

NCC 2022 Energy Efficiency Volume 2

Q&A

The following answers have been provided to questions asked during the [NCC 2022 Energy Efficiency Volume 2 webinar](#) on 15 February 2024.

The answers provided are correct as of 29 February 2024.

Where can I find a copy of the presentation slides?

A copy of the presentation slides and recording of the webinar are available from the [VBA website](#).

Please advise how to apply the Whole of Home clauses to a new swimming pool or spa, to an existing home which is 30 years old.

For new swimming pools and spas associated with an existing dwelling, the pool or spa would need to comply with the following:

- NCC Volume 2 performance requirement H6P2 (Energy usage). This is because there is no application that precludes the requirement under the Building Code of Australia, in view of that NCC clause H6D2(2) needs to be met in accordance with Part 13.7 of the Housing Provisions, in particular.
- Part 13.7.1 which does not exempt BCA class 10b swimming pools. Therefore, compliance is required for Services clause 13.7.8 and or 13.7.9 in regard to heating and pumping.

What if a house is built fully in compliance, but a year later, the homeowner fits additional DX air conditioning (for example) in rooms that don't meet the fabric compliance requirements? How is this 'policed'?

Owners are encouraged to use the Residential Efficiency Scorecard which enables energy performance assessments to be conducted on existing homes of any age or location, without the need for plans or specifications.

Accredited assessors use the government supported Scorecard tool. Assessors provide a certificate with a star rating out of 10 indicating the cost to run the fixed appliances in the home, ratings for comfort and the main factors influencing energy consumption. The Scorecard certificate suggests energy efficient upgrade options, which are discussed during the assessment appointment.

Scorecard assessors are energy efficiency experts who help Australian householders reduce their energy bills, make their home more comfortable and decrease their carbon emissions. In addition, the FAQs for existing homes available on [NatHERS resources page](#).



Typically, the pools are considered after the building the house, under a different permit. How does this effect energy efficiency?

Pools would need to be assessed to check whether they effect the existing Whole of Home energy efficiency measures for the home.

What are the compliance pathways to meet the energy usage requirements of Part H6 NCC 2022 Volume 2 for buildings less than 500m² and greater than 500m²?

Performance requirement H6P2 for the energy usage of the building is satisfied by—complying with S42C3 using house energy rating software and S42C4(2); or complying with Parts 13.6 and 13.7 of the ABCB Housing Provisions for a building with a total floor area not greater than 500m².

Does the VBA know when the Whole of Home reports will be finalised for thermal assessments done using Firstrate5?

The VBA is not involved in the release of the Firstrate5 software. Please refer to Sustainability Victoria and NatHERS who have released guidance on the current status. Please refer to the following link to the FAQs: <https://www.fr5.com.au/news/2023/09/28/nathers-software-accreditation-update> and <https://www.nathers.gov.au/resources/faqs>

Does Whole of Home apply to commercial construction?

The Whole of Home approach only applies to class 1 dwellings, class 2 sole occupancy units and class 4 parts of buildings.

How can Passive House be used in the context of Performance Solutions? Is this a reasonably straight forward process considering the rigorous design and construction process? If not, why not?

The RBS has the discretion to assess and accept a Passive House design in lieu of the FirstRate WOH energy assessment. The RBS would need to assess the performance solution demonstrates equivalence under the BCA compliance pathway. For more information refer to the [ABCB Handbook on the Performance Solution Process](#).

To complete a NatHERS Whole of Home Assessment the assessor must be accredited. Is any accreditation required when completing the NCC Whole of Home calculator?

The BCA, *Building Act 1993* and Building Regulations do not mandate assessors that have to be accredited with the VBA. However, NatHERS Assessors are professionals who have completed the relevant training and belong to an Assessor Accrediting Organisation (AAO), which means that they have the knowledge and experience to complete the required assessments.

Do you have to do a Whole of Home rating for a new pool attached to an existing house?

Whole of Home is not applicable to the existing house, however the pool and spa would require compliance similar to that set out on page one of this document.

Recycled water is provided to be mandatory as part of the YVW in certain suburbs. Why is it not accepted as a performance solution by default by the building surveyor?

Refer to [VBA Practice Note No: EE-03](#).

For areas with the compulsory reticulated water connection requirement, a builder or owner can install a grey water treatment system or dual water reticulation and water recycling system connected to the toilet flushing system in lieu of the rainwater tank to comply with the Victorian Variation per Plumbing Regulations 2018 (Schedule 2 regulation 8), however this does still require a building performance solution.



Why is it mandatory to have solar and rainwater tank in alpine areas, as there are no downpipes and snow damages solar?

Gutters and downpipes are not required, provided the design meets the performance requirements of BCA Volume 3, VIC Part E3 Stormwater - Roof drainage systems. A rainwater tank and or solar are still required due to the the Victorian Variation BCA Part H6 and the Plumbing Regulations 2018. In addition, the Victorian NCC 2019 rainwater tank variation (VIC V2.6.1 and V3.12.0 respectively) remains in effect until 30 September 2023, after which the following takes effect:

A rainwater tank must be installed in a Class 1 building in accordance with the regulations made under the *Building Act 1993* (Victoria). This Victorian rainwater tank requirement is now found in NCC 2022 Volume Three (Clauses VIC B6D2 and VIC B7D4).

What will the cost implication of the Whole of Home approach be on an average 25m² single storey 4 bed, two bath dwelling?

Refer to the ABCB [Cost and Benefits of upgrading building fabric from 6 to 7 stars](#) document and [7 star energy efficiency building standards common questions](#).

Why is it compliant to be able to use a 3-star heat pump? Shouldn't that be greater considering we are trying to achieve 7 stars?

The star rating selected for heat pumps should correspond to the appropriate zone on the energy rating label (hot, cold or average) and for the dwelling location. For heat pump heating (gas or electric), the ABCB Whole of Home efficiency factors handbook tables indicate Victoria is assessed according to its Climate Zone (4-8), which allows the use of a 3 star heat pump or less to be used in Victoria based on location.

To assist refer to [Part 2 of the handbook](#) that will help clarify the requirements.

Where do I find a document that specifies a reference building for a Class 1 or 10 Building?

Refer to the verification methods of H6V2 Part H6 NCC Volume 1 and the [ABCB video](#) on how to undertake a verification method using the NCC volume 2.

These worked examples may assist you in Part 5 of the [ABCB handbook](#).

If 7 star compliance has been achieved, would a Whole of Home report be necessary?

A Whole of Home report is required as part of the process in demonstrating the 7 star compliance requirement has been achieved.

In addition please refer to our helpful guidance video available here that will be of assistance: <https://www.vba.vic.gov.au/consumers/home-renovation-essentials/energy-efficient-requirements>

If the addition is over 25 per cent can we still use partial compliance?

Please refer to our [VBA Practice Note EE-04](#) and table 1 which sets out whether partial compliance is allowable or not dependent on your specific design.

Based on your question partial compliance is not available if the floor area addition is greater than 25 per cent of the existing building.



For further information or clarification please contact the Technical and Regulation Team via technicalenquiry@vba.vic.gov.au

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