



FAIRFIELD LEISURE CENTRE- New South Wales, Australia

Designed and installed by Harelec

REQUIREMENTS

LG panels were the best option for their high quality and reliable output

PROJECT SPECS



SYSTEM SIZE

81kW



PRODUCT

**LG NeON® MonoX
300W**



ESTIMATED ANNUAL OUTPUT

Approx. 116,000kWh



INSTALLED

April 2014



BENEFITS



Estimated annual savings on electricity usage fees: **Approx. \$15,600¹ AUD**
Approx. 106 tonnes of CO2 emission avoided per annum²

FAIRFIELD LEISURE CENTRE- New South Wales, Australia

Designed and installed by Harelec

BACKGROUND

The Fairfield Leisure Centre is in the top 10 recreational facilities in Sydney's South West, offering a multitude of services such as health, fitness and well-being.

The Fairfield City Council, as part of their sustainable organisation goal, studied energy consumption across key council premises and identified the Leisure Centre to be a key user of energy. Air and water temperature is very important for the centre with systems needing to run 24 hours a day and 7 days a week. The facility needs a high level of sustainability and low running costs. The council identified Solar to be one of the ideal solutions to reduce the ongoing and ever increasing electricity bills whilst also considering their environmental responsibility.

CHALLENGE

Harelec was identified during the council's procurement process as the most suitable company for this project.

Harelec is WHS compliant which is a very important aspect for the Council. The company was engaged to design, install and manage the project for the Leisure Centre.

Key challenges of this project included the requirement for the installation of the system to be completed without interrupting the timetables, programs and running of the centre. The roof of the centre faces east and west meaning the system would need to be designed to counter-act this potential overshadow issue.

SOLUTION

270 panels of the LG NeON[®] 2 300W were used for the installation. The LG NeON[®] 2 300W unique features were the most appropriate to cater for the Leisure Centre's requirements.

The LG NeON[®] 2 300W have increased output due to their anti-reflective coating on the panel glass as on the cell surface to ensure more light is absorbed in the panel and not reflected, thus generating more electricity. The LG NeON[®] 2 300W panels are also a similar physical size to many conventional 250W panels which was the output of many competing panels at the time.

The black cells and black frames give an aesthetically pleasing uniform black appearance.

Panels were installed tilted to face north on roof faces to maximise exposure to the sun and energy production.

Harelec manufactured a free-standing housing for the installation of the inverters onto the roof. This was built at Harelec's warehouse, delivered ready to install to Fairfield Leisure Centre and craned onto the roof.

WHY WERE LG PANELS CHOSEN

After a detailed procurement process by Fairfield City Council, considering issues of quality, strength of warranty, long term payback, and aesthetics, as well as the long term operational costs and benefits; the council came to the conclusion that the LG panels were the best option due to their high quality and reliable output.



¹ The estimated average annual electricity usage savings were provided by the customer.

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

FAIRFIELD LEISURE CENTRE- New South Wales, Australia

Designed and installed by Harelec

BACKGROUND

The Fairfield Leisure Centre is in the top 10 recreational facilities in Sydney's South West, offering a multitude of services such as health, fitness and well-being.

The Fairfield City Council, as part of their sustainable organisation goal, studied energy consumption across key council premises and identified the Leisure Centre to be a key user of energy. Air and water temperature is very important for the centre with systems needing to run 24 hours a day and 7 days a week. The facility needs a high level of sustainability and low running costs. The council identified Solar to be one of the ideal solutions to reduce the ongoing and ever increasing electricity bills whilst also considering their environmental responsibility.

CHALLENGE

Harelec was identified during the council's procurement process as the most suitable company for this project.

Harelec is WHS compliant which is a very important aspect for the Council. The company was engaged to design, install and manage the project for the Leisure Centre.

Key challenges of this project included the requirement for the installation of the system to be completed without interrupting the timetables, programs and running of the centre. The roof of the centre faces east and west meaning the system would need to be designed to counter-act this potential overshadow issue.



SOLUTION

270 panels of the LG NeON[®] 2 300W were used for the installation. The LG NeON[®] 2 300W unique features were the most appropriate to cater for the Leisure Centre's requirements.

The LG NeON[®] 2 300W have increased output due to their anti-reflective coating on the panel glass as on the cell surface to ensure more light is absorbed in the panel and not reflected, thus generating more electricity. The LG NeON[®] 2 300W panels are also a similar physical size to many conventional 250W panels which was the output of many competing panels at the time.

The black cells and black frames give an aesthetically pleasing uniform black appearance.

Panels were installed tilted to face north on roof faces to maximise exposure to the sun and energy production.

Harelec manufactured a free-standing housing for the installation of the inverters onto the roof. This was built at Harelec's warehouse, delivered ready to install to Fairfield Leisure Centre and craned onto the roof.

WHY WERE LG PANELS CHOSEN

After a detailed procurement process by Fairfield City Council, considering issues of quality, strength of warranty, long term payback, and aesthetics, as well as the long term operational costs and benefits; the council came to the conclusion that the LG panels were the best option due to their high quality and reliable output.



1 The estimated average annual electricity usage savings were provided by the customer.

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