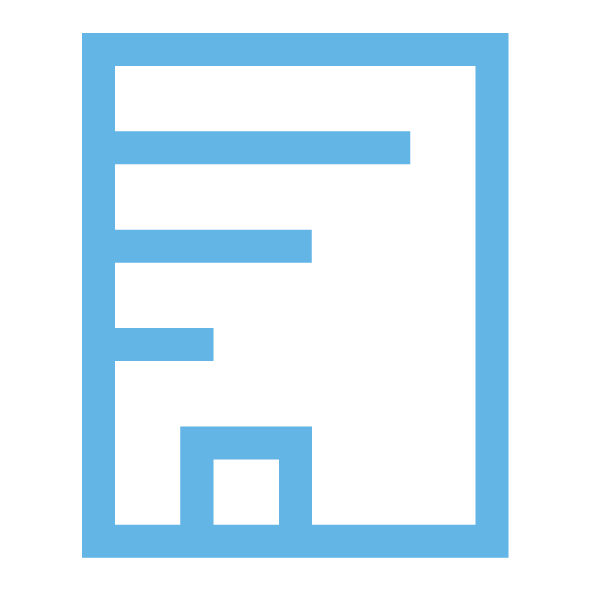
# NCC Public Comment Draft Response Sheet



This response sheet is to be used for submitting responses to the National Construction Code (NCC) 2022 Public Comment Draft.

## How to use this response sheet

1. Provide your details including name, organisation and contact details.
2. Provide your response(s) to the Public Comment Draft. For each response you should include—
   * the relevant NCC volume(s) that your response relates to by clicking in the appropriate box(es);
   * the “**Clause/Figure/Table**” that you are responding to, e.g. J6D3(1)(a), Housing Provision Figure 7.2.3 or Table C2D2;
   * your “**recommended change to draft**”, e.g. it is recommended that the proposed drafting to J6D3(1)(a) be amended as follows…(*see example*);

If you are not recommending a change, insert “N/A” in this field;

* + your “**comments/reasons for change**”. This should include justification to support your recommended change, e.g. heaters that emit light do not need to be excluded because these heaters have already been exempted by J6D3(3)(d) (*see example*).

If you are including multiple “**comments/reasons**”, use dot points or a numbered list.

1. Submit your response using the online response form on the ABCB website.

**Notes:**

*Completing all relevant fields will help to describe what change in the Public Comment Draft you are commenting on, what your alternative change is and why it should be made.*

*This response form is to only be used for submitting responses to proposed NCC amendments contained within the NCC 2022 Public Comment Draft. If you wish to make comments or a submission on documents that have been released with the Public Comment Draft, please follow the instructions accompanying that document.*

# Example

## Your details

**Name:** John Smith

**Organisation:** ABC Building and Plumbing

**Email or Phone No.:** easyas@abc.com.au

## Response(s)

**NCC Volume(s):**  One  Two  Three  Housing Prov.  Livable Housing

**Clause/Figure/Table:** J6D3(1)(a)

**Recommended change to draft:**

It is recommended that J6D3(1)(a) be amended as follows—

(1) In a *sole-occupancy unit* of a Class 2 building or a Class 4 part of a building—

(a) the *lamp power density* or *illumination power density* of artificial lighting~~,~~ ~~excluding heaters that emit light,~~ must not exceed the allowance of—

(i) 5 W/m2 within ~~the building~~ a *sole-occupancy unit*; and

(ii) 4 W/m2 on a verandah, balcony or the like attached to ~~of the building~~ a *sole-occupancy unit*; and

**Comment/reason for change:**

1. heaters that emit light do not need to be excluded because these heaters have already been exempted by J6D3(3)(d); and
2. replacement of “the building” with “a sole-occupancy unit” clarifies that the provisions only apply to sole-occupancy units and attached verandahs, balconies or the like, and not the entire building.

# Response Sheet

## Your details

**Name:** *Click here to enter text.*

**Organisation:** *Click here to enter text.*

**Email or Phone No:** *Click here to enter text.*

## Response(s)

**NCC Volume(s):**  One  Two  Three  Housing Prov.  Livable Housing

**Clause/Figure/Table:** H6P1

**Recommended change to draft:**

N/A

**Comment/reason for change:**

H6P1 establishes thermal efficiency standards for new detached homes. It sets limits on heating and cooling loads and requires most homes to meet a minimum standard equivalent to a NatHERS rating of 7 Stars (S42C2).

Lifting the thermal efficiency requirements for new homes is an important step that we strongly support.

It has been over a decade since the last increase in thermal efficiency standards (to 6 Stars in 2010). Since this time, Australia has fallen further behind international standards.

Based on current NatHERS star ratings, this increase will reduce the amount of energy required to heat and cool a home by approximately 20-25%.

Better thermal efficiency means lower energy bills, more comfortable homes, more resilience at times of extreme weather, and lower carbon emissions. It furthermore reduces pressure on the energy grid, reducing infrastructure costs and enabling the broader transition from centralised fossil fuel-powered electricity systems to renewables and distributed energy resources.

The upfront costs of higher thermal performance are significantly outweighed by benefits to households. Analysis by Renew has found that the additional monthly mortgage payments on a 7-Star home are typically less than the bill savings, meaning that households are financially better off from day one.

Research by ClimateWorks Australia and ASBEC shows that delaying cost-effective improvements to energy efficiency requirements in the Code would cost $2 billion in wasted household energy bills to 2030, while locking in 9 million tonnes of carbon emissions.

An increase in standards to the equivalent of 7 Stars is the bare minimum that should be considered. In many scenarios higher thermal efficiency is cost effective and beneficial to households. A higher rating of at least 7.5 Stars should be introduced now or in subsequent NCC revisions in line with the Trajectory for Low Energy Buildings.

**NCC Volume(s):**  One  Two  Three  Housing Prov.  Livable Housing

**Clause/Figure/Table:** H6P2

**Recommended change to draft:**

Set energy budget for Class 1 homes as equivalent to Net Zero Regulated Energy.

**Comment/reason for change:**

H6P2 sets an energy usage budget for detached homes, through which a limit is placed on the social cost of energy for fixed appliances. Onsite renewables such as solar PV can be used to offset this limit.

We strongly support the introduction of energy budgets for new homes. It is appropriate to require new homes to install efficient fixed appliances and onsite renewables.

While the proposed performance requirement is an improvement on current regulations and should be included as a bare minimum, we support strengthening the energy budget.

This budget should be set at a level that ensures net zero emissions and energy use for detached homes. This level of stringency is achievable and cost-beneficial to households, reducing energy bills and emissions. The vast majority of detached homes can readily achieve net zero regulated energy use; a limited degree of flexibility may be required for homes where onsite renewables are not feasible.

The ABCB’s 2019 “Energy Efficiency: NCC 2022 and Beyond” scoping study and outcomes report found strong support for net zero regulated energy and proposed to develop for consultation performance requirements including net zero regulated energy for new homes. We are disappointed that the current draft rules do not include this proposal.

**NCC Volume(s):**  One  Two  Three  Housing Prov.  Livable Housing

**Clause/Figure/Table:** J1P2

**Recommended change to draft:**

N/A

**Comment/reason for change:**

J1P2 sets minimum thermal efficiency standards for new apartments and units. It sets limits on heating and cooling loads and requires most single occupancy units within buildings to meet a minimum standard equivalent to a NatHERS rating of 7 Stars (J3D3).

Lifting the thermal efficiency requirements for new homes is an important step that we strongly support.

It has been over a decade since the last increase in thermal efficiency standards (to 6 Stars in 2010). Since this time, Australia has fallen further behind international standards.

Based on current NatHERS star ratings, this increase will reduce the amount of energy required to heat and cool a home by approximately 20-25%.

Better thermal efficiency means lower energy bills, more comfortable homes, more resilience at times of extreme weather, and lower carbon emissions. It furthermore reduces pressure on the energy grid, reducing infrastructure costs and enabling the broader transition from centralised fossil fuel-powered electricity systems to renewables and distributed energy resources.

The upfront costs of higher thermal performance are significantly outweighed by benefits to households. Analysis by Renew has found that the additional monthly mortgage payments on a 7-Star home are typically less than the bill savings, meaning that households are financially better off from day one.

Research by ClimateWorks Australia and ASBEC shows that delaying cost-effective improvements to energy efficiency requirements in the Code would cost $2 billion in wasted household energy bills to 2030, while locking in 9 million tonnes of carbon emissions.

An increase in standards to the equivalent of 7 Stars is the bare minimum that should be considered. In many scenarios higher thermal efficiency is cost effective and beneficial to households. A higher rating of at least 7.5 Stars should be introduced now or in subsequent NCC revisions in line with the Trajectory for Low Energy Buildings.

An increase to minimum thermal efficiency standards for apartments is readily achievable, with over 30% of new certificates for apartments recorded in CSIRO data already achieving a NatHERS rating of 7 Stars or more.

**NCC Volume(s):**  One  Two  Three  Housing Prov.  Livable Housing

**Clause/Figure/Table:** J1P3

**Recommended change to draft:**

Strengthen stringency of energy budget to equivalent of 4-Star heat pump space conditioning

**Comment/reason for change:**

J1P3 sets a maximum energy use budget for apartments. This budget is equivalent to 3-Star heat pump space conditioning, 5-Star gas instantaneous hot water and lighting power density of 4W/m2; it can be offset with onsite renewables where feasible.

We strongly support the introduction of energy budgets to set limits on the energy use of fixed appliances that can be offset with onsite renewables where possible. While the proposed performance requirement is an improvement on current regulations and should be included as a bare minimum, we believe the stringency should be further strengthened.

The *Trajectory for Low Energy Buildings* proposed higher efficiency levels for appliances in apartments than those set in this performance requirement, including the equivalent of 4-Star heat pump space conditioning. We do not understand why this stringency level could not be achieved and we believe it should be increased.

This energy budget is set at a less stringent level than that proposed for detached homes, on the grounds that it is more difficult to offset energy use with onsite renewables such as solar PV in multi-unit buildings. While we acknowledge this issue and rationale, further strengthening of the energy budget to achieve Net Zero Regulated Energy is likely feasible through a combination of onsite renewables and community renewables. We are disappointed this has not been considered for consultation and support the goal of net zero emissions in this and future iterations of the NCC.