

Energy Efficiency Changes to NCC 2022

Increase in thermal performance (Star rating)

Measure	What's likely to be involved?
Increase in thermal performance from the current level, equivalent to 6 Star NatHERS, to the equivalent of 7 Stars.	<ul style="list-style-type: none">• Higher window and door glazing performance• Increases in ceiling and wall insulation R-values• Restrictions on wall and roof colours• Changes to structural floor systems (insulated slabs or sub-floor insulation.

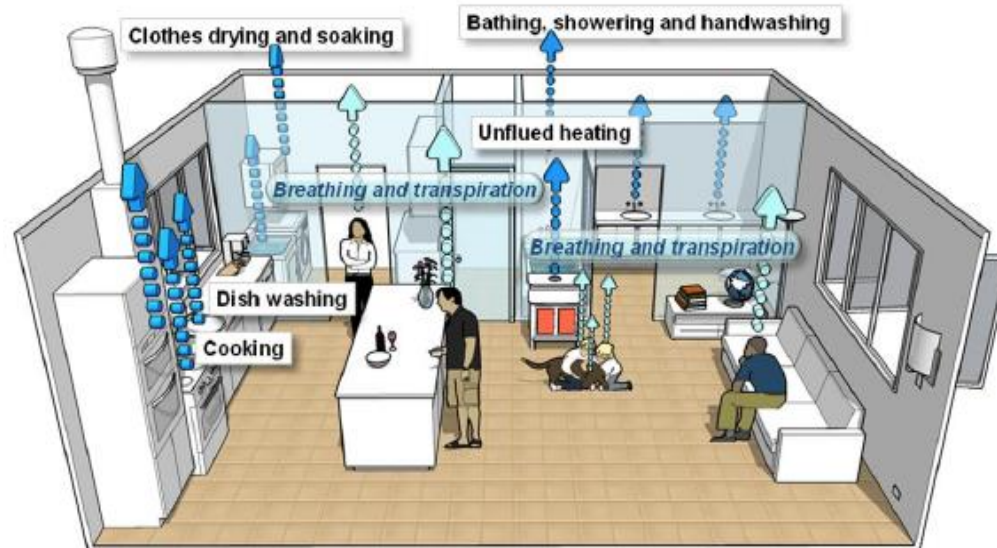
Whole of home energy use requirements

Measure	What's likely to be involved?
Whole of home annual energy use requirements. Different between Class 1 and Class 2 Buildings.	<p>Introduction of a collective energy use budget for;</p> <ul style="list-style-type: none">• Air conditioning and heating systems• Hot water systems• Lighting• Swimming pool and spa pumps <p>Ability to trade between the efficiency of systems for annual energy use budget.</p> <p>Onsite renewables may be installed to offset the energy consumption of the equipment but not the building fabric.</p>

Trends in Energy Efficiency

Condensation

- Importance of building wrap,
 - correct material (AS/NZS 4200.1:2017)
 - Installed correctly (AS/NZS 4200.2:2017)



Condensation in buildings



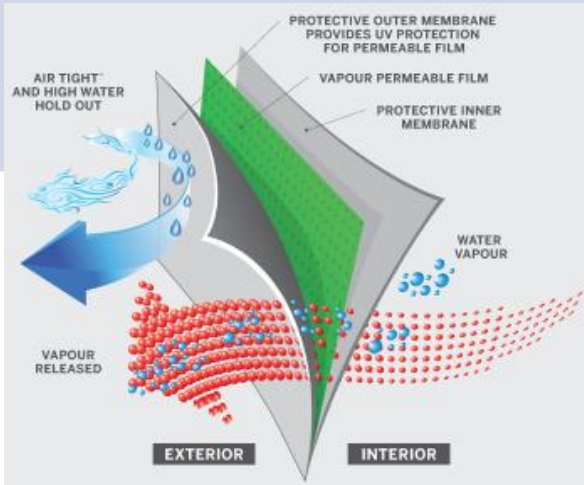
abcb.gov.au

Condensation management measures

Measure

Enhanced condensation management provisions.

NCC 2019 introduced specific condensation management for the first time. For NCC 2022 more substantive measures are being proposed.



What's likely to be involved?

Changes to wall sarking requirements to more vapour permeable types equivalent to Class 3 or 4 membranes for climate zones 4 to 8.

Ventilating roof spaces that include;

- Providing air spaces for roofs
- Changes to roof sarking installation and roof sarking vapour permeability requirements.
- Additional roof space ventilation via installation of whirlybirds, ridge or eave vents or similar.

TABLE 4
VAPOUR CONTROL MEMBRANE (VCM) CLASSIFICATION

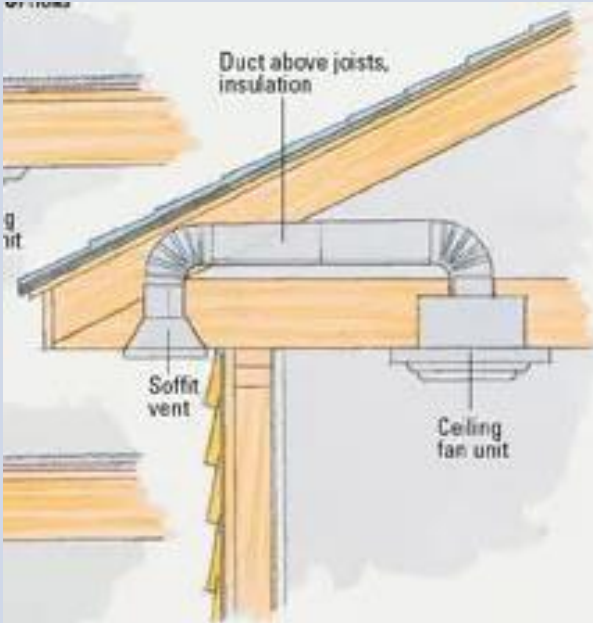
Vapour permeance (see Note) $\mu\text{g}/\text{N}\cdot\text{s}$			
Class	VCM category	Min. (\geq)	Max. ($<$)
Class 1	Vapour barrier	0.0000	0.0022
Class 2		0.0022	0.1429
Class 3	Vapour permeable	0.1429	1.1403
Class 4		1.1403	No max.

ASTM-E96 Method B Wet Cup—23°C 50%RH


NOTE: Vapour permeance is the inverse of vapour resistance. It shall be calculated as follows:

$$\text{Vapour permeance } \mu\text{g}/\text{N}\cdot\text{s} = 1 / (\text{Vapour resistance } \text{MN}\cdot\text{s}/\text{g})$$

Condensation management measures

Measure	What's likely to be involved?
Enhanced condensation management provisions. 	Exhaust system changes including; <ul style="list-style-type: none">• Minimum flow rates for exhaust fans• Mandatory exhaust and ducting to the outside for exhaust fans and rangehoods• Banning recirculating rangehoods• Bathrooms not naturally ventilated must have exhaust fans with 10 minute runoff timer and• Additional provision for ventilation to laundries/bathrooms containing a dryer.

New deemed to satisfy elemental provisions (Class 2)

Measure	What's likely to be involved?
<p>New set of deemed to satisfy elemental provisions for Class 2 Buildings.</p> 	<ul style="list-style-type: none">• The whole of the apartment building will need to achieve an average 7-Stars with no apartment permitted to be less than 6-Stars (under NCC 2019 6-Star average and no apartment less than 5-Stars).• Developing new elemental DTS provisions for Class 2 buildings set at 7-Star equivalence (this will provide a second pathway for apartments to verify compliance after this option was removed in NCC 2010).• Developing a new verification using reference building method for Class 2 buildings• Introducing new requirements for thermal bridging and steel framing.

Retrofit onsite renewables & vehicle charging (Class 2)

Measure	What's likely to be involved?
New provisions designed to allow easy retrofit of onsite renewable and electric vehicle charging equipment for Class 2 to 9 Buildings.	New provisions designed for 'solar ready' zones for potential future installation of electric vehicle charging equipment for Class 2 to 9 buildings.

