



The Building Industries Trusted Partner for Solar and Energy Solutions.



Six Star Plus, a trusted leader within the building industry boasting over 15 years of experience and thousands of installations.

Specializing in solar and energy solutions for builders, and commercial clients.

Our comprehensive range of products include solar energy systems, batteries, electric vehicle charging, hot water systems, heat pumps, hydronic heating and heat recovery ventilation systems (HRV).



Changes to National Construction Code – NCC 2022.

Residential buildings (Class 1 and 2)

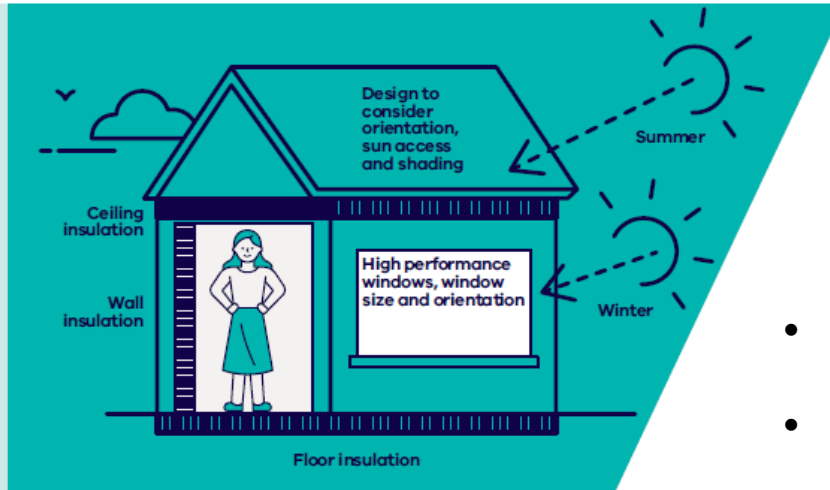
- Increase in minimum thermal performance for the building shell to 7 stars.
- Introduction of “Whole of Home” annual energy use budget being offset by solar.
- Removal of variation that requires either a solar hot water system or rainwater tank to be installed.

Commercial buildings including apartments (Class 2-9)

- Requirements to ensure commercial building are designed for retrofit of solar PV systems and electric vehicle charging.

1. Design and Build your home to a minimum thermal performance rating of 7 stars so it needs less energy to heat and cool

Use less energy



Building to achieve efficiency standards

- Involve your energy assessor early!!
- Design, layout and orientation are key.
- High levels of insulation is critical.
- High performance window size, type and location.
- Choose energy efficient appliances.
- Thermal bridging for steel frames.
- Air tightness and ventilation.
- Offset power usage by installing a solar energy system (PV).

2. Choose fixed appliances that are more energy efficient so you need less energy to power your home

Use efficient appliances



3. Install rooftop solar to help offset your remaining energy usage and meet your Whole-of-Home budget

Use renewable energy

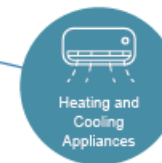




Using NatHERS to pass NCC Energy Efficiency Requirements



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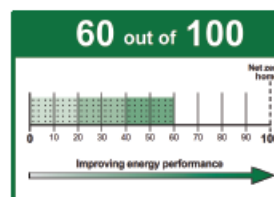
Thermal Star Rating

First achieve thermal rating at the minimum or above National Construction Code (NCC) requirement. A NatHERS thermal rating (stars out of 10) is based on information about the home's design, construction materials and the climate where it is being built and assesses the thermal performance (heating and cooling needs) of a home's construction.



Whole of Home Rating

It is a NCC requirement to meet or exceed the minimum Whole of Home ratings. Once your thermal rating is established you can add home appliances and onsite energy generation to generate your Whole of Home rating out of 100.



Energy efficient hot water

- Hot water, heating and cooling accounts for approximately 70-80% of a home's annual energy usage.
- Hot water alone accounts for approximately 21% of energy usage.
- The use of a quality energy efficient electric hot water heat pump can significantly reduce this figure by up to 80%.



ABCB - Whole of Home Calculator



**Australian
Building
Codes Board**

Home details		Net equivalent energy usage	
Your Project Name	<input type="text"/>	Allowance	<input type="text" value="3.5"/>
State/Territory	VIC	Actual	<input type="text" value="7.0"/> <input type="text" value="x"/>
NCC Climate zone	6 < Help		
Total Floor area (m ²)	240 < Help		
NCC Building classification	1		
Equipment details			
Space heating/cooling		Pools and spas	
If using a heat pump specify rating type > <input type="text"/>			
Type	Star Rating		
Main space conditioning - HEATING	Ducted gas 3 to < 4.5 < Help	Pool volume (L)	<input type="text"/>
Main space conditioning - COOLING	Evaporative < Help	Pool pump star rating	<input type="text"/>
		Spa volume (L)	<input type="text"/>
Water heating		Photovoltaics	
Main water heater type	Gas instantaneous	Photovoltaic capacity (kW)	<input type="text"/>

Gas continuous flow hot water

Home details		Net equivalent energy usage	
Your Project Name	<input type="text"/>	Allowance	<input type="text" value="3.5"/>
State/Territory	VIC	Actual	<input type="text" value="5.7"/> <input type="text" value="x"/>
NCC Climate zone	6 < Help		
Total Floor area (m ²)	240 < Help		
NCC Building classification	1		
Equipment details			
Space heating/cooling		Pools and spas	
If using a heat pump specify rating type > Seasonal Star Rating (2019)			
Type	Star Rating		
Main space conditioning - HEATING	Ducted gas 3 to < 4.5 < Help	Pool volume (L)	<input type="text"/>
Main space conditioning - COOLING	Evaporative < Help	Pool pump star rating	<input type="text"/>
		Spa volume (L)	<input type="text"/>
Water heating		Photovoltaics	
Main water heater type	Heat pump (off peak)	Photovoltaic capacity (kW)	<input type="text"/>

Addition of electric heat pump hot water

Effect of solar energy offset

Home details		Net equivalent energy usage					
Your Project Name	<input type="text"/>	Allowance	<input type="text" value="3.5"/>				
State/Territory	VIC	Actual	<input type="text" value="3.5"/>				
NCC Climate zone	6 < Help						
Total Floor area (m ²)	240 < Help						
NCC Building classification	1						
Equipment details							
Space heating/cooling		Pools and spas					
If using a heat pump specify rating type > <input type="text" value="Seasonal Star Rating (2019)"/>							
↓							
Main space conditioning - HEATING	<table border="1"><thead><tr><th>Type</th><th>Star Rating</th></tr></thead><tbody><tr><td>Ducted gas</td><td>3 to < 4.5 < Help</td></tr></tbody></table>	Type	Star Rating	Ducted gas	3 to < 4.5 < Help	Pool volume (L)	<input type="text"/>
Type	Star Rating						
Ducted gas	3 to < 4.5 < Help						
Main space conditioning - COOLING	<table border="1"><thead><tr><th>Type</th><th>Star Rating</th></tr></thead><tbody><tr><td>Evaporative</td><td><input type="text"/> < Help</td></tr></tbody></table>	Type	Star Rating	Evaporative	<input type="text"/> < Help	Pool pump star rating	<input type="text"/>
Type	Star Rating						
Evaporative	<input type="text"/> < Help						
		Spa volume (L)	<input type="text"/>				
Water heating		Photovoltaics					
Main water heater type	Heat pump (off peak)	Photovoltaic capacity (kW)	<input type="text" value="2.2"/>				

Adding even a small 2.2kW solar system consisting of only 5 panels makes a considerable difference to your assessment.

Solar represents the greatest return on investment to ensure you achieve whole of home compliance.



New electric vehicle and solar readiness provisions for apartment and commercial buildings (Class 2-9)

Electric Vehicle Charging

Space provisions for switchboards and charging infrastructure.

- Apartment buildings – 100% of car park spaces.
- Office and retail buildings – 10% of car park spaces.
- Other commercial buildings – 20% of car park spaces.

Solar Photovoltaic (PV)

Allocation of at least 20% of roof space for future installation of solar.





Installation of PV during construction

To combat theft of system components installations should always be done in 2 stages.

Stage 1

- Once roof is complete and fall protection still in place panel arrays are installed and wiring rough in completed.

Stage 2

- Prior to hand over inverters, batteries and electric vehicle chargers are installed.
- System tested and commissioned.





Scan me!