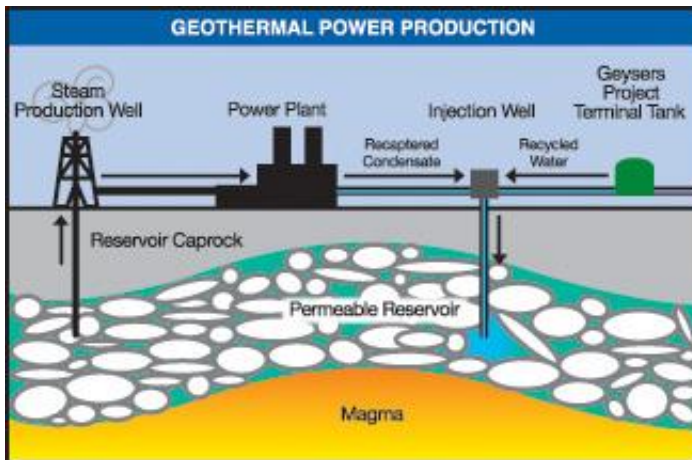


Geysers Recharge Project- Steam to Electricity



The Geysers steamfields are a rare geothermal occurrence in which natural steam is produced when underground water comes into contact with rocks that have been heated by underlying magma (or molten rock). Because the magma in The Geysers area is relatively close to the Earth's surface, the steam escapes from the ground in the form of hot springs or fumaroles. When the steam reaches the surface in production wells that have been drilled by energy companies, it travels through insulated pipelines to a generator unit where it spins turbines to create electricity.



Only 20 percent of the expended steam can be cost-effectively condensed and put back into the ground. Therefore, the resource is slowly being depleted. Water from Santa Rosa's Geysers Recharge Project not only replaces some of this steam, but enables the hot rocks to produce even more steam. Once the recycled water is released from the project's terminal tank, gravity carries it through another pipeline to the steamfields where it is injected into the ground, thus extending the life of the steamfields and allowing the generation of electricity to remain at its current level for the foreseeable future.

The Geysers and other geothermal sources lessen demand on fossil fuel supplies. Each 100 megawatts of capacity at The Geysers eliminates the need to burn approximately one million barrels of oil per year¹. The 12.62 million gallons per day of recycled water sent to the steamfields through the Geysers Recharge Project boosts the operation's electrical output by 100 megawatts – enough to meet the energy needs of up to 100,000 households.

