



Insulation in homes in La Perla and a diagram of the Rehau geothermal climatization system

FOVISEE has begun to prepare social housing in the neighborhood of La Perla to receive a geothermal cooling and heating system. The organization is making progress on insulation of the homes and finalizing the technical details necessary for the implementation of the system. It is hoped that this pilot project will generate valuable data that will contribute to the use of sustainable energy in housing plans.

In the neighborhood of La Perla, Moreno, preparations have begun of social housing that will receive a climatization system that uses air from the ground. To successfully install this type of technology, the houses must be well insulated. For this reason, the FOVISEE team is insulating the ceilings and walls of the selected homes with fiberglass. When fully functional, this climatization system is expected to reduce the families' energy costs.

As FOVISEE team member Franco explains, the idea is “to implement a geothermal climatization system that can climatize houses of 40 square meters without using supporting equipment (heating, air conditioning). It consists of running some tubes through the earth, buried at around 2 meters of depth, because that depth is the same temperature year-round. This allows air climatized by the earth to enter the house without an A/C compressor, without gas, without any energy expenditure.” While the use of supporting equipment may be necessary during extreme temperatures, the effort required of them will be considerably less, reaching the desired thermal comfort zone with less energy expenditure.

In addition to insulation, the organization continues to make progress on the technical details of the project. The second step is to calculate the type and size of fans needed for the selected homes to allow for an efficient system tailored to the needs of the families.

Geothermal energy can also bring health benefits to the families. According to the manufacturers of the devices that will be used, geothermal climatization “involves a significant reduction in CO2 emissions” and a “notable improvement in air quality due to constant renewal and the anti-microbial properties of the conducting tubes.”

The pilot project will involve 4 homes--2 of which have solar thermal collectors installed--and will

evaluate the actual performance and benefits of the use of geothermal energy to allow planning for its use in social housing plans.

Fuente: www.rehau.com