



Solar Installation – HydroChem Head-Office and Manufacturing

HydroChem installed a 100kW solar system at its head-office and manufacturing facility in 2019. The system generates 130 MWh/year which is equivalent to 45% of the facility's electricity consumption.

Background

HydroChem moved into a new head-office, laboratory and advanced manufacturing facility in 2016. The 8,000sqm facility comprises:

- 4,400 sqm warehouse
- 1,100 sqm head office
- 200 sqm laboratory

The office accommodates head-office and laboratory staff of over 50.

The manufacturing plant produces over 2 million KG of water treatment products per year - packaged into 5L to 1,000L containers. The water treatment products produced are utilised at over 4,000 client locations around Australia.

In 2019, HydroChem commissioned a review of the potential for utilising the significant roof area for a solar installation.



Head-Office, laboratory and advanced manufacturing

Issues/Challenges



Installation completed in May 2019

The financials stacked based on HydroChem's strategic vision.

The main issues were assessing the offers made by suppliers with an emphasis on safety:

- Removal of redundant air-conditioning equipment
- Lifting materials to roof
- Roof structural integrity to support panels and associated equipment
- Safety of installation workers
- Safety of maintenance workers

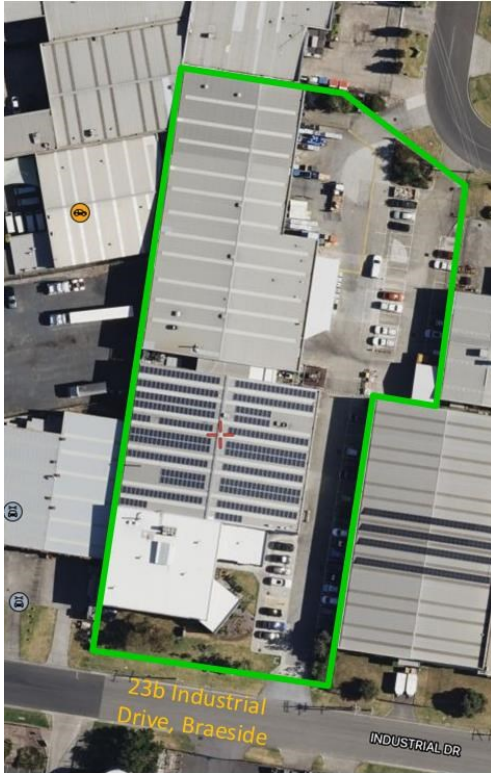
Aims/Objectives

- ESG benefits
- Reduce carbon emissions.
- Cost benefits over long-term

Solution

In mid-2019 HydroChem proceeded with the installation of a 100kW system comprising:

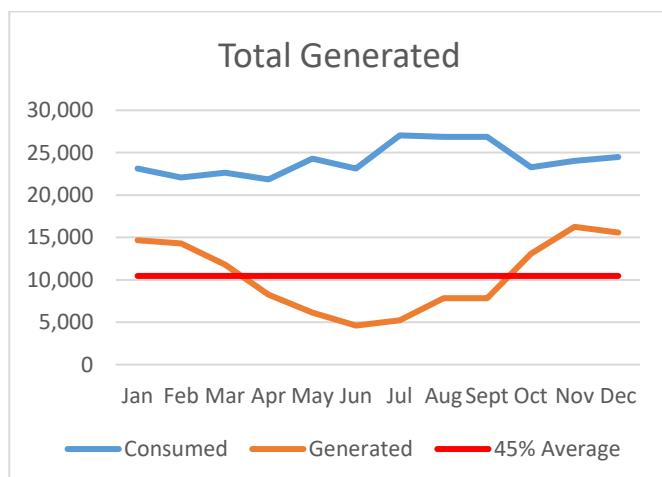
- 362 x 275W panels
- 4 x SMA 25kW inverters



Panels visible on warehouse roof

Benefits

After three years operation, the system is generating 45% of the facility's annual electricity usage through a combination of onsite consumption on Monday – Friday and export on the weekends:



Results

Following installation in mid-2019, the system has been reliable. One of the four inverters has tripped a couple of times but this is notified via email via the online portal and quickly resolved.

The installer provides an annual cleaning regime. The costs of 5-years maintenance was covered by the installation contract.

Statistics:

- 130 MWh generated / year
- Solar generates 45% of facility's electrical consumption
- Greater than 125 tons reduction in CO2 emissions / year
(Aust National Greenhouse Energy Reporting)



Nick Duncan appreciating the view

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