

Structerre Energy Team-Advisory Note in relation to [IB042/2014](#)

WA Alterations and Additions Protocol for Energy Efficiency Class 1 or attached Class 10 buildings

A new WA Alterations and Additions Protocol for energy efficiency in Class 1 or attached Class 10 buildings will apply from 1st May 2015. This protocol provides a practical building solution in meeting the more stringent energy efficiency requirements.

A transition period has been implemented to provide industry with time to familiarise with the new WA Alterations and Additions Protocol. Structerre has formulated a new Alterations and Additions procedure to ensure our clients have a smooth transition into the new requirements with no disturbance to turnaround times. These procedures allow the most cost effective pathway to be taken to achieve compliance for each individual project.

New Energy Assessment Methods

Currently in WA it is still allowed to meet energy efficiency requirements by using the 2009 BCA Deemed to Satisfy (DTS) provisions for all residential buildings being renovated, altered, extended, improved or repaired.

The new IB042/2014 WA Alterations and Additions Protocol allows two new assessment methods to achieve compliance. Structerre's Energy team can provide you with these methods to achieve compliance with the Performance Requirements P2.6.1 Building and P2.6.2 Services, Volume 2 NCC.

Deemed to Satisfy Compliance Methods:

1. House Energy Rating Software assessment (HERS)

This is a sliding scale whole-of-house software assessment. Assessments must achieve a Total MJ target no greater than the area-weighted target. This target allows for a reasonable allowance for the performance of the existing house and directly relates to existing building construction dates.

For example: a new addition to an existing 1990's house may only need to achieve a 4.7 star sliding scale rating for compliance. The sliding scale takes into consideration the existing buildings effect on the new building work built to current standards.

2. Elemental Provisions assessment (EP) – previously referred to as Deemed to Satisfy

This protocol calculates area-weighted targets for where there is altered and/or added building work in the same space as the existing building. This takes into account the area and performance of the existing construction and this is then used to determine the Total R-Values required. An area-weighted total R-Value target is determined for each space or all spaces containing altered and/or added existing building elements. These targets will be lower than the current BCA energy requirements for ceilings/roof, walls, floors and glazing.

Structerre Compliance Outcome – HERS or EP compliance?

From our extensive research using the two different solution methods for achieving compliance, we have found that the HERS thermal software rating solution provides a more flexible outcome in the majority of cases.

For example: an entire new addition would need to be insulated in accordance with the Elemental Provision (EP) requirements being the floors, walls, ceilings and glazing which could result in having to retrofit some or all of the existing building and improve the glazing to achieve compliance. The HERS software sliding scale method allows us to work to a whole-of-house thermal compliant solution. This results in the likelihood of compliance being achieved based on standard construction requirements with single clear glazing in aluminum frames.

Qualified Energy Assessor

Based on achieving the best solution for the project, most clients will find they will be better off outsourcing their alterations and additions projects to a qualified energy assessor experienced in using house-energy-rating software to achieve the most flexible and cost effective outcome. Structerre's Energy team consists of qualified and experienced assessors enabling your project to be completed by a competent assessor with consistent outcomes. We remain up to date with the latest assessing techniques and BCA requirements and can easily accommodate high volume periods.

Impact to Drawings / Plans

All residential buildings that are being renovated, altered, extended, improved or repaired will now have to be completed as whole-of-house assessments, regardless of the size of the alteration or addition.

For example: a new 6m² en-suite will typically require a whole-of-house assessment. As a result, clients now require final working plans for building approval to show not only the new addition specification but also the existing building detail and specifications.

Alterations & Additions Energy Checklist

Structerre has created an Alterations & Additions Minimum Plan Requirement Checklist to assist you in providing all required information for an assessment. Where information is not known, a worse case scenario will have to be assumed to complete the assessment.

Please feel free to contact Structerre's Energy team on (08) 9205 4500 or waenergy@structerre.com.au for an energy quotation or further information on how we could assist you with your alterations and additions energy requirements.

Follow this link http://www.commerce.wa.gov.au/sites/default/files/atoms/files/ib042_alterations_and_additions_protocol_0.pdf

ADVISORY NOTE

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Alterations & Additions Minimum Plan Requirement Checklist

Structerre has created this checklist to assist you in providing us with all required information to get an energy assessment done.



As a minimum the plans need to detail the following information:

Site plan to detail orientation	
Scaling for all new and existing external walls	
Floor plan showing combined new and existing build detail	
Window dimensions for all new and existing windows	
Open ability of all new and existing windows	
Window glass and frame type of all existing windows	
Year existing house was constructed	
Specification of new alterations/additions AND existing house	
<ul style="list-style-type: none"> External wall construction 	
<ul style="list-style-type: none"> External wall insulation type and R-Value (or thickness) - if applicable 	
<ul style="list-style-type: none"> External wall colour (light, medium or dark if exact colour not known) 	
<ul style="list-style-type: none"> External floor type - on ground or suspended 	
<ul style="list-style-type: none"> External floor insulation type and R-Value (or thickness) – if applicable 	
<ul style="list-style-type: none"> Flooring type – carpet, tiles, timber or concrete for each room/zone 	
<ul style="list-style-type: none"> Internal wall type – masonry or stud frame 	
<ul style="list-style-type: none"> External ceiling - heights 	
<ul style="list-style-type: none"> External ceiling – raked or flat 	
<ul style="list-style-type: none"> External ceiling insulation type and R-Value (or thickness) - if applicable 	
<ul style="list-style-type: none"> Roof type – metal or tiled 	
<ul style="list-style-type: none"> Roof colour (light, medium or dark if exact colour not known) 	
<ul style="list-style-type: none"> Roof insulation type and R-Value – if applicable 	
<ul style="list-style-type: none"> Roof ventilation – vented or non vented 	
<ul style="list-style-type: none"> Electrical – number of recessed down lights for each room/zone 	
<ul style="list-style-type: none"> Electrical – exhaust fans or vents 	

The above requested information seems fairly extensive but allows us to complete your project using the HERS sliding scale star rating assessment method for compliance, if most suitable for compliance. Where information is not known a worse case scenario will have to be assumed to complete the assessment.

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