

THURSTON COUNTY CLIMATE CHANGE PAPER

Home Energy Services

Home Energy Services is a locally owned and operated business located within the Olympia community. The business operates as a retrofitter of homes to individual home owners who may need new additions to their home that will increase the efficiency of the home energy consumption and reduce the impact on the environment. Home energy services has an emphasizes on supporting responsible environmental management which is good on the part that they are a business which wants to have the least impact on the environment when they provide installation of the products they carry to ensure efficiency to the specific home they conduct work on thus reducing their environmental impact.

Home energy services provide insulation, insulation removal, vapor barriers, duct replacement, crawl space clean-outs and energy efficient windows. In regards to insulation, lack of insulation attributes to a great portion of energy loss or inefficiency in homes. Proper insulation can decrease the costs of heating and cooling homes. On average, heating and cooling account for 50% to 70% of the energy used in the average American Home. Proper insulation, in addition to using less energy also saves lots of money. Insulation when properly installed also helps to keep the home more comfortable by keeping a consistent temperature throughout the home. Insulation also makes walls, ceilings, and floors, warmer in the winter and cooler in the summer.

Home energy services also provide insulation removal for home owners. Some reasons for insulation removal include: fire damage or water damage. Some other reasons for insulation removal may have to do with animal infestation or contamination, existing allergies of homeowners to materials, the age of the insulation or if the insulation stayed wet and became moldy. When people have allergies to the insulation materials, it can cause serious effects to a person's respiratory system. Homeowner's can end up with harmful allergic reactions like hives, shaking, coughing, or death. The same symptoms may also occur from having moldy insulation.

Another important service that Home Energy Services provides to its customers is vapor barriers. The purpose of vapor barriers is to create a shield to prevent moisture from entering enclosed cavities where it can do severe damage. Typically vapor barriers consist of a plastic or foil sheet. There are many ways in which moisture tries to permeate building holes or cavities: 1) With Air currents, 2) By diffusion through materials, 3) By transference of heat. However, air movement accounts for about 95-98% of all water vapor movement in buildings. Vapor

Barriers are required to be present in homes per building and housing code. Vapor barriers are inserted on the outer part of insulation.

Another service home energy services provides for customers is duct replacement, duct replacement is essential for the reasons of deterioration, severe mold growth, or damage may make it more cost effective to replace than to repair some ducting. Once again the main reason for the replacement of ducts is to prevent mold inhalation which causes serious health problems caused by this airborne allergen. Duct cleaning, if not properly installed, maintained, and operated; these components may become contaminated with particles of dust, pollen, or other debris. If moisture is present, the potential for microbiological growth (e.g., mold) is increased and spores from such growth may be released into the home's living space. Some of these contaminants may cause allergic reactions or other symptoms in people if they are exposed to them.

Another part of the services provided by Home Energy Services is Crawl Space Clean-ups. The reason clean-outs are important is because it helps to maintain aroma by eliminating rodent droppings, dead critters, bugs, or other insects, or other animals. In addition, by having a clean-out, any ruined, wet or moldy insulation can be removed. Also, with a clean-out, any leftover construction materials or harmful debris can be removed eliminating any environmental or health hazards.

The last service that Home Energy Services provides to its customers is Energy Efficient windows. The benefits of replacing old drafty windows with new energy efficient windows are a crucial part of creating a green energy solution while enhancing the beauty of your home. Energy efficient windows contain gas known as "Argon." "Argon" is a great gas to help filter out "UV" rays and is also used as a preservative on historic documents. However, even with gas filling in windows, it only increases energy efficiency by 1-2%. Weather stripping is another integral component of creating energy efficiency in windows. Weather stripping keeps the outside elements from coming inside the building.

Energy efficient windows can reduce the usage of the heating and cooling systems in a specific building thus making it more efficient, reducing the environmental impact. Just by changing out older inefficient windows with new energy saving windows, the owner of the building can expect to save a lot of money on energy bills annually. Heating and cooling systems are energy thirsty and improving some things such as windows can enable less usage of these systems and saving the environment along with money.

There are many benefits to adding energy efficient windows to your home. On average, the homeowner saves about five dollars per square foot on their home annually. Also, having energy efficient windows adds value to your home, reduces

window condensation, drafts, and improves ability to control the overall temperature in the home.

Home energy systems, was unable to give us an interview. When first contacted, they promptly returned our phone call and email. However, once we told them why we were contacting them, they were uncooperative with us in setting up an interview with them. For some reason, at the onset of the project, Daniel and I were under the presumption that Evergreen had some kind of professional connection to the company and as such believed they would be more helpful in us gathering information about their company. Unfortunately, that was not the case at all. Perhaps the timing of the project interfered with other projects that Home Energy Systems had going on. We are not sure at this time. As such, we gathered as much information we could from researching on the internet and looking at the company's website.

Bibliography of Sources for Thurston County Climate Paper

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