



# Draft Queensland Communities in transition

## Whitbread's Cordials, Charters Towers – 19th Century business with 21<sup>st</sup> Century Technology

Whitbread's Cordials is a well-known iconic brand of beverages which was founded in Charters Towers over 120 years ago. The company began trading as Hockings Soft Drinks back in 1896, before becoming Whitbread's Cordials in 1955. Current owners, Ian and Debbie Urquhart continue to produce the much-loved product which uses age old recipes and production methods combined with new age technologies. The products are sold around the Charters Towers and Townsville region.

With nearly 20 flavours and a large range of flavoursome soft drinks and cordials, Whitbread's has a beverage to suit almost everyone's taste. All the products are made on-site at the Charters Towers factory. Being located in a regional Queensland town has its' challenges with rising costs for electricity and water and high transport costs. Ian and Debbie strive to minimise the costs of doing business and, with the help of their tech savvy son, Troy Urquhart, they have included various energy saving initiatives which are contributing to their bottom line.

### HIGHLIGHTS

- Energy efficiency initiatives reduced energy costs by about 27% saving over \$2000 p.a.
- Installation of an 30 kW solar PV system
- Upgrade to LED lighting
- Heat recovery on ice-making machines
- Gravity fed water supply removing the need for a three phase electric pump
- Various machines placed on timers to take advantage of solar energy

*"We take pride in producing premium products while still keeping to the old-fashioned flavours of the past, and we are still Australian owned and operated." – Ian Urquhart*

## Energy saving initiatives abound

### Renewable energy supply

- An 30 kW solar PV system was installed in late 2016. The system boasts power optimisers for every pair of panels ensuring the maximum amount of solar energy is generated regardless of any partial shading.
- Real time monitoring of the system allows management to monitor solar energy generation via a mobile phone application.



### Ice production

- The company also produces party and block ice for local markets. An aged block ice machine with brine refrigerant has recently been upgraded with a more energy efficient glycol refrigerant system. The machine is operated via a remote-controlled timer and is switched on and off to take advantage of solar energy.
- A chilled water stream which is generated during party ice production is piped to a basic heat exchange system to pre-chill feed water for the same ice machine.
- A three-phase pump which was used to supply water for ice production has been removed. Water supply is now supplied using town water pressure and is gravity fed to the ice machine eliminating energy requirements to run the pump.

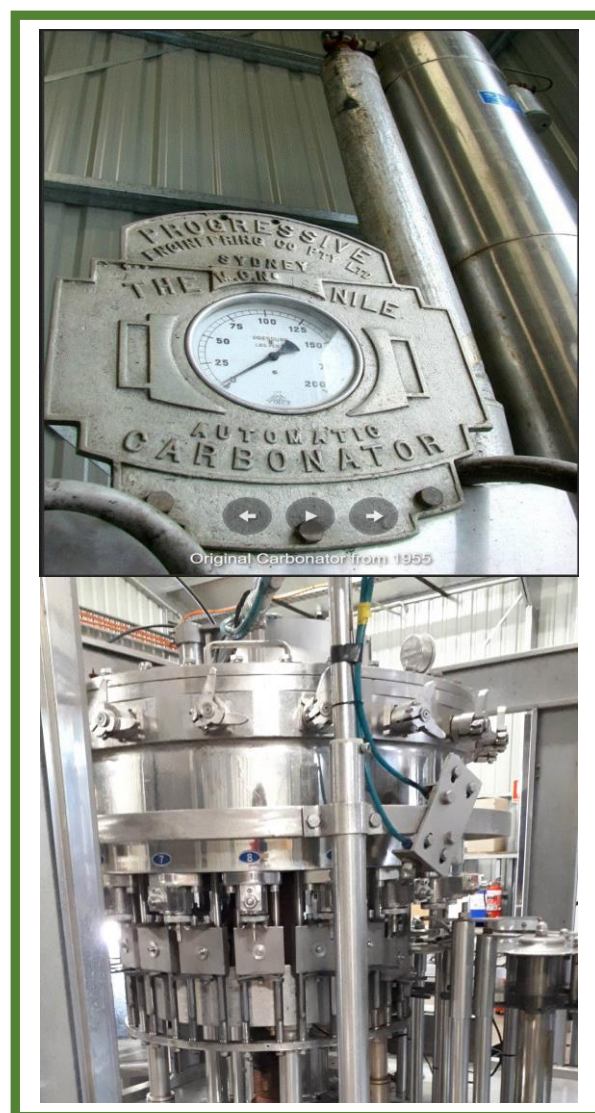
### Energy efficient lighting

- Factory lighting has been upgraded from old style 36 watt fluorescent tube lights to more energy efficient LED lights.

### Hot water system

- A new electric hot water system has been placed on a timer so that it operates during daylight hours to take advantage of solar energy.

This case study is part of a series of case studies that have been developed for the Queensland Communities in Transition Program. It has been prepared by The Ecoefficiency Group as part of Clean Growth Choices Consortium with funding from Queensland Department of Environment and Science, 2019. For further information, visit [www.cleangrowthchoices.org](http://www.cleangrowthchoices.org)



Images: Original and new model bottle filling machines

