

MiaSolé

CUSTOMER CASE STUDY

Port of Melbourne: Holden Oil Dock

CUSTOMER SITUATION

The Port of Melbourne Corporation, The Port of Melbourne is Australasia's largest maritime hub for containerized, automotive and general cargo. At the Holden Oil Dock in Yarraville, the Port of Melbourne wished to install solar power on the gatehouse to offset some of the energy requirements. The gatehouse is a two story structure with a curved corrugated metal roof. Peter Leeson, Managing Director of Leeson Group (www.leesongroup.com.au/), a company of electricians providing renewable energy solutions to a range of clients throughout Australia and Asia, was the principal contractor in charge of this project. Peter Leeson turned to MiaSolé and their lightweight FLEX modules to see if they would be a fit for this type of curved metal roof.

MIASOLÉ SOLUTION

Working with MiaSolé, Peter Leeson designed a 7.14 kW PV System for the Yarraville gatehouse that would take advantage of the FLEX modules' thin lightweight flexibility. The rackless low-weight module could be installed on the curved corrugated metal gatehouse roof using a customized mounting system. MiaSolé FLEX modules adhere directly to the surface of the custom mounting system using peel-and-stick technology, allowing Leeson's team to complete the installation from start to finish—including electrical connections—in three days, conforming to the timing restrictions on site. The MiaSolé FLEX modules blend pleasingly onto the curve of the gatehouse roof, and easily address high wind and seismic requirements.

MiaSolé FLEX modules are also the most efficient thin-film CIGS solar modules in production today, with efficiency rates as high as 17.8%. In the past, thin-film modules were expensive and converted only a fraction of the energy from the sun into electricity, with efficiency rates between 8-10%. Steady technological advances by MiaSolé have resulted in the higher efficiencies seen today, making FLEX modules comparable to rigid silicon panels at a fraction the thickness of polysilicon. This, together with the flexibility and bendability of the FLEX modules, makes them an ideal solution for applications where polysilicon simply won't work.

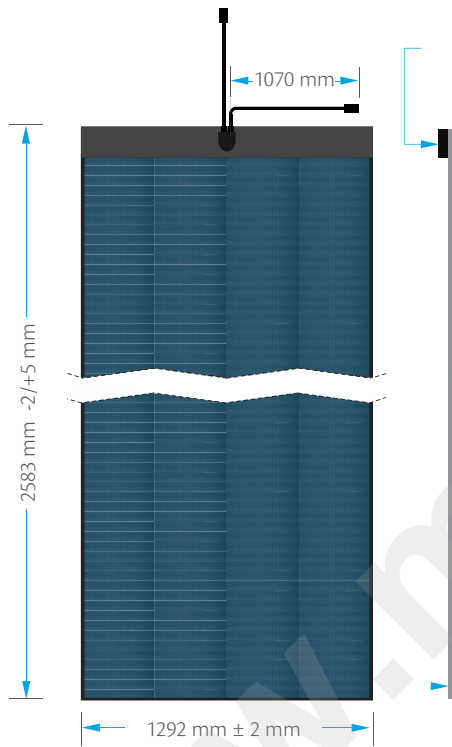


RESULTS

Peter Leeson and the Leeson Group, known for their in-depth experience in designing and installing energy solutions using Building Integrated Photovoltaics, were awarded the 2015 Clean Energy Council Solar Design and Installation Award for grid-connect solar PV power system design and installation – under 15 kW for the Melbourne Port project. In January of 2016, Peter said “My team did a tremendous job installing the modules on a custom mounting system in such limited time due to the restrictions on site. To date we are impressed with the performance and the weight of the product and hope to release a new mounting system early this year.”

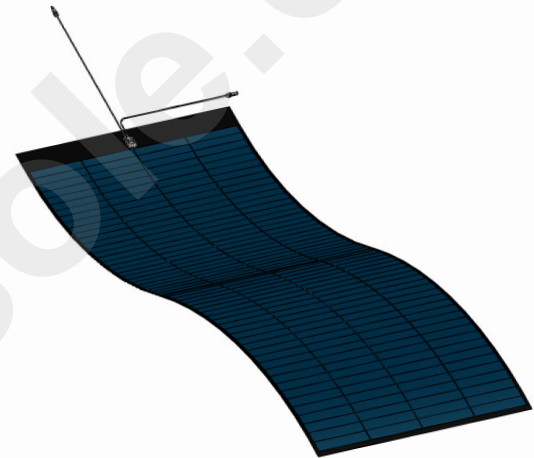
THIN LIGHTWEIGHT PANEL

The thin, flexible and lightweight MiaSolé module conforms to curved surfaces and provides excellent resistance to high wind and seismic events.



Thickness with adhesive 2.5 mm (0.1 in)

Thickness without adhesive 1.6 mm (0.06 in)



The Holden Oil Dock in Yarraville, Australia, is Australasia’s largest maritime hub for containerized, automotive and general cargo.

