

# Processing Checklist: Solar Installations

## Waikato Building Consents

Solar panels, water heating panels / cylinders.

<b>Processor Name:</b>	<b>Building Consent No:</b>	<b>Building Category:</b>
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**KEYS: Decisions:**  P or  Y or  V = Pass  F or  N or  X = Fail, i.e. Item either passes or fails to meet the performance requirements of the NZBC  NA or  I = Not applicable, i.e. The item or code clause has been considered but is not applicable to this application because the item, or the clause, is either not part of this design or relevant to this type of building project.

**Reason for decision:** Compliance requirements for item have been met. **Comments:** Add comments as appropriate about (but not limited to): (1) Non compliances (2) The need for further information (FIR or FRI), or (3) Alternative Solutions provided.

Refer to [Acceptable Solutions](#) B1 – H1 - as appropriate available from the Ministry of Business, Innovation & Employment website.

P/F/NA	Item	P/F/NA	Item
<b>B1 Structure</b> <input type="checkbox"/> Not applicable to this BC		(Refer to B1 <a href="#">Acceptable Solutions</a> )	
	Wind Zone: <input type="checkbox"/> Low <input type="checkbox"/> Medium <input type="checkbox"/> High <input type="checkbox"/> Very High <input type="checkbox"/> Extra High <input type="checkbox"/> SED		Solar collector has at least four fixing points connecting it to the building. The outermost fixings should be within 200 mm of the outside edge of the solar collector.
	Plan showing: the location and size of the solar collector; the size and spacing of the rafters; and the size and spacing of the purlins		Elevated collector frames: purlin size / purlin span / no. of fixings
	The total weight of the solar collector (including fittings and working fluid) divided by supporting roof area < 22 kg/sq m.		The building should not be in a wind zone that exceeds 50 m/s unless specific design – PS1 provided
	Solar tanks may require specific design – PS 1 required		

Reasons for decisions plus any additional comments or RFIs:

- Wind:
- Structure:
- RFIs required:
- RFIs received:

### B2 Durability Not applicable to this BC (Refer to B2 [Acceptable Solutions](#))

For acceptable solutions, refer to

- Figure 1 Assessment of durability requirement Paragraph 1.2.2, pg16
- Table 1, pg17 - 22

	5 year durability considered		Elevation of solar panel above metal roof to allow cleaning, or protection of roof from debris accumulation.
	15 year durability considered		
	50 year durability considered		
	Specified intended life considered, life = .....years		Material compatibility and corrosion zone (also <b>E2</b> )
			Material selection (G12/AS2 or E2/AS1).

Reasons for decisions plus any additional comments or RFIs:

- General:
- RFIs required:
- RFIs received:

Under section 112, Building Act 2004, the following must be considered for any alteration

**C DOCS - Protection from Fire:**  Not applicable to this BC (Refer to C documents [Acceptable Solutions](#))

**State Risk Group:** [tick all that apply]

- C/VM1 Solid fuel heaters
- C/VM2 Framework for fire safety design
- C/AS1 (SH) Buildings with Sleeping (residential) and Outbuildings (Risk Group SH)
- C/AS2 Buildings other than Risk Group SH

**Verification Method C/VM1**  Not applicable to this BC as no heater  
 Solid fuel heater processing checklist attached

Reasons for decisions plus any additional comments or RFIs:

- General:
- Additional:
  - Solid fuel heater:
  - Hearth/slab:
  - Chimney flue:
  - Generic materials:
  - Heat transfer / Distances:
- RFIs required:
- RFIs received:

**Acceptable Solutions**

**Part 1 General**  Not applicable to this BC

Reasons for decisions plus any additional comments or RFIs:

- General:
- Additional: Fire protection system:
- RFIs Required:
- RFIs received:

**Part 2 Fire Cells, Fire Safety Systems, and Fire Resistance Ratings**  Not applicable to this BC

Reasons for decisions plus any additional comments or RFIs:

- General:
- Additional: Distance to Boundary: <specify>
- RFIs required:
- RFIs received:



**Part 3 Means Of Escape**     Not applicable to this BC

Reasons for decisions plus any additional comments or RFIs:

- General:
- Additional: Escape path lengths (match protection system):
- RFIs required:
- RFIs received:

**Part 4 Control Of Internal Fire & Smoke Spread**     Not applicable to this BC

Reasons for decisions plus any additional comments or RFIs:

- General:
- RFIs required:
- RFIs received:

**Part 5 Control Of External Fire spread**     Not applicable to this BC

Reasons for decisions plus any additional comments or RFIs:

- General:
- RFIs required:
- RFIs received:

**Part 6 Firefighting**     Not applicable to this BC

Reasons for decisions plus any additional comments or RFIs:

- General:
- RFIs required:
- RFIs received:

**Part 7 Prevention Of Fire Occurring**     Not applicable to this BC

Reasons for decisions plus any additional comments or RFIs:

- General:
- RFIs required:
- RFIs received:

<b>E2 External Moisture</b> <input type="checkbox"/> Not applicable to this BC		(Refer E2 <a href="#">Acceptable Solutions</a> )	
Are all fixings relevant for bracing & / or corrosion zone and whether collector direct fixed or elevated? ( <i>spacer: type / material, screw: gauge / length / type</i> )		Flash details:	
		Roof / wall penetrations:	
Reasons for decisions plus any additional comments or RFIs: <ul style="list-style-type: none"> <li>• General:</li> <li>• RFIs required:</li> <li>• RFIs received:</li> </ul>			

<b>F2 Hazardous Building Material</b> <input type="checkbox"/> Not applicable to this BC		(Refer F2 <a href="#">Acceptable Solutions</a> )	
Protection from broken glass / brittle material: placement & protection of solar collector			
Reasons for decisions plus any additional comments or RFIs: <ul style="list-style-type: none"> <li>• General:</li> <li>• RFIs required:</li> <li>• RFIs received:</li> </ul>			

<b>F5 Construction and Demolition Hazards</b> <input checked="" type="checkbox"/> Not applicable to this BC		(Refer F5 <a href="#">Acceptable Solutions</a> )	
Hazard identification and management			
Reasons for decisions plus any additional comments or RFIs: <ul style="list-style-type: none"> <li>• General:</li> <li>• RFIs required:</li> <li>• RFIs received:</li> </ul>			
(NOTE: F5 is always applicable. It may not be our responsibility to manage F5 but there needs to be an indication that it will be managed on site.)			

<b>G9 Electricity</b> <input type="checkbox"/> Not applicable to this BC		(Refer G9 <a href="#">Acceptable Solutions</a> )	
Electrical energy certificate – needs to be supplied with CCC application			
Reasons for decisions plus any additional comments or RFIs: <ul style="list-style-type: none"> <li>• General:</li> <li>• Additional:</li> <li>• RFIs required:</li> <li>• RFIs received:</li> </ul>			

<b>G12 Water Supplies</b> <input type="checkbox"/> Not applicable to this BC		(Refer G12 <a href="#">Acceptable Solutions</a> )	
The pitch & installation of the collector is compliant with G12 / AS3500 ( <i>part 4</i> ) <ul style="list-style-type: none"> <li><input type="checkbox"/> Support rails</li> <li><input type="checkbox"/> Collector frames (<i>G12/AS2</i>)</li> <li><input type="checkbox"/> Fixing points</li> <li><input type="checkbox"/> Location on roof plane</li> </ul>		Hot water heating design ( <i>all relevant valves, venting requirements, water temperature</i> )	
		Relationship between solar collector area and hot water storage verified: minimum of 50 liters of hot water storage per square meter of collector area or meet the No-Load System Operation Test described in Appendix F of AS/NZS 2712:2007.	



			Piping layout included on plan
Reasons for decisions plus any additional comments or RFIs:			
<ul style="list-style-type: none"> <li>• General:</li> <li>• RFIs required:</li> <li>• RFIs received:</li> </ul>			

<b>H1 Energy Efficiency</b> <input type="checkbox"/> Not applicable to this BC		(Refer H1 <a href="#">Acceptable Solutions</a> )	
Collectors installed at the same angle as the pitch of the roof as long as the performance is 75% or more of the maximum achievable performance ( <a href="#">Solar Water Heaters</a> - Guidance for suppliers, installers and BCAs: Table 9, pp32 ( <i>MBIE, 2009</i> )).			Limit heat loss from hot water pipes connected to storage vessels.
Reasons for decisions plus any additional comments or RFIs:			
<ul style="list-style-type: none"> <li>• General:</li> <li>• RFIs required:</li> <li>• RFIs received:</li> </ul>			

All other clauses of the Building Code have been considered not applicable to this Building Consent.

<b>Building Act 2004 and Other</b>		(Refer to <a href="#">Building Act 2004</a> )	
S26(2) Warning or ban			S71 - 74 Natural hazards
S30A-H NMUA			S75 - 77 Building over 2 lots
S31 PIM			S87A Owner notification of LBPs doing RBW
S36 Development Contribution notice			S90 Inspections by BCA
S37 Restrict project start (no Resource Consent issued)			S90D Owner-Builder exemption – FORM2C
S39 Heritage New Zealand			S112 Alterations to existing buildings
S42: Building work already undertaken (with or without a BC) which may require a COA			S113 Intended life of building
S43(2) Energy work requiring a BC			S115 Change of use
S45 How to apply for a BC, Amendment minor variation			S116 Extension of Life
S67 - 70 Waiver or modification			S116A Subdivision of building / part of building
Project value provided and reasonable			
Reasons for decisions plus any additional comments or RFIs:			
<ul style="list-style-type: none"> <li>• S26(2):</li> <li>• S30A-H:</li> <li>• S31:</li> </ul>			

- S36 - 37:
- S39:
- S42:
- S43(2)
- S45:
- S67-70:
- S71-74:
- S75-77:
- S87A
- S90:
- S90D:
- S112:
- S113:
- S115:
- S116:
- S116A:
- RFIs required:
- RFIs received:

**Restricted Building Work**     Not applicable to this BC

Certificate of Design Work (COW) received. (If NO, clock stopped and COW requested)

Design LBP'S are named, (If NO, clock stopped and name(s) requested)

Trade LBP's are named for all categories of RBW. (If NO, Inspection Alert activated)

Reasons for decisions plus any additional comments or RFIs:

- General:
- RFIs required:
- RFIs received:



**STATEMENTS RECEIVED**

**Key for statement types:** Electrical Plan (EP) Engineer / Designer (PS1, PS2) Truss Layout (TR) Fire Philosophy (FP) Waterproofing (WP) Other (O) *[specify]*.....

Author's Name (If author providing more than one document, list and assess each document)	Decisions Regarding Document Content						Decision Regarding Author registration					Reason for decision P = content adequate / author approved / other reason recorded below F = content inadequate / author not approved / other recorded below	Outcome of decision P = Accept document F = Reject document
	Statement type / Header	P=Pass F=Fail NA=Not Applicable					P=Pass F=Fail NA=Not Applicable						
		Site Address / Legal description	Insurance	Date	B. Code (parts)	Work identified	Name & signature	<a href="#">CPEng register</a>	<a href="#">NZRAB register</a>	<a href="#">EWRB register</a>	<a href="#">PGD register</a>		
<b>Other reason(s) for decision(s):</b> <i>(Use this area for "other" statement types, or for giving reasons for decisions where a statement is not complete or an author is not registered, but you are accepting their statement)</i>													

**OUTCOME OF DECISIONS**

Documentation does NOT demonstrate compliance with the Building Code and Building Act 2004. Building Consent cannot be granted until requests for further information have been addressed by the Applicant. The application is on hold.

Name: \_\_\_\_\_ Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Documentation demonstrates compliance with the Building Code and Building Act 2004. If there were any requests for further information, these have been addressed and the reasons for these have been recorded in each instance. Building Consent can now be granted and issued on payment of the appropriate fees and levies.

Name: \_\_\_\_\_ Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Documentation does NOT demonstrate compliance with the Building Code and Building Act 2004. Building Consent cannot be granted. Requests for further information have not been addressed by the Applicant.

Name: \_\_\_\_\_ Signature: \_\_\_\_\_ Date: \_\_\_\_\_

