

15<sup>th</sup> October 2014

Energy Matters Pty Ltd  
359-361 City Road  
Southbank VIC 3006

**Attention: Mr Jeremy Lawrence**

## STRUCTURAL DESIGN CERTIFICATE

**Project Description: The use of solar panels larger than 1680x1000mm with Sunlock Mounting Systems**

Jeremy Lawrence approached Partridge Structural Pty Limited and requested a review of the Energy Matters Sunlock System to evaluate the implications of the use of larger solar panels and to determine the necessary modifications to the design of the system.

Sunlock Solar Panel Mounting Systems are currently certified for the use of a solar panel size of up to 1680mm x 1000mm.

We, Partridge Structural Pty Limited, being Professional Structural Engineers, within the meaning of the Building Code of Australia, hereby confirm that we have carried out a design review of the Sunlock Solar Panel Mounting Systems and that the system is suitable to support larger solar panels based on the following assumptions and limitations:

Assumptions and limitations:

- Maximum solar panel size 2000mm x 1200mm
- Fixing spacings on the Partridge Structural Pty Ltd drawings (listed below) have been calculated based on a 1680mm x 1000mm panel size. Fixing spacing are to be reduced proportionally to the increase in the area of the solar panels.
- To not exceed the panel clamp capacities the maximum wind pressure on 1665mm x 991mm panels is limited to 4.9kPa (refer to James Cook University Test Reports referenced below). The maximum allowable wind pressure on the panels is to be reduced proportionally to the increase in the area of the solar panels.

Referenced documentation:

- James Cook University – Cyclone Testing Station “Test Summary Sheet – TS871” dated 18/12/2012
- James Cook University – Cyclone Testing Station – Report No. TS871 dated 18/12/2012
- James Cook University – Cyclone Testing Station “Test Summary Sheet – TS872” dated 19/12/2012
- James Cook University – Cyclone Testing Station – Report No. TS872 dated 19/12/2012

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This certificate applies to the following certified structural drawing issued by Partridge Structural Pty Ltd:

- 2013S0075s1.1 Revision A dated 02/04/2013
- 2013S0075s1.2 Revision A dated 02/04/2013
- 2013S0075s2.1 Revision A dated 02/04/2013
- 2013S0075s2.2 Revision A dated 02/04/2013
- 2013S0075s3.1 Revision A dated 02/04/2013
- 2013S0075s3.2 Revision A dated 02/04/2013
- 2013S0075s4.1 Revision A dated 02/04/2013
- 2013S0075s4.2 Revision A dated 02/04/2013
- 2013S0075s5.1 Revision A dated 02/04/2013
- 2013S0075s5.2 Revision A dated 02/04/2013

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