

A geothermal system has two main components: a heat pump and ground loop pipes. The two components are connected with a well driller so that they can work as a single unit. The pipes transfer air (warm or cool) from underground while the heat pump distributes the air throughout a building. Before setting up a geothermal system, you would obviously need to contract a well driller to drill and underground well for you. Underground pipes would normally circulate the water in the created wells when cold season strikes. When the water sucks up the heat from the crust, pipes deliver would then deliver it to heat pumps of the establishment. Heat pumps are responsible of absorbing the heat in the water and distributes the heat absorbed to all the areas of the building. After the heat distribution to all areas of the building, the pipes brings back the water back to the underground wells to collect more heat again.

On hot season like summer, heat pumps absorbs the hot air from the building. When the gathered air is cool, pumps redistribute it to the building using the AC vents. The underground pipes transfer the extracted heat into the underground well water.

Great Advantages of Geothermal System

Low Cost

In comparison to other heating and cooling systems, geothermal is more cost effective. This type of system has an average of 4 units of energy for each unit of electrical system distributed. Experienced firms in commercial geothermal deliver energy without incurring high fuel cost since they do not create the energy. Instead, they merely transfer it to or from wells. Interestingly, when there is proper maintenance on the Geothermal system, it can last for over 15 years even without

serious repair. Furthermore, most well drillers today provide a 50-year warranty for underground pipes that they have successfully installed.

Energy Transfer Is Silent

Unlike other indoor heating systems, the geothermal process is relatively less noisy.

Geothermal is an Environmentally Friendly System

According to the US Environmentally Protection Agency, geothermal is the most effective heat conditioning systems in terms of cost and ability to keep the environment clean. Heat pumps used in Geothermal system have unique thermal efficiency that do not emit harmful gas like CO to the environment thus; do not contribute to any health risk. Moreover, Geothermal heat pumps no longer require high levels of energy from electrical source to function.

Heat Produced By Geothermal System is Safe and Clean

Additionally, there is no combustion involved in Geothermal processes. This makes it Geothermal heat pumps to be safe and friendly to the environment as they do not emit any harmful gases to the building.

Geothermal Is a Great Investment

Since Geothermal system is energy efficient, energy saved over a number of years is greater compared to the total cost of installing the whole system.

Methods of Financing Geothermal Systems

Although Geothermal might be a wise investment but, it requires a lot of money to properly install it to establishments. In order to install an effective geothermal system, one needs to hire the services of a company that offers water well service in. Services rendered by companies are not limited only to well drilling. In installing the whole Geothermal system with the help of a well experienced and trained well drilling company, one should prepare at least 20,000 USD as the total cost.

Luckily, many methods are now available to finance such huge cost for installing Geothermal system. Nevertheless, availability of finance options might be affected by the income level, tax credit and even credit worthiness. The following are some of the possible methods you can use to finance a geothermal well drilling project.

- In cash: Nothing beats paying the services and the people who will work on the project in cash as this eliminates your chance of incurring debt.
- Loan of home equity: A second mortgage that you can use. You can use your existing home

equity loan to get a new loan to pay for the installation of a geothermal system. The main advantage of home equity loans is that they are tax deductible.

- Private loans: If you have a good credit rating, you can apply for a private loan that has affordable repayment installments and interest rates. When you receive your funds from any loan options, it is your duty to ensure that your funds are prudently spent on a well trained and experienced well driller company to get satisfying result with reasonable expenses.

Conclusion

Overall, geothermal is arguably by far the most efficient heating and cooling system in terms of energy conservation, productivity, and durability. However, if one wants to make sure that all the benefits from Geothermal system will be enjoyed or experienced, one should hire a professional well driller and experts in water well services with reliable experience and training.

Proceed now and look at this web site regarding well drillers. Visit http://www.youtube.com/watch?v=Jyc_ZKswKVM for additional info on this specific matter.