VICTORIAN BUILDING AUTHORITY

Fact sheet

July 2023

NCC 2022 Energy Efficiency Volume 1

Q&A

The following answers have been provided to questions asked during the NCC 2022 Energy Efficiency Volume 1 webinar on 29 June 2023.

The answers provided are correct as of 12 July 2023.

Where can I find a copy of the presentation slides?

A copy of the presentation slides and recording of the webinar is available from the VBA website: https://www.vba.vic.gov.au/plumbing/PES-previous-sessions

Can the energy efficiency report that is provided by specialist form evidence of suitability for form of construction in relation to energy efficiency?

The short answer is yes, it is possible. Largely, the decision to accept the evidence of suitability will depend on the decision by the relevant building surveyor.

For J1P2, will the NatHERS Rating include a Whole of Home Assessment?

The NatHERS software will require both assessment of thermal performance and calculation of the annual net energy use using the whole of home energy approach. Refer to the NatHERS website for further details at Software updates | Nationwide House Energy Rating Scheme (NatHERS)

Why is it that a building which makes money out of parking cars doesn't require charging stations?

At this stage the NCC does not require the actual installation of chargers. A requirement to actually install and provide chargers requires broad Government consideration and for example the method in which such a requirement is required would be in planning or building.

Is there a requirement for compliance certificate for electrical work prior to issue of CoFI or occupancy permit?

Yes, an electrical compliance certificate is required prior to the issue of an Occupancy Permit (OP) or CFI by the RBS. This is a requirement under *Regulation 186* of the Regulations.

Is the adoption of energy efficiency, condensation management and liveable housing are now delayed until 1 May 2024?

Yes, that is correct. Energy efficiency, condensation management and liveable housing has an updated transitional period and will not be adopted until 1 May 2024.

Which part of the Act or Regulations mentions the requirement for electrical compliance certificate?

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Reg 186 of the Building Regulations 2018 states that an application for an Occupancy Permit must be accompanied with any electrical compliance certificate.

For the RBS to issue an OP (Occupancy Permit), would the provision of a plumbing and/or electrical compliance certificate also apply when issuing a Certificate of Final inspection for building work (CFI)?

Prior to the issue of a CFI, the RBS has the discretion to request evidence that the building work complies with the legislation, and this can include the requirement to provide an electrical and or plumbing compliance certificate, and or any other evidence or document the RBS would require to satisfy themselves that the building work complies with the Building Act and Building Regulations.

Regulation 186(2)(b) of the Building Regulations 2018 states that an application for an Occupancy Permit must be accompanied with a compliance certificate for plumbing work and or compliance certificate for electrical work in conjunction with the building work to which the application applies.

Can we have some simple easy-to-understand DTS requirements?

Please refer to the current NCC 2022, and the ABCB Energy Handbook which outlines and provides a roadmap on how to demonstrate compliance to the DTS Provisions. Here is a link to assist you: Housing energy efficiency (abcb.gov.au)

What exactly are the building surveyors looking for? Which type of energy efficiency reports are acceptable? What type of qualifications are required?

While it is not actually a requirement to have a report from an accredited consultant, many building surveyors will require a NatHERS assessment to be carried out by an accredited energy assessor. This is because they can be reassurred that the person has the qualifications, training, knowledge, necessary insurance and experience to prepare an energy efficiency report. For example, this could be an accreditation from Design Matters National (formerly BDAV).

How are the changes in NCC 2022 going to affect addition and alteration work?

Alterations are treated the same as currently. The relevant building surveyor has the ability to permit partial compliance with the energy efficiency requirements under *Regulation 233* of the *Building Regulations 2018*.

I am interested in getting to know about Air Tightness, Cavity Batten Systems etc.

Part 13.4 of the *ABCB Housing provisions standard 2022* has DtS provisions for the sealing of the building envelope such dampers on exhausts & flues, seals on doors & windows and close-fitting linings for wall, ceilings and floors that have sealed joints & penetrations.

What is the predicted net benefit moving to 7 stars? What is the average power consumption reduction per home?

In most locations, the increase to 7 stars means it will take 20 to 25 per cent less energy to heat and cool a home. In addition to the 7 stars, the whole of home energy approach predicts ongoing energy usage and emissions and can be benchmarked against net zero energy targets so that there is an option to produce the same or more energy than is used.

Please let me know about EV systems.

At this stage, the requirements for EV charging systems are to make the building "EV ready" for future installation of EV charging systems.

Is it mandatory requirement for every home to have double glazed and fitted with solar power?

It is not going to be mandatory to have double glazing throughout or to have solar power. However, double glazing may be needed in many circumstances to address thermal performance of the glazing. Solar can be used to offset annual net energy usage associated with the whole of home energy approach.

What is latest and most important energy efficiency change or update in Victoria?

The two most important changes for energy efficiency for NCC 2022 are, that the residential safety measures for a Class 1 building to have a water tank or solar hot water service has now been removed from the Victoria variations, which means that these are no longer required under the NCC from 1 May 2024.The second most important change is the whole of home energy approach, which requires calculation of the annual net energy usage for buildings so they do not exceed the maximum requirements.

Which Australian Standards must be adhered to?

What standards apply depends on what the class of building is and what part of the NCC is being used. We suggest referring to *Schedule 2* of the NCC with respect to energy efficiency clauses which contains the referenced documents, as it outlines what standards apply to which volume and clause of the NCC.

The code provision is so complicated, why aren't these professionals registered? Who is going to sign off compliance?

While there is no requirement for these professionals to be registered, we would suggest using an accredited energy assessor such as accredited by Design Matters National (formerly BDAV), to reassure you that they have qualifications and experience to undertake these assessments.

Is the DtS Pathway now voided due to minimum eaves vs wall colour/height?

For instance, taking an example using Masonry veneer wall, it depends on the design parameters in Table 13.2.5k Masonry veneer wall and the Solar Absorptance (SA). The colour can vary the amount of heat transfer through the walls, in hotter climates it's better to use a lighter colour while in cooler climates, a darker colour is better. However, the optimum colour for highest benefit depends on the building's insulation, thermal mass and the climate zone. A dwelling can be designed using DtS NCC 13.2.5, and the relevant tables, however for example 13.2.5(3) in climate zones 1 to 5, the solar absorptance of the outer surface of a wall used in (1) or (2) of 13.2.5 must be not more than 0.7. This approach does not void a design based on DtS, it instead sets minimum requirements to be used when using the DtS tables.

What effects will thermal bridging of timber and steel frames have on the overall energy rating?

Thermal bridging will not apply to timber framed constructions and ratings of timber framed dwellings will be unaffected. Refer to the NatHERS website at: Thermal Bridging - NCC 2022 | Nationwide House Energy Rating Scheme (NatHERS) and refer to FAQs at FAQs | Nationwide House Energy Rating Scheme (NatHERS)

How will the transition impact in terms of cost to builder and customer?

This will depend on the project, please refer to the calculator and advice provided using the following links: Estimate your rating | NABERS and Affordability | YourHome provided on the Australian government website "Your home".

What are the very best products and construction practices to use to insulate a house? More than the general guidelines.

There are many helpful tips and advice provided on the Australian Government website "Your home", please refer to this link: | YourHome

Is condensation an issue when the house is well insulated?

In addition to a thermal rating, the selection and installation of reflective and bulk insulation must meet other NCC requirements such as *Part 10.8 Condensation management in the Housing Provisions*. Refer to the following helpful link: abcb.gov.au/sites/default/files/resources/2023/NCC-2022-Housing-energy-efficiency-handbook-fa.pdf and Condensation in Buildings Handbook (abcb.gov.au)

Please shed some light on building airtightness and control of moisture in airtight building.

There is advice available from the ABCB that deals with these matters available here: Condensation in Buildings Handbook (abcb.gov.au) and Housing energy efficiency (abcb.gov.au)

I would like to know a little more detail when it comes to required air gaps and ventilation of roof spaces.

Ventilation can form a part of ensuring a higher energy efficiency rating by cooling both the roof space, meaning air conditioning ducts can operate through lower temperatures. It also helps by decreasing the overall temperature of the home, thus requiring less use of air conditioning. NatHERS software does take this into consideration and the following is an overview of the type of ventilation that can be calculated in the system.

Climate zones - will these be looked at and taken into consideration more with the new software?

There will be software updates and further is advice available from the ABCB that deals with the climate zones which is available here: NatHERS 2022 Starbands | Nationwide House Energy Rating Scheme (NatHERS) and here: FAQs | Nationwide House Energy Rating Scheme (NatHERS)

