

C A S E S T U D Y **First European network of Geothermal – SEMHACH France**

OVERVIEW

In the early 80's, it was necessary to be visionary and provide a good dose of courage to imagine and develop a network of geothermal energy in France. And yet, Chevilly-Larue and Haÿ-les-Roses have bet on this adventure and is now a real success.

WATER SYSTEM CHALLENGES

With 20,000 households connected in three communities, SEMHACH is a concrete example of the performance of heating networks using renewable energy. If at the beginning, connections were mainly public buildings and social housing, private condominiums now increasingly seek SEMHACH. The site of L'Oreal Chevilly-Larue has been one of the first ones on the network since the mid-80's. SEMHACH provides 100% of the maintenance of its primary network, which feeds about 350 heating sub stations. Because of the geology of the area, users of the hot water systems meet strong fouling problems. As part of a comprehensive quality control process and to provide better service, SEMHACH decided to charge customers for maintenance procedures of the secondary network closures as (ECS). A preliminary study which was carried out on a pilot residency using a thermal camera monitoring flows and temperatures highlighted a strong scaling on the network of warm water, and the differential temperature had been measured up to 10°C.

SOLUTION

As part of this massive project, ISB WATER (**ScaleBuster**® distributor in France) has been requested to supply a solution to prevent scaling and corrosion and maintain the equipment in good working order. Many **ScaleBuster**® conditioners which have been proved to keep the piping system and all other equipment (pumps, heat exchanges, valves and fittings) clean of scale and free of corrosion were supplied and installed in the 1990's. A strict monitoring protocol has been set up in collaboration with the SEMHACH for the entire lifetime of the equipment. The **ScaleBuster**® (and filters that work together with the physical conditioning) have been installed on the cold water booster feeding the hot water systems and the sanitary return of the ECS closures. The corrosion potential problems were also addressed.

RESULTS

Since installing the **ScaleBuster**® water conditioners, temperatures are again stable and residents are fully satisfied with the results.

ABOUT THE TECHNOLOGY

The patented **ScaleBuster**® technology completely replaces traditional chemical treatment; providing control of scale and corrosion in various water process systems to create an exceptionally clean system. This dramatically reduces energy and water consumption, while reducing or, in certain cases, eliminating toxic water discharge to the environment.

