LG Business Solutions

LG Solar Panels Case Study

Australian Solar installations using high quality LG Solar Panels

Sydney Markets - 2.1 MW

Flemmington, NSW

INDUSTRY :
FOOD

LG Business Solutions

FOODBANK - New South Wales, Australia

Designed and installed by MGA Solar & MODCOL

REQUIREMENTS

Reduce power costs

PROJECT SPECS

SYSTEM SIZE
300kW

PRODUCT
LG NeON® 2 315W
& LG NeON® 2 330W

ESTIMATED ANNUAL OUTPUT
Approx. 361,000kWh

BENEFITS

Estimated annual savings of **Approx. $90,250[1] AUD**
Approx. 330 tonnes of CO2 emission avoided per annum[2]

FOODBANK - New South Wales, Australia

Designed and installed by MGA Solar & MODCOL

BACKGROUND

Foodbank is a non for profit organisation which acts as a panty to the charities and community groups who feed the people in need in our community.

The company operates with approximately 90 employees and over 3,000 volunteers .

LG employees regularly volunteer with Foodbank as part of the company's volunteer program.

CHALLENGE

The challenge of the project was to help cut the company's electricity running costs in the NSW distribution centre, and to increase the sustainability of the organisation.

Foodbank also required the ability for the system to expand to battery storage system if required in future.

SOLUTION

With this in mind, the client required a 300kW system on a tight roof and some spare space allowance for future expansion. LG recommended the 315kW LG NeON® 2 solar panels.

Although Foodbank operates from a large purposebuilt warehouse, future plans for a battery storage system meant that roof space needed to be preserved. The LG NeON® 2 panels have a high efficiency output per m2, which made them the ideal option to help offset a substantial proportion of the organisation's energy consumption.

In 2018 an additional 50kW of LG NeON® 2 – 330W were installed on the spare roof space.

> "Design and install a solar system to reduce running costs with future expansion capability."

WHY WERE LG PANELS CHOSEN

MGA Solar and MODCOL recommended LG solar panels for their proven performance and reliability.

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

1 The estimated first year savings were provided by the solar installer, or are estimates made by LG Electronics Australia Pty Limited (LGEAP). The estimates made by LGEAP are based on the actual system size and estimated annual output of the system in the post code of the location. We assume a flat electricity rate of $0.25, a flat feed-in tariff of $0.11, 80% self consumption of solar generated electricity Monday to Friday, and 20% self consumption on weekends. For further details on assumptions used 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. For more information, please see: https://carbonneutral.com.au/carbon-calculator/.

INDUSTRY :
WHOLESALE FMCG

LG Business Solutions

TIP TOP BUTCHERS - Victoria, Australia

Designed and installed by Euan Angus Solar

REQUIREMENTS	Reduce cost of electricity for plant
PROJECT SPECS	SYSTEM SIZE **203kW** PRODUCT **LG Mono X 300W** ESTIMATED ANNUAL OUTPUT **Approx. 268,000kWh**
BENEFITS	Estimated reduced costs by **Approx. 33%** and savings of **Approx. $ 40,000 AUD per annum**[1] **Approx. 247 tonnes of CO2** emission avoided per annum[2]

TIP TOP BUTCHERS - Victoria, Australia

Designed and installed by Euan Angus Solar

BACKGROUND

As one of Victoria's leading Meat Wholesalers, Tip Top Butchers have been supplying to Melbourne hotels and restaurants for over 10 years and the general community for over 45 years.

Tip Top Butchers have very large cool rooms to store and maintain freshness and safety of their products, these cool rooms have a very high energy consumption and costs for the company.

CHALLENGE

The cool rooms consume a minimum of approximately 1300 – 1400 mWh per annum. In an effort to reduce their power bills, Tip Top Butchers engaged the Euan Angus team to design and install a solar system to address this issue.

The building was a renovated factory with significant undulations on the roof which needed to be taken into consideration during design and installation of the system.

SOLUTION

A quantity of 780 LG Mono X 260W panels were installed. The LG MonoX were ideal for this project due to their excellent performance under low light conditions and LG's own cell manufacturing with low tolerances, ensuring highly consistent performing panels. At 200W/m2 LG panel efficiency drop is -2% while many standard panels efficiency drop is -4%.

The panels were installed using different height footings to suit the different levels of the roof and compensate for the undulations.

> "Build a solar system to help reduce the company's power bill due to the large cool rooms."

WHY WERE LG PANELS CHOSEN

The LG panels were recommended by the Euan Angus team for the quality, reliability and strength of the product.

LG panels have proven field performance. The LG Mono X range have been involved in a number of comparison tests against many other brand panels and have proven to be consistently among the best performing. These panels have also received additional certification including for salt mist corrosion to maximum severity 6, ammonia resistance certification and PID resistance tests.

The strict quality control of LG world-class production processes is monitored and improved to Six Sigma quality control standards, which includes 500+ monitoring points to effectively maintain and improve the uncompromising standards.

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INDUSTRY : CONSUMER ADVOCACY

Choice Office - New South Wales, Australia

Designed and installed by EPHO

REQUIREMENTS	High quality panels for a long term lasting outcome.
PROJECT SPECS	SYSTEM SIZE 100kW
	PRODUCT LG NeON® 2 300W
	ESTIMATED ANNUAL OUTPUT Approx. 145,700kWh
BENEFITS	**Avoidance of CO_2 generation,** significant cost savings in electricity bill, industry leadership and brand building.

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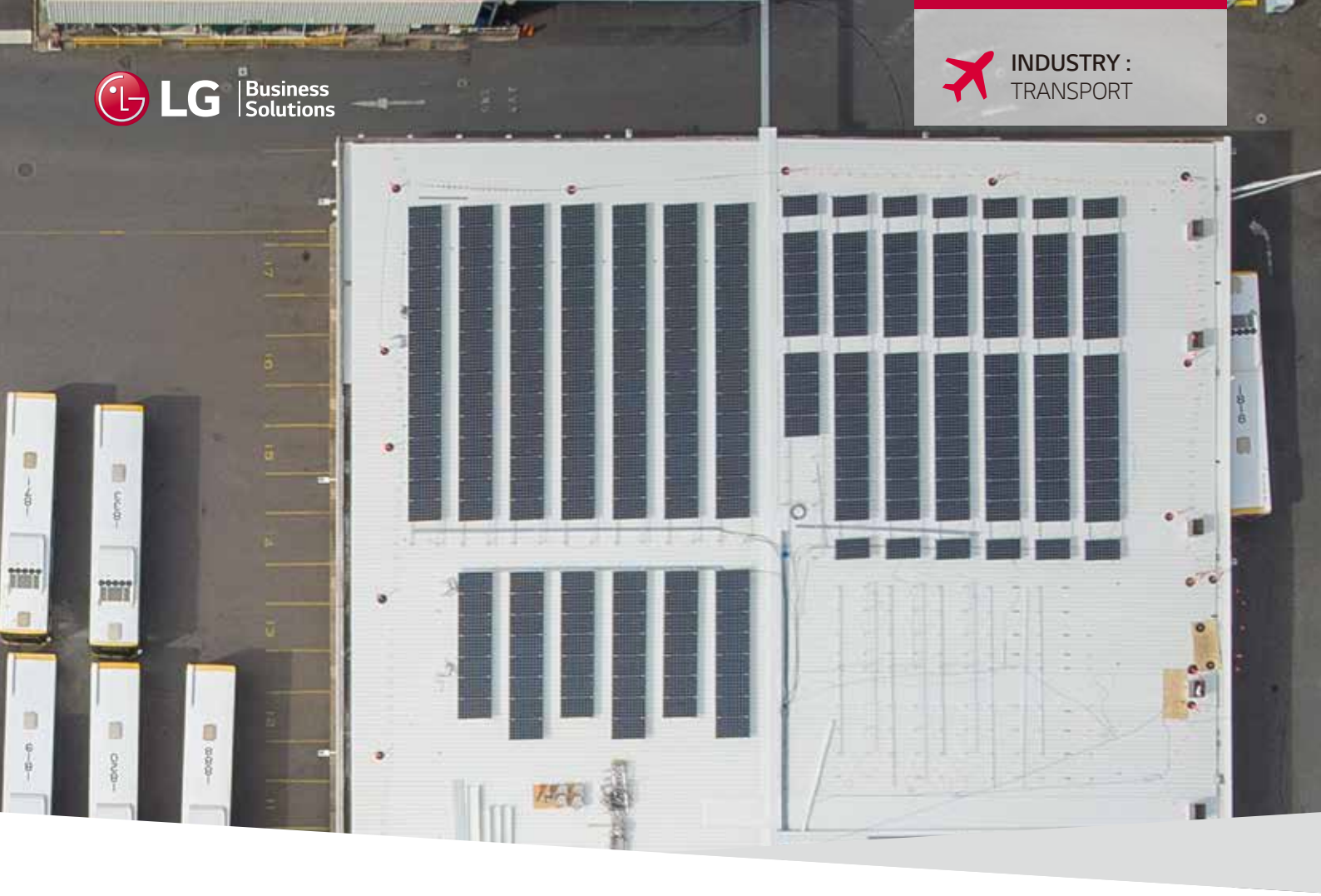

INDUSTRY : TRANSPORT

Brisbane City Council Bus Depot, Carina - Queensland, Australia

Designed and installed by RJAY Electrical Services

REQUIREMENTS

Reliable renewable energy.

PROJECT SPECS

SYSTEM SIZE
100kW

PRODUCT
LG NeON® 2 335W

ESTIMATED ANNUAL OUTPUT
Approx. 132,000kWh

BENEFITS

Reliable renewable energy in low light and high temperatures giving **solid output all year round.**

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ADVENTURE CARAVAN CENTRE - Queensland, Australia

Designed and installed by Springers Solar

BACKGROUND

The Adventure Caravan Centre was established in 1985 and provides customers with quality NEW and USED caravans. With a wide range of caravans and pop tops, Adventure Caravan Centre can provide customers with their dream caravan. The specialised team can help design a new caravan or choose a quality used caravan to suite every life style.

The Adventure Caravan Centre can assist with every need from sales, insurance quotes, policies, repairs, trade in, spare parts and finance options.

The company pride themselves in customer service by providing an outstanding customer experience.

CHALLENGE

Concerned about increasing energy costs for the business, Adventure Caravan Centre engaged Springers Solar to design and install a high quality and high performing suitable solar system to reduce the power bill.

> **“Design an install a high quality and high performing system”**

SOLUTION

The Springers Solar team recommended the LG NeON® 2 330W panel to be the most suitable product for this project.

The panels were installed on a tilt frame to maximise exposure to the sun and energy production.

The entire design and installation was managed by the Springers Solar team.

WHY WERE LG PANELS CHOSEN

The Springers Solar team recommended LG solar panel for being the best in the market with proven performance.

The LG NeON® 2 330W panels were chosen due to their quality, long warranties and performance.

LG and other companies, including the Australian consumer organisation Choice have been involved in a number of comparison tests of the LG modules against many other brand panels. LG NeON® 2 panels are consistently one of the highest performing panels in these tests.

The LG NeON® 2 panels have a lower degradation of electricity production than many competing panels as the panel ages.

LG NeON® 2 panels offer a 25 year product and performance warranty which includes parts and labour compared to the 10 year manufacturer's warranty offered by most other manufacturers.

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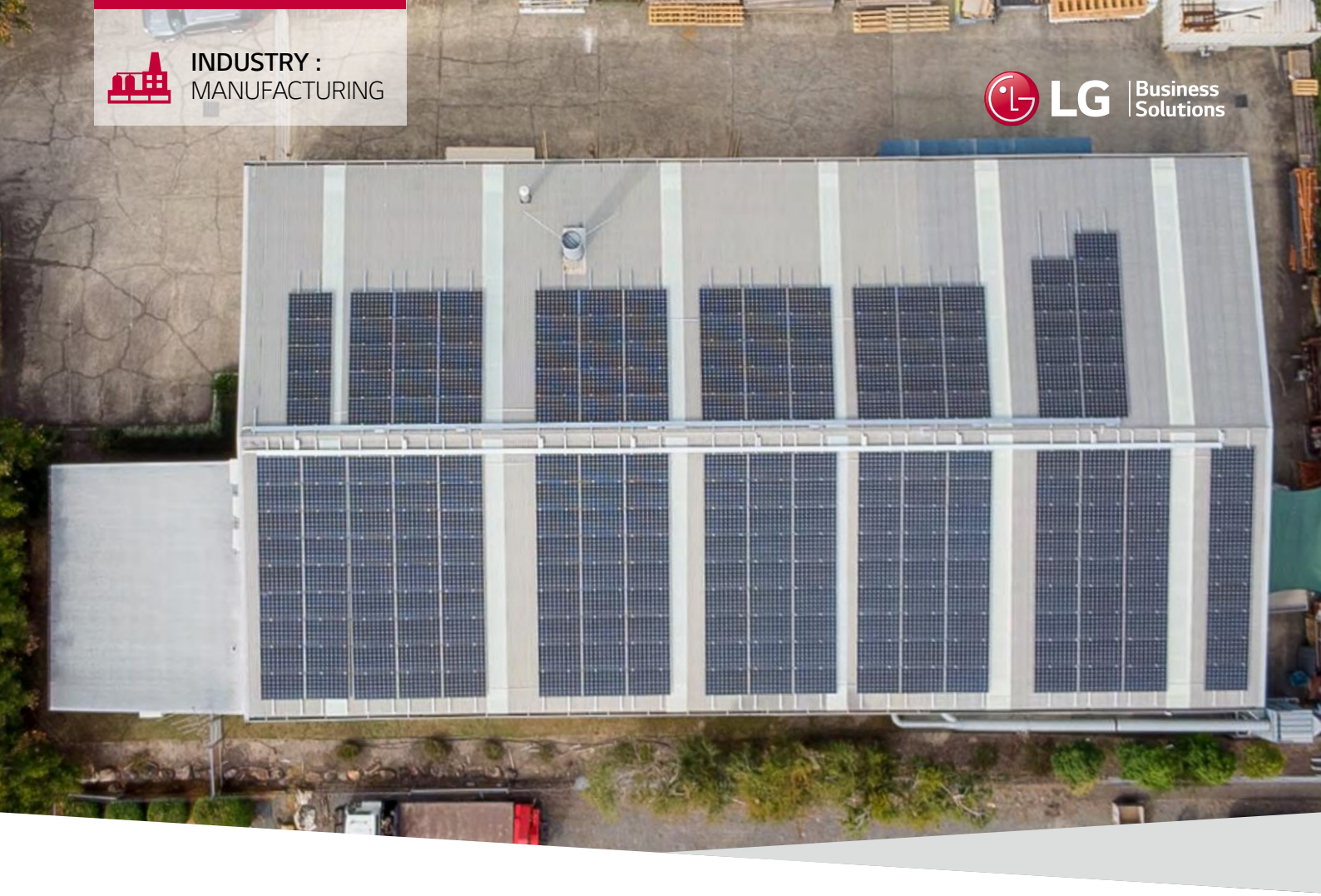
INDUSTRY :
MANUFACTURING

LG Business Solutions



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

BENEFITS

Estimated annual savings on electricity usage fees: **Approx. $24,600[1] AUD**
Approx. 120 tonnes of CO2 emission avoided per annum[2]

GW & DC WATHEN PTY LTD - Queensland, Australia

Designed and installed by Rjay Electrical

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 & DCWathenpridethemselves ondelivering the highest qualityproducts, ontimeandto budgettodelight customers.

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.

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.

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INDUSTRY :
RECREATION
(GOVERNMENT)

LG Business Solutions

BLUEWATER LEISURE CENTRE - Victoria, Australia

Designed and installed by Urban Renewables

REQUIREMENTS

LG panels were recommended for their warranty, power generation per square metre, performance, and high quality

PROJECT SPECS

SYSTEM SIZE
98.64kW

PRODUCT
LG NeON®R
360W

ESTIMATED ANNUAL OUTPUT

BENEFITS

Estimated annual savings on electricity usage fees: **Approx. $25,000[1] AUD**
Approx. 120 tonnes of CO2 emission avoided per annum[2]

BLUEWATER LEISURE CENTRE - Victoria, Australia

Designed and installed by Urban Renewables

BACKGROUND

Bluewater Leisure Centre is a multipurpose aquatic and recreation centre that has been in operation since 1974. The centre is operated by Colac Otway Shire Council and provides first class leisure and recreation facilities.

The facilities feature a number of pools, spa and steam room and a gymnasium offering numerous fitness options. A three-court basketball and multi-sports stadium, a cafe and meeting rooms for the community to hire.

CHALLENGE

The centre has a very high power consumption to keep all the pools, gymnasium equipment and other facilities running constantly.

Urban Renewables was engaged to design, plan and install a solar system for the Leisure Centre with the aim of reducing power costs and the carbon consumption footprint.

Due to the restriction of roof space available, Urban Renewables worked with the Council to conduct a roof structure assessment to create a design that would deliver thegreatestenergyproducti onandbestreturnoninvestment.

SOLUTION

The Urban Renewables team recommended the LG NeON® R 360W as the best suitable product to maximise energy production. The high efficiency LG NeON® R 360W panels allowed the team to install a 98.64kW system rather than an 84kW size other many competing panels would have allowed due to the restrictions with the roof space.

The system was complimented with Fronius inverters and monitoring system.

Urban Renewables designed, installed managed the project from start to completion.

WHY WERE LG PANELS CHOSEN

LG panels were recommended for their warranty, power per square metre, performance and quality. The 25 year warranty applies to parts and labour as well as on the performance which is longer than for many competing panels.

LG panels have high efficiency, producing more power per square metre, the NeON® R 360W are warranted to still achieve 87% of rated output after 25 years, compared to 80.2% for many competing panels. The annual degradation rate is 0.4% compared to 0.7% for many competing panels.

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LG Business Solutions

INDUSTRY : TRANSPORT

DHL Warehouse - New South Wales, Australia

Designed and installed by EPHO

REQUIREMENTS

Support major warehouse activities and reduce running costs.

PROJECT SPECS

SYSTEM SIZE
100kW

PRODUCT
LG NeON® 2 300W

ESTIMATED ANNUAL OUTPUT
Approx. 146,000kWh

BENEFITS

Reliable renewable energy, utilising close to **80% of system generation annually.**

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INDUSTRY :
RECREATION
(GOVERNMENT)

LG Business Solutions

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

BENEFITS

Estimated annual savings on electricity usage fees: **Approx. $15,600[1] AUD**
Approx. 106 tonnes of CO2 emission avoided per annum[2]

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.

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INDUSTRY :
HOSPITALITY

LG Business Solutions

KEDRON-WAVELL SERVICES CLUB - Queensland, Australia

Designed and installed by Springers Solar

REQUIREMENTS

Build a system as large as possible to reduce the power bills of the club

PROJECT SPECS

SYSTEM SIZE
80.4kW

PRODUCT
LG NeON®2 335W

ESTIMATED ANNUAL OUTPUT
Approx. 131,000kWh

BENEFITS

Estimated annual savings on electricity usage fees: **Approx. $34,100[1] AUD**
Approx. 53 tonnes of CO2 emission avoided per annum[2]

KEDRON-WAVELL SERVICES CLUB - Queensland, Australia

Designed and installed by Springers Solar

BACKGROUND

The Kedron-Wavell Services Club is located in the vibrant Chermside precinct, only 15 minutes north of Brisbane's CBD. The Club is Brisbane's award winning, premier function, entertainment and leisure destination.

Kedron-Wavell Services Club are in the process of working towards an environmental and sustainable future. Since solar panels were installed in April, they have generated enough power to run thousands of households for a 24 hour period and have also saved tonnes of CO2 gas being released into the atmosphere!

CHALLENGE

The challenge of this project was to design a system as large as possible to reduce the power bill of the club as much as possible and allow for future expansion of the system in due course. Being a large award winning premier function, the facilities include a Café, Buffet Restaurant, and numerous bars which consume an enormous amount of power. From lighting to air conditioning, to large cool rooms all with high consumption to run the facilities.

Another challenge was the roof of the premises, which had multiple angles and different levels that needed to be catered for. Plant and equipment potentially creating safety hazards as well as shading on the panels needed to be taken into consideration during the design and assessment of the space available for the installation.

SOLUTION

The LG NeON® 2 were the ideal solution for this project due to their high efficiency and lower degradation over time.

A total of 300 LG NeON® 2 panels were installed in the Services Club complemented by 3 x Solar Edge SE276 inverters and P800 Optimisers. The system is monitored by a Solar Edge and a Solar Analytics system.

WHY WERE LG PANELS CHOSEN

The Springers Solar team recommended LG solar panels because they considered them the best in the market with proven performance.

Having limited roof space meant the more efficient LG panels were able to create a bigger system. 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.

The LG NeON® 2 panels also have a lower degradation than many competing panels over their lifetime due to the very low use of LID on the treatment of the cells.

LG NeON® 2 panels offer a 25 year product and performance warranty which includes parts and labour compared to the 10 year manufacturer's warranty offered by many other manufacturers.

1 The estimated average annual electricity usage fee savings 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, and 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. For more information, please see: https://carbonneutral.com.au/carbon-calculator/.

INDUSTRY :
EDUCATION

LG Business Solutions

KING'S COLLEGE - Queensland, Australia

Designed and installed by Solar Hybrids

REQUIREMENTS

Build a system with superior safety capability, highest quality and peace of mind warranty

PROJECT SPECS

SYSTEM SIZE
99.745kW

PRODUCT
LG MONO X PLUS
295W & 300W

ESTIMATED ANNUAL OUTPUT
Approx. 160,000kWh

BENEFITS

Generating approx 15% of total energy required & approximately first year savings of **$20,000 perannum**

Approx. 155 tonnes of CO2 emission avoided per annum[2]

KING'S COLLEGE - Queensland, Australia

Designed and installed by Solar Hybrids

BACKGROUND

King's College is a leading academic institution providing accommodation for men studying at the University of Queensland, Queensland University of Technology, and other tertiary institutions in Brisbane.

King's College has some of the best facilities of any Residential College in Australia with state of the art facilities, including a swimming pool and 24 hour access to technology providing students with a unique Centre for Learning and Leadership.

CHALLENGE

Concerned about the rising power costs to run the state of the art facility, King's College engaged the Solar Hybrids team to design, install and manage a suitable solar system with superior safety capability, highest quality and peace of mind warranty.

Many different roof facets needed to be utilised. As a residential college, the building is a Class 3 building ,therefore the PV array voltage needed to be kept under 600V DC for compliance purposes.

In addition, all works had to be completed during the Christmas holidays to avoid disruptions to students and to the College operations.

SOLUTION

The Solar Hybrids team recommended a 99.745 kW system using a total of 336 LG panels consisting of 211 x 295W plus 125 x 300W MonoX Plus panels, SolarEdge 8kW 3-Phase inverters, and SolarEdge optimisers.

The smaller 8kW inverters were used to enable an operating voltage below 600V DC to comply with Class 3 mandatory building requirements.

WHY WERE LG PANELS CHOSEN

LG Solar panels were recommended by Solar Hybrids and chosen by the customer due to their outstanding attributes :

- Yearly performance degradation of the LG modules is one of the lowest in the market, ensuring a high yield over the warranted life of the panels.
- Performance and product warranty of the LG modules are industry leading.
- The LG warranty also includes labour for replacement work, not just parts for additional peace of mind.

1 The estimated average annual electricity usage savings were provided by the installer.
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. For more information, please see: https://carbonneutral.com.au/carbon-calculator/.

INDUSTRY :
PARKS &
RECREATION

LONE PINE KOALA SANCTUARY - Queensland, Australia

Designed and installed by Springers Solar

REQUIREMENTS

"Wildlife organisations should be leading the movement to environmentally friendly energy options."

Robert Friedler – General Manager, Lone Pine Koala Sanctuary

PROJECT SPECS

SYSTEM SIZE
92.6kW

PRODUCT
LG NeON®2 330W

ESTIMATED ANNUAL OUTPUT
Approx. 142,000kWh

BENEFITS

Estimated annual savings on electricity usage fees: **Approx. $23,000[1] AUD**

More than 130 tonnes of CO2 emission avoided per annum[2]

LONE PINE KOALA SANCTUARY - Queensland, Australia

Designed and installed by Springers Solar

BACKGROUND

Lone Pine Koala Sanctuary has been operating since 1927, and is a destination for local and international guests to not only see native animals, but to also connect and learn. Lone Pine aims to have visitors leaving feeling empowered to make positive changes in their daily lives to help protect native wildlife habitats.

Lone Pine is committed to maximising the positive environmental and social impacts of their operations, with the ultimate aim to become energy independent.

This is being achieved through water and energy efficiency, biodiversity, communication and planning. Through cooperation with employees, suppliers and guests, they aim to set a new standard in environmental welfare management. Lone Pine strongly encourages all businesses to switch to alternative energy sources as it is a profitable option that has positive environmental outcomes.

CHALLENGE

This new facility is surrounded by a lot of trees thus posing a lot of shade onto the building and therefore onto the panels.

Removal of trees was not an option as they form part of a wildlife corridor for native wildlife as well as the sanctuary's environmental strategy. The centre also experiences blackouts which are a problem for the 'Koala Biobank' fridges, which store invaluable koala genetics and need constant power. This needed to be taken into consideration in the overall design of the system.

Springers Solar was tasked with the design and installation of a highly reliable, quality system with long warranties and high performance.

SOLUTION

A suitable system size based on the Sanctuary's load and return on investment was determined to be 92.6kW.

Panels selected were LG 330W NeON® 2 panels due to their quality, high efficiency, long warranties and performance.

Due to the shade Enphase micro inverters were chosen. Tesla powerwall units were installed to provide back-up power for the 'Koala Biobank' fridges in case of blackouts.

WHY WERE LG PANELS CHOSEN

The LG 330W NeON® 2 panels were chosen due to their quality, long warranties and performance.

LG and other companies, including the Australian consumer organisation Choice have been involved in a number of comparison tests of the LG modules against many other brand panels. LG NeON® 2 panels are consistently one of the highest performing panels in these tests.

The LG NeON® 2 panels have a lower degradation of electricity production than many competing panels as the panels age. This is due to the low LID level, because of the use of N type treatment of the cells which uses phosphorous as a replacement for Boron.

LG NeON® 2 panels offer a 25 year product and performance warranty which includes parts and labour compared to the 10 year manufacturer's warranty offered by many other manufacturers.

1 The estimated average annual electricity usage fee savings 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, and 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.
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INDUSTRY :
MANUFACTURER

LG Business Solutions

MEYER TIMBER - New South Wales, Australia

Designed and installed by Modcol

REQUIREMENTS

Design and install a high efficiency solar system to reduce power costs

PROJECT SPECS

SYSTEM SIZE
99.2kW

PRODUCT
LG NeON®2 A5 400W

ESTIMATED ANNUAL OUTPUT
Approx. 148,000kWh

BENEFITS

Estimated annual savings on electricity usage fees: **Approx. $26,000[1] AUD**
Approx. 140 tonnes of CO2 emission avoided per annum[2]

MEYER TIMBER - New South Wales, Australia

Designed and installed by Modcol

BACKGROUND

Meyer Timber was established in 1975 in Dandenong, Victoria and is one of the largest timber wholesale operations in Australia.

The company's belief is that success is measured by the quality of customer service, and as such they pride themselves in providing outstanding customer service.

Meyer Timber is a clean energy friendly company and is leading by example whilst lowering costs of electricity to the company's expenses over time.

CHALLENGE

Meyer Timber Penrith operations have a large quantity of machinery on site running during the day. Concerned with increasing prices of electricity, the company conducted their own research and decided to implement a strategy to reduce the costs of electricity. The company partnered with Modcol to design and install a high efficiency solar system to reduce their power costs.

Whilst the roof of the premises faces 0 degree north, the challenge for Modcol was to design the layout around the translucent panels on the roof split into many sections.

SOLUTION

Modcol recommended the LG NeON® 2 400W panels. A quantity of 248 NeON® 2 panels were installed on Meyer Timber's roof allowing space for the existing translucent panels to illuminate the working space below.

The system was completed using SMA Tri Power inverters and Solar Analytics monitoring system to create a very long lasting top of the line quality system.

WHY WERE LG PANELS CHOSEN

LG panels were recommended by Modcol and chosen by the customer due to the reputation as a premium product with high quality and performance. LG panelshave been recognised as innovative and cutting edge byindustry experts increasing confidence in the quality and performance of the product. LG NeON® 2 panel generate more power per square metre, this panel is able to deliver up to 16% more electricity per square metre than a 280W panel 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.

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Telstra Exchange

Campbelltown, NSW

Telstra Exchange

Laverton, VIC

Telstra Exchange

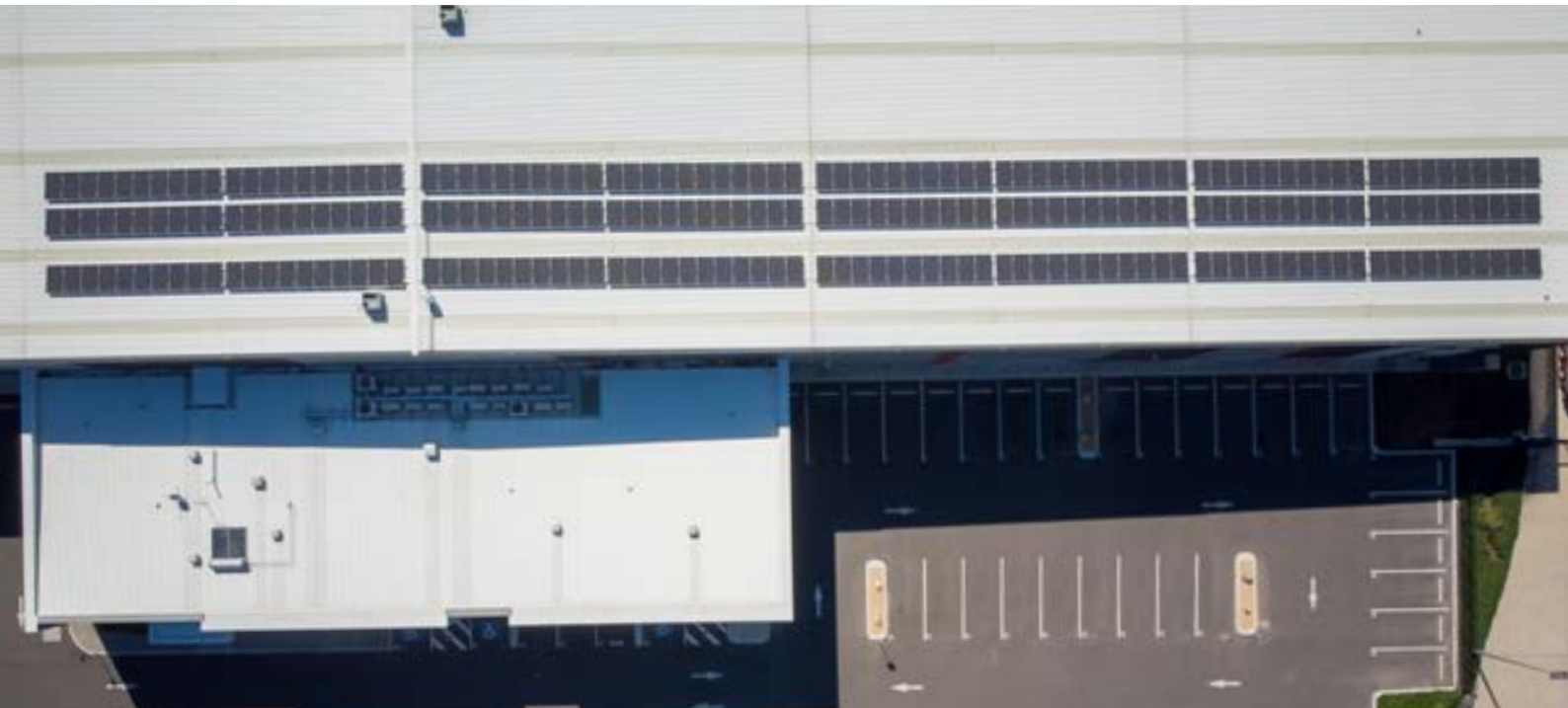
Lilydale, VIC

Harvey Norman

Penrith, NSW

DHL Warehouse

Horsley Park, NSW



Telstra Exchange

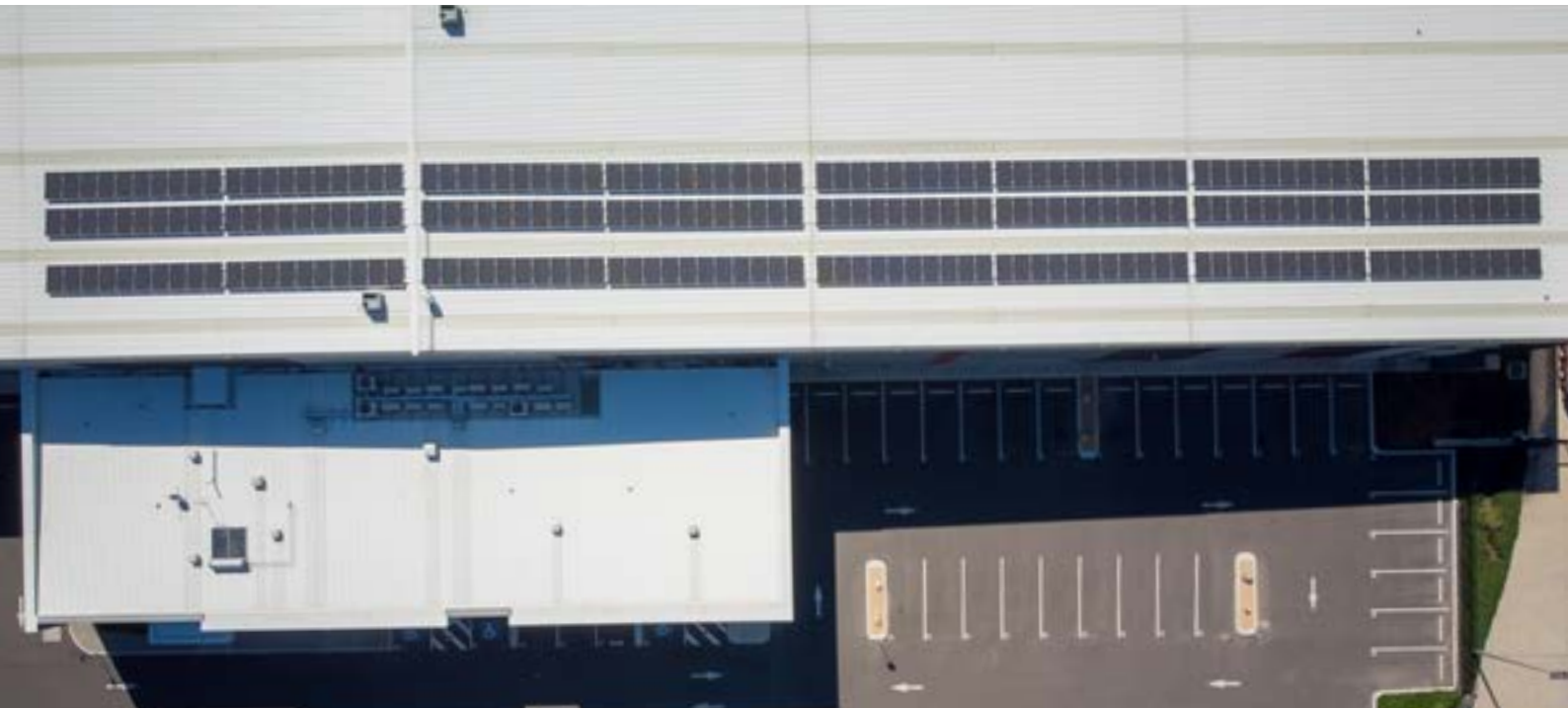
Lilydale, VIC

Telstra Exchange

Liverpool, NSW

DHL Warehouse

Horsley Park, NSW



Choice Office

Marrickville, NSW

Fairfield Leisure Centre

Fairfield, NSW