



# GEO-NEWS

## WHY CHANGE?

Our planet is experiencing unprecedented changes in the environment that will cause drastic effects to every living creature that roams this earth. Since the industrial revolution we as a species have been releasing millions of pounds of

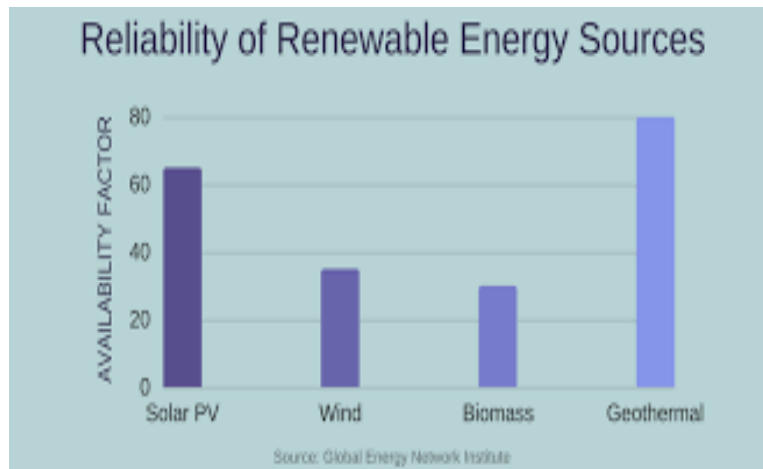
**“To Reduce  
the World’s  
Carbon  
Footprint  
One Home at  
a Time.”**

carbon dioxide and other greenhouse gases into the atmosphere which is starting to cause significant changes to our environment. We are experiencing just the beginning of these changes from the increasing rise in the sea level, immense natural disasters, increased precipitation, and many more issues.

A 500-year flood is defined as a flood that would occur once every 500 years. In the 12 months between August 2015 to August 2016 there were eight 500-year floods in the United States according to the National Weather Service. Hurricane Harvey contributed to

Houston’s third 500-year flood in three years. Al Gore stated in a TedTalk in 2016 that the amount of global warming pollution concentrated in the atmosphere is equivalent to releasing 400,000 Hiroshima sized atomic bombs 24 hours a day for 365 days.

Although these figures are staggering, we cannot be paralyzed by fear. We have the ability to combat the effects of climate change and we are making the first steps. Renewable energy is up 90% since 2000. Not only do we have the opportunity to beat climate change, but we also have the ability to make our planet run on clean sustainable energy from the sun, the wind, and the Earth itself.



## Why Geothermal Over Other Common Heating Systems?

When it comes down to it, carbon dioxide and other greenhouse gases are the main factor for our planet's climate change. Besides geothermal the most common types of heating systems all contribute to releasing greenhouse gases into the atmosphere. According to the American Geosciences Institute, burning coal, specifically anthracite releases approximately 228 pounds of CO<sub>2</sub> per one million BTUs of heat. Propane releases 139 pounds of CO<sub>2</sub> and natural gas emits 117 pounds of CO<sub>2</sub>. Geothermal on the other hand releases exactly **0 pounds** of carbon dioxide in the atmosphere per one million BTUs of heat. Geothermal is a clean sustainable form of heating and cooling that does not contribute to the release of carbon dioxide.



## Top Contributors to Climate Change

Industry burning fossil fuels is by far the biggest contributor to climate change, but what are the biggest contributors on an individual scale? Transportation. An average person will emit 4.6 metric tons of carbon dioxide into the atmosphere from their vehicle each year. (Assuming 22mpg and 11,500 miles driven). An even scarier statistic is that an airplane will emit roughly .25 metric tons of CO<sub>2</sub> every

hour of flight time. The best way to combat these frightening figures is to drive/fly less, carpool, take the bus, bike, and other ways to avoid driving by yourself. Other non-transportation ways to help combat your personal CO<sub>2</sub> contributions include turning off unneeded lights, using less water, less waste food, and using more efficient heating/cooling systems.

We are currently in a critical stage of human history where we have the opportunity to change the fate of our planet and secure a better world for future generations to come. One of the most immediate actions you can take to limit climate change is to reduce your own greenhouse gas emissions by lowering your carbon footprint.

Calculate your own ecological footprint at  
<http://www.footprintcalculator.org/home/en>

