



Increased Pump Hours Doesn't Mean Increased Electricity Costs

Overview

An iconic 5 star hotel located in Bali with 50 individual pools and lagoons needed to transition out of maintenance mode to operation mode. During the covid 19 period the hotel, as with most hotels in Bali, shifted their operating hours for their pool pumps to maintenance mode. When Bali reopened to tourists the hotel engaged Poolwise Indonesia, a pool maintenance company, to analyse required pool pump hours to ensure water quality was maintained in line with increased use whilst minimising costs.

EES Solution

Focusing just on their main pool EES attached data loggers to the operating pumps to record the current power consumption and hours of use, whilst Poolwise Indonesia used a digital analyser to accurately track the chemical balance in the pool. Both sets of data removed any subjectivity to the trial.

Once a base line had been established EES worked with Poolwise Indonesia by installing our POWERees drives on the operating pump motors. EES maintained their data loggers during the entire period, likewise Poolwise Indonesia continued to test the water chemical balance using their digital analyser.



	Base Period (pre installation)	Adjusted for normal Maintenance Period	Post Installation	Variance
Average kW	11.8	11.8	4.65	▼ 60.59%
Daily operating Hours	14	10	20	▲ 100.00%
Average Daily kWh	168.03	118	92.64	▼ 21.49%

The base line numbers were adjusted for normal maintenance mode operations where the pumps only operated 10 hours a day whilst there were no guests. During the pre installation period, Poolwise Indonesia and the hotel experimented with various different operating hours. Whilst pool water quality was maintained the cost of the maintenance increased proportionality.

Working with EES, Poolwise Indonesia were able to increase operating hours to 20 hours a day so as to maintain sufficient turn but not increase the total daily operating costs. This involved calibrating the pumps via the POWERees drives in order for them to work with optimum efficiency within the designed system, and included parameter thresholds being set and maintained so that any abnormal occurrences, such as blocked or burst pipes, were identified and the pump stopped so as to protect it from burning out.

- PT Efficient Energy Solutions
- info@theeesgroup.com
- www.theeesgroup.com
- Jl. Raya Semer No.12,
Kerobokan, Kec. Kuta Utara,
Kabupaten Badung,
Bali 80361
- +6287712992427



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