

Appendix 11. Energy and water efficiency standards - excluding non-fixed items

Column1	Base Homestar Rating	Category	Category Points	Points Claimed	Cost	Cost / Point	Specification	Notes	Relationship to rules
1	7	EHC-2c		0.9	\$ 4,600.00	\$5,111.11	Upgrade to HW Heat pump - Econergy HP4000 LT compressor head; storage tank as above (no element)	Relies on low flow showers for score	
2	6	EHC-3a	2	1.5	\$ 42.50	\$ 28.33	CFL bulbs in 75% of internal fittings. All external lights have integrated daylight & movement sensor		Fittings are capable required by standard
3	6	EHC-3b		0.5	\$ 140.00	\$ 280.00	As above, plus 25% of internal fittings are integral LED bulbs, and all external bulbs are CFL		Fittings are capable required by standard
5	????	EHC-5	8	4	\$ 9,500.00	\$2,375.00	2.6kW output Solar PV panels, inverter, panels installed on north-facing roof - meets 50% of house annual demand		
6	5	EHC-6a	15	1.1	\$ 2,310.00	\$2,100.00	Upgrade step 1 - perimeter slab insulation only. 25mm XPS with 9mm fibrecement board glued to face.	25mm XPS perimeter slab insulation - no underfloor insulation 9mm fibrecement board glued to Black Pearl as protective facing	Required by standard
7	7			2.4	\$ 15,180.00	\$6,325.00	Upgrade step 2 - Upgrade Ribraft waffle slab to Maxraft waffle slab for fully continuous insulation under slab, with integral perimeter insulation, plus 9mm fibrecement facing board. Omit 25mm XPS perimeter insulation. Upgrade windows to thermally broken frames and low-e glazing units. Upgrade roof insulation, add second layer of R3.2 blanket.	Ceiling insulation add R3.2 blanket fibreglass Cost confirmation - thermally broken frames for all windows Cost confirmation - low-e coating to all glazing units Cost confirmation - argon fill to all glazing units	
14	4	EHC-7a	4.5	0.3	\$ -	\$ -	All washbasins/sinks and baths have overflows		Required by standard
17	7	EHC-8c		0.4	\$ 1,250.00	\$3,125.00	4sqm of polycarbonate roof on timber framing to cover washing drying area.		
21	4	WAT-1	6	4	\$ 3,000.00	\$ 750.00	4000L above ground tank, pump and feeds to laundry and WC	Costs reported as \$2,500-3000 installed at Hobsonville Point - tank, pump, feeds to laundry and WCs	Required by standard
23	4	WAT-2b		0.3	\$ -	\$ -	6/3L dual flush WC	Market standard installation	Required by standard
24	4	WAT-2c		0.7	\$ 200.00	\$ 285.71	Upgrade WC to WELS 4 star - 4.5L/3L dual flush - eg Robertson Heron Close Coupled WC or equivalent		Required by standard
27	4	WAT-2g		0.3	\$ -	\$ -	Upgrade Kitchen and basin taps to WELS 4 star (7.5L/minute) - eg Caroma / Dorf "Balance V" mixers	Several are available and do not appear to have a cost surcharge - cost is design not efficiency led	Required by standard
28	4	WAT-2h		0.3	\$ -	\$ -	Upgrade Kitchen and basin taps to WELS 5 star (6L/minute) - eg VCBC Crystal range mixers or Euroware TAP-CP-F0037 and TAP-CP-F0041	Several are available and do not appear to have a cost surcharge - cost is design not efficiency led	Required by standard
29	4	WAT-2i		0.4	\$ -	\$ -	Upgrade Kitchen and basin taps to WELS 6 star (4.5L/minute) - eg Pacific Tapware 2000 series mixers	Several are available and do not appear to have a cost surcharge - cost is design not efficiency led	
31	????	WAT-3	3	3	\$ 10,000.00	\$3,333.33	Greywater: Ecoplus three-toilet system plus garden irrigation addition, in-ground tank		
34	4	WST-3	1	1	\$ -	\$ -	10L, 2 compartments sorting bin within kitchen - eg Hideaway KC30H, or Easy Recycling Double Bins HH2	Assumed standard kitchen design - no extra cost	
35	4	WST-4	2	2	\$ 50.00	\$ 25.00	2L storage in kitchen, 240L compost bin in garden - eg, internal: Easy Recycling Triple Bins HH1 (deduct cost of bin to meet WST-3 to offset); external: Warehouse Round Compost Bin with Lid 240L		2l storage required by standard
36	5	MAN-1	2	2	\$ -	\$ -	No specifications to achieve. All new houses should comply. 0.5 points deducted for Cooling heat pump		Required by standard

42	5	MAT-1a	9	9	\$ -	\$ -	Environmental Choice products: Resene, Wattyl or Dulux paint; Autex, Pink Batts or Novatherm insulation; "Ecolabel" concrete from Firth or Golden Bay; GIB board to walls and ceilings. Alternatively, ISO14001 products to appropriate Chain certification - eg floor coverings from Godfrey Hirst, Feltex, Cavalier Bremworth; Concrete from Holcim.	
43	5	MAT-2a	3	0.75	\$ -	\$ -	Low VOC coatings - eg Resene / Dulux range	
44	5	MAT-2b		0.75	\$ -	\$ -	Low VOC adhesives - eg Bostik range	
45	5	MAT-2c		0.75	\$ -	\$ -	Low VOC carpet - eg Cavalier Bremworth, Heritage carpets Environmental Choice range, Feltex,	
46	5	MAT-2d		0.75	\$ -	\$ -	Any particle board, MDF, LVL, plywood and other engineered timber is low-formaldehyde to relevant AS/NZ standards. Eg Laminex Lakepine MDF, Nelson Pine Super E0 MDF, Laminex Superfine particleboard, CHH Kopine particleboards, CHH Ecoply, all CHH LVL products manufactured in NZ.	

4		EHC-4a	2	1.5	\$ 250.00	\$ 166.67	2.5 star fridge freezer		Not capable of being checked / enforced.
15		EHC-7c		0.1	\$ 300.00	\$ 3,000.00	Showerdome		Not capable of being checked / enforced.
16		EHC-8a	1	0.6	\$ 300.00	\$ 500.00	Wall mounted fold out washing line frame, mounted externally in general garden area. 4sqm of external space dedicated to drying washing.		Not capable of being checked / enforced.
18		EHC-9a	2	0.29	\$ -	\$ -	Habitable rooms include areas of carpet; concrete floors. Noisy activity room enclosed. All plumbing tied back to frame with vibration isolators, eg rubber washers to each screwed fixture point.	Cost of plumbing isolation negligible in overall installation costs.	
19		EHC-10	3	1	\$ 750.00	\$ 750.00	Lifemark Level 3: Assumes lever handles to all doors, all access doors 860 leaves (not stores/wardrobes etc), and relatively level access from parking to entrance door. Reallocate 2m2 of internal space for accessible WC.		not capable of being checked / enforced. Or can be easily converted at a latter d
20		EHC-10b		2	\$ 1,680.00	\$ 840.00	Lifemark Level 5: Change vinyl flooring in kitchen to non-slip. Entrance door to have level access detail, include slot drain across path outside entry door. Change tile flooring in laundry and bathrooms to non-slip		Life-stage design rule.
22		WAT-2a	6	2.2	\$ -	\$ -	Shower head with 9L maximum flow rate	Generally should be available at average market cost	not capable of being checked / enforced. Or can be easily converted at a latter d
25		WAT-2e		0.3	\$ 200.00	\$ 666.67	Upgrade to WELS 4 star washing machine - eg Simpson SWT605SA or Samsung SW70SPWIP	Electrolux EWF1074 or LG WD11020	not capable of being checked / enforced. Or can be easily converted at a latter d
26		WAT-2f		0.9	\$ 700.00	\$ 777.78	Upgrade to WELS 5 star washing machine - eg Panasonic NA-148VG3 or Bosch WAS32742AU	ASKO W6444	not capable of being checked / enforced. Or can be easily converted at a latter d
30		WAT-2k		0.1	\$ 600.00	\$ 6,000.00	Upgrade dishwasher to WELS 4 star - BOSCH SMS63M18AU		not capable of being checked / enforced. Or can be easily converted at a latter d
32		WST-1	3	3	\$ 200.00	\$ 66.67	Implement a site waste management plan in accordance with REBRI guidelines		not capable of being checked / enforced. Or can be easily converted at a latter d
33		WST-2	3	3	-\$ 200.00	-\$ 66.67	90% of waste diverted for recycling, or less than 10kg/sqm sent to landfill		not capable of being checked / enforced. Or can be easily converted at a latter d
37		MAN-2	2	0.75	\$ -	\$ -	Two-step window handles. Front door facing street. Windows and fences arranged for street surveillance.	Assumes "secure locks" are standard to all doors, sensor lighting provided under EHC3, modern hot water tank installed properly to limit outflow temperature, smoke alarms fitted as standard code compliance.	Life-stage design rule.
38		MAN-2	2	0.25	\$ 20.00	\$ 80.00	Fire extinguisher (x1).		not capable of being checked / enforced efficiently.
39		MAN-2	2	0.25	\$ 200.00	\$ 800.00	Lockable wall mounted bathroom mirror cupboard.		not capable of being checked / enforced efficiently.

40		MAN-3	2	2	\$ 200.00	\$ 100.00	Time to compile owners manual, based on template document, designers drawings and installers manuals. Assume 2 hours of professional time at \$100 / hr		not capable of being checked / enforced efficiently.
41		MAN-4	2	2	\$ -	\$ -	Contractor Environmark Gold, with Environmental Management Plan, or EcoPlumber, IAONZ, EcoSmart Electrician		not capable of being checked / enforced efficiently.
47		STE-1	3	1	\$ -	\$ -	75% permeable site beyond roof footprint. No additional cost assumed for grass, soft planting.	Allows for approx 50sqm impermeable parking and patio on a 300sqm section	no impermeable surface rule being included in Phase 1 - adverse section 32 ass
48		STE-2a	1.5	1	\$ 1,680.00	\$1,680.00	25% of site area (excluding under roof) planted with mix of 5 native species mix suitable for domestic garden. 4 plants per sqm, pb5 and pb8 mix. Offset cost against saving in seeded lawn. Christchurch species.		not capable of being checked / enforced efficiently.
49		STE-2b		0.5	\$ 1,680.00	\$3,360.00	Additional 25% of site area (excluding under roof) planted with mix of 5 native species mix suitable for domestic garden. 4 plants per sqm, pb5 and pb8 mix. Offset cost against saving in seeded lawn. Christchurch species.		not capable of being checked / enforced efficiently.
50		STE-3a	1.5	1	-\$ 100.00	-\$ 100.00	4sqm exposed topsoil in garden. Offset cost against saving in seeded lawn.		not capable of being checked / enforced efficiently.
51		STE-3b		0.5	\$ 200.00	\$ 400.00	Four fruit-producing trees, pb8.		
52		STE-4	2	0	\$ -		Transport - not sought - depends on site location, costs for sites vary enormously		

ate.

ate.

ate.

ate.

ate.

ate.

ate.

essment.