

Case Study - Sun City - Hot Water Storage - Sun International



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

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

Facts & Figures

400 000 litres of hot water needed to be heated to 60°C.

Three air-to-water heat pump exchangers setups and one water-to-water heat pump exchanger setup were installed.

Need

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 solution that is unique to Southern Africa. A water-to-water Heat Pump system including the plant room and piping for the Lost City Palace was installed.

The water-to-water heat exchanger helps to heat the 120 000 litres of 60°C water that the Lost City Palace requires per day.

Three air-to-water heat exchangers heats the 120 000, 60 000 and 100 000 litres of hot water for the Sun City Main Hotel, Cascades Hotel and Cabanas hotel respectively.

The ESCo project is partially funded by Eskom and results in a demand saving of over 650kW.