



# CANDELORI'S RESTAURANT - SMITHFIELD, NSW

Designed and installed by AHE Group

## INDUSTRY: FOOD / RESTAURANT

**REQUIREMENTS:**  
Reduce power costs

**SYSTEM SIZE:**  
29.87kW

**PRODUCT:**  
LG NeON® 2 290W

**ESTIMATED ANNUAL OUTPUT:**  
Approx. 43,000kWh<sup>1</sup>

Design and install a system to reduce costs of electricity



Estimated annual savings on electricity usage fees approx \$9,000<sup>1</sup>



Approx 40 tonnes of CO<sub>2</sub> emission avoided per annum<sup>2</sup>



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## BACKGROUND

Candelori's is a beautiful and sophisticated Italian restaurant located in Western Sydney. The Candelori family has over 35 years experience operating restaurants.

Candelori's has been operating since 1999, and has gained a reputation for providing beautiful Italian food and wine for all occasions, private or corporate.

## CHALLENGE

Design a solar system to provide the highest power generation.

The limited roof space presented a significant challenge not only due to the available space to install the panels and limited working space, but also due to the shadow created by the large air conditioning units installed on the roof.

## SOLUTION

The AHE Group installed a quantity of 103 LG NeON<sup>®</sup> 2 panels with SMA inverters and monitoring system designed to achieve the highest possible power generation and provide the best performance for Candelori's.

The panels were installed on a tilt frame to avoid a large number of air conditioning units shading the panels and to gain the best possible output in the winter months.



## WHY WERE LG PANELS CHOSEN

LG Panels were recommended by the AHE team based on the customer's requirement for a high quality system. The LG NeON<sup>®</sup> 2 panels recommended had a unique high wattage output other brands could not match at the time.

The yearly performance degradation of the LG modules is one of the lowest in the market, ensuring a much higher yield over the warranted life of the panels. The LG NeON<sup>®</sup> 2 solar panels have been involved in numerous independent local and international test and are consistently among the best performing panels in the market.

<sup>1</sup> 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>.

<sup>2</sup> 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](https://carbonneutral.com.au). For more information, please see: <https://carbonneutral.com.au/carbon-calculator/>.