



Photo: Crowne Plaza/OEH

**When you have properties in pristine areas such as this, it's really important to respect the environment.**

**Paul Briggs**, Sustainability & Projects Coordinator  
Schwartz Family Company

# Crowne Plaza Hunter Valley: accommodating energy efficiency

Our solar power system and lighting upgrade are saving us nearly \$100,000 each year.

## ABOUT US

The Crowne Plaza Hunter Valley, located in Lovedale in the NSW wine district, is a luxury resort style hotel and brewery. We have 316 deluxe rooms, suites and villas, an 18-hole golf course, a brewery, restaurant, café-bar, function rooms, ballroom, swimming pool and spa, tennis and basketball courts, administration offices and facilities for our 180 staff.

## OUR SITUATION

Our hotel operates 24 hours a day seven days a week, with associated facilities such as restaurants, bars, venues and pools operating at varying hours. We use gas for all hot water including our boilers, and for most cooking. Our annual energy cost, electricity and gas, is nearly \$850,000, so we are always looking for ways to reduce our energy usage and save money. We previously installed a cogeneration plant with the waste heat being used to heat our swimming pool and hot water.

## BY THE NUMBERS

### Implementation costs:

Approximate total cost \$280,000.  
(Cost of solar power system \$106,000)

### Electricity cost savings:

More than \$100,000 per year, a 15% saving

### Energy savings:

360 Megawatt-hours per year,  
a reduction of 8%

### Simple payback:

Approximately 2.8 years

## THE TECHNOLOGIES

### Solar power systems

On-site renewable energy technologies such as solar photo-voltaic (PV) can reduce the pressure from rising energy costs and make a positive contribution to the environment. The Office of Environment and Heritage (OEH) has information on [solar power financing options](#) for businesses.



Photo: Crown Plaza OEH

Aerial view of Crown Plaza Hunter Valley in Lovedale

## WHAT WE DID

We worked with the NSW Government to commission an energy audit of our site which showed us that our biggest energy user is our heating, ventilation and air conditioning (HVAC), with lighting also being a big energy user.

Following the audit we installed variable speed drives to our HVAC chiller pumps and installed sensors in in guest rooms to switch off air conditioners when un-occupied. We carried out extensive lighting upgrades across the site, including replacing halogen downlights with light-emitting diodes (LEDs), updating the village street lighting to LEDs and replacing back-of-house fluorescent light fittings with more efficient T5 fluoro fittings. We also installed power factor correction to the three hotel blocks. But I think our 'pièce de résistance' is the installation of a 100 kilowatt hours (kW) solar power system, with roof mounted solar panels on the brewery spelling out 'Lovedale'.

We also took initiative beyond the audit and installed an electric vehicle charging station and are currently investigating the feasibility of installing a five megawatt solar array which will not only make us energy positive but will generate renewable energy for use in the region. We believe it's important to do our utmost to reduce our ecological footprint.

## THE RESULTS

The total savings from our energy efficiency actions is more than \$100,000 per year. The solar power system and lighting upgrade are each saving us nearly \$50,000 per year, while the chiller upgrades are saving \$6000 per year. As a result we have cut our greenhouse gas emissions by about 500 tonnes every year.

As well as saving us money and being a great return on investment, our actions have improved the experience for our guests and increased our reputation as environmentally friendly accommodation, something many of our guests are looking for.

## Energy efficient lighting

The Office of Environment and Heritage has [information](#) and [training courses](#) in lighting efficiency to help you use lighting more efficiently and to understand different lighting upgrade options and technologies, and the potential savings.

## Variable speed drives and HVAC

A variable speed drive fitted to a motor regulates the frequency of the electrical power supplied to the pump to match the work load requirements and/or respond to the ambient conditions. The Office of Environment and Heritage has [information](#) and [training courses](#) in HVAC optimisation.

## Power factor correction

Power factor is a measure of how effectively your business is using incoming power. Power factor can be improved by installing power factor correction equipment (capacitor banks) which work to correct energy supply inefficiencies, while also reducing peak demand on the electricity network.

## TAKE ACTION

To find out more about saving on your energy costs, contact the Business Support team at the Office of Environment and Heritage.

## EMAIL

[energy.saver@environment.nsw.gov.au](mailto:energy.saver@environment.nsw.gov.au)

## CALL

1300 361 967  
(ask for the Business Support team)

## VISIT

[environment.nsw.gov.au/business](http://environment.nsw.gov.au/business)