

13. Cascaded Uses of Geothermal Energy

Geothermal projects can be “cascaded,” which mean the same geothermal fluid is used for multiple purposes, thereby increasing the operation’s economics. A food company in Nevada uses geothermal resources to generate electricity, and then cascades the hot water from the power plant to a facility where it is used to dehydrate 26 million pounds of dried onion and garlic annually. Many spas and resorts use the same geothermal fluids for building heating, laundry and hot water heating, and swimming pools. An agricultural operation in Oregon has used its geothermal resource to grow bedding plants and perennials, heat buildings and greenhouses, wash equipment, mix the warm water with chopped hay to feed calves, raise tropical fish, and then provide water to thirsty cattle.

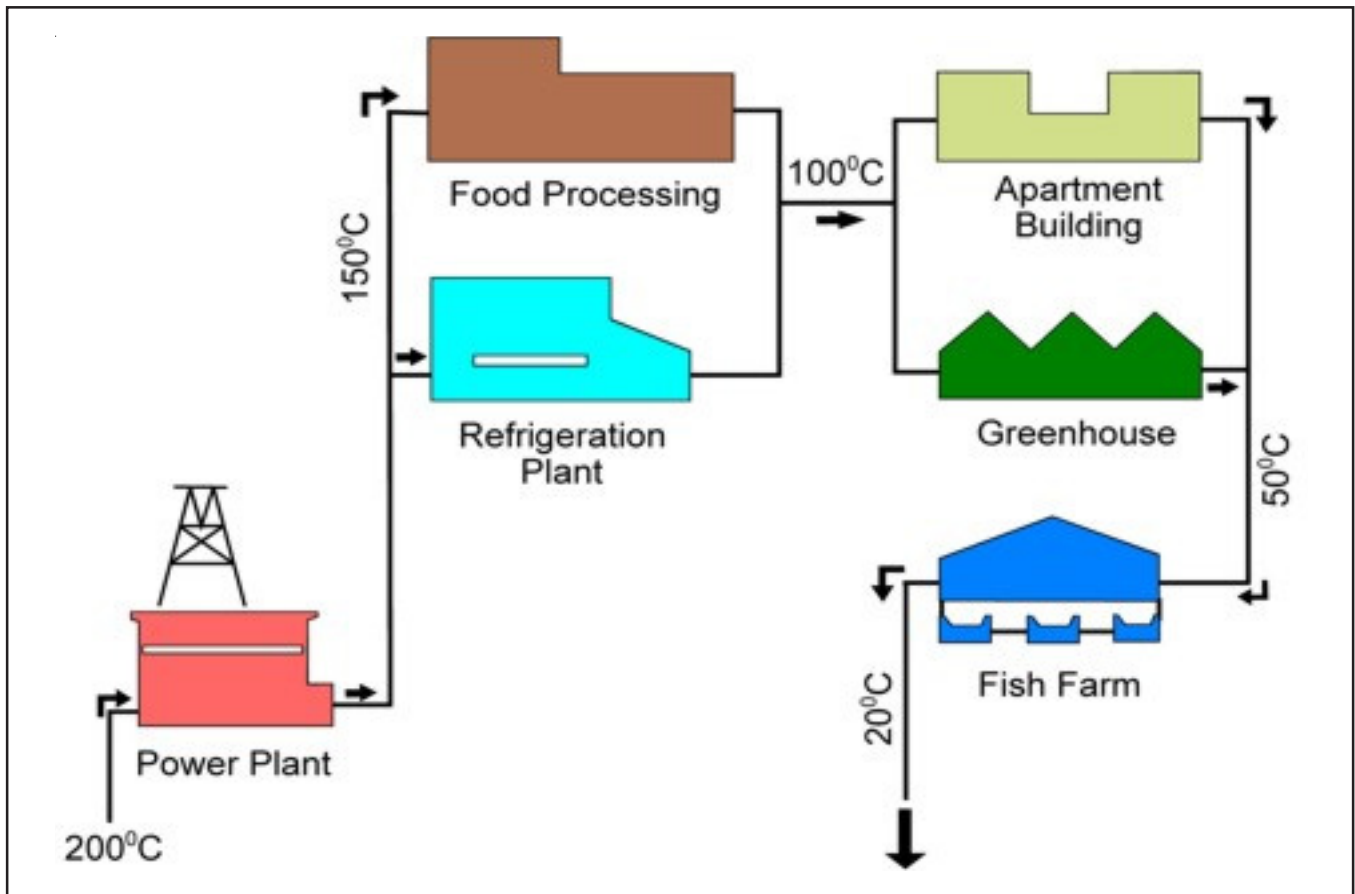


Diagram of Cascaded Uses of Geothermal Energy.

Courtesy Geo-Heat Center, Klamath Falls, Oregon

Montana has a few examples of cascaded uses of geothermal energy. At Boulder Hot Springs, geothermal water feeds the outdoor swimming pool and heats the hotel. The thermal water then cascades to warm water ponds where tropical fish are raised for use in mosquito control. Chico Hot Springs Resort uses its hot springs water for pool heating, space heating, and then finally for heating a greenhouse where lettuce and other produce is grown year-round for use in their restaurant.