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Sunday, 29 April 2012

Mr Scott Lehn NRG Building Systems Unit 4, 32—38 Dover Drive West Burleigh QLD, 4220.

# RE: NRG Greenboard™ Cladding

The purpose of this letter is to provide evidence of suitability of the NRG Greenboard<sup>TM</sup> Cladding in accordance with the National Construction Code—2012 Volume 1 Performance Requirements BP1.1, FP1.4 and JP1.

## NRG Greenboard™ Cladding

The cladding is a expanded polystyrene insulation board fixed to a framing system and finished with a polymer modified cement render reinforced with alkali resistant fibreglass mesh.

#### Scope

The NRG Greenboard™ Cladding system does not comply with the deemed to satisfy provisions of the National Construction Code—2012 and this certification provides an assessment that demonstrates an acceptable alternative solution in accordance with the provisions and methodology of the National Construction Code—2012.

#### Performance Criteria

The National Construction Code—2012 is the applicable legislation document with the applicable sections being:

Volume 1 BP1.1 Structure

Volume 1 FP1.4 Damp and Weatherproofing

Volume I JPI Energy Efficiency

### **Assessment Method**

The assessment method adopted for this certification complies with the conditions to which an alternative solution must adhere in that the performance requirements are certified by a professional engineer that material and form of construction complies with the housing provisions by setting out the basis on which it is given and the extent to which the relevant specifications have been relied upon.

#### Assessment

NRG Greenboard<sup>TM</sup> cladding is manufactured to AS1366 Part 3- 1992, Rigid Cellular plastic sheets for thermal insulation to Class M-Grade. The substrate is finished with polymer modified render, reinforced mesh, membrane coating.

Evidence is provided under A1.2.2(a)(iii) testing reports provided by BRANZ DC1869 to AS2498.3, AS2498.4, AS2498.5, and AS2498.6.

Evidence is provided under A1.2.2(a)(iii) testing reports provided by BRANZ D10031/01 thermal resistance of NRG Greenboard™ in accordance with ASTM C518-04.

Evidence is provided under A1.2.2(a)(iii) by certification reports provided by Summermore Pty Ltd with respect to the structural capacity of the product system in accordance with AS1170.

Evidence is provided under A1.2.2(a)(iii) by CodeMark™ certificate of conformity CM3005

Evidence is provided under A1.2.2(a)(iii) test report provided by Exova Warringfire

Evidence is provided under A1.2.2(a)(iii) by test reports provided by Ron Rumble Pty Ltd with respect to the acoustical performance of the product system in accordance with AS1191 and AS/NZS717.1.

Evidence is provided under A1.2.2(a)(iii) by test reports provided by AWTA Product Testing with respect to the ignitability, flame propagation, heat release and smoke release performances of the product system in accordance with AS/NZS1530.3.

Evidence is provided under A1.2.2(a)(vi) by the Technical and Installation Manual produced by NRG—Energy Efficient Building Systems with respect to the installation, and finishing of the NRG Greenboard<sup>TM</sup> Cladding System.

#### Certification

We, Summermore Pty Ltd, being Registered Structural and Civil Engineers, hereby confirm that the NRG Greenboard™ Cladding complies with National Construction Code—2012 Volume 1 Performance Requirements BP1.1, FP1.4 and JP1 in that those clauses refer to structural stability, resistance to wind actions, resistance to rainwater actions, weatherproofing, fire safety, sound insulation and thermal insulation of the system.

The limitations of the system are as follows:

- 1. The system shall be installed strictly in accordance with the NRG Greenboard™ Cladding Installation Manual.
- 2. The system is to be installed onto framing with a stud spacing not exceeding 600 millimetres.
- 3. It shall not be used in Wind Classifications exceeding  $V_{sit,500}$ =74m/s.
- The installation of the NRG Greenboard™ Cladding shall be to framing complying with either AS1684—Residential Timber Framed Construction or AS3623—Domestic Metal Framing.
- 5. All fixings are to be a minimum of Class 3.
- 6. All joints and abutments shall be sealed with construction urethane.
- 7. The installation of the system must be at a height of less than 10 metres.
- The system shall have a vapour permeable sarking membrane placed between the frame and the NRG Greenboard™
  Cladding.
- 9. The system shall be cleaned to remove all dust and foreign matter prior to rendering.
- 10. The system shall not be cleaned or treated with any product containing hydrocarbon solvents.
- 11. The system shall only be applied to buildings complying with AS3660—Termite Management.
- 12. This certification shall be reviewed when the National Construction Code is updated each year.

This certificate is limited to the compliance with the requirements of the published codes of practice listed and should not be used for any other purpose. Summermore Pty Ltd accepts no responsibility for information that has not been expressly identified as part of this certification.

If we can be of any further assistance in this matter, please do not hesitate to contact this office.

Certified by



Ronald Bell

Grad Cert (Tech Mgt), BEngCivil(Hons), PEng, MIEAust(891940), RPEQ(6715), RBP(Vic)(EC27967), RBP(Tas)(CC5556C), RBP(NT)(60596ES), MAIB(9225), JP(Qual). Director

Summermore Pty Ltd