

Case study - Sun City Pool Heating - Sun International



Sun City is a large resort in the North West Province of South Africa. The resort includes four hotels two of which are five star hotels.

These are the world famous Lost City, Sun City Hotel, Sun City Cabanas, Cascades Hotel and the self-catering Sun City Vacation Club.

There are several large swimming pools on the property, three of which are electrically heated.

Facts & Figures

2 x water to water Pool Heat Pump exchanger systems and one air to water exchanger system was installed to heat the 1,2 million litre Lost City Palace swimming pool, 900 000 litre Cascades Hotel swimming pool and the 273 000 litre Sun City Vacation Club swimming pool.

Needs

Sun International wanted to reduce its impact on the national grid and work towards Eskom's aim of reducing demand by 10%.

The group also wanted to maintain aesthetics and avoid any noise pollution.

Sun International wanted to improve its Heritage® score by participating in an ESCo project.

Solution

Solahart designed a unique water to water heating solution for the Lost City Palace and Cascades Hotel swimming pools.

The solution draws water from the lakes and cold water pools on the property and extracts heat which is used to augment the immersion elements and maintain the swimming pool water temperature at 28°C.

Due to its distance from a large enough water source and the location of the Pool Plant room, Solahart designed an air-to-water heat exchanger solution for the Sun City Vacation Club swimming pool.

The combined demand saving, which was partly funded by Eskom through its ESCo Model, was 720 kW.