

INFORMATION FOR THE PROSPECTIVE GEOTHERMAL HOME BUYER

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Introduction

Welcome to Klamath Falls! If you are not from the area a geothermally heated home may be something unfamiliar to you. This package is intended to provide some background information to guide you through the purchase of a home equipped with a geothermal system.

Geothermal energy resources and their use are not unique to the Klamath Falls area. Although our area is characterized by a high degree of development, many other areas of the Western US (Reno, NV Boise, ID Susanville, CA, for example) also have extensive geothermal resources and development. The geothermal hot water available here in Klamath Falls results from surface water circulating, through faults to a great depth at which the rock temperature is very high. Passing through this rock, the water is heated. Since hot water is less dense than cold water, it tends to rise toward the surface where it can be accessed through wells. Much of the geothermal water in town issues from a fault roughly oriented northwest to southeast between OIT on the north and Olene Gap on the south. The depth of hot wells in this area varies from just a few hundred feet to as much as 2000 ft. Temperatures are in the range of 100°F to 230°F with most home heating wells in the 150°F to 200°F range.

One aspect of geothermal that is somewhat unique to Klamath Falls is the use of the Downhole Heat Exchanger (also known as a DHE or a “loop”). This is simply a loop of pipe which is installed in the well and connected to the home’s heating system. Water passes through the DHE, is heated and then passes through the homes heating system giving up its heat to the space. It is then returned to the DHE to repeat the process. This arrangement eliminates the need to pump water from the well (only heat is removed) and simplifies the system. It is limited to relatively small systems of the type that heat one home or a group of homes. It is also limited geographically. The performance of DHE’s has been poor in other regions of the US (notably Reno) where they have been tried.

The following paragraphs offer some more detailed comments on the systems and some suggestions for questions to ask of your agent or the existing homeowner which appear in **bold** type. There is little to be gained in having a well driller, plumber or Geo-Heat Center Staff inspect a system such as this. Asking the questions suggested below is a far more effective approach.