



INDUSTRY :
MANUFACTURING



GW & DC WATHEN PTY LTD - Queensland, Australia

Designed and installed by Rjay Electrical

REQUIREMENTS

Design and install a solar system to save on power costs

PROJECT SPECS



SYSTEM SIZE

80.4kW



PRODUCT

**LG NeON®2
335W**



ESTIMATED ANNUAL OUTPUT

Approx. 131,000kWh



INSTALLED

November 2017



BENEFITS



Estimated annual savings on electricity usage fees: **Approx. \$24,600¹ AUD**
Approx. 120 tonnes of CO2 emission avoided per annum²

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BACKGROUND

GW & DC Wathen is a cabinet making manufacturer specialising in fine quality custom-built cabinets.

The company has a highly skilled and qualified team of craftsmen that have been providing customised design, fabrication and installation since 1966.

GW & DC Wathen prides themselves on delivering the highest quality products, on time and to budget to delight customers.

CHALLENGE

With the company running a large amount of heavy machinery which requires a high volume of power, GW & DC Wathen engaged the Rjay Electrical team to design and install a solar system to reduce the power costs for the company and be less reliant on power from the grid.

SOLUTION

Rjay Electrical recommended the LG NeON[®] 2 335W panels to get maximum output from the system.

A quantity of 240 panels were installed on the company's roof, the system was designed to maximise power generation.

The PV system was designed and installed by Rjay Electrical, Brisbane.

WHY WERE LG PANELS CHOSEN

LG solar panels were recommended for their proven performance and high efficiency.

LG NeON[®] 2 models have been involved in a number of comparison tests against many other brand panels and are consistently amongst the best performing panels. This panel generates more power per square metre, and is able to deliver more electricity per square metre than many competing panels of the same physical size.



¹ The estimated average annual electricity usage are estimates made by LG Solar[™]. The estimates made by LG Solar[™] are based on the actual system size, estimated annual output of the system in the post code of the location with degradation of rated electricity production of 2% in the first year and 0.5% in subsequent years, as well as a lifetime of 25 years. We assume a flat electricity rate of \$0.25 per kWh, a feed-in tariff of \$0.11 per kWh (with annual increases of 2.5% per annum). Based on the industry the end-customer is in, we assume 80% self-consumption of solar electricity generated (e.g. for end-customers in the manufacturing industry we assume 80% self consumption from Monday to Friday and 20% on weekends (with corresponding 20% and 80% being exported into the grid), while for leisure based clients we assume 80% self consumption everyday and 20% being exported into the grid). We do not apply a net present value discount on the estimated annual electricity usage savings. Of course actual annual electricity savings will vary on a wide-variety of factors including installation conditions, usage and self-consumption patterns, actual hours of sunlight, electricity rates, feed in tariffs, increases in electricity rates as well as other factors. For further details and other solar calculators, please see: <https://www.lgenergy.com.au/solar-calculators>.

² The estimate for CO₂ emissions avoided assumes that the entire electricity output of the system is consumed and the emission factor used is the weighted average for all Australian States based on the calculator available at carbonneutral.com.au/carbon-calculator/. For more information, please see: <https://carbonneutral.com.au/carbon-calculator/>.