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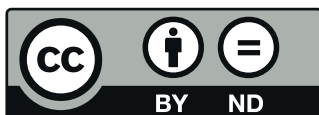
Whole-of-Home Efficiency Factors Standard



2022

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Australian Building Codes Board

GPO Box 2013, Canberra ACT 2601

Phone: 1300 134 631

Email: ncc@abcb.gov.au

Web: abcb.gov.au

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Part 1 Introduction

1.1 General

The National Construction Code (NCC) is a uniform set of technical provisions for the design and construction of buildings and other structures throughout Australia.

The NCC energy efficiency provisions require a dwelling and its *domestic services* to use energy efficiently in order to reduce energy consumption, reduce greenhouse gas emissions, improve occupant health and amenity, and improve the resilience of a building to extreme weather and blackouts.

The NCC 2022 residential energy efficiency provisions introduce a whole-of-home (WOH) approach. This provides a holistic assessment of the energy performance of a dwelling, covering both thermal performance and *domestic services*. To meet the WOH requirements, the net equivalent energy usage of a dwelling must not exceed a certain allowance.

The net equivalent energy usage of a dwelling is calculated by multiplying the applicable WOH efficiency factor by the applicable floor area factor, adding swimming pool and spa pump energy usage, and subtracting the installed capacity of any photovoltaics (PV). The applicable WOH efficiency factors are determined by the combination of the *domestic services* (i.e. heating, cooling and *heated water* equipment).

Section 2 of this ABCB Standard contains the WOH efficiency factors used in the formula for calculating net equivalent energy usage in J3D14 of NCC Volume One and Part 13.6 of the ABCB Housing Provisions.

1.2 Scope

This ABCB Standard provides WOH efficiency factors for Class 1 dwellings, Class 2 *sole-occupancy units* and Class 4 parts of buildings in the energy efficiency provisions of the NCC. It applies in each NCC *climate zone* and jurisdiction.

1.3 Application

The provisions of this ABCB Standard are designed for application to Class 1 buildings (houses and the like), Class 2 *sole-occupancy units* (apartments) and Class 4 parts of buildings, as defined in the NCC.

This ABCB Standard is referenced in the *Deemed-to-Satisfy Provisions* of J3D14 of NCC Volume One and Part 13.6 of the ABCB Housing Provisions.

This ABCB Standard is not to be read in isolation and must only be used in conjunction with the relevant parts of the NCC, as outlined above.

1.4 Normative references

The following documents are referred to in this Standard:

- (a) NCC Volume One;
- (b) ABCB Housing Provisions

1.5 Units

This ABCB Standard uses kW/100m² as the units for WOH efficiency factors.

1.6 Definitions

In this ABCB Standard, terms shown in italicised text have the meaning that they have in the NCC.

Part 2 Whole-of-Home Efficiency Factors

2.1 Limitations

This ABCB Standard only covers the range from 1 kW to 10 kW of equivalent photovoltaic (PV) capacity. Beyond this scope, an alternative compliance option must be used to satisfy the *Performance Requirements* under J1P3 in NCC Volume One or H6P2(1) in NCC Volume Two. Where there is an 'X' in a table, it means this particular combination of equipment is beyond the scope of this ABCB Standard. Other compliance options must be considered to comply with the *Performance Requirements*.

2.2 Compliance requirements

In J3D14 of NCC Volume One and Part 13.6 of the ABCB Housing Provisions, the net equivalent energy usage of a dwelling must be calculated using the formula in J3D14(1)(a) or 13.6.2(1)(a), and the WOH efficiency factors (E_E) specified in Section 2.4 of this ABCB Standard.

2.3 Application

2.3.1 J3D14 or 13.6.2 Net equivalent energy usage

(1) The net equivalent energy usage of a building, calculated in accordance with (a), must not exceed the allowance calculated in accordance with (b)—

(a) $(A \times E_E) + E_P + E_S - E_R$, where—

- (i) A = the floor area factor obtained by multiplying the total floor area of the building by the adjustment factor in Table J3D14a or Table 13.6.2a; and
- (ii) E_E = the *main space conditioning* and *main water heater* efficiency factors obtained from the ABCB Standard for Whole-of-Home Efficiency Factors; and
- (iii) E_P = the *swimming pool* pump energy usage in (2); and
- (iv) E_S = the spa pump energy usage in (3); and
- (v) E_R = the installed capacity of on-site photovoltaics (kW).

(b) $A \times E_F$ where—

- (i) A = the floor area factor obtained from multiplying the total floor area of the building by the adjustment factor in Table J3D14a or Table 13.6.2a;
- (ii) E_F = the energy factor in Table J3D14b or Table 13.6.2b.

The WOH efficiency factors specified in Section 2.4 must be obtained from the appropriate table given the dwelling's *climate zone*, jurisdiction and equipment types.

For gas heating and heat pump appliances, the factors must be obtained from the closest rating that can be chosen from the tables.

Information

For example, if the heating equipment is a 2-star gas ducted system, 'Gas – ducted < 3 stars' should be used, not 'Gas – ducted < 4.5 stars'.

Other than *climate zone* 1, if no heating and/or cooling is specified for a dwelling, 'Other or none specified' must be selected to determine the applicable WOH efficiency factors.

2.4 Whole-of-home efficiency factors

(1) When using the tables in this ABCB Standard—

- (a) Hydronic heating should be treated as 'Gas – ducted < 3 stars'.

Whole-of-home efficiency factors

- (b) Ratings for heat pumps are equivalent values based on ratings to the Greenhouse and Energy Minimum Standards (GEMS) 2019 determination or later determination for air-conditioners.
- (c) Ratings in brackets for heat pumps are values based on ratings to the GEMS pre-2019 determination for air-conditioners.

Information

The star rating selected for heat pumps registered under the GEMS 2019 (or later) determination should correspond to the appropriate zone on the energy rating label (hot, cold or average) for the dwelling location. For more detail, see the energy rating website, www.energyrating.gov.au.

2.4.1 Climate zone 1

Table 1.1.1 Whole-of-home efficiency factors E_E (kW/100m²) – climate zone 1 – Queensland

Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas Instantaneous	Solar gas
Evaporative	2.292	1.860	1.078	0.944	0.906	3.137	2.686	0.752
Heat pump - Ducted < 2.25 stars (< 3)	3.952	3.618	2.719	2.644	2.537	4.883	4.442	2.427
Heat pump - Ducted < 3 stars (< 4.5)	3.757	3.422	2.524	2.449	2.342	4.687	4.246	2.232
Heat pump - Ducted < 3.75 stars (< 6)	3.463	3.129	2.230	2.155	2.048	4.394	3.953	1.938
Heat pump - Ducted ≥ 3.75 stars (≥ 6)	3.169	2.835	1.937	1.861	1.755	4.100	3.659	1.644
Heat pump - Non-ducted < 2.25 stars (< 3)	3.616	3.271	2.382	2.296	2.198	4.537	4.095	2.086
Heat pump - Non-ducted < 3 stars (< 4.5)	3.451	3.107	2.218	2.132	2.034	4.373	3.931	1.922
Heat pump - Non-ducted < 3.75 stars (< 6)	3.205	2.860	1.971	1.885	1.787	4.127	3.685	1.675
Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	2.958	2.614	1.725	1.639	1.541	3.880	3.438	1.429

Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas Instantaneous	Solar gas
Other or none specified	3.952	3.618	2.719	2.644	2.537	4.883	4.442	2.427

Table 1.1.2 Whole-of-home efficiency factors E_E (kW/100m²) – climate zone 1 – Western Australia

Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas Instantaneous	Solar gas
Evaporative	2.871	1.711	1.249	0.906	1.045	3.188	2.706	0.770
Heat pump - Ducted < 2.25 stars (< 3)	5.352	4.355	3.654	3.374	3.400	5.855	5.378	3.185
Heat pump - Ducted < 3 stars (< 4.5)	5.057	4.060	3.359	3.079	3.105	5.560	5.083	2.890
Heat pump - Ducted < 3.75 stars (< 6)	4.614	3.618	2.917	2.637	2.662	5.117	4.640	2.448
Heat pump - Ducted ≥ 3.75 stars (≥ 6)	4.172	3.175	2.474	2.194	2.220	4.675	4.198	2.006
Heat pump - Non-ducted < 2.25 stars (< 3)	4.850	3.825	3.142	2.858	2.902	5.326	4.850	2.674
Heat pump - Non-ducted < 3 stars (< 4.5)	4.604	3.578	2.896	2.611	2.655	5.079	4.603	2.428
Heat pump - Non-ducted < 3.75 stars (< 6)	4.234	3.208	2.526	2.241	2.285	4.709	4.233	2.058
Heat pump - Non-Ducted ≥ 3.75 stars (≥ 6)	3.864	2.839	2.156	1.872	1.915	4.339	3.863	1.688
Other or none specified	5.352	4.355	3.654	3.374	3.400	5.855	5.378	3.185

Table 1.1.3 Whole-of-home efficiency factors E_E (kW/100m²) – climate zone 1– Northern Territory

Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas Instantaneous	Solar gas
Evaporative	1.710	1.596	1.025	1.008	0.825	1.478	1.359	0.768
Heat pump - Ducted < 2.25 stars (< 3)	3.600	3.501	2.918	2.909	2.719	3.383	3.264	2.664
Heat pump - Ducted < 3 stars (< 4.5)	3.385	3.287	2.704	2.694	2.504	3.169	3.049	2.449
Heat pump - Ducted < 3.75 stars (< 6)	3.063	2.965	2.382	2.372	2.182	2.847	2.727	2.127
Heat pump - Ducted ≥ 3.75 stars (≥ 6)	2.741	2.643	2.060	2.050	1.860	2.525	2.405	1.805
Heat pump - Non-ducted < 2.25 stars (< 3)	3.230	3.130	2.548	2.538	2.349	3.012	2.893	2.294
Heat pump - Non-ducted < 3 stars (< 4.5)	3.048	2.948	2.366	2.355	2.166	2.830	2.711	2.111
Heat pump - Non-ducted < 3.75 stars (< 6)	2.774	2.675	2.092	2.082	1.893	2.557	2.437	1.838
Heat pump - Non-Ducted ≥ 3.75 stars (≥ 6)	2.501	2.401	1.819	1.809	1.619	2.283	2.164	1.565
Other or none specified	3.600	3.501	2.918	2.909	2.719	3.383	3.264	2.664

2.4.2 Climate zone 2

Table 2.1.1 Whole-of-home efficiency factors E_E (kW/100m²) – climate zone 2 – gas heating – New South Wales

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas – ducted < 3 Stars	Evaporative	2.434	1.545	1.000	0.714	0.809	2.285	1.894	0.593
Gas – ducted < 3 Stars	Heat pump - Ducted < 2.25 stars (< 3)	2.739	1.891	1.306	1.059	1.134	2.621	2.231	0.869
Gas – ducted < 3 Stars	Heat pump - Ducted < 3 stars (< 4.5)	2.702	1.854	1.270	1.023	1.098	2.585	2.195	0.833
Gas – ducted < 3 Stars	Heat pump - Ducted < 3.75 stars (< 6)	2.648	1.800	1.215	0.969	1.043	2.531	2.140	0.778
Gas – ducted < 3 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	2.593	1.746	1.161	0.914	0.989	2.476	2.086	0.724
Gas – ducted < 3 Stars	Heat pump - Non-ducted < 2.25 stars (< 3)	2.677	1.820	1.245	0.990	1.070	2.552	2.159	0.798
Gas – ducted < 3 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	2.648	1.790	1.215	0.960	1.040	2.522	2.130	0.768
Gas – ducted < 3 Stars	Heat pump - Non-ducted < 3.75 stars (< 6)	2.603	1.746	1.171	0.916	0.996	2.478	2.085	0.724

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas – ducted < 3 Stars	Heat pump - Non-Ducted ≥ 3.75 stars (≥ 6)	2.559	1.702	1.127	0.871	0.952	2.434	2.041	0.680
Gas – ducted < 3 Stars	Other or none specified	2.739	1.891	1.306	1.059	1.134	2.621	2.231	0.869
Gas – ducted < 4.5 Stars	Evaporative	2.408	1.519	0.974	0.688	0.783	2.259	1.868	0.567
Gas – ducted < 4.5 Stars	Heat pump - Ducted < 2.25 stars (< 3)	2.713	1.865	1.280	1.033	1.108	2.596	2.205	0.843
Gas – ducted < 4.5 Stars	Heat pump - Ducted < 3 stars (< 4.5)	2.676	1.829	1.244	0.997	1.072	2.559	2.169	0.807
Gas – ducted < 4.5 Stars	Heat pump - Ducted < 3.75 stars (< 6)	2.622	1.774	1.190	0.943	1.017	2.505	2.114	0.752
Gas – ducted < 4.5 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	2.567	1.720	1.135	0.888	0.963	2.450	2.060	0.698
Gas – ducted < 4.5 Stars	Heat pump - Non-ducted < 2.25 stars (< 3)	2.651	1.794	1.219	0.964	1.044	2.526	2.133	0.772
Gas – ducted < 4.5 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	2.622	1.764	1.190	0.934	1.015	2.496	2.104	0.742
Gas – ducted < 4.5 Stars	Heat pump - Non-ducted < 3.75 stars (< 6)	2.577	1.720	1.145	0.890	0.970	2.452	2.059	0.698

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas – ducted < 4.5 Stars	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	2.533	1.676	1.101	0.846	0.926	2.408	2.015	0.654
Gas – ducted < 4.5 Stars	Other or none specified	2.713	1.865	1.280	1.033	1.108	2.596	2.205	0.843
Gas – ducted < 6 Stars	Evaporative	2.370	1.480	0.935	0.649	0.744	2.220	1.829	0.528
Gas – ducted < 6 Stars	Heat pump - Ducted < 2.25 stars (< 3)	2.674	1.826	1.241	0.995	1.069	2.557	2.166	0.804
Gas – ducted < 6 Stars	Heat pump - Ducted < 3 stars (< 4.5)	2.638	1.790	1.205	0.958	1.033	2.520	2.130	0.768
Gas – ducted < 6 Stars	Heat pump - Ducted < 3.75 stars (< 6)	2.583	1.735	1.151	0.904	0.979	2.466	2.075	0.713
Gas – ducted < 6 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	2.529	1.681	1.096	0.849	0.924	2.412	2.021	0.659
Gas – ducted < 6 Stars	Heat pump - Non-ducted < 2.25 stars (< 3)	2.612	1.755	1.180	0.925	1.005	2.487	2.094	0.733
Gas – ducted < 6 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	2.583	1.725	1.151	0.895	0.976	2.458	2.065	0.703
Gas – ducted < 6 Stars	Heat pump - Non-ducted < 3.75 stars (< 6)	2.538	1.681	1.106	0.851	0.931	2.413	2.021	0.659

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas – ducted < 6 Stars	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	2.494	1.637	1.062	0.807	0.887	2.369	1.976	0.615
Gas – ducted < 6 Stars	Other or none specified	2.674	1.826	1.241	0.995	1.069	2.557	2.166	0.804
Gas – ducted ≥ 6 Stars	Evaporative	2.331	1.442	0.896	0.610	0.705	2.181	1.790	0.489
Gas – ducted ≥ 6 Stars	Heat pump - Ducted < 2.25 stars (< 3)	2.635	1.787	1.203	0.956	1.030	2.518	2.127	0.765
Gas – ducted ≥ 6 Stars	Heat pump - Ducted < 3 stars (< 4.5)	2.599	1.751	1.166	0.919	0.994	2.482	2.091	0.729
Gas – ducted ≥ 6 Stars	Heat pump - Ducted < 3.75 stars (< 6)	2.544	1.696	1.112	0.865	0.940	2.427	2.036	0.674
Gas – ducted ≥ 6 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	2.490	1.642	1.057	0.810	0.885	2.373	1.982	0.620
Gas – ducted ≥ 6 Stars	Heat pump - Non-ducted < 2.25 stars (< 3)	2.573	1.716	1.141	0.886	0.966	2.448	2.056	0.694
Gas – ducted ≥ 6 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	2.544	1.687	1.112	0.856	0.937	2.419	2.026	0.665
Gas – ducted ≥ 6 Stars	Heat pump - Non-ducted < 3.75 stars (< 6)	2.500	1.642	1.068	0.812	0.893	2.374	1.982	0.620

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas – ducted ≥ 6 Stars	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	2.455	1.598	1.023	0.768	0.848	2.330	1.937	0.576
Gas – ducted ≥ 6 Stars	Other or none specified	2.635	1.787	1.203	0.956	1.030	2.518	2.127	0.765
Gas - non ducted < 3 Stars	Evaporative	2.362	1.465	0.935	0.660	0.741	2.202	1.813	0.546
Gas - non ducted < 3 Stars	Heat pump - Ducted < 2.25 stars (< 3)	2.668	1.814	1.244	0.991	1.070	2.540	2.149	0.803
Gas - non ducted < 3 Stars	Heat pump - Ducted < 3 stars (< 4.5)	2.631	1.778	1.208	0.954	1.033	2.504	2.113	0.767
Gas - non ducted < 3 Stars	Heat pump - Ducted < 3.75 stars (< 6)	2.577	1.723	1.153	0.900	0.979	2.449	2.059	0.712
Gas - non ducted < 3 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	2.522	1.669	1.099	0.845	0.925	2.395	2.004	0.658
Gas - non ducted < 3 Stars	Heat pump - Non-ducted < 2.25 stars (< 3)	2.606	1.742	1.182	0.920	1.005	2.470	2.079	0.738
Gas - non ducted < 3 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	2.576	1.713	1.153	0.891	0.976	2.441	2.049	0.709
Gas - non ducted < 3 Stars	Heat pump - Non-ducted < 3.75 stars (< 6)	2.532	1.668	1.109	0.847	0.931	2.396	2.005	0.665

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas - non ducted < 3 Stars	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	2.487	1.624	1.064	0.802	0.887	2.352	1.961	0.620
Gas - non ducted < 3 Stars	Other or none specified	2.668	1.814	1.244	0.991	1.070	2.540	2.149	0.803
Gas - non ducted < 4.5 Stars	Evaporative	2.348	1.452	0.921	0.647	0.728	2.188	1.800	0.533
Gas - non ducted < 4.5 Stars	Heat pump - Ducted < 2.25 stars (< 3)	2.654	1.801	1.231	0.977	1.056	2.527	2.136	0.790
Gas - non ducted < 4.5 Stars	Heat pump - Ducted < 3 stars (< 4.5)	2.618	1.764	1.194	0.941	1.020	2.491	2.100	0.753
Gas - non ducted < 4.5 Stars	Heat pump - Ducted < 3.75 stars (< 6)	2.563	1.710	1.140	0.887	0.966	2.436	2.045	0.699
Gas - non ducted < 4.5 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	2.509	1.655	1.085	0.832	0.911	2.382	1.991	0.645
Gas - non ducted < 4.5 Stars	Heat pump - Non-ducted < 2.25 stars (< 3)	2.592	1.729	1.169	0.907	0.992	2.457	2.066	0.725

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas - non ducted < 4.5 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	2.563	1.699	1.140	0.877	0.962	2.427	2.036	0.696
Gas - non ducted < 4.5 Stars	Heat pump - Non-ducted < 3.75 stars (< 6)	2.518	1.655	1.095	0.833	0.918	2.383	1.992	0.651
Gas - non ducted < 4.5 Stars	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	2.474	1.611	1.051	0.789	0.874	2.339	1.948	0.607
Gas - non ducted < 4.5 Stars	Other or none specified	2.654	1.801	1.231	0.977	1.056	2.527	2.136	0.790
Gas - non ducted < 6 Stars	Evaporative	2.328	1.432	0.901	0.627	0.708	2.168	1.780	0.513
Gas - non ducted < 6 Stars	Heat pump - Ducted < 2.25 stars (< 3)	2.634	1.781	1.211	0.957	1.036	2.507	2.116	0.770
Gas - non ducted < 6 Stars	Heat pump - Ducted < 3 stars (< 4.5)	2.598	1.744	1.174	0.921	1.000	2.470	2.080	0.733
Gas - non ducted < 6 Stars	Heat pump - Ducted < 3.75 stars (< 6)	2.543	1.690	1.120	0.866	0.946	2.416	2.025	0.679
Gas - non ducted < 6 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	2.489	1.635	1.065	0.812	0.891	2.362	1.971	0.624

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas - non ducted < 6 Stars	Heat pump - Non-Ducted < 2.25 stars (< 3)	2.572	1.709	1.149	0.887	0.972	2.437	2.046	0.705
Gas - non ducted < 6 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	2.543	1.679	1.119	0.857	0.942	2.407	2.016	0.675
Gas - non ducted < 6 Stars	Heat pump - Non-ducted < 3.75 stars (< 6)	2.498	1.635	1.075	0.813	0.898	2.363	1.972	0.631
Gas - non ducted < 6 Stars	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	2.454	1.591	1.031	0.769	0.854	2.319	1.927	0.587
Gas - non ducted < 6 Stars	Other or none specified	2.634	1.781	1.211	0.957	1.036	2.507	2.116	0.770
Gas - non ducted ≥ 6 Stars	Evaporative	2.308	1.412	0.881	0.607	0.687	2.148	1.760	0.493
Gas - non ducted ≥ 6 Stars	Heat pump - Ducted < 2.25 stars (< 3)	2.614	1.760	1.190	0.937	1.016	2.487	2.096	0.750
Gas - non ducted ≥ 6 Stars	Heat pump - Ducted < 3 stars (< 4.5)	2.578	1.724	1.154	0.901	0.980	2.450	2.060	0.713
Gas - non ducted ≥ 6 Stars	Heat pump - Ducted < 3.75 stars (< 6)	2.523	1.670	1.100	0.846	0.925	2.396	2.005	0.659
Gas - non ducted ≥ 6 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	2.469	1.615	1.045	0.792	0.871	2.342	1.951	0.604

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas - non ducted ≥ 6 Stars	Heat pump - Non-ducted < 2.25 stars (< 3)	2.552	1.689	1.129	0.867	0.952	2.417	2.026	0.685
Gas - non ducted ≥ 6 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	2.522	1.659	1.099	0.837	0.922	2.387	1.996	0.655
Gas - non ducted ≥ 6 Stars	Heat pump - Non-Ducted < 3.75 stars (< 6)	2.478	1.615	1.055	0.793	0.878	2.343	1.952	0.611
Gas - non ducted ≥ 6 Stars	Heat pump - Non-Ducted ≥ 3.75 stars (≥ 6)	2.434	1.571	1.011	0.749	0.834	2.299	1.907	0.567
Gas - non ducted ≥ 6 Stars	Other or none specified	2.614	1.760	1.190	0.937	1.016	2.487	2.096	0.750

Table 2.1.2 Whole-of-home efficiency factors E_E (kW/100m²) – climate zone 2 – gas heating – Queensland

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas – ducted < 3 Stars	Evaporative	2.340	1.956	1.088	0.964	0.921	3.315	2.752	0.760
Gas – ducted < 3 Stars	Heat pump - Ducted < 2.25 stars (< 3)	2.608	2.239	1.355	1.255	1.199	3.587	3.031	1.061
Gas – ducted < 3 Stars	Heat pump - Ducted < 3 stars (< 4.5)	2.576	2.208	1.324	1.224	1.168	3.556	2.999	1.030
Gas – ducted < 3 Stars	Heat pump - Ducted < 3.75 stars (< 6)	2.529	2.161	1.277	1.177	1.121	3.509	2.952	0.983
Gas – ducted < 3 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	2.482	2.114	1.230	1.130	1.074	3.462	2.905	0.936
Gas – ducted < 3 Stars	HP - Non-ducted < 2.25 stars (< 3)	2.554	2.180	1.302	1.197	1.144	3.531	2.974	1.002
Gas – ducted < 3 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	2.528	2.154	1.276	1.171	1.118	3.505	2.948	0.976
Gas – ducted < 3 Stars	Heat pump - Non-ducted < 3.75 stars (< 6)	2.489	2.115	1.237	1.132	1.079	3.466	2.909	0.937
Gas – ducted < 3 Stars	Heat pump - Non-Ducted ≥ 3.75 stars (≥ 6)	2.450	2.077	1.198	1.093	1.040	3.427	2.870	0.898
Gas – ducted < 3 Stars	Other or none specified	2.608	2.239	1.355	1.255	1.199	3.587	3.031	1.061

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas – ducted < 4.5 Stars	Evaporative	2.301	1.917	1.049	0.925	0.881	3.276	2.713	0.721
Gas – ducted < 4.5 Stars	Heat pump - Ducted < 2.25 stars (< 3)	2.568	2.200	1.316	1.216	1.160	3.548	2.991	1.022
Gas – ducted < 4.5 Stars	Heat pump - Ducted < 3 stars (< 4.5)	2.537	2.168	1.285	1.184	1.129	3.516	2.960	0.990
Gas – ducted < 4.5 Stars	Heat pump - Ducted < 3.75 stars (< 6)	2.490	2.121	1.238	1.137	1.082	3.470	2.913	0.943
Gas – ducted < 4.5 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	2.443	2.074	1.191	1.090	1.035	3.423	2.866	0.896
Gas – ducted < 4.5 Stars	Heat pump - Non-ducted < 2.25 stars (< 3)	2.515	2.141	1.263	1.158	1.105	3.492	2.934	0.963
Gas – ducted < 4.5 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	2.489	2.115	1.237	1.132	1.079	3.466	2.908	0.937
Gas – ducted < 4.5 Stars	Heat pump - Non-ducted < 3.75 stars (< 6)	2.450	2.076	1.198	1.093	1.040	3.427	2.869	0.898
Gas – ducted < 4.5 Stars	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	2.411	2.037	1.159	1.054	1.001	3.388	2.830	0.859
Gas – ducted < 4.5 Stars	Other or none specified	2.568	2.200	1.316	1.216	1.160	3.548	2.991	1.022

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas – ducted < 6 Stars	Evaporative	2.242	1.858	0.990	0.866	0.823	3.217	2.654	0.662
Gas – ducted < 6 Stars	Heat pump - Ducted < 2.25 stars (< 3)	2.509	2.141	1.257	1.157	1.101	3.489	2.932	0.963
Gas – ducted < 6 Stars	Heat pump - Ducted < 3 stars (< 4.5)	2.478	2.109	1.226	1.125	1.070	3.458	2.901	0.931
Gas – ducted < 6 Stars	Heat pump - Ducted < 3.75 stars (< 6)	2.431	2.062	1.179	1.078	1.023	3.411	2.854	0.884
Gas – ducted < 6 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	2.384	2.015	1.132	1.031	0.976	3.364	2.807	0.837
Gas – ducted < 6 Stars	Heat pump - Non-ducted < 2.25 stars (< 3)	2.456	2.082	1.204	1.099	1.046	3.433	2.875	0.904
Gas – ducted < 6 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	2.430	2.056	1.178	1.073	1.020	3.407	2.849	0.878
Gas – ducted < 6 Stars	Heat pump - Non-ducted < 3.75 stars (< 6)	2.391	2.017	1.139	1.034	0.981	3.368	2.810	0.839
Gas – ducted < 6 Stars	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	2.352	1.978	1.100	0.995	0.942	3.329	2.772	0.800
Gas – ducted < 6 Stars	Other or none specified	2.509	2.141	1.257	1.157	1.101	3.489	2.932	0.963

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas – ducted ≥ 6 Stars	Evaporative	2.183	1.799	0.931	0.807	0.764	3.158	2.595	0.603
Gas – ducted ≥ 6 Stars	Heat pump - Ducted < 2.25 stars (< 3)	2.450	2.082	1.198	1.098	1.042	3.430	2.874	0.904
Gas – ducted ≥ 6 Stars	Heat pump - Ducted < 3 stars (< 4.5)	2.419	2.050	1.167	1.066	1.011	3.399	2.842	0.872
Gas – ducted ≥ 6 Stars	Heat pump - Ducted < 3.75 stars (< 6)	2.372	2.003	1.120	1.019	0.964	3.352	2.795	0.825
Gas – ducted ≥ 6 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	2.325	1.956	1.073	0.972	0.917	3.305	2.748	0.779
Gas – ducted ≥ 6 Stars	Heat pump - Non-ducted < 2.25 stars (< 3)	2.397	2.023	1.145	1.040	0.987	3.374	2.816	0.845
Gas – ducted ≥ 6 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	2.371	1.997	1.119	1.014	0.961	3.348	2.791	0.819
Gas – ducted ≥ 6 Stars	Heat pump - Non-ducted < 3.75 stars (< 6)	2.332	1.958	1.080	0.975	0.922	3.309	2.752	0.780
Gas – ducted ≥ 6 Stars	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	2.293	1.919	1.041	0.936	0.883	3.270	2.713	0.741
Gas – ducted ≥ 6 Stars	Other or none specified	2.450	2.082	1.198	1.098	1.042	3.430	2.874	0.904

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas - non ducted < 3 Stars	Evaporative	2.242	1.852	0.997	0.867	0.827	3.207	2.645	0.678
Gas - non ducted < 3 Stars	Heat pump - Ducted < 2.25 stars (< 3)	2.511	2.134	1.267	1.161	1.109	3.479	2.924	0.967
Gas - non ducted < 3 Stars	Heat pump - Ducted < 3 stars (< 4.5)	2.480	2.103	1.236	1.130	1.078	3.448	2.892	0.936
Gas - non ducted < 3 Stars	Heat pump - Ducted < 3.75 stars (< 6)	2.433	2.056	1.189	1.083	1.031	3.401	2.845	0.889
Gas - non ducted < 3 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	2.386	2.009	1.142	1.036	0.984	3.354	2.798	0.842
Gas - non ducted < 3 Stars	Heat pump - Non-ducted < 2.25 stars (< 3)	2.457	2.076	1.214	1.103	1.054	3.424	2.866	0.908
Gas - non ducted < 3 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	2.431	2.050	1.188	1.077	1.028	3.398	2.840	0.882
Gas - non ducted < 3 Stars	Heat pump - Non-ducted < 3.75 stars (< 6)	2.392	2.011	1.149	1.038	0.989	3.359	2.801	0.843
Gas - non ducted < 3 Stars	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	2.353	1.972	1.110	0.999	0.950	3.320	2.762	0.804
Gas - non ducted < 3 Stars	Other or none specified	2.511	2.134	1.267	1.161	1.109	3.479	2.924	0.967

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas - non ducted < 4.5 Stars	Evaporative	2.222	1.832	0.977	0.846	0.807	3.187	2.625	0.658
Gas - non ducted < 4.5 Stars	Heat pump - Ducted < 2.25 stars (< 3)	2.491	2.114	1.247	1.141	1.089	3.459	2.903	0.947
Gas - non ducted < 4.5 Stars	Heat pump - Ducted < 3 stars (< 4.5)	2.460	2.082	1.216	1.109	1.058	3.428	2.872	0.915
Gas - non ducted < 4.5 Stars	Heat pump - Ducted < 3.75 stars (< 6)	2.413	2.035	1.169	1.062	1.011	3.381	2.825	0.868
Gas - non ducted < 4.5 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	2.366	1.988	1.122	1.016	0.964	3.334	2.778	0.821
Gas - non ducted < 4.5 Stars	Heat pump - Non-ducted < 2.25 stars (< 3)	2.437	2.056	1.194	1.083	1.033	3.403	2.846	0.887
Gas - non ducted < 4.5 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	2.411	2.030	1.168	1.057	1.008	3.377	2.820	0.861
Gas - non ducted < 4.5 Stars	Heat pump - Non-ducted < 3.75 stars (< 6)	2.372	1.991	1.129	1.018	0.969	3.338	2.781	0.823

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas - non ducted < 4.5 Stars	Heat pump - Non-ducted \geq 3.75 stars (\geq 6)	2.333	1.952	1.090	0.979	0.930	3.299	2.742	0.784
Gas - non ducted < 4.5 Stars	Other or none specified	2.491	2.114	1.247	1.141	1.089	3.459	2.903	0.947
Gas - non ducted < 6 Stars	Evaporative	2.191	1.802	0.947	0.816	0.777	3.156	2.594	0.627
Gas - non ducted < 6 Stars	Heat pump - Ducted < 2.25 stars (< 3)	2.461	2.083	1.217	1.110	1.059	3.429	2.873	0.916
Gas - non ducted < 6 Stars	Heat pump - Ducted < 3 stars (< 4.5)	2.429	2.052	1.185	1.079	1.027	3.397	2.842	0.885
Gas - non ducted < 6 Stars	Heat pump - Ducted < 3.75 stars (< 6)	2.382	2.005	1.138	1.032	0.980	3.350	2.795	0.838
Gas - non ducted < 6 Stars	Heat pump - Ducted \geq 3.75 stars (\geq 6)	2.335	1.958	1.092	0.985	0.933	3.303	2.748	0.791
Gas - non ducted < 6 Stars	Heat pump - Non-Ducted < 2.25 stars (< 3)	2.406	2.025	1.163	1.052	1.003	3.373	2.816	0.857
Gas - non ducted < 6 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	2.380	1.999	1.137	1.026	0.977	3.347	2.790	0.831

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas - non ducted < 6 Stars	Heat pump - Non-ducted < 3.75 stars (< 6)	2.341	1.960	1.098	0.987	0.938	3.308	2.751	0.792
Gas - non ducted < 6 Stars	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	2.303	1.921	1.059	0.948	0.899	3.269	2.712	0.753
Gas - non ducted < 6 Stars	Other or none specified	2.461	2.083	1.217	1.110	1.059	3.429	2.873	0.916
Gas - non ducted ≥ 6 Stars	Evaporative	2.161	1.771	0.916	0.785	0.746	3.126	2.564	0.597
Gas - non ducted ≥ 6 Stars	Heat pump - Ducted < 2.25 stars (< 3)	2.430	2.053	1.186	1.080	1.028	3.398	2.843	0.886
Gas - non ducted ≥ 6 Stars	Heat pump - Ducted < 3 stars (< 4.5)	2.399	2.021	1.155	1.049	0.997	3.367	2.811	0.855
Gas - non ducted ≥ 6 Stars	Heat pump - Ducted < 3.75 stars (< 6)	2.352	1.974	1.108	1.002	0.950	3.320	2.764	0.808
Gas - non ducted ≥ 6 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	2.305	1.927	1.061	0.955	0.903	3.273	2.717	0.761
Gas - non ducted ≥ 6 Stars	Heat pump - Non-ducted < 2.25 stars (< 3)	2.376	1.995	1.133	1.022	0.973	3.343	2.785	0.827
Gas - non ducted ≥ 6 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	2.350	1.969	1.107	0.996	0.947	3.317	2.759	0.801

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas - non ducted ≥ 6 Stars	Heat pump - Non-Ducted < 3.75 stars (< 6)	2.311	1.930	1.068	0.957	0.908	3.278	2.720	0.762
Gas - non ducted ≥ 6 Stars	Heat pump - Non-Ducted ≥ 3.75 stars (≥ 6)	2.272	1.891	1.029	0.918	0.869	3.239	2.681	0.723
Gas - non ducted ≥ 6 Stars	Other or none specified	2.430	2.053	1.186	1.080	1.028	3.398	2.843	0.886

Table 2.2.1 Whole-of-home efficiency factors E_E (kW/100m²) – climate zone 2 – heat pump heating – New South Wales

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Ducted < 2.25 Stars (< 3)	Evaporative	2.222	1.314	0.812	0.578	0.647	2.031	1.651	0.465
Heat pump - Ducted < 2.25 Stars (< 3)	Heat pump - Ducted < 2.25 stars (< 3)	2.531	1.659	1.127	0.859	0.949	2.369	1.990	0.696
Heat pump - Ducted < 2.25 Stars (< 3)	Heat pump - Ducted < 3 stars (< 4.5)	2.494	1.623	1.091	0.822	0.912	2.333	1.954	0.659
Heat pump - Ducted < 2.25 Stars (< 3)	Heat pump - Ducted < 3.75 stars (< 6)	2.440	1.568	1.037	0.768	0.858	2.279	1.899	0.605
Heat pump - Ducted < 2.25 Stars (< 3)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	2.385	1.514	0.982	0.714	0.803	2.224	1.845	0.550
Heat pump - Ducted < 2.25 Stars (< 3)	HP - Non-ducted < 2.25 stars (< 3)	2.468	1.586	1.065	0.788	0.883	2.299	1.921	0.648
Heat pump - Ducted < 2.25 Stars (< 3)	Heat pump - Non-ducted < 3 stars (< 4.5)	2.438	1.556	1.036	0.758	0.854	2.269	1.891	0.619

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Ducted < 2.25 Stars (< 3)	Heat pump - Non-ducted < 3.75 stars (< 6)	2.394	1.512	0.991	0.714	0.809	2.225	1.847	0.574
Heat pump - Ducted < 2.25 Stars (< 3)	Heat pump - Non-Ducted ≥ 3.75 stars (≥ 6)	2.350	1.468	0.947	0.670	0.765	2.181	1.803	0.530
Heat pump - Ducted < 2.25 Stars (< 3)	Other or none specified	2.531	1.659	1.127	0.859	0.949	2.369	1.990	0.696
Heat pump - Ducted < 3.0 Stars (< 4.5)	Evaporative	2.214	1.306	0.804	0.571	0.639	2.023	1.644	0.458
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted < 2.25 stars (< 3)	2.523	1.652	1.120	0.851	0.941	2.362	1.983	0.688
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted < 3 stars (< 4.5)	2.487	1.615	1.084	0.815	0.905	2.325	1.946	0.652
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted < 3.75 stars (< 6)	2.432	1.561	1.029	0.760	0.850	2.271	1.892	0.597
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	2.378	1.506	0.975	0.706	0.796	2.217	1.837	0.543

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted < 2.25 stars (< 3)	2.460	1.578	1.058	0.780	0.876	2.291	1.913	0.641
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted < 3 stars (< 4.5)	2.431	1.549	1.028	0.751	0.846	2.262	1.884	0.611
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted < 3.75 stars (< 6)	2.386	1.504	0.984	0.706	0.802	2.217	1.840	0.567
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	2.342	1.460	0.939	0.662	0.758	2.173	1.795	0.523
Heat pump - Ducted < 3.0 Stars (< 4.5)	Other or none specified	2.523	1.652	1.120	0.851	0.941	2.362	1.983	0.688
Heat pump - Ducted < 3.75 Stars (< 6)	Evaporative	2.203	1.295	0.793	0.559	0.628	2.012	1.632	0.446
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Ducted < 2.25 stars (< 3)	2.512	1.640	1.108	0.840	0.930	2.350	1.971	0.677
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Ducted < 3 stars (< 4.5)	2.475	1.604	1.072	0.803	0.893	2.314	1.935	0.640

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Ducted < 3.75 stars (< 6)	2.421	1.549	1.018	0.749	0.839	2.260	1.881	0.586
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	2.366	1.495	0.963	0.695	0.785	2.205	1.826	0.531
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Non-ducted < 2.25 stars (< 3)	2.449	1.567	1.046	0.769	0.864	2.280	1.902	0.629
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Non-ducted < 3 stars (< 4.5)	2.419	1.537	1.017	0.739	0.835	2.250	1.873	0.600
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Non-ducted < 3.75 stars (< 6)	2.375	1.493	0.972	0.695	0.790	2.206	1.828	0.555
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	2.331	1.449	0.928	0.651	0.746	2.162	1.784	0.511
Heat pump - Ducted < 3.75 Stars (< 6)	Other or none specified	2.512	1.640	1.108	0.840	0.930	2.350	1.971	0.677
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Evaporative	2.191	1.284	0.781	0.548	0.616	2.000	1.621	0.435

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted < 2.25 stars (< 3)	2.500	1.629	1.097	0.828	0.918	2.339	1.960	0.665
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted < 3 stars (< 4.5)	2.464	1.592	1.061	0.792	0.882	2.303	1.924	0.629
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted < 3.75 stars (< 6)	2.410	1.538	1.006	0.738	0.828	2.248	1.869	0.575
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	2.355	1.484	0.952	0.683	0.773	2.194	1.815	0.520
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-ducted < 2.25 stars (< 3)	2.437	1.555	1.035	0.757	0.853	2.268	1.891	0.618
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-ducted < 3 stars (< 4.5)	2.408	1.526	1.005	0.728	0.823	2.239	1.861	0.588
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-ducted < 3.75 stars (< 6)	2.364	1.482	0.961	0.683	0.779	2.195	1.817	0.544
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	2.319	1.437	0.917	0.639	0.735	2.150	1.773	0.500

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Ducted \geq 3.75 Stars (\geq 6)	Other or none specified	2.500	1.629	1.097	0.828	0.918	2.339	1.960	0.665
Heat pump - Non Ducted $<$ 2.25 Stars ($<$ 3)	Evaporative	2.206	1.298	0.798	0.569	0.638	2.013	1.634	0.456
Heat pump - Non Ducted $<$ 2.25 Stars ($<$ 3)	Heat pump - Ducted $<$ 2.25 stars ($<$ 3)	2.515	1.643	1.114	0.844	0.935	2.352	1.974	0.685
Heat pump - Non Ducted $<$ 2.25 Stars ($<$ 3)	Heat pump - Ducted $<$ 3 stars ($<$ 4.5)	2.479	1.607	1.078	0.808	0.899	2.316	1.938	0.648
Heat pump - Non Ducted $<$ 2.25 Stars ($<$ 3)	Heat pump - Ducted $<$ 3.75 stars ($<$ 6)	2.425	1.552	1.023	0.753	0.844	2.262	1.883	0.594
Heat pump - Non Ducted $<$ 2.25 Stars ($<$ 3)	Heat pump - Ducted \geq 3.75 stars (\geq 6)	2.370	1.498	0.969	0.699	0.790	2.207	1.829	0.540
Heat pump - Non Ducted $<$ 2.25 Stars ($<$ 3)	Heat pump - Non-ducted $<$ 2.25 stars ($<$ 3)	2.452	1.569	1.052	0.774	0.869	2.282	1.905	0.639
Heat pump - Non Ducted $<$ 2.25 Stars ($<$ 3)	Heat pump - Non-ducted $<$ 3 stars ($<$ 4.5)	2.423	1.540	1.022	0.744	0.840	2.252	1.875	0.609

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Non Ducted < 2.25 Stars (< 3)	Heat pump - Non-ducted < 3.75 stars (< 6)	2.379	1.495	0.978	0.700	0.796	2.208	1.831	0.565
Heat pump - Non Ducted < 2.25 Stars (< 3)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	2.334	1.451	0.934	0.656	0.751	2.164	1.787	0.521
Heat pump - Non Ducted < 2.25 Stars (< 3)	Other or none specified	2.515	1.643	1.114	0.844	0.935	2.352	1.974	0.685
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Evaporative	2.200	1.292	0.791	0.562	0.631	2.007	1.628	0.449
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted < 2.25 stars (< 3)	2.509	1.636	1.108	0.838	0.929	2.346	1.968	0.678
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted < 3 stars (< 4.5)	2.473	1.600	1.072	0.801	0.892	2.310	1.931	0.642
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted < 3.75 stars (< 6)	2.418	1.546	1.017	0.747	0.838	2.255	1.877	0.588
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	2.364	1.491	0.963	0.692	0.783	2.201	1.822	0.533

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted < 2.25 stars (< 3)	2.446	1.563	1.046	0.768	0.863	2.275	1.898	0.633
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted < 3 stars (< 4.5)	2.416	1.533	1.016	0.738	0.833	2.246	1.869	0.603
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted < 3.75 stars (< 6)	2.372	1.489	0.972	0.694	0.789	2.201	1.824	0.559
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	2.328	1.445	0.927	0.649	0.745	2.157	1.780	0.514
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Other or none specified	2.509	1.636	1.108	0.838	0.929	2.346	1.968	0.678
Heat pump - Non Ducted < 3.75 Stars (< 6)	Evaporative	2.190	1.282	0.782	0.553	0.622	1.997	1.618	0.440
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Ducted < 2.25 stars (< 3)	2.499	1.627	1.098	0.828	0.919	2.336	1.958	0.669
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Ducted < 3 stars (< 4.5)	2.463	1.590	1.062	0.792	0.883	2.300	1.922	0.632

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Ducted < 3.75 stars (< 6)	2.409	1.536	1.007	0.737	0.828	2.246	1.867	0.578
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	2.354	1.482	0.953	0.683	0.774	2.191	1.813	0.524
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Non-Ducted < 2.25 stars (< 3)	2.436	1.553	1.036	0.758	0.853	2.266	1.889	0.623
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Non-ducted < 3 stars (< 4.5)	2.407	1.524	1.006	0.728	0.824	2.236	1.859	0.593
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Non-ducted < 3.75 stars (< 6)	2.362	1.479	0.962	0.684	0.780	2.192	1.815	0.549
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	2.318	1.435	0.918	0.640	0.735	2.147	1.770	0.505
Heat pump - Non Ducted < 3.75 Stars (< 6)	Other or none specified	2.499	1.627	1.098	0.828	0.919	2.336	1.958	0.669
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Evaporative	2.180	1.273	0.772	0.543	0.612	1.988	1.608	0.430

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted < 2.25 stars (< 3)	2.490	1.617	1.089	0.818	0.909	2.327	1.948	0.659
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted < 3 stars (< 4.5)	2.453	1.581	1.052	0.782	0.873	2.290	1.912	0.623
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted < 3.75 stars (< 6)	2.399	1.526	0.998	0.728	0.819	2.236	1.858	0.568
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	2.345	1.472	0.943	0.673	0.764	2.182	1.803	0.514
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-ducted < 2.25 stars (< 3)	2.427	1.544	1.026	0.748	0.844	2.256	1.879	0.613
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-ducted < 3 stars (< 4.5)	2.397	1.514	0.997	0.719	0.814	2.226	1.849	0.584
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-Ducted < 3.75 stars (< 6)	2.353	1.470	0.952	0.674	0.770	2.182	1.805	0.539
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-Ducted ≥ 3.75 stars (≥ 6)	2.309	1.425	0.908	0.630	0.726	2.138	1.761	0.495

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Non Ducted \geq 3.75 Stars (\geq 6)	Other or none specified	2.490	1.617	1.089	0.818	0.909	2.327	1.948	0.659

Table 2.2.2 Whole-of-home efficiency factors E_E (kW/100m²) – climate zone 2 – heat pump heating – Queensland

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump(standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Ducted < 2.25 Stars (< 3)	Evaporative	1.995	1.576	0.766	0.641	0.623	2.910	2.355	0.508
Heat pump - Ducted < 2.25 Stars (< 3)	Heat pump - Ducted < 2.25 stars (< 3)	2.262	1.863	1.045	0.919	0.880	3.185	2.635	0.737
Heat pump - Ducted < 2.25 Stars (< 3)	Heat pump - Ducted < 3 stars (< 4.5)	2.231	1.832	1.014	0.887	0.849	3.154	2.604	0.706
Heat pump - Ducted < 2.25 Stars (< 3)	Heat pump - Ducted < 3.75 stars (< 6)	2.184	1.785	0.967	0.840	0.802	3.107	2.557	0.659
Heat pump - Ducted < 2.25 Stars (< 3)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	2.137	1.738	0.920	0.793	0.755	3.060	2.510	0.612
Heat pump - Ducted < 2.25 Stars (< 3)	HP - Non-ducted < 2.25 stars (< 3)	2.207	1.805	0.990	0.859	0.824	3.129	2.578	0.682
Heat pump - Ducted < 2.25 Stars (< 3)	Heat pump - Non-ducted < 3 stars (< 4.5)	2.181	1.779	0.964	0.833	0.798	3.103	2.552	0.656

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump(standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantane ous	Solar gas
Heat pump - Ducted < 2.25 Stars (< 3)	Heat pump - Non-ducted < 3.75 stars (< 6)	2.142	1.740	0.925	0.794	0.759	3.064	2.513	0.617
Heat pump - Ducted < 2.25 Stars (< 3)	Heat pump - Non-Ducted ≥ 3.75 stars (≥ 6)	2.103	1.701	0.886	0.755	0.720	3.025	2.474	0.578
Heat pump - Ducted < 2.25 Stars (< 3)	Other or none specified	2.262	1.863	1.045	0.919	0.880	3.185	2.635	0.737
Heat pump - Ducted < 3.0 Stars (< 4.5)	Evaporative	1.989	1.570	0.759	0.634	0.617	2.904	2.348	0.501
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted < 2.25 stars (< 3)	2.256	1.857	1.038	0.912	0.874	3.179	2.629	0.730
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted < 3 stars (< 4.5)	2.224	1.826	1.007	0.881	0.843	3.148	2.597	0.699
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted < 3.75 stars (< 6)	2.177	1.779	0.960	0.834	0.796	3.101	2.550	0.652
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	2.130	1.732	0.913	0.787	0.749	3.054	2.503	0.605

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump(standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantane ous	Solar gas
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted < 2.25 stars (< 3)	2.200	1.799	0.984	0.853	0.817	3.123	2.571	0.675
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted < 3 stars (< 4.5)	2.174	1.773	0.958	0.827	0.791	3.097	2.545	0.649
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted < 3.75 stars (< 6)	2.135	1.734	0.919	0.788	0.752	3.058	2.506	0.610
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	2.096	1.695	0.880	0.749	0.713	3.019	2.467	0.571
Heat pump - Ducted < 3.0 Stars (< 4.5)	Other or none specified	2.256	1.857	1.038	0.912	0.874	3.179	2.629	0.730
Heat pump - Ducted < 3.75 Stars (< 6)	Evaporative	1.979	1.560	0.750	0.624	0.607	2.894	2.338	0.492
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Ducted < 2.25 stars (< 3)	2.246	1.847	1.029	0.903	0.864	3.169	2.619	0.721
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Ducted < 3 stars (< 4.5)	2.215	1.816	0.997	0.871	0.833	3.138	2.587	0.689

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump(standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantane ous	Solar gas
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Ducted < 3.75 stars (< 6)	2.168	1.769	0.950	0.824	0.786	3.091	2.540	0.642
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	2.121	1.722	0.903	0.777	0.739	3.044	2.494	0.595
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Non-ducted < 2.25 stars (< 3)	2.191	1.789	0.974	0.843	0.807	3.113	2.562	0.665
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Non-ducted < 3 stars (< 4.5)	2.165	1.763	0.948	0.817	0.781	3.087	2.536	0.639
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Non-ducted < 3.75 stars (< 6)	2.126	1.724	0.909	0.778	0.742	3.048	2.497	0.600
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	2.087	1.685	0.870	0.739	0.704	3.009	2.458	0.562
Heat pump - Ducted < 3.75 Stars (< 6)	Other or none specified	2.246	1.847	1.029	0.903	0.864	3.169	2.619	0.721
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Evaporative	1.969	1.550	0.740	0.615	0.597	2.884	2.329	0.482

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump(standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantane ous	Solar gas
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted < 2.25 stars (< 3)	2.236	1.837	1.019	0.893	0.854	3.160	2.609	0.711
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted < 3 stars (< 4.5)	2.205	1.806	0.988	0.861	0.823	3.128	2.578	0.680
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted < 3.75 stars (< 6)	2.158	1.759	0.941	0.814	0.776	3.081	2.531	0.633
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	2.111	1.712	0.894	0.768	0.729	3.034	2.484	0.586
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-ducted < 2.25 stars (< 3)	2.181	1.779	0.964	0.833	0.798	3.103	2.552	0.656
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-ducted < 3 stars (< 4.5)	2.155	1.753	0.938	0.807	0.772	3.077	2.526	0.630
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-ducted < 3.75 stars (< 6)	2.116	1.714	0.899	0.769	0.733	3.038	2.487	0.591
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	2.077	1.675	0.860	0.730	0.694	2.999	2.448	0.552

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump(standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantane ous	Solar gas
Heat pump - Ducted \geq 3.75 Stars (\geq 6)	Other or none specified	2.236	1.837	1.019	0.893	0.854	3.160	2.609	0.711
Heat pump - Non Ducted < 2.25 Stars (< 3)	Evaporative	1.983	1.562	0.754	0.632	0.615	2.896	2.341	0.499
Heat pump - Non Ducted < 2.25 Stars (< 3)	Heat pump - Ducted < 2.25 stars (< 3)	2.249	1.850	1.033	0.906	0.869	3.172	2.622	0.726
Heat pump - Non Ducted < 2.25 Stars (< 3)	Heat pump - Ducted < 3 stars (< 4.5)	2.218	1.819	1.002	0.875	0.837	3.141	2.590	0.695
Heat pump - Non Ducted < 2.25 Stars (< 3)	Heat pump - Ducted < 3.75 stars (< 6)	2.171	1.772	0.955	0.828	0.790	3.094	2.543	0.648
Heat pump - Non Ducted < 2.25 Stars (< 3)	Heat pump - Ducted \geq 3.75 stars (\geq 6)	2.124	1.725	0.908	0.781	0.743	3.047	2.496	0.601
Heat pump - Non Ducted < 2.25 Stars (< 3)	Heat pump - Non-ducted < 2.25 stars (< 3)	2.194	1.792	0.979	0.847	0.812	3.116	2.564	0.673
Heat pump - Non Ducted < 2.25 Stars (< 3)	Heat pump - Non-ducted < 3 stars (< 4.5)	2.168	1.766	0.953	0.821	0.786	3.090	2.538	0.647

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump(standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantane ous	Solar gas
Heat pump - Non Ducted < 2.25 Stars (< 3)	Heat pump - Non-ducted < 3.75 stars (< 6)	2.129	1.727	0.914	0.782	0.747	3.051	2.499	0.608
Heat pump - Non Ducted < 2.25 Stars (< 3)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	2.090	1.688	0.875	0.743	0.708	3.012	2.461	0.569
Heat pump - Non Ducted < 2.25 Stars (< 3)	Other or none specified	2.249	1.850	1.033	0.906	0.869	3.172	2.622	0.726
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Evaporative	1.978	1.557	0.748	0.626	0.609	2.891	2.335	0.493
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted < 2.25 stars (< 3)	2.244	1.845	1.028	0.901	0.863	3.167	2.616	0.721
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted < 3 stars (< 4.5)	2.213	1.813	0.997	0.870	0.832	3.135	2.585	0.689
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted < 3.75 stars (< 6)	2.166	1.766	0.950	0.823	0.785	3.088	2.538	0.642
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	2.119	1.720	0.903	0.776	0.738	3.041	2.491	0.595

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump(standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantane ous	Solar gas
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted < 2.25 stars (< 3)	2.189	1.786	0.973	0.842	0.806	3.110	2.559	0.667
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted < 3 stars (< 4.5)	2.163	1.760	0.947	0.816	0.780	3.084	2.533	0.641
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted < 3.75 stars (< 6)	2.124	1.721	0.908	0.777	0.741	3.045	2.494	0.602
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	2.085	1.682	0.869	0.738	0.702	3.006	2.455	0.563
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Other or none specified	2.244	1.845	1.028	0.901	0.863	3.167	2.616	0.721
Heat pump - Non Ducted < 3.75 Stars (< 6)	Evaporative	1.969	1.549	0.740	0.618	0.601	2.883	2.327	0.485
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Ducted < 2.25 stars (< 3)	2.236	1.837	1.020	0.893	0.855	3.158	2.608	0.712
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Ducted < 3 stars (< 4.5)	2.204	1.805	0.988	0.861	0.823	3.127	2.577	0.681

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump(standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantane ous	Solar gas
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Ducted < 3.75 stars (< 6)	2.157	1.758	0.941	0.814	0.776	3.080	2.530	0.634
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	2.110	1.711	0.894	0.767	0.730	3.033	2.483	0.587
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Non-Ducted < 2.25 stars (< 3)	2.180	1.778	0.965	0.833	0.798	3.102	2.551	0.659
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Non-ducted < 3 stars (< 4.5)	2.154	1.752	0.939	0.807	0.772	3.076	2.525	0.633
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Non-ducted < 3.75 stars (< 6)	2.115	1.713	0.900	0.768	0.733	3.037	2.486	0.594
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	2.076	1.674	0.861	0.729	0.694	2.998	2.447	0.555
Heat pump - Non Ducted < 3.75 Stars (< 6)	Other or none specified	2.236	1.837	1.020	0.893	0.855	3.158	2.608	0.712
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Evaporative	1.961	1.540	0.732	0.610	0.593	2.874	2.319	0.477

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump(standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantane ous	Solar gas
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted < 2.25 stars (< 3)	2.227	1.828	1.011	0.884	0.847	3.150	2.600	0.704
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted < 3 stars (< 4.5)	2.196	1.797	0.980	0.853	0.815	3.119	2.568	0.673
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted < 3.75 stars (< 6)	2.149	1.750	0.933	0.806	0.768	3.072	2.521	0.626
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	2.102	1.703	0.886	0.759	0.721	3.025	2.474	0.579
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-ducted < 2.25 stars (< 3)	2.172	1.770	0.957	0.825	0.790	3.094	2.542	0.651
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-ducted < 3 stars (< 4.5)	2.146	1.744	0.931	0.799	0.764	3.068	2.516	0.625
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-Ducted < 3.75 stars (< 6)	2.107	1.705	0.892	0.760	0.725	3.029	2.477	0.586
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-Ducted ≥ 3.75 stars (≥ 6)	2.068	1.666	0.853	0.721	0.686	2.990	2.438	0.547

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump(standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantane ous	Solar gas
Heat pump - Non Ducted \geq 3.75 Stars (\geq 6)	Other or none specified	2.227	1.828	1.011	0.884	0.847	3.150	2.600	0.704

Table 2.3.1 Whole-of-home efficiency factors E_E (kW/100m²) – climate zone 2 – other heating – New South Wales

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Electric - Resistance (Panel)	Evaporative	2.425	1.532	0.990	0.700	0.801	2.263	1.877	0.577
Electric - Resistance (Panel)	Heat pump - Ducted < 2.25 stars (< 3)	2.824	1.979	1.389	1.151	1.219	2.700	2.321	0.963
Electric - Resistance (Panel)	Heat pump - Ducted < 3 stars (< 4.5)	2.788	1.943	1.353	1.114	1.183	2.664	2.284	0.927
Electric - Resistance (Panel)	Heat pump - Ducted < 3.75 stars (< 6)	2.733	1.888	1.298	1.060	1.128	2.610	2.230	0.873
Electric - Resistance (Panel)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	2.679	1.834	1.244	1.005	1.074	2.555	2.175	0.818
Electric - Resistance (Panel)	Heat pump - Non-Ducted < 2.25 stars (< 3)	2.744	1.893	1.310	1.066	1.141	2.615	2.231	0.878
Electric - Resistance (Panel)	Heat pump - Non-Ducted < 3 stars (< 4.5)	2.715	1.863	1.281	1.037	1.111	2.585	2.202	0.849

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Electric - Resistance (Panel)	Heat pump - Non-ducted < 3.75 stars (< 6)	2.670	1.819	1.237	0.993	1.067	2.541	2.157	0.804
Electric - Resistance (Panel)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	2.626	1.775	1.192	0.948	1.023	2.497	2.113	0.760
Electric - Resistance (Panel)	Other or none specified	2.824	1.979	1.389	1.151	1.219	2.700	2.321	0.963
Wood Heater	Evaporative	2.271	1.368	0.854	0.603	0.669	2.096	1.712	0.489
Wood Heater	Heat pump - Ducted < 2.25 stars (< 3)	2.673	1.827	1.259	1.011	1.086	2.545	2.159	0.826
Wood Heater	Heat pump - Ducted < 3 stars (< 4.5)	2.637	1.791	1.223	0.974	1.050	2.509	2.123	0.790
Wood Heater	Heat pump - Ducted < 3.75 stars (< 6)	2.582	1.737	1.168	0.920	0.996	2.454	2.069	0.736
Wood Heater	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	2.528	1.682	1.114	0.865	0.941	2.400	2.014	0.681
Wood Heater	Heat pump - Non-ducted < 2.25 stars (< 3)	2.595	1.738	1.183	0.925	1.007	2.457	2.069	0.748
Wood Heater	Heat pump - Non-ducted < 3 stars (< 4.5)	2.566	1.708	1.153	0.895	0.978	2.427	2.039	0.719

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Wood Heater	Heat pump - Non-ducted < 3.75 stars (< 6)	2.522	1.664	1.109	0.851	0.933	2.383	1.995	0.674
Wood Heater	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	2.477	1.620	1.065	0.807	0.889	2.339	1.950	0.630
Wood Heater	Other or none specified	2.673	1.827	1.259	1.011	1.086	2.545	2.159	0.826
Electric - Resistance (Slab)	Evaporative	2.376	1.483	0.945	0.664	0.753	2.222	1.832	0.548
Electric - Resistance (Slab)	Heat pump - Ducted < 2.25 stars (< 3)	2.774	1.939	1.345	1.108	1.176	2.666	2.280	0.919
Electric - Resistance (Slab)	Heat pump - Ducted < 3 stars (< 4.5)	2.738	1.903	1.309	1.071	1.139	2.630	2.244	0.882
Electric - Resistance (Slab)	Heat pump - Ducted < 3.75 stars (< 6)	2.683	1.848	1.254	1.017	1.085	2.576	2.189	0.828
Electric - Resistance (Slab)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	2.629	1.794	1.200	0.963	1.031	2.521	2.135	0.773

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Electric - Resistance (Slab)	Heat pump - Non-ducted < 2.25 stars (< 3)	2.697	1.851	1.269	1.022	1.097	2.579	2.189	0.832
Electric - Resistance (Slab)	Heat pump - Non-ducted < 3 stars (< 4.5)	2.668	1.821	1.240	0.993	1.068	2.550	2.160	0.803
Electric - Resistance (Slab)	Heat pump - Non-ducted < 3.75 stars (< 6)	2.623	1.777	1.196	0.949	1.023	2.505	2.115	0.759
Electric - Resistance (Slab)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	2.579	1.733	1.151	0.904	0.979	2.461	2.071	0.714
Electric - Resistance (Slab)	Other or none specified	2.774	1.939	1.345	1.108	1.176	2.666	2.280	0.919
Other or none specified	Evaporative	2.222	1.314	0.812	0.578	0.647	2.031	1.651	0.465
Other or none specified	Heat pump - Ducted < 2.25 stars (< 3)	2.531	1.659	1.127	0.859	0.949	2.369	1.990	0.696
Other or none specified	Heat pump - Ducted < 3 stars (< 4.5)	2.494	1.623	1.091	0.822	0.912	2.333	1.954	0.659
Other or none specified	Heat pump - Ducted < 3.75 stars (< 6)	2.440	1.568	1.037	0.768	0.858	2.279	1.899	0.605

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Other or none specified	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	2.385	1.514	0.982	0.714	0.803	2.224	1.845	0.550
Other or none specified	Heat pump - Non-ducted < 2.25 stars (< 3)	2.468	1.586	1.065	0.788	0.883	2.299	1.921	0.648
Other or none specified	Heat pump - Non-ducted < 3 stars (< 4.5)	2.438	1.556	1.036	0.758	0.854	2.269	1.891	0.619
Other or none specified	Heat pump - Non-ducted < 3.75 stars (< 6)	2.394	1.512	0.991	0.714	0.809	2.225	1.847	0.574
Other or none specified	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	2.350	1.468	0.947	0.670	0.765	2.181	1.803	0.530
Other or none specified	Other or none specified	2.531	1.659	1.127	0.859	0.949	2.369	1.990	0.696

Table 2.3.2 Whole-of-home efficiency factors E_E (kW/100m²) – climate zone 2 – other heating – Queensland

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Electric - Resistance (Panel)	Evaporative	2.157	1.754	0.919	0.781	0.747	3.092	2.537	0.616
Electric - Resistance (Panel)	Heat pump - Ducted < 2.25 stars (< 3)	2.509	2.124	1.272	1.165	1.115	3.449	2.901	0.974
Electric - Resistance (Panel)	Heat pump - Ducted < 3 stars (< 4.5)	2.478	2.093	1.240	1.134	1.084	3.418	2.870	0.942
Electric - Resistance (Panel)	Heat pump - Ducted < 3.75 stars (< 6)	2.431	2.046	1.193	1.087	1.037	3.371	2.823	0.895
Electric - Resistance (Panel)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	2.384	1.999	1.146	1.040	0.990	3.324	2.776	0.848
Electric - Resistance (Panel)	Heat pump - Non-Ducted < 2.25 stars (< 3)	2.442	2.051	1.205	1.094	1.047	3.380	2.830	0.901
Electric - Resistance (Panel)	Heat pump - Non-Ducted < 3 stars (< 4.5)	2.416	2.025	1.179	1.068	1.021	3.354	2.804	0.875

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Electric - Resistance (Panel)	Heat pump - Non-ducted < 3.75 stars (< 6)	2.377	1.986	1.140	1.029	0.982	3.315	2.765	0.836
Electric - Resistance (Panel)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	2.338	1.947	1.101	0.990	0.943	3.276	2.726	0.797
Electric - Resistance (Panel)	Other or none specified	2.509	2.124	1.272	1.165	1.115	3.449	2.901	0.974
Wood Heater	Evaporative	2.053	1.647	0.822	0.682	0.660	2.991	2.432	0.546
Wood Heater	Heat pump - Ducted < 2.25 stars (< 3)	2.407	2.021	1.180	1.068	1.020	3.353	2.800	0.875
Wood Heater	Heat pump - Ducted < 3 stars (< 4.5)	2.376	1.990	1.149	1.037	0.989	3.321	2.769	0.844
Wood Heater	Heat pump - Ducted < 3.75 stars (< 6)	2.329	1.943	1.102	0.990	0.942	3.274	2.722	0.797
Wood Heater	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	2.282	1.896	1.055	0.943	0.895	3.227	2.675	0.750
Wood Heater	Heat pump - Non-ducted < 2.25 stars (< 3)	2.339	1.950	1.114	0.996	0.952	3.282	2.728	0.803
Wood Heater	Heat pump - Non-ducted < 3 stars (< 4.5)	2.313	1.924	1.088	0.970	0.926	3.256	2.702	0.777

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Wood Heater	Heat pump - Non-ducted < 3.75 stars (< 6)	2.274	1.885	1.049	0.931	0.887	3.217	2.663	0.738
Wood Heater	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	2.235	1.846	1.010	0.892	0.848	3.178	2.624	0.699
Wood Heater	Other or none specified	2.407	2.021	1.180	1.068	1.020	3.353	2.800	0.875
Electric - Resistance (Slab)	Evaporative	2.202	1.811	0.959	0.826	0.788	3.164	2.603	0.645
Electric - Resistance (Slab)	Heat pump - Ducted < 2.25 stars (< 3)	2.554	2.183	1.311	1.210	1.155	3.524	2.970	1.018
Electric - Resistance (Slab)	Heat pump - Ducted < 3 stars (< 4.5)	2.523	2.152	1.280	1.179	1.124	3.492	2.938	0.986
Electric - Resistance (Slab)	Heat pump - Ducted < 3.75 stars (< 6)	2.476	2.105	1.233	1.132	1.077	3.445	2.891	0.939
Electric - Resistance (Slab)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	2.429	2.058	1.186	1.085	1.030	3.398	2.844	0.892

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Electric - Resistance (Slab)	Heat pump - Non-ducted < 2.25 stars (< 3)	2.487	2.109	1.245	1.139	1.087	3.453	2.898	0.945
Electric - Resistance (Slab)	Heat pump - Non-ducted < 3 stars (< 4.5)	2.461	2.083	1.219	1.113	1.061	3.427	2.872	0.919
Electric - Resistance (Slab)	Heat pump - Non-ducted < 3.75 stars (< 6)	2.422	2.044	1.180	1.074	1.022	3.388	2.833	0.880
Electric - Resistance (Slab)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	2.383	2.005	1.141	1.035	0.983	3.349	2.794	0.841
Electric - Resistance (Slab)	Other or none specified	2.554	2.183	1.311	1.210	1.155	3.524	2.970	1.018
Other or none specified	Evaporative	1.995	1.576	0.766	0.641	0.623	2.910	2.355	0.508
Other or none specified	Heat pump - Ducted < 2.25 stars (< 3)	2.262	1.863	1.045	0.919	0.880	3.185	2.635	0.737
Other or none specified	Heat pump - Ducted < 3 stars (< 4.5)	2.231	1.832	1.014	0.887	0.849	3.154	2.604	0.706
Other or none specified	Heat pump - Ducted < 3.75 stars (< 6)	2.184	1.785	0.967	0.840	0.802	3.107	2.557	0.659

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Other or none specified	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	2.137	1.738	0.920	0.793	0.755	3.060	2.510	0.612
Other or none specified	Heat pump - Non-ducted < 2.25 stars (< 3)	2.207	1.805	0.990	0.859	0.824	3.129	2.578	0.682
Other or none specified	Heat pump - Non-ducted < 3 stars (< 4.5)	2.181	1.779	0.964	0.833	0.798	3.103	2.552	0.656
Other or none specified	Heat pump - Non-ducted < 3.75 stars (< 6)	2.142	1.740	0.925	0.794	0.759	3.064	2.513	0.617
Other or none specified	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	2.103	1.701	0.886	0.755	0.720	3.025	2.474	0.578
Other or none specified	Other or none specified	2.262	1.863	1.045	0.919	0.880	3.185	2.635	0.737

2.4.3 Climate zone 3

Table 3.1.1 Whole-of-home efficiency factors E_E (kW/100m²) – climate zone 3 – gas heating – Queensland

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas – ducted < 3 Stars	Evaporative	2.405	2.038	1.240	1.140	0.842	3.223	2.791	0.805
Gas – ducted < 3 Stars	Heat pump - Ducted < 2.25 stars (< 3)	3.798	3.502	2.639	2.576	2.244	4.675	4.250	2.216
Gas – ducted < 3 Stars	Heat pump - Ducted < 3 stars (< 4.5)	3.635	3.340	2.477	2.414	2.081	4.513	4.087	2.054
Gas – ducted < 3 Stars	Heat pump - Ducted < 3.75 stars (< 6)	3.392	3.096	2.233	2.170	1.838	4.269	3.844	1.811
Gas – ducted < 3 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	3.148	2.853	1.990	1.927	1.595	4.026	3.600	1.567
Gas – ducted < 3 Stars	HP - Non-ducted < 2.25 stars (< 3)	3.519	3.212	2.354	2.284	1.965	4.387	3.961	1.936
Gas – ducted < 3 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	3.383	3.076	2.218	2.148	1.829	4.251	3.825	1.800
Gas – ducted < 3 Stars	Heat pump - Non-ducted < 3.75 stars (< 6)	3.179	2.872	2.014	1.944	1.625	4.047	3.620	1.596
Gas – ducted < 3 Stars	Heat pump - Non-Ducted ≥ 3.75 stars (≥ 6)	2.975	2.668	1.810	1.740	1.421	3.842	3.416	1.392

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas – ducted < 3 Stars	Other or none specified	3.798	3.502	2.639	2.576	2.244	4.675	4.250	2.216
Gas – ducted < 4.5 Stars	Evaporative	2.376	2.009	1.210	1.110	0.812	3.193	2.761	0.776
Gas – ducted < 4.5 Stars	Heat pump - Ducted < 2.25 stars (< 3)	3.768	3.472	2.610	2.547	2.214	4.645	4.220	2.187
Gas – ducted < 4.5 Stars	Heat pump - Ducted < 3 stars (< 4.5)	3.606	3.310	2.447	2.384	2.052	4.483	4.058	2.024
Gas – ducted < 4.5 Stars	Heat pump - Ducted < 3.75 stars (< 6)	3.362	3.067	2.204	2.141	1.809	4.240	3.814	1.781
Gas – ducted < 4.5 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	3.119	2.823	1.961	1.897	1.565	3.996	3.571	1.538
Gas – ducted < 4.5 Stars	Heat pump - Non-ducted < 2.25 stars (< 3)	3.490	3.183	2.325	2.255	1.936	4.357	3.931	1.907
Gas – ducted < 4.5 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	3.354	3.047	2.189	2.119	1.800	4.221	3.795	1.771
Gas – ducted < 4.5 Stars	Heat pump - Non-ducted < 3.75 stars (< 6)	3.150	2.842	1.985	1.915	1.596	4.017	3.591	1.566
Gas – ducted < 4.5 Stars	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	2.945	2.638	1.780	1.710	1.391	3.813	3.387	1.362

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas – ducted < 4.5 Stars	Other or none specified	3.768	3.472	2.610	2.547	2.214	4.645	4.220	2.187
Gas – ducted < 6 Stars	Evaporative	2.331	1.965	1.166	1.066	0.768	3.149	2.717	0.732
Gas – ducted < 6 Stars	Heat pump - Ducted < 2.25 stars (< 3)	3.724	3.428	2.565	2.502	2.170	4.601	4.176	2.143
Gas – ducted < 6 Stars	Heat pump - Ducted < 3 stars (< 4.5)	3.562	3.266	2.403	2.340	2.008	4.439	4.014	1.980
Gas – ducted < 6 Stars	Heat pump - Ducted < 3.75 stars (< 6)	3.318	3.022	2.160	2.097	1.764	4.196	3.770	1.737
Gas – ducted < 6 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	3.075	2.779	1.916	1.853	1.521	3.952	3.527	1.493
Gas – ducted < 6 Stars	Heat pump - Non-ducted < 2.25 stars (< 3)	3.446	3.138	2.281	2.211	1.892	4.313	3.887	1.862
Gas – ducted < 6 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	3.310	3.002	2.145	2.075	1.756	4.177	3.751	1.726
Gas – ducted < 6 Stars	Heat pump - Non-ducted < 3.75 stars (< 6)	3.105	2.798	1.940	1.870	1.551	3.973	3.547	1.522
Gas – ducted < 6 Stars	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	2.901	2.594	1.736	1.666	1.347	3.769	3.343	1.318

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas – ducted < 6 Stars	Other or none specified	3.724	3.428	2.565	2.502	2.170	4.601	4.176	2.143
Gas – ducted ≥ 6 Stars	Evaporative	2.287	1.920	1.122	1.022	0.724	3.105	2.673	0.688
Gas – ducted ≥ 6 Stars	Heat pump - Ducted < 2.25 stars (< 3)	3.680	3.384	2.521	2.458	2.126	4.557	4.132	2.098
Gas – ducted ≥ 6 Stars	Heat pump - Ducted < 3 stars (< 4.5)	3.517	3.222	2.359	2.296	1.964	4.395	3.969	1.936
Gas – ducted ≥ 6 Stars	Heat pump - Ducted < 3.75 stars (< 6)	3.274	2.978	2.116	2.052	1.720	4.151	3.726	1.693
Gas – ducted ≥ 6 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	3.030	2.735	1.872	1.809	1.477	3.908	3.483	1.449
Gas – ducted ≥ 6 Stars	Heat pump - Non-ducted < 2.25 stars (< 3)	3.401	3.094	2.237	2.166	1.847	4.269	3.843	1.818
Gas – ducted ≥ 6 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	3.265	2.958	2.100	2.030	1.711	4.133	3.707	1.682
Gas – ducted ≥ 6 Stars	Heat pump - Non-ducted < 3.75 stars (< 6)	3.061	2.754	1.896	1.826	1.507	3.929	3.503	1.478
Gas – ducted ≥ 6 Stars	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	2.857	2.550	1.692	1.622	1.303	3.724	3.298	1.274

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas – ducted ≥ 6 Stars	Other or none specified	3.680	3.384	2.521	2.458	2.126	4.557	4.132	2.098
Gas - non ducted < 3 Stars	Evaporative	2.328	1.956	1.168	1.064	0.766	3.137	2.705	0.729
Gas - non ducted < 3 Stars	Heat pump - Ducted < 2.25 stars (< 3)	3.717	3.420	2.560	2.495	2.167	4.590	4.166	2.140
Gas - non ducted < 3 Stars	Heat pump - Ducted < 3 stars (< 4.5)	3.555	3.258	2.398	2.333	2.005	4.428	4.004	1.978
Gas - non ducted < 3 Stars	Heat pump - Ducted < 3.75 stars (< 6)	3.312	3.014	2.155	2.090	1.762	4.185	3.760	1.734
Gas - non ducted < 3 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	3.068	2.771	1.911	1.846	1.518	3.941	3.517	1.491
Gas - non ducted < 3 Stars	Heat pump - Non-ducted < 2.25 stars (< 3)	3.441	3.129	2.275	2.205	1.888	4.302	3.876	1.859
Gas - non ducted < 3 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	3.305	2.993	2.139	2.069	1.752	4.166	3.740	1.723
Gas - non ducted < 3 Stars	Heat pump - Non-ducted < 3.75 stars (< 6)	3.101	2.789	1.934	1.865	1.548	3.962	3.536	1.518
Gas - non ducted < 3 Stars	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	2.896	2.585	1.730	1.661	1.344	3.758	3.332	1.314

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas - non ducted < 3 Stars	Other or none specified	3.717	3.420	2.560	2.495	2.167	4.590	4.166	2.140
Gas - non ducted < 4.5 Stars	Evaporative	2.312	1.941	1.152	1.048	0.750	3.121	2.690	0.714
Gas - non ducted < 4.5 Stars	Heat pump - Ducted < 2.25 stars (< 3)	3.702	3.405	2.545	2.480	2.152	4.575	4.150	2.124
Gas - non ducted < 4.5 Stars	Heat pump - Ducted < 3 stars (< 4.5)	3.540	3.242	2.383	2.318	1.990	4.412	3.988	1.962
Gas - non ducted < 4.5 Stars	Heat pump - Ducted < 3.75 stars (< 6)	3.296	2.999	2.139	2.074	1.746	4.169	3.745	1.719
Gas - non ducted < 4.5 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	3.053	2.755	1.896	1.831	1.503	3.926	3.501	1.475
Gas - non ducted < 4.5 Stars	Heat pump - Non-ducted < 2.25 stars (< 3)	3.425	3.114	2.259	2.190	1.873	4.287	3.861	1.843
Gas - non ducted < 4.5 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	3.289	2.978	2.123	2.054	1.737	4.150	3.725	1.707

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas - non ducted < 4.5 Stars	Heat pump - Non-ducted < 3.75 stars (< 6)	3.085	2.774	1.919	1.850	1.533	3.946	3.521	1.503
Gas - non ducted < 4.5 Stars	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	2.881	2.569	1.715	1.646	1.328	3.742	3.316	1.299
Gas - non ducted < 4.5 Stars	Other or none specified	3.702	3.405	2.545	2.480	2.152	4.575	4.150	2.124
Gas - non ducted < 6 Stars	Evaporative	2.289	1.918	1.129	1.025	0.727	3.098	2.667	0.691
Gas - non ducted < 6 Stars	Heat pump - Ducted < 2.25 stars (< 3)	3.679	3.381	2.522	2.457	2.129	4.552	4.127	2.101
Gas - non ducted < 6 Stars	Heat pump - Ducted < 3 stars (< 4.5)	3.517	3.219	2.359	2.295	1.966	4.389	3.965	1.939
Gas - non ducted < 6 Stars	Heat pump - Ducted < 3.75 stars (< 6)	3.273	2.976	2.116	2.051	1.723	4.146	3.722	1.696
Gas - non ducted < 6 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	3.030	2.732	1.872	1.808	1.480	3.902	3.478	1.452
Gas - non ducted < 6 Stars	Heat pump - Non-Ducted < 2.25 stars (< 3)	3.402	3.091	2.236	2.167	1.850	4.263	3.838	1.820

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas - non ducted < 6 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	3.266	2.955	2.100	2.031	1.714	4.127	3.702	1.684
Gas - non ducted < 6 Stars	Heat pump - Non-ducted < 3.75 stars (< 6)	3.062	2.750	1.896	1.827	1.509	3.923	3.497	1.480
Gas - non ducted < 6 Stars	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	2.858	2.546	1.692	1.622	1.305	3.719	3.293	1.276
Gas - non ducted < 6 Stars	Other or none specified	3.679	3.381	2.522	2.457	2.129	4.552	4.127	2.101
Gas - non ducted ≥ 6 Stars	Evaporative	2.266	1.894	1.106	1.002	0.704	3.075	2.643	0.667
Gas - non ducted ≥ 6 Stars	Heat pump - Ducted < 2.25 stars (< 3)	3.656	3.358	2.498	2.434	2.106	4.528	4.104	2.078
Gas - non ducted ≥ 6 Stars	Heat pump - Ducted < 3 stars (< 4.5)	3.493	3.196	2.336	2.271	1.943	4.366	3.942	1.916
Gas - non ducted ≥ 6 Stars	Heat pump - Ducted < 3.75 stars (< 6)	3.250	2.952	2.093	2.028	1.700	4.123	3.698	1.672
Gas - non ducted ≥ 6 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	3.006	2.709	1.849	1.785	1.456	3.879	3.455	1.429
Gas - non ducted ≥ 6 Stars	Heat pump - Non-ducted < 2.25 stars (< 3)	3.379	3.068	2.213	2.144	1.827	4.240	3.815	1.797

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas - non ducted ≥ 6 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	3.243	2.931	2.077	2.008	1.690	4.104	3.678	1.661
Gas - non ducted ≥ 6 Stars	Heat pump - Non-Ducted < 3.75 stars (< 6)	3.039	2.727	1.873	1.803	1.486	3.900	3.474	1.457
Gas - non ducted ≥ 6 Stars	Heat pump - Non-Ducted ≥ 3.75 stars (≥ 6)	2.835	2.523	1.668	1.599	1.282	3.696	3.270	1.252
Gas - non ducted ≥ 6 Stars	Other or none specified	3.656	3.358	2.498	2.434	2.106	4.528	4.104	2.078

Table 3.1.2 Whole-of-home efficiency factors E_E (kW/100m²) – climate zone 3 – gas heating – Western Australia

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas – ducted < 3 Stars	Evaporative	2.955	1.909	1.371	1.077	0.859	3.297	2.831	0.796
Gas – ducted < 3 Stars	Heat pump - Ducted < 2.25 stars (< 3)	5.023	4.115	3.424	3.181	2.892	5.517	5.055	2.840
Gas – ducted < 3 Stars	Heat pump - Ducted < 3 stars (< 4.5)	4.780	3.872	3.181	2.938	2.648	5.274	4.812	2.597
Gas – ducted < 3 Stars	Heat pump - Ducted < 3.75 stars (< 6)	4.415	3.507	2.816	2.573	2.283	4.909	4.447	2.232
Gas – ducted < 3 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	4.050	3.142	2.451	2.208	1.918	4.544	4.082	1.867
Gas – ducted < 3 Stars	HP - Non-ducted < 2.25 stars (< 3)	4.596	3.675	3.001	2.747	2.461	5.077	4.612	2.411
Gas – ducted < 3 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	4.394	3.472	2.798	2.544	2.259	4.875	4.409	2.208
Gas – ducted < 3 Stars	Heat pump - Non-ducted < 3.75 stars (< 6)	4.090	3.168	2.494	2.240	1.955	4.571	4.105	1.905
Gas – ducted < 3 Stars	Heat pump - Non-Ducted ≥ 3.75 stars (≥ 6)	3.786	2.864	2.190	1.936	1.651	4.267	3.801	1.601
Gas – ducted < 3 Stars	Other or none specified	5.023	4.115	3.424	3.181	2.892	5.517	5.055	2.840

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas – ducted < 4.5 Stars	Evaporative	2.927	1.881	1.342	1.049	0.831	3.269	2.803	0.768
Gas – ducted < 4.5 Stars	Heat pump - Ducted < 2.25 stars (< 3)	4.995	4.087	3.396	3.153	2.864	5.489	5.027	2.812
Gas – ducted < 4.5 Stars	Heat pump - Ducted < 3 stars (< 4.5)	4.752	3.844	3.153	2.910	2.620	5.246	4.784	2.569
Gas – ducted < 4.5 Stars	Heat pump - Ducted < 3.75 stars (< 6)	4.387	3.479	2.788	2.545	2.255	4.881	4.419	2.204
Gas – ducted < 4.5 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	4.022	3.114	2.423	2.180	1.890	4.516	4.054	1.839
Gas – ducted < 4.5 Stars	Heat pump - Non-ducted < 2.25 stars (< 3)	4.568	3.647	2.973	2.719	2.433	5.049	4.584	2.383
Gas – ducted < 4.5 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	4.366	3.444	2.770	2.516	2.231	4.847	4.381	2.180
Gas – ducted < 4.5 Stars	Heat pump - Non-ducted < 3.75 stars (< 6)	4.062	3.140	2.466	2.212	1.927	4.543	4.077	1.877
Gas – ducted < 4.5 Stars	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	3.758	2.836	2.162	1.908	1.623	4.239	3.773	1.573
Gas – ducted < 4.5 Stars	Other or none specified	4.995	4.087	3.396	3.153	2.864	5.489	5.027	2.812

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas – ducted < 6 Stars	Evaporative	2.885	1.839	1.300	1.007	0.789	3.227	2.761	0.725
Gas – ducted < 6 Stars	Heat pump - Ducted < 2.25 stars (< 3)	4.953	4.045	3.354	3.111	2.822	5.447	4.985	2.770
Gas – ducted < 6 Stars	Heat pump - Ducted < 3 stars (< 4.5)	4.710	3.802	3.111	2.868	2.578	5.204	4.742	2.527
Gas – ducted < 6 Stars	Heat pump - Ducted < 3.75 stars (< 6)	4.345	3.437	2.746	2.503	2.213	4.839	4.377	2.162
Gas – ducted < 6 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	3.980	3.072	2.381	2.138	1.848	4.473	4.012	1.797
Gas – ducted < 6 Stars	Heat pump - Non-ducted < 2.25 stars (< 3)	4.526	3.605	2.931	2.677	2.391	5.007	4.542	2.341
Gas – ducted < 6 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	4.324	3.402	2.728	2.474	2.189	4.805	4.339	2.138
Gas – ducted < 6 Stars	Heat pump - Non-ducted < 3.75 stars (< 6)	4.020	3.098	2.424	2.170	1.885	4.501	4.035	1.835
Gas – ducted < 6 Stars	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	3.716	2.794	2.120	1.866	1.581	4.197	3.731	1.531
Gas – ducted < 6 Stars	Other or none specified	4.953	4.045	3.354	3.111	2.822	5.447	4.985	2.770

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas – ducted ≥ 6 Stars	Evaporative	2.843	1.797	1.258	0.965	0.747	3.185	2.719	0.683
Gas – ducted ≥ 6 Stars	Heat pump - Ducted < 2.25 stars (< 3)	4.911	4.003	3.312	3.069	2.780	5.405	4.943	2.728
Gas – ducted ≥ 6 Stars	Heat pump - Ducted < 3 stars (< 4.5)	4.668	3.760	3.069	2.826	2.536	5.162	4.700	2.485
Gas – ducted ≥ 6 Stars	Heat pump - Ducted < 3.75 stars (< 6)	4.303	3.395	2.704	2.461	2.171	4.797	4.335	2.120
Gas – ducted ≥ 6 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	3.938	3.030	2.339	2.096	1.806	4.431	3.970	1.755
Gas – ducted ≥ 6 Stars	Heat pump - Non-ducted < 2.25 stars (< 3)	4.484	3.563	2.889	2.635	2.349	4.965	4.499	2.299
Gas – ducted ≥ 6 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	4.282	3.360	2.686	2.432	2.147	4.763	4.297	2.096
Gas – ducted ≥ 6 Stars	Heat pump - Non-ducted < 3.75 stars (< 6)	3.978	3.056	2.382	2.128	1.843	4.459	3.993	1.793
Gas – ducted ≥ 6 Stars	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	3.674	2.752	2.078	1.824	1.539	4.155	3.689	1.489
Gas – ducted ≥ 6 Stars	Other or none specified	4.911	4.003	3.312	3.069	2.780	5.405	4.943	2.728

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas - non ducted < 3 Stars	Evaporative	2.870	1.822	1.299	1.002	0.785	3.201	2.736	0.732
Gas - non ducted < 3 Stars	Heat pump - Ducted < 2.25 stars (< 3)	4.935	4.025	3.337	3.097	2.807	5.422	4.962	2.756
Gas - non ducted < 3 Stars	Heat pump - Ducted < 3 stars (< 4.5)	4.692	3.781	3.094	2.854	2.564	5.179	4.719	2.512
Gas - non ducted < 3 Stars	Heat pump - Ducted < 3.75 stars (< 6)	4.327	3.416	2.729	2.489	2.199	4.814	4.354	2.147
Gas - non ducted < 3 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	3.962	3.051	2.364	2.124	1.834	4.449	3.989	1.782
Gas - non ducted < 3 Stars	Heat pump - Non-ducted < 2.25 stars (< 3)	4.511	3.586	2.917	2.660	2.383	4.983	4.519	2.332
Gas - non ducted < 3 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	4.309	3.383	2.715	2.458	2.180	4.780	4.316	2.129
Gas - non ducted < 3 Stars	Heat pump - Non-ducted < 3.75 stars (< 6)	4.005	3.079	2.411	2.154	1.876	4.476	4.013	1.826
Gas - non ducted < 3 Stars	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	3.701	2.775	2.107	1.850	1.572	4.173	3.709	1.522
Gas - non ducted < 3 Stars	Other or none specified	4.935	4.025	3.337	3.097	2.807	5.422	4.962	2.756

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas - non ducted < 4.5 Stars	Evaporative	2.856	1.807	1.285	0.987	0.770	3.187	2.722	0.718
Gas - non ducted < 4.5 Stars	Heat pump - Ducted < 2.25 stars (< 3)	4.921	4.010	3.323	3.083	2.793	5.408	4.947	2.741
Gas - non ducted < 4.5 Stars	Heat pump - Ducted < 3 stars (< 4.5)	4.677	3.767	3.079	2.839	2.549	5.164	4.704	2.498
Gas - non ducted < 4.5 Stars	Heat pump - Ducted < 3.75 stars (< 6)	4.312	3.402	2.714	2.474	2.184	4.799	4.339	2.133
Gas - non ducted < 4.5 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	3.947	3.037	2.349	2.109	1.819	4.434	3.974	1.768
Gas - non ducted < 4.5 Stars	Heat pump - Non-ducted < 2.25 stars (< 3)	4.497	3.571	2.903	2.645	2.368	4.968	4.504	2.317
Gas - non ducted < 4.5 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	4.294	3.368	2.700	2.443	2.165	4.766	4.302	2.115
Gas - non ducted < 4.5 Stars	Heat pump - Non-ducted < 3.75 stars (< 6)	3.990	3.064	2.396	2.139	1.862	4.462	3.998	1.811

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas - non ducted < 4.5 Stars	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	3.686	2.761	2.092	1.835	1.558	4.158	3.694	1.507
Gas - non ducted < 4.5 Stars	Other or none specified	4.921	4.010	3.323	3.083	2.793	5.408	4.947	2.741
Gas - non ducted < 6 Stars	Evaporative	2.834	1.785	1.263	0.965	0.748	3.165	2.700	0.696
Gas - non ducted < 6 Stars	Heat pump - Ducted < 2.25 stars (< 3)	4.899	3.988	3.301	3.061	2.771	5.386	4.925	2.719
Gas - non ducted < 6 Stars	Heat pump - Ducted < 3 stars (< 4.5)	4.655	3.745	3.057	2.817	2.527	5.142	4.682	2.476
Gas - non ducted < 6 Stars	Heat pump - Ducted < 3.75 stars (< 6)	4.290	3.380	2.692	2.452	2.162	4.777	4.317	2.111
Gas - non ducted < 6 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	3.925	3.015	2.327	2.087	1.797	4.412	3.952	1.746
Gas - non ducted < 6 Stars	Heat pump - Non-Ducted < 2.25 stars (< 3)	4.475	3.549	2.881	2.624	2.346	4.946	4.482	2.295
Gas - non ducted < 6 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	4.272	3.346	2.678	2.421	2.143	4.744	4.280	2.093

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas - non ducted < 6 Stars	Heat pump - Non-ducted < 3.75 stars (< 6)	3.968	3.043	2.374	2.117	1.840	4.440	3.976	1.789
Gas - non ducted < 6 Stars	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	3.664	2.739	2.070	1.813	1.536	4.136	3.672	1.485
Gas - non ducted < 6 Stars	Other or none specified	4.899	3.988	3.301	3.061	2.771	5.386	4.925	2.719
Gas - non ducted ≥ 6 Stars	Evaporative	2.812	1.763	1.241	0.943	0.727	3.143	2.678	0.674
Gas - non ducted ≥ 6 Stars	Heat pump - Ducted < 2.25 stars (< 3)	4.877	3.966	3.279	3.039	2.749	5.364	4.903	2.697
Gas - non ducted ≥ 6 Stars	Heat pump - Ducted < 3 stars (< 4.5)	4.633	3.723	3.035	2.795	2.505	5.120	4.660	2.454
Gas - non ducted ≥ 6 Stars	Heat pump - Ducted < 3.75 stars (< 6)	4.268	3.358	2.670	2.430	2.140	4.755	4.295	2.089
Gas - non ducted ≥ 6 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	3.903	2.993	2.305	2.065	1.775	4.390	3.930	1.724
Gas - non ducted ≥ 6 Stars	Heat pump - Non-ducted < 2.25 stars (< 3)	4.453	3.527	2.859	2.602	2.324	4.924	4.460	2.273
Gas - non ducted ≥ 6 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	4.250	3.324	2.656	2.399	2.122	4.722	4.258	2.071

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas - non ducted ≥ 6 Stars	Heat pump - Non-Ducted < 3.75 stars (< 6)	3.946	3.021	2.352	2.095	1.818	4.418	3.954	1.767
Gas - non ducted ≥ 6 Stars	Heat pump - Non-Ducted ≥ 3.75 stars (≥ 6)	3.643	2.717	2.048	1.791	1.514	4.114	3.650	1.463
Gas - non ducted ≥ 6 Stars	Other or none specified	4.877	3.966	3.279	3.039	2.749	5.364	4.903	2.697

Table 3.1.3 Whole-of-home efficiency factors E_E (kW/100m²) – climate zone 3 – gas heating – Northern Territory

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas Instantaneous	Solar gas
Gas – ducted < 3 Stars	Evaporative	1.646	1.513	0.873	0.853	0.602	1.375	1.253	0.568
Gas – ducted < 3 Stars	Heat pump - Ducted < 2.25 stars (< 3)	2.479	2.359	1.707	1.692	1.440	2.221	2.097	1.407
Gas – ducted < 3 Stars	Heat pump - Ducted < 3 stars (< 4.5)	2.384	2.264	1.612	1.598	1.345	2.126	2.002	1.313
Gas – ducted < 3 Stars	Heat pump - Ducted < 3.75 stars (< 6)	2.242	2.122	1.470	1.456	1.203	1.984	1.860	1.170
Gas – ducted < 3 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	2.100	1.980	1.328	1.314	1.061	1.842	1.718	1.028
Gas – ducted < 3 Stars	HP - Non-ducted < 2.25 stars (< 3)	2.316	2.194	1.544	1.529	1.277	2.056	1.932	1.244
Gas – ducted < 3 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	2.236	2.113	1.464	1.448	1.197	1.976	1.852	1.164
Gas – ducted < 3 Stars	Heat pump - Non-ducted < 3.75 stars (< 6)	2.115	1.993	1.343	1.327	1.076	1.855	1.731	1.043
Gas – ducted < 3 Stars	Heat pump - Non-Ducted ≥ 3.75 stars (≥ 6)	1.995	1.872	1.222	1.207	0.955	1.734	1.611	0.922
Gas – ducted < 3 Stars	Other or none specified	2.479	2.359	1.707	1.692	1.440	2.221	2.097	1.407

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas Instantaneous	Solar gas
Gas – ducted < 4.5 Stars	Evaporative	1.634	1.501	0.861	0.841	0.590	1.363	1.241	0.556
Gas – ducted < 4.5 Stars	Heat pump - Ducted < 2.25 stars (< 3)	2.467	2.347	1.695	1.681	1.428	2.209	2.085	1.395
Gas – ducted < 4.5 Stars	Heat pump - Ducted < 3 stars (< 4.5)	2.372	2.252	1.601	1.586	1.334	2.114	1.990	1.301
Gas – ducted < 4.5 Stars	Heat pump - Ducted < 3.75 stars (< 6)	2.230	2.110	1.458	1.444	1.191	1.972	1.848	1.159
Gas – ducted < 4.5 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	2.088	1.968	1.316	1.302	1.049	1.830	1.706	1.017
Gas – ducted < 4.5 Stars	Heat pump - Non-ducted < 2.25 stars (< 3)	2.304	2.182	1.532	1.517	1.265	2.044	1.920	1.232
Gas – ducted < 4.5 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	2.224	2.101	1.452	1.436	1.185	1.964	1.840	1.152
Gas – ducted < 4.5 Stars	Heat pump - Non-ducted < 3.75 stars (< 6)	2.103	1.981	1.331	1.316	1.064	1.843	1.719	1.031
Gas – ducted < 4.5 Stars	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	1.983	1.860	1.211	1.195	0.943	1.722	1.599	0.910
Gas – ducted < 4.5 Stars	Other or none specified	2.467	2.347	1.695	1.681	1.428	2.209	2.085	1.395

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas Instantaneous	Solar gas
Gas – ducted < 6 Stars	Evaporative	1.616	1.483	0.843	0.823	0.572	1.345	1.223	0.538
Gas – ducted < 6 Stars	Heat pump - Ducted < 2.25 stars (< 3)	2.449	2.329	1.677	1.663	1.410	2.191	2.067	1.378
Gas – ducted < 6 Stars	Heat pump - Ducted < 3 stars (< 4.5)	2.355	2.234	1.583	1.568	1.316	2.096	1.972	1.283
Gas – ducted < 6 Stars	Heat pump - Ducted < 3.75 stars (< 6)	2.213	2.092	1.441	1.426	1.174	1.954	1.830	1.141
Gas – ducted < 6 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	2.070	1.950	1.299	1.284	1.032	1.812	1.688	0.999
Gas – ducted < 6 Stars	Heat pump - Non-ducted < 2.25 stars (< 3)	2.287	2.164	1.514	1.499	1.247	2.026	1.903	1.214
Gas – ducted < 6 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	2.206	2.084	1.434	1.418	1.167	1.946	1.822	1.134
Gas – ducted < 6 Stars	Heat pump - Non-ducted < 3.75 stars (< 6)	2.085	1.963	1.313	1.298	1.046	1.825	1.702	1.013
Gas – ducted < 6 Stars	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	1.965	1.842	1.193	1.177	0.926	1.705	1.581	0.893
Gas – ducted < 6 Stars	Other or none specified	2.449	2.329	1.677	1.663	1.410	2.191	2.067	1.378

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas Instantaneous	Solar gas
Gas – ducted ≥ 6 Stars	Evaporative	1.598	1.466	0.825	0.805	0.554	1.328	1.205	0.520
Gas – ducted ≥ 6 Stars	Heat pump - Ducted < 2.25 stars (< 3)	2.432	2.311	1.660	1.645	1.393	2.173	2.049	1.360
Gas – ducted ≥ 6 Stars	Heat pump - Ducted < 3 stars (< 4.5)	2.337	2.216	1.565	1.550	1.298	2.079	1.955	1.265
Gas – ducted ≥ 6 Stars	Heat pump - Ducted < 3.75 stars (< 6)	2.195	2.074	1.423	1.408	1.156	1.936	1.813	1.123
Gas – ducted ≥ 6 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	2.053	1.932	1.281	1.266	1.014	1.794	1.670	0.981
Gas – ducted ≥ 6 Stars	Heat pump - Non-ducted < 2.25 stars (< 3)	2.269	2.146	1.497	1.481	1.230	2.008	1.885	1.196
Gas – ducted ≥ 6 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	2.188	2.066	1.416	1.401	1.149	1.928	1.804	1.116
Gas – ducted ≥ 6 Stars	Heat pump - Non-ducted < 3.75 stars (< 6)	2.068	1.945	1.296	1.280	1.028	1.807	1.684	0.995
Gas – ducted ≥ 6 Stars	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	1.947	1.824	1.175	1.159	0.908	1.687	1.563	0.875
Gas – ducted ≥ 6 Stars	Other or none specified	2.432	2.311	1.660	1.645	1.393	2.173	2.049	1.360

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas Instantaneous	Solar gas
Gas - non ducted < 3 Stars	Evaporative	1.616	1.483	0.843	0.823	0.571	1.345	1.223	0.537
Gas - non ducted < 3 Stars	Heat pump - Ducted < 2.25 stars (< 3)	2.449	2.328	1.677	1.662	1.410	2.191	2.067	1.377
Gas - non ducted < 3 Stars	Heat pump - Ducted < 3 stars (< 4.5)	2.354	2.234	1.582	1.567	1.315	2.096	1.972	1.282
Gas - non ducted < 3 Stars	Heat pump - Ducted < 3.75 stars (< 6)	2.212	2.092	1.440	1.425	1.173	1.954	1.830	1.140
Gas - non ducted < 3 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	2.070	1.950	1.298	1.283	1.031	1.812	1.688	0.998
Gas - non ducted < 3 Stars	Heat pump - Non-ducted < 2.25 stars (< 3)	2.286	2.164	1.514	1.498	1.247	2.026	1.902	1.214
Gas - non ducted < 3 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	2.206	2.083	1.434	1.418	1.166	1.945	1.822	1.133
Gas - non ducted < 3 Stars	Heat pump - Non-ducted < 3.75 stars (< 6)	2.085	1.962	1.313	1.297	1.046	1.825	1.701	1.013
Gas - non ducted < 3 Stars	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	1.965	1.842	1.192	1.177	0.925	1.704	1.580	0.892
Gas - non ducted < 3 Stars	Other or none specified	2.449	2.328	1.677	1.662	1.410	2.191	2.067	1.377

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas Instantaneous	Solar gas
Gas - non ducted < 4.5 Stars	Evaporative	1.610	1.477	0.837	0.816	0.565	1.339	1.216	0.531
Gas - non ducted < 4.5 Stars	Heat pump - Ducted < 2.25 stars (< 3)	2.443	2.322	1.671	1.656	1.404	2.184	2.060	1.371
Gas - non ducted < 4.5 Stars	Heat pump - Ducted < 3 stars (< 4.5)	2.348	2.228	1.576	1.561	1.309	2.090	1.966	1.276
Gas - non ducted < 4.5 Stars	Heat pump - Ducted < 3.75 stars (< 6)	2.206	2.085	1.434	1.419	1.167	1.948	1.824	1.134
Gas - non ducted < 4.5 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	2.064	1.943	1.292	1.277	1.025	1.805	1.682	0.992
Gas - non ducted < 4.5 Stars	Heat pump - Non-ducted < 2.25 stars (< 3)	2.280	2.157	1.508	1.492	1.241	2.020	1.896	1.208
Gas - non ducted < 4.5 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	2.200	2.077	1.428	1.412	1.160	1.939	1.815	1.127
Gas - non ducted < 4.5 Stars	Heat pump - Non-ducted < 3.75 stars (< 6)	2.079	1.956	1.307	1.291	1.040	1.819	1.695	1.006
Gas - non ducted < 4.5 Stars	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	1.958	1.836	1.186	1.171	0.919	1.698	1.574	0.886
Gas - non ducted < 4.5 Stars	Other or none specified	2.443	2.322	1.671	1.656	1.404	2.184	2.060	1.371

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas Instantaneous	Solar gas
Gas - non ducted < 6 Stars	Evaporative	1.601	1.467	0.827	0.807	0.556	1.329	1.207	0.522
Gas - non ducted < 6 Stars	Heat pump - Ducted < 2.25 stars (< 3)	2.434	2.313	1.661	1.647	1.394	2.175	2.051	1.362
Gas - non ducted < 6 Stars	Heat pump - Ducted < 3 stars (< 4.5)	2.339	2.218	1.567	1.552	1.300	2.080	1.956	1.267
Gas - non ducted < 6 Stars	Heat pump - Ducted < 3.75 stars (< 6)	2.197	2.076	1.425	1.410	1.158	1.938	1.814	1.125
Gas - non ducted < 6 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	2.055	1.934	1.283	1.268	1.016	1.796	1.672	0.983
Gas - non ducted < 6 Stars	Heat pump - Non-Ducted < 2.25 stars (< 3)	2.271	2.148	1.499	1.483	1.231	2.010	1.887	1.198
Gas - non ducted < 6 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	2.190	2.068	1.418	1.402	1.151	1.930	1.806	1.118
Gas - non ducted < 6 Stars	Heat pump - Non-ducted < 3.75 stars (< 6)	2.070	1.947	1.298	1.282	1.030	1.809	1.686	0.997
Gas - non ducted < 6 Stars	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	1.949	1.826	1.177	1.161	0.910	1.689	1.565	0.877
Gas - non ducted < 6 Stars	Other or none specified	2.434	2.313	1.661	1.647	1.394	2.175	2.051	1.362

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas Instantaneous	Solar gas
Gas - non ducted ≥ 6 Stars	Evaporative	1.591	1.458	0.818	0.798	0.547	1.320	1.198	0.513
Gas - non ducted ≥ 6 Stars	Heat pump - Ducted < 2.25 stars (< 3)	2.424	2.304	1.652	1.637	1.385	2.166	2.042	1.352
Gas - non ducted ≥ 6 Stars	Heat pump - Ducted < 3 stars (< 4.5)	2.330	2.209	1.557	1.543	1.290	2.071	1.947	1.258
Gas - non ducted ≥ 6 Stars	Heat pump - Ducted < 3.75 stars (< 6)	2.187	2.067	1.415	1.401	1.148	1.929	1.805	1.115
Gas - non ducted ≥ 6 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	2.045	1.925	1.273	1.258	1.006	1.787	1.663	0.973
Gas - non ducted ≥ 6 Stars	Heat pump - Non-ducted < 2.25 stars (< 3)	2.261	2.139	1.489	1.474	1.222	2.001	1.877	1.189
Gas - non ducted ≥ 6 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	2.181	2.058	1.409	1.393	1.142	1.921	1.797	1.108
Gas - non ducted ≥ 6 Stars	Heat pump - Non-Ducted < 3.75 stars (< 6)	2.060	1.938	1.288	1.273	1.021	1.800	1.676	0.988
Gas - non ducted ≥ 6 Stars	Heat pump - Non-Ducted ≥ 3.75 stars (≥ 6)	1.940	1.817	1.168	1.152	0.900	1.679	1.556	0.867
Gas - non ducted ≥ 6 Stars	Other or none specified	2.424	2.304	1.652	1.637	1.385	2.166	2.042	1.352

Table 3.2.1 Whole-of-home efficiency factors E_E (kW/100m²) – climate zone 3 – heat pump heating – Queensland

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Ducted < 2.25 Stars (< 3)	Evaporative	2.134	1.743	0.991	0.873	0.616	2.904	2.478	0.590
Heat pump - Ducted < 2.25 Stars (< 3)	Heat pump - Ducted < 2.25 stars (< 3)	3.517	3.198	2.358	2.284	1.974	4.355	3.936	1.945
Heat pump - Ducted < 2.25 Stars (< 3)	Heat pump - Ducted < 3 stars (< 4.5)	3.354	3.036	2.195	2.122	1.812	4.192	3.773	1.783
Heat pump - Ducted < 2.25 Stars (< 3)	Heat pump - Ducted < 3.75 stars (< 6)	3.111	2.792	1.952	1.878	1.569	3.949	3.530	1.539
Heat pump - Ducted < 2.25 Stars (< 3)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	2.868	2.549	1.709	1.635	1.325	3.706	3.287	1.296
Heat pump - Ducted < 2.25 Stars (< 3)	Heat pump - Non-Ducted < 2.25 stars (< 3)	3.242	2.908	2.082	2.005	1.693	4.068	3.645	1.661
Heat pump - Ducted < 2.25 Stars (< 3)	Heat pump - Non-Ducted < 3 stars (< 4.5)	3.106	2.772	1.946	1.869	1.557	3.932	3.509	1.525

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Ducted < 2.25 Stars (< 3)	Heat pump - Non-ducted < 3.75 stars (< 6)	2.902	2.568	1.742	1.664	1.352	3.727	3.305	1.321
Heat pump - Ducted < 2.25 Stars (< 3)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	2.698	2.363	1.538	1.460	1.148	3.523	3.101	1.117
Heat pump - Ducted < 2.25 Stars (< 3)	Other or none specified	3.517	3.198	2.358	2.284	1.974	4.355	3.936	1.945
Heat pump - Ducted < 3.0 Stars (< 4.5)	Evaporative	2.129	1.737	0.986	0.867	0.611	2.898	2.472	0.585
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted < 2.25 stars (< 3)	3.511	3.192	2.352	2.278	1.969	4.349	3.930	1.939
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted < 3 stars (< 4.5)	3.349	3.030	2.190	2.116	1.806	4.187	3.768	1.777
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted < 3.75 stars (< 6)	3.105	2.787	1.946	1.873	1.563	3.943	3.524	1.534
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	2.862	2.543	1.703	1.629	1.319	3.700	3.281	1.290

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted < 2.25 stars (< 3)	3.237	2.902	2.077	1.999	1.687	4.062	3.640	1.655
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted < 3 stars (< 4.5)	3.101	2.766	1.941	1.863	1.551	3.926	3.504	1.519
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted < 3.75 stars (< 6)	2.896	2.562	1.736	1.659	1.347	3.722	3.299	1.315
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	2.692	2.358	1.532	1.455	1.143	3.517	3.095	1.111
Heat pump - Ducted < 3.0 Stars (< 4.5)	Other or none specified	3.511	3.192	2.352	2.278	1.969	4.349	3.930	1.939
Heat pump - Ducted < 3.75 Stars (< 6)	Evaporative	2.120	1.728	0.977	0.859	0.602	2.889	2.464	0.576
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Ducted < 2.25 stars (< 3)	3.502	3.184	2.343	2.270	1.960	4.340	3.921	1.931
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Ducted < 3 stars (< 4.5)	3.340	3.021	2.181	2.107	1.798	4.178	3.759	1.768

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Ducted < 3.75 stars (< 6)	3.097	2.778	1.938	1.864	1.554	3.935	3.516	1.525
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	2.853	2.535	1.694	1.621	1.311	3.691	3.272	1.281
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Non-ducted < 2.25 stars (< 3)	3.228	2.893	2.068	1.990	1.678	4.053	3.631	1.647
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Non-ducted < 3 stars (< 4.5)	3.092	2.757	1.932	1.854	1.542	3.917	3.495	1.511
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Non-ducted < 3.75 stars (< 6)	2.888	2.553	1.728	1.650	1.338	3.713	3.291	1.306
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	2.684	2.349	1.524	1.446	1.134	3.509	3.087	1.102
Heat pump - Ducted < 3.75 Stars (< 6)	Other or none specified	3.502	3.184	2.343	2.270	1.960	4.340	3.921	1.931
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Evaporative	2.111	1.720	0.968	0.850	0.593	2.881	2.455	0.567

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted < 2.25 stars (< 3)	3.494	3.175	2.335	2.261	1.951	4.332	3.913	1.922
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted < 3 stars (< 4.5)	3.331	3.013	2.172	2.099	1.789	4.169	3.750	1.760
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted < 3.75 stars (< 6)	3.088	2.769	1.929	1.855	1.546	3.926	3.507	1.516
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	2.844	2.526	1.686	1.612	1.302	3.682	3.264	1.273
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-ducted < 2.25 stars (< 3)	3.219	2.885	2.059	1.982	1.670	4.045	3.622	1.638
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-ducted < 3 stars (< 4.5)	3.083	2.749	1.923	1.846	1.534	3.909	3.486	1.502
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-ducted < 3.75 stars (< 6)	2.879	2.545	1.719	1.641	1.329	3.704	3.282	1.298
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	2.675	2.340	1.515	1.437	1.125	3.500	3.078	1.094

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Ducted \geq 3.75 Stars (\geq 6)	Other or none specified	3.494	3.175	2.335	2.261	1.951	4.332	3.913	1.922
Heat pump - Non Ducted $<$ 2.25 Stars ($<$ 3)	Evaporative	2.123	1.731	0.981	0.862	0.608	2.892	2.466	0.582
Heat pump - Non Ducted $<$ 2.25 Stars ($<$ 3)	Heat pump - Ducted $<$ 2.25 stars ($<$ 3)	3.505	3.187	2.346	2.273	1.963	4.343	3.924	1.934
Heat pump - Non Ducted $<$ 2.25 Stars ($<$ 3)	Heat pump - Ducted $<$ 3 stars ($<$ 4.5)	3.343	3.024	2.184	2.111	1.801	4.181	3.762	1.772
Heat pump - Non Ducted $<$ 2.25 Stars ($<$ 3)	Heat pump - Ducted $<$ 3.75 stars ($<$ 6)	3.099	2.781	1.940	1.868	1.558	3.938	3.519	1.528
Heat pump - Non Ducted $<$ 2.25 Stars ($<$ 3)	Heat pump - Ducted \geq 3.75 stars (\geq 6)	2.856	2.538	1.697	1.624	1.314	3.694	3.275	1.285
Heat pump - Non Ducted $<$ 2.25 Stars ($<$ 3)	Heat pump - Non-Ducted $<$ 2.25 stars ($<$ 3)	3.231	2.897	2.071	1.994	1.681	4.056	3.634	1.650
Heat pump - Non Ducted $<$ 2.25 Stars ($<$ 3)	Heat pump - Non-Ducted $<$ 3 stars ($<$ 4.5)	3.095	2.760	1.935	1.858	1.545	3.920	3.498	1.514

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Non Ducted < 2.25 Stars (< 3)	Heat pump - Non-ducted < 3.75 stars (< 6)	2.890	2.556	1.731	1.653	1.341	3.716	3.294	1.309
Heat pump - Non Ducted < 2.25 Stars (< 3)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	2.686	2.352	1.527	1.449	1.137	3.512	3.089	1.105
Heat pump - Non Ducted < 2.25 Stars (< 3)	Other or none specified	3.505	3.187	2.346	2.273	1.963	4.343	3.924	1.934
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Evaporative	2.118	1.726	0.976	0.857	0.603	2.887	2.461	0.577
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted < 2.25 stars (< 3)	3.500	3.182	2.341	2.268	1.958	4.338	3.919	1.929
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted < 3 stars (< 4.5)	3.338	3.020	2.179	2.106	1.796	4.176	3.757	1.767
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted < 3.75 stars (< 6)	3.094	2.776	1.936	1.863	1.553	3.933	3.514	1.523
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	2.851	2.533	1.692	1.619	1.309	3.689	3.270	1.280

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted < 2.25 stars (< 3)	3.226	2.892	2.067	1.989	1.677	4.051	3.629	1.645
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted < 3 stars (< 4.5)	3.090	2.756	1.930	1.853	1.540	3.915	3.493	1.509
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted < 3.75 stars (< 6)	2.886	2.551	1.726	1.648	1.336	3.711	3.289	1.305
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	2.681	2.347	1.522	1.444	1.132	3.507	3.085	1.100
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Other or none specified	3.500	3.182	2.341	2.268	1.958	4.338	3.919	1.929
Heat pump - Non Ducted < 3.75 Stars (< 6)	Evaporative	2.110	1.718	0.969	0.850	0.596	2.879	2.454	0.570
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Ducted < 2.25 stars (< 3)	3.493	3.175	2.334	2.261	1.951	4.331	3.912	1.922
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Ducted < 3 stars (< 4.5)	3.331	3.012	2.172	2.099	1.789	4.169	3.750	1.760

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Ducted < 3.75 stars (< 6)	3.087	2.769	1.928	1.855	1.545	3.925	3.506	1.516
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	2.844	2.525	1.685	1.612	1.302	3.682	3.263	1.273
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Non-ducted < 2.25 stars (< 3)	3.219	2.884	2.059	1.981	1.669	4.044	3.622	1.638
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Non-ducted < 3 stars (< 4.5)	3.082	2.748	1.923	1.845	1.533	3.908	3.486	1.501
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Non-ducted < 3.75 stars (< 6)	2.878	2.544	1.719	1.641	1.329	3.704	3.281	1.297
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	2.674	2.340	1.515	1.437	1.125	3.500	3.077	1.093
Heat pump - Non Ducted < 3.75 Stars (< 6)	Other or none specified	3.493	3.175	2.334	2.261	1.951	4.331	3.912	1.922
Heat pump - Non Ducted	Evaporative	2.103	1.711	0.961	0.842	0.589	2.872	2.447	0.563
Heat pump - Non Ducted	Heat pump - Ducted < 2.25 stars (< 3)	3.486	3.167	2.327	2.254	1.944	4.324	3.905	1.914

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted < 3 stars (< 4.5)	3.323	3.005	2.164	2.091	1.782	4.162	3.742	1.752
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted < 3.75 stars (< 6)	3.080	2.762	1.921	1.848	1.538	3.918	3.499	1.509
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	2.836	2.518	1.677	1.605	1.295	3.675	3.256	1.265
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-ducted < 2.25 stars (< 3)	3.211	2.877	2.052	1.974	1.662	4.037	3.614	1.630
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-ducted < 3 stars (< 4.5)	3.075	2.741	1.916	1.838	1.526	3.901	3.478	1.494
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-ducted < 3.75 stars (< 6)	2.871	2.537	1.712	1.634	1.322	3.696	3.274	1.290
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	2.667	2.333	1.508	1.430	1.117	3.492	3.070	1.086
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Other or none specified	3.486	3.167	2.327	2.254	1.944	4.324	3.905	1.914

Table 3.2.2 Whole-of-home efficiency factors E_E (kW/100m²) – climate zone 3 – heat pump heating – Western Australia

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Ducted < 2.25 Stars (< 3)	Evaporative	2.711	1.637	1.169	0.854	0.676	2.978	2.523	0.635
Heat pump - Ducted < 2.25 Stars (< 3)	Heat pump - Ducted < 2.25 stars (< 3)	4.745	3.816	3.157	2.909	2.626	5.187	4.732	2.572
Heat pump - Ducted < 2.25 Stars (< 3)	Heat pump - Ducted < 3 stars (< 4.5)	4.502	3.572	2.913	2.665	2.382	4.944	4.489	2.328
Heat pump - Ducted < 2.25 Stars (< 3)	Heat pump - Ducted < 3.75 stars (< 6)	4.137	3.207	2.548	2.300	2.017	4.579	4.124	1.963
Heat pump - Ducted < 2.25 Stars (< 3)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	3.772	2.842	2.183	1.935	1.652	4.214	3.759	1.598
Heat pump - Ducted < 3 Stars (< 2.25)	HP - Non-ducted < 2.25 stars (< 3)	4.332	3.377	2.741	2.474	2.219	4.748	4.294	2.166
Heat pump - Ducted < 2.25 Stars (< 3)	Heat pump - Non-ducted < 3 stars (< 4.5)	4.129	3.175	2.538	2.272	2.017	4.545	4.091	1.963

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Ducted < 2.25 Stars (< 3)	Heat pump - Non-ducted < 3.75 stars (< 6)	3.825	2.871	2.235	1.968	1.713	4.242	3.788	1.659
Heat pump - Ducted < 2.25 Stars (< 3)	Heat pump - Non-Ducted ≥ 3.75 stars (≥ 6)	3.521	2.567	1.931	1.664	1.409	3.938	3.484	1.355
Heat pump - Ducted < 2.25 Stars (< 3)	Other or none specified	4.745	3.816	3.157	2.909	2.626	5.187	4.732	2.572
Heat pump - Ducted < 3.0 Stars (< 4.5)	Evaporative	2.703	1.629	1.161	0.846	0.668	2.970	2.515	0.627
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted < 2.25 stars (< 3)	4.737	3.808	3.149	2.901	2.617	5.179	4.724	2.564
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted < 3 stars (< 4.5)	4.494	3.564	2.905	2.657	2.374	4.936	4.481	2.320
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted < 3.75 stars (< 6)	4.129	3.199	2.540	2.292	2.009	4.571	4.116	1.955
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	3.764	2.834	2.175	1.927	1.644	4.206	3.750	1.590

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted < 2.25 stars (< 3)	4.324	3.369	2.733	2.466	2.211	4.740	4.286	2.158
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted < 3 stars (< 4.5)	4.121	3.167	2.530	2.264	2.009	4.537	4.083	1.955
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted < 3.75 stars (< 6)	3.817	2.863	2.227	1.960	1.705	4.233	3.780	1.651
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	3.513	2.559	1.923	1.656	1.401	3.930	3.476	1.347
Heat pump - Ducted < 3.0 Stars (< 4.5)	Other or none specified	4.737	3.808	3.149	2.901	2.617	5.179	4.724	2.564
Heat pump - Ducted < 3.75 Stars (< 6)	Evaporative	2.691	1.617	1.149	0.834	0.656	2.958	2.503	0.615
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Ducted < 2.25 stars (< 3)	4.725	3.796	3.137	2.888	2.605	5.167	4.712	2.552
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Ducted < 3 stars (< 4.5)	4.482	3.552	2.893	2.645	2.362	4.924	4.469	2.308

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Ducted < 3.75 stars (< 6)	4.117	3.187	2.528	2.280	1.997	4.559	4.103	1.943
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	3.752	2.822	2.163	1.915	1.632	4.194	3.738	1.578
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Non-ducted < 2.25 stars (< 3)	4.312	3.357	2.721	2.454	2.199	4.728	4.274	2.146
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Non-ducted < 3 stars (< 4.5)	4.109	3.155	2.518	2.251	1.996	4.525	4.071	1.943
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Non-ducted < 3.75 stars (< 6)	3.805	2.851	2.214	1.948	1.693	4.221	3.767	1.639
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	3.501	2.547	1.911	1.644	1.389	3.918	3.464	1.335
Heat pump - Ducted < 3.75 Stars (< 6)	Other or none specified	4.725	3.796	3.137	2.888	2.605	5.167	4.712	2.552
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Evaporative	2.679	1.605	1.136	0.822	0.644	2.946	2.491	0.602

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted < 2.25 stars (< 3)	4.713	3.783	3.125	2.876	2.593	5.155	4.700	2.540
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted < 3 stars (< 4.5)	4.470	3.540	2.881	2.633	2.350	4.912	4.456	2.296
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted < 3.75 stars (< 6)	4.105	3.175	2.516	2.268	1.985	4.547	4.091	1.931
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	3.740	2.810	2.151	1.903	1.620	4.182	3.726	1.566
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-ducted < 2.25 stars (< 3)	4.299	3.345	2.709	2.442	2.187	4.716	4.262	2.134
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-ducted < 3 stars (< 4.5)	4.097	3.143	2.506	2.239	1.984	4.513	4.059	1.931
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-ducted < 3.75 stars (< 6)	3.793	2.839	2.202	1.936	1.681	4.209	3.755	1.627
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	3.489	2.535	1.899	1.632	1.377	3.905	3.452	1.323

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Ducted \geq 3.75 Stars (\geq 6)	Other or none specified	4.713	3.783	3.125	2.876	2.593	5.155	4.700	2.540
Heat pump - Non Ducted $<$ 2.25 Stars ($<$ 3)	Evaporative	2.694	1.619	1.154	0.838	0.665	2.959	2.505	0.626
Heat pump - Non Ducted $<$ 2.25 Stars ($<$ 3)	Heat pump - Ducted $<$ 2.25 stars ($<$ 3)	4.728	3.799	3.140	2.892	2.608	5.170	4.714	2.555
Heat pump - Non Ducted $<$ 2.25 Stars ($<$ 3)	Heat pump - Ducted $<$ 3 stars ($<$ 4.5)	4.484	3.555	2.897	2.648	2.365	4.927	4.471	2.311
Heat pump - Non Ducted $<$ 2.25 Stars ($<$ 3)	Heat pump - Ducted $<$ 3.75 stars ($<$ 6)	4.119	3.190	2.532	2.283	2.000	4.562	4.106	1.946
Heat pump - Non Ducted $<$ 2.25 Stars ($<$ 3)	Heat pump - Ducted \geq 3.75 stars (\geq 6)	3.754	2.825	2.167	1.918	1.635	4.197	3.741	1.581
Heat pump - Non Ducted $<$ 2.25 Stars ($<$ 3)	Heat pump - Non-ducted $<$ 2.25 stars ($<$ 3)	4.314	3.360	2.724	2.458	2.203	4.730	4.276	2.149
Heat pump - Non Ducted $<$ 2.25 Stars ($<$ 3)	Heat pump - Non-ducted $<$ 3 stars ($<$ 4.5)	4.112	3.157	2.521	2.256	2.000	4.528	4.074	1.947

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Non Ducted < 2.25 Stars (< 3)	Heat pump - Non-ducted < 3.75 stars (< 6)	3.808	2.853	2.217	1.952	1.696	4.224	3.770	1.643
Heat pump - Non Ducted < 2.25 Stars (< 3)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	3.504	2.550	1.913	1.648	1.393	3.920	3.466	1.339
Heat pump - Non Ducted < 2.25 Stars (< 3)	Other or none specified	4.728	3.799	3.140	2.892	2.608	5.170	4.714	2.555
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Evaporative	2.687	1.612	1.148	0.831	0.658	2.953	2.498	0.619
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted < 2.25 stars (< 3)	4.721	3.792	3.134	2.885	2.602	5.164	4.708	2.548
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted < 3 stars (< 4.5)	4.478	3.548	2.890	2.642	2.358	4.920	4.464	2.305
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted < 3.75 stars (< 6)	4.113	3.183	2.525	2.277	1.993	4.555	4.099	1.940
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	3.748	2.818	2.160	1.912	1.628	4.190	3.734	1.575

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted < 2.25 stars (< 3)	4.307	3.353	2.717	2.452	2.196	4.723	4.269	2.143
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted < 3 stars (< 4.5)	4.105	3.151	2.514	2.249	1.994	4.521	4.067	1.940
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted < 3.75 stars (< 6)	3.801	2.847	2.211	1.945	1.690	4.217	3.763	1.636
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	3.497	2.543	1.907	1.641	1.386	3.913	3.459	1.332
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Other or none specified	4.721	3.792	3.134	2.885	2.602	5.164	4.708	2.548
Heat pump - Non Ducted < 3.75 Stars (< 6)	Evaporative	2.677	1.602	1.138	0.821	0.648	2.942	2.488	0.609
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Ducted < 2.25 stars (< 3)	4.711	3.782	3.124	2.875	2.592	5.153	4.697	2.538
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Ducted < 3 stars (< 4.5)	4.468	3.538	2.880	2.632	2.348	4.910	4.454	2.295

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Ducted < 3.75 stars (< 6)	4.102	3.173	2.515	2.267	1.983	4.545	4.089	1.930
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	3.737	2.808	2.150	1.901	1.618	4.180	3.724	1.564
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Non-Ducted < 2.25 stars (< 3)	4.297	3.343	2.707	2.442	2.186	4.713	4.259	2.133
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Non-ducted < 3 stars (< 4.5)	4.095	3.140	2.504	2.239	1.983	4.511	4.057	1.930
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Non-ducted < 3.75 stars (< 6)	3.791	2.837	2.200	1.935	1.680	4.207	3.753	1.626
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	3.487	2.533	1.897	1.631	1.376	3.903	3.449	1.322
Heat pump - Non Ducted < 3.75 Stars (< 6)	Other or none specified	4.711	3.782	3.124	2.875	2.592	5.153	4.697	2.538
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Evaporative	2.667	1.592	1.127	0.811	0.638	2.932	2.478	0.599

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted < 2.25 stars (< 3)	4.701	3.772	3.113	2.865	2.581	5.143	4.687	2.528
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted < 3 stars (< 4.5)	4.457	3.528	2.870	2.622	2.338	4.900	4.444	2.284
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted < 3.75 stars (< 6)	4.092	3.163	2.505	2.256	1.973	4.535	4.079	1.919
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	3.727	2.798	2.140	1.891	1.608	4.170	3.714	1.554
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-ducted < 2.25 stars (< 3)	4.287	3.333	2.697	2.431	2.176	4.703	4.249	2.122
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-ducted < 3 stars (< 4.5)	4.085	3.130	2.494	2.229	1.973	4.501	4.047	1.920
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-Ducted < 3.75 stars (< 6)	3.781	2.826	2.190	1.925	1.669	4.197	3.743	1.616
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-Ducted ≥ 3.75 stars (≥ 6)	3.477	2.523	1.886	1.621	1.366	3.893	3.439	1.312

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Non Ducted \geq 3.75 Stars (\geq 6)	Other or none specified	4.701	3.772	3.113	2.865	2.581	5.143	4.687	2.528

Table 3.2.3 Whole-of-home efficiency factors E_E (kW/100m²) – climate zone 3 – heat pump heating – Northern Territory

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Ducted < 2.25 Stars (< 3)	Evaporative	1.560	1.424	0.786	0.765	0.513	1.287	1.165	0.479
Heat pump - Ducted < 2.25 Stars (< 3)	Heat pump - Ducted < 2.25 stars (< 3)	2.392	2.269	1.619	1.604	1.352	2.131	2.008	1.319
Heat pump - Ducted < 2.25 Stars (< 3)	Heat pump - Ducted < 3 stars (< 4.5)	2.297	2.174	1.525	1.509	1.257	2.037	1.913	1.224
Heat pump - Ducted < 2.25 Stars (< 3)	Heat pump - Ducted < 3.75 stars (< 6)	2.155	2.032	1.382	1.367	1.115	1.895	1.771	1.082
Heat pump - Ducted < 2.25 Stars (< 3)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	2.013	1.890	1.240	1.225	0.973	1.753	1.629	0.940
Heat pump - Ducted < 3 Stars (< 2.25)	HP - Non-ducted < 2.25 stars (< 3)	2.229	2.104	1.457	1.440	1.189	1.967	1.843	1.156
Heat pump - Ducted < 2.25 Stars (< 3)	Heat pump - Non-ducted < 3 stars (< 4.5)	2.149	2.024	1.377	1.360	1.109	1.886	1.763	1.075

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Ducted < 2.25 Stars (< 3)	Heat pump - Non-ducted < 3.75 stars (< 6)	2.028	1.903	1.256	1.239	0.988	1.766	1.642	0.955
Heat pump - Ducted < 2.25 Stars (< 3)	Heat pump - Non-Ducted ≥ 3.75 stars (≥ 6)	1.908	1.783	1.135	1.119	0.867	1.645	1.522	0.834
Heat pump - Ducted < 2.25 Stars (< 3)	Other or none specified	2.392	2.269	1.619	1.604	1.352	2.131	2.008	1.319
Heat pump - Ducted < 3.0 Stars (< 4.5)	Evaporative	1.556	1.421	0.783	0.762	0.510	1.283	1.161	0.476
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted < 2.25 stars (< 3)	2.388	2.265	1.616	1.600	1.348	2.128	2.004	1.315
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted < 3 stars (< 4.5)	2.294	2.171	1.521	1.505	1.254	2.033	1.909	1.221
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted < 3.75 stars (< 6)	2.152	2.029	1.379	1.363	1.112	1.891	1.767	1.078
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	2.009	1.886	1.237	1.221	0.970	1.749	1.625	0.936

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted < 2.25 stars (< 3)	2.226	2.101	1.453	1.437	1.185	1.963	1.840	1.152
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted < 3 stars (< 4.5)	2.145	2.020	1.373	1.356	1.105	1.883	1.759	1.072
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted < 3.75 stars (< 6)	2.025	1.900	1.252	1.236	0.984	1.762	1.639	0.951
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	1.904	1.779	1.132	1.115	0.864	1.641	1.518	0.830
Heat pump - Ducted < 3.0 Stars (< 4.5)	Other or none specified	2.388	2.265	1.616	1.600	1.348	2.128	2.004	1.315
Heat pump - Ducted < 3.75 Stars (< 6)	Evaporative	1.551	1.415	0.777	0.756	0.504	1.278	1.156	0.470
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Ducted < 2.25 stars (< 3)	2.383	2.260	1.610	1.594	1.343	2.122	1.998	1.310
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Ducted < 3 stars (< 4.5)	2.288	2.165	1.515	1.500	1.248	2.027	1.904	1.215

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Ducted < 3.75 stars (< 6)	2.146	2.023	1.373	1.357	1.106	1.885	1.762	1.073
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	2.004	1.881	1.231	1.215	0.964	1.743	1.619	0.931
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Non-ducted < 2.25 stars (< 3)	2.220	2.095	1.448	1.431	1.180	1.958	1.834	1.147
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Non-ducted < 3 stars (< 4.5)	2.140	2.015	1.367	1.351	1.099	1.877	1.754	1.066
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Non-ducted < 3.75 stars (< 6)	2.019	1.894	1.247	1.230	0.979	1.756	1.633	0.945
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	1.898	1.773	1.126	1.109	0.858	1.636	1.512	0.825
Heat pump - Ducted < 3.75 Stars (< 6)	Other or none specified	2.383	2.260	1.610	1.594	1.343	2.122	1.998	1.310
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Evaporative	1.545	1.409	0.771	0.750	0.498	1.272	1.150	0.464

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted < 2.25 stars (< 3)	2.377	2.254	1.604	1.589	1.337	2.116	1.993	1.304
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted < 3 stars (< 4.5)	2.282	2.159	1.510	1.494	1.243	2.022	1.898	1.209
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted < 3.75 stars (< 6)	2.140	2.017	1.368	1.352	1.100	1.880	1.756	1.067
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	1.998	1.875	1.225	1.210	0.958	1.738	1.614	0.925
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-ducted < 2.25 stars (< 3)	2.214	2.089	1.442	1.425	1.174	1.952	1.828	1.141
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-ducted < 3 stars (< 4.5)	2.134	2.009	1.362	1.345	1.094	1.871	1.748	1.060
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-ducted < 3.75 stars (< 6)	2.013	1.888	1.241	1.224	0.973	1.751	1.627	0.940
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	1.893	1.768	1.120	1.104	0.852	1.630	1.507	0.819

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Ducted \geq 3.75 Stars (\geq 6)	Other or none specified	2.377	2.254	1.604	1.589	1.337	2.116	1.993	1.304
Heat pump - Non Ducted $<$ 2.25 Stars ($<$ 3)	Evaporative	1.554	1.418	0.780	0.759	0.507	1.281	1.159	0.473
Heat pump - Non Ducted $<$ 2.25 Stars ($<$ 3)	Heat pump - Ducted $<$ 2.25 stars ($<$ 3)	2.386	2.263	1.613	1.597	1.346	2.125	2.001	1.313
Heat pump - Non Ducted $<$ 2.25 Stars ($<$ 3)	Heat pump - Ducted $<$ 3 stars ($<$ 4.5)	2.291	2.168	1.518	1.502	1.251	2.030	1.907	1.218
Heat pump - Non Ducted $<$ 2.25 Stars ($<$ 3)	Heat pump - Ducted $<$ 3.75 stars ($<$ 6)	2.149	2.026	1.376	1.360	1.109	1.888	1.765	1.076
Heat pump - Non Ducted $<$ 2.25 Stars ($<$ 3)	Heat pump - Ducted \geq 3.75 stars (\geq 6)	2.007	1.884	1.234	1.218	0.967	1.746	1.622	0.934
Heat pump - Non Ducted $<$ 2.25 Stars ($<$ 3)	Heat pump - Non-ducted $<$ 2.25 stars ($<$ 3)	2.223	2.098	1.451	1.434	1.183	1.961	1.837	1.149
Heat pump - Non Ducted $<$ 2.25 Stars ($<$ 3)	Heat pump - Non-ducted $<$ 3 stars ($<$ 4.5)	2.143	2.018	1.370	1.353	1.102	1.880	1.757	1.069

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Non Ducted < 2.25 Stars (< 3)	Heat pump - Non-ducted < 3.75 stars (< 6)	2.022	1.897	1.249	1.233	0.982	1.759	1.636	0.948
Heat pump - Non Ducted < 2.25 Stars (< 3)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	1.901	1.776	1.129	1.112	0.861	1.639	1.515	0.828
Heat pump - Non Ducted < 2.25 Stars (< 3)	Other or none specified	2.386	2.263	1.613	1.597	1.346	2.125	2.001	1.313
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Evaporative	1.550	1.415	0.777	0.756	0.504	1.278	1.156	0.470
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted < 2.25 stars (< 3)	2.383	2.260	1.610	1.594	1.343	2.122	1.998	1.309
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted < 3 stars (< 4.5)	2.288	2.165	1.515	1.499	1.248	2.027	1.903	1.215
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted < 3.75 stars (< 6)	2.146	2.023	1.373	1.357	1.106	1.885	1.761	1.073
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	2.004	1.881	1.231	1.215	0.964	1.743	1.619	0.931

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted < 2.25 stars (< 3)	2.220	2.095	1.447	1.431	1.180	1.957	1.834	1.146
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted < 3 stars (< 4.5)	2.139	2.014	1.367	1.350	1.099	1.877	1.753	1.066
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted < 3.75 stars (< 6)	2.019	1.894	1.246	1.230	0.978	1.756	1.633	0.945
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	1.898	1.773	1.126	1.109	0.858	1.636	1.512	0.825
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Other or none specified	2.383	2.260	1.610	1.594	1.343	2.122	1.998	1.309
Heat pump - Non Ducted < 3.75 Stars (< 6)	Evaporative	1.546	1.410	0.772	0.751	0.499	1.273	1.151	0.465
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Ducted < 2.25 stars (< 3)	2.378	2.255	1.605	1.589	1.338	2.117	1.993	1.305
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Ducted < 3 stars (< 4.5)	2.283	2.160	1.510	1.494	1.243	2.022	1.899	1.210

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Ducted < 3.75 stars (< 6)	2.141	2.018	1.368	1.352	1.101	1.880	1.757	1.068
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	1.999	1.876	1.226	1.210	0.959	1.738	1.615	0.926
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Non-Ducted < 2.25 stars (< 3)	2.215	2.090	1.443	1.426	1.175	1.953	1.829	1.141
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Non-ducted < 3 stars (< 4.5)	2.135	2.010	1.362	1.346	1.094	1.872	1.749	1.061
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Non-ducted < 3.75 stars (< 6)	2.014	1.889	1.242	1.225	0.974	1.752	1.628	0.940
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	1.893	1.768	1.121	1.104	0.853	1.631	1.507	0.820
Heat pump - Non Ducted < 3.75 Stars (< 6)	Other or none specified	2.378	2.255	1.605	1.589	1.338	2.117	1.993	1.305
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Evaporative	1.541	1.405	0.767	0.746	0.494	1.268	1.146	0.460

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Non Ducted \geq 3.75 Stars (\geq 6)	Heat pump - Ducted < 2.25 stars (< 3)	2.373	2.250	1.600	1.584	1.333	2.112	1.989	1.300
Heat pump - Non Ducted \geq 3.75 Stars (\geq 6)	Heat pump - Ducted < 3 stars (< 4.5)	2.278	2.155	1.505	1.490	1.238	2.018	1.894	1.205
Heat pump - Non Ducted \geq 3.75 Stars (\geq 6)	Heat pump - Ducted < 3.75 stars (< 6)	2.136	2.013	1.363	1.348	1.096	1.876	1.752	1.063
Heat pump - Non Ducted \geq 3.75 Stars (\geq 6)	Heat pump - Ducted \geq 3.75 stars (\geq 6)	1.994	1.871	1.221	1.206	0.954	1.733	1.610	0.921
Heat pump - Non Ducted \geq 3.75 Stars (\geq 6)	Heat pump - Non-ducted < 2.25 stars (< 3)	2.210	2.085	1.438	1.421	1.170	1.948	1.824	1.137
Heat pump - Non Ducted \geq 3.75 Stars (\geq 6)	Heat pump - Non-ducted < 3 stars (< 4.5)	2.130	2.005	1.357	1.341	1.090	1.867	1.744	1.056
Heat pump - Non Ducted \geq 3.75 Stars (\geq 6)	Heat pump - Non-Ducted < 3.75 stars (< 6)	2.009	1.884	1.237	1.220	0.969	1.747	1.623	0.936
Heat pump - Non Ducted \geq 3.75 Stars (\geq 6)	Heat pump - Non-Ducted \geq 3.75 stars (\geq 6)	1.889	1.764	1.116	1.100	0.848	1.626	1.503	0.815

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Non Ducted \geq 3.75 Stars (\geq 6)	Other or none specified	2.373	2.250	1.600	1.584	1.333	2.112	1.989	1.300

Table 3.3.1 Whole-of-home efficiency factors E_E (kW/100m²) – climate zone 3 – other heating – Queensland

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Electric - Resistance (Panel)	Evaporative	2.285	1.902	1.129	1.021	0.727	3.066	2.641	0.690
Electric - Resistance (Panel)	Heat pump - Ducted < 2.25 stars (< 3)	4.090	3.789	2.935	2.873	2.548	4.945	4.527	2.520
Electric - Resistance (Panel)	Heat pump - Ducted < 3 stars (< 4.5)	3.928	3.627	2.773	2.711	2.386	4.783	4.365	2.357
Electric - Resistance (Panel)	Heat pump - Ducted < 3.75 stars (< 6)	3.684	3.383	2.529	2.468	2.143	4.539	4.122	2.114
Electric - Resistance (Panel)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	3.441	3.140	2.286	2.224	1.899	4.296	3.878	1.870
Electric - Resistance (Panel)	Heat pump - Non-Ducted < 2.25 stars (< 3)	3.747	3.435	2.591	2.521	2.196	4.592	4.173	2.168
Electric - Resistance (Panel)	Heat pump - Non-Ducted < 3 stars (< 4.5)	3.611	3.298	2.454	2.385	2.060	4.456	4.037	2.032

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Electric - Resistance (Panel)	Heat pump - Non-ducted < 3.75 stars (< 6)	3.407	3.094	2.250	2.181	1.856	4.252	3.833	1.827
Electric - Resistance (Panel)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	3.203	2.890	2.046	1.977	1.652	4.047	3.628	1.623
Electric - Resistance (Panel)	Other or none specified	4.090	3.789	2.935	2.873	2.548	4.945	4.527	2.520
Wood Heater	Evaporative	2.176	1.794	1.029	0.915	0.641	2.964	2.535	0.616
Wood Heater	Heat pump - Ducted < 2.25 stars (< 3)	3.985	3.696	2.834	2.777	2.447	4.859	4.438	2.419
Wood Heater	Heat pump - Ducted < 3 stars (< 4.5)	3.823	3.534	2.672	2.614	2.284	4.697	4.276	2.257
Wood Heater	Heat pump - Ducted < 3.75 stars (< 6)	3.580	3.291	2.429	2.371	2.041	4.454	4.032	2.013
Wood Heater	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	3.336	3.047	2.185	2.127	1.797	4.210	3.789	1.770
Wood Heater	Heat pump - Non-ducted < 2.25 stars (< 3)	3.640	3.339	2.487	2.420	2.097	4.503	4.081	2.070
Wood Heater	Heat pump - Non-ducted < 3 stars (< 4.5)	3.504	3.203	2.351	2.284	1.961	4.367	3.945	1.934

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Wood Heater	Heat pump - Non-ducted < 3.75 stars (< 6)	3.300	2.999	2.146	2.080	1.757	4.163	3.741	1.730
Wood Heater	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	3.096	2.795	1.942	1.876	1.553	3.959	3.537	1.525
Wood Heater	Other or none specified	3.985	3.696	2.834	2.777	2.447	4.859	4.438	2.419
Electric - Resistance (Slab)	Evaporative	2.296	1.924	1.138	1.032	0.735	3.104	2.672	0.698
Electric - Resistance (Slab)	Heat pump - Ducted < 2.25 stars (< 3)	4.110	3.830	2.957	2.903	2.571	4.996	4.574	2.544
Electric - Resistance (Slab)	Heat pump - Ducted < 3 stars (< 4.5)	3.947	3.667	2.794	2.740	2.409	4.833	4.412	2.382
Electric - Resistance (Slab)	Heat pump - Ducted < 3.75 stars (< 6)	3.704	3.424	2.551	2.497	2.165	4.590	4.168	2.138
Electric - Resistance (Slab)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	3.461	3.180	2.308	2.254	1.922	4.346	3.925	1.895

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Electric - Resistance (Slab)	Heat pump - Non-ducted < 2.25 stars (< 3)	3.765	3.472	2.610	2.548	2.215	4.641	4.217	2.188
Electric - Resistance (Slab)	Heat pump - Non-ducted < 3 stars (< 4.5)	3.629	3.335	2.474	2.411	2.079	4.505	4.081	2.052
Electric - Resistance (Slab)	Heat pump - Non-ducted < 3.75 stars (< 6)	3.425	3.131	2.269	2.207	1.875	4.300	3.876	1.848
Electric - Resistance (Slab)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	3.221	2.927	2.065	2.003	1.670	4.096	3.672	1.643
Electric - Resistance (Slab)	Other or none specified	4.110	3.830	2.957	2.903	2.571	4.996	4.574	2.544
Other or none specified	Evaporative	2.134	1.743	0.991	0.873	0.616	2.904	2.478	0.590
Other or none specified	Heat pump - Ducted < 2.25 stars (< 3)	3.517	3.198	2.358	2.284	1.974	4.355	3.936	1.945
Other or none specified	Heat pump - Ducted < 3 stars (< 4.5)	3.354	3.036	2.195	2.122	1.812	4.192	3.773	1.783
Other or none specified	Heat pump - Ducted < 3.75 stars (< 6)	3.111	2.792	1.952	1.878	1.569	3.949	3.530	1.539

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Other or none specified	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	2.868	2.549	1.709	1.635	1.325	3.706	3.287	1.296
Other or none specified	Heat pump - Non-ducted < 2.25 stars (< 3)	3.242	2.908	2.082	2.005	1.693	4.068	3.645	1.661
Other or none specified	Heat pump - Non-ducted < 3 stars (< 4.5)	3.106	2.772	1.946	1.869	1.557	3.932	3.509	1.525
Other or none specified	Heat pump - Non-ducted < 3.75 stars (< 6)	2.902	2.568	1.742	1.664	1.352	3.727	3.305	1.321
Other or none specified	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	2.698	2.363	1.538	1.460	1.148	3.523	3.101	1.117
Other or none specified	Other or none specified	3.517	3.198	2.358	2.284	1.974	4.355	3.936	1.945

Table 3.3.2 Whole-of-home efficiency factors E_E (kW/100m²) – climate zone 3 – other heating – Western Australia

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Electric - Resistance (Panel)	Evaporative	2.940	1.883	1.356	1.064	0.849	3.242	2.787	0.785
Electric - Resistance (Panel)	Heat pump - Ducted < 2.25 stars (< 3)	5.625	4.714	4.034	3.794	3.502	6.091	5.640	3.450
Electric - Resistance (Panel)	Heat pump - Ducted < 3 stars (< 4.5)	5.381	4.470	3.790	3.551	3.259	5.848	5.396	3.207
Electric - Resistance (Panel)	Heat pump - Ducted < 3.75 stars (< 6)	5.016	4.105	3.425	3.186	2.893	5.483	5.031	2.842
Electric - Resistance (Panel)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	4.651	3.740	3.060	2.821	2.528	5.118	4.666	2.477
Electric - Resistance (Panel)	Heat pump - Non-Ducted < 2.25 stars (< 3)	5.104	4.179	3.511	3.258	2.978	5.555	5.102	2.925
Electric - Resistance (Panel)	Heat pump - Non-Ducted < 3 stars (< 4.5)	4.901	3.976	3.309	3.055	2.775	5.352	4.899	2.723

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Electric - Resistance (Panel)	Heat pump - Non-ducted < 3.75 stars (< 6)	4.598	3.672	3.005	2.751	2.471	5.048	4.595	2.419
Electric - Resistance (Panel)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	4.294	3.368	2.701	2.447	2.167	4.745	4.292	2.115
Electric - Resistance (Panel)	Other or none specified	5.625	4.714	4.034	3.794	3.502	6.091	5.640	3.450
Wood Heater	Evaporative	2.745	1.683	1.194	0.884	0.693	3.045	2.583	0.648
Wood Heater	Heat pump - Ducted < 2.25 stars (< 3)	5.437	4.552	3.855	3.624	3.320	5.938	5.481	3.273
Wood Heater	Heat pump - Ducted < 3 stars (< 4.5)	5.194	4.309	3.611	3.381	3.077	5.695	5.237	3.029
Wood Heater	Heat pump - Ducted < 3.75 stars (< 6)	4.829	3.944	3.246	3.016	2.712	5.330	4.872	2.664
Wood Heater	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	4.464	3.579	2.881	2.651	2.347	4.965	4.507	2.299
Wood Heater	Heat pump - Non-ducted < 2.25 stars (< 3)	4.915	4.006	3.324	3.084	2.796	5.394	4.937	2.745
Wood Heater	Heat pump - Non-ducted < 3 stars (< 4.5)	4.713	3.804	3.121	2.881	2.594	5.191	4.734	2.543

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Wood Heater	Heat pump - Non-ducted < 3.75 stars (< 6)	4.409	3.500	2.817	2.577	2.290	4.887	4.430	2.239
Wood Heater	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	4.105	3.196	2.513	2.273	1.986	4.583	4.126	1.935
Wood Heater	Other or none specified	5.437	4.552	3.855	3.624	3.320	5.938	5.481	3.273
Electric - Resistance (Slab)	Evaporative	2.821	1.769	1.255	0.955	0.741	3.144	2.680	0.696
Electric - Resistance (Slab)	Heat pump - Ducted < 2.25 stars (< 3)	5.525	4.643	3.939	3.712	3.407	6.035	5.577	3.359
Electric - Resistance (Slab)	Heat pump - Ducted < 3 stars (< 4.5)	5.282	4.400	3.696	3.469	3.164	5.792	5.334	3.116
Electric - Resistance (Slab)	Heat pump - Ducted < 3.75 stars (< 6)	4.917	4.035	3.331	3.104	2.798	5.427	4.969	2.751
Electric - Resistance (Slab)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	4.552	3.670	2.965	2.739	2.433	5.062	4.604	2.386

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Electric - Resistance (Slab)	Heat pump - Non-ducted < 2.25 stars (< 3)	5.001	4.099	3.409	3.168	2.878	5.492	5.033	2.829
Electric - Resistance (Slab)	Heat pump - Non-ducted < 3 stars (< 4.5)	4.799	3.897	3.206	2.965	2.676	5.290	4.830	2.626
Electric - Resistance (Slab)	Heat pump - Non-ducted < 3.75 stars (< 6)	4.495	3.593	2.903	2.661	2.372	4.986	4.527	2.322
Electric - Resistance (Slab)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	4.191	3.289	2.599	2.358	2.068	4.682	4.223	2.018
Electric - Resistance (Slab)	Other or none specified	5.525	4.643	3.939	3.712	3.407	6.035	5.577	3.359
Other or none specified	Evaporative	2.711	1.637	1.169	0.854	0.676	2.978	2.523	0.635
Other or none specified	Heat pump - Ducted < 2.25 stars (< 3)	4.745	3.816	3.157	2.909	2.626	5.187	4.732	2.572
Other or none specified	Heat pump - Ducted < 3 stars (< 4.5)	4.502	3.572	2.913	2.665	2.382	4.944	4.489	2.328
Other or none specified	Heat pump - Ducted < 3.75 stars (< 6)	4.137	3.207	2.548	2.300	2.017	4.579	4.124	1.963

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Other or none specified	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	3.772	2.842	2.183	1.935	1.652	4.214	3.759	1.598
Other or none specified	Heat pump - Non-ducted < 2.25 stars (< 3)	4.332	3.377	2.741	2.474	2.219	4.748	4.294	2.166
Other or none specified	Heat pump - Non-ducted < 3 stars (< 4.5)	4.129	3.175	2.538	2.272	2.017	4.545	4.091	1.963
Other or none specified	Heat pump - Non-ducted < 3.75 stars (< 6)	3.825	2.871	2.235	1.968	1.713	4.242	3.788	1.659
Other or none specified	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	3.521	2.567	1.931	1.664	1.409	3.938	3.484	1.355
Other or none specified	Other or none specified	4.745	3.816	3.157	2.909	2.626	5.187	4.732	2.572

Table 3.3.3 Whole-of-home efficiency factors E_E (kW/100m²) – climate zone 3 – other heating – Northern Territory

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Electric - Resistance (Panel)	Evaporative	1.640	1.507	0.867	0.847	0.597	1.369	1.247	0.563
Electric - Resistance (Panel)	Heat pump - Ducted < 2.25 stars (< 3)	2.721	2.601	1.950	1.935	1.682	2.464	2.340	1.649
Electric - Resistance (Panel)	Heat pump - Ducted < 3 stars (< 4.5)	2.626	2.507	1.855	1.841	1.587	2.369	2.245	1.554
Electric - Resistance (Panel)	Heat pump - Ducted < 3.75 stars (< 6)	2.484	2.365	1.713	1.699	1.445	2.227	2.103	1.412
Electric - Resistance (Panel)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	2.342	2.223	1.571	1.557	1.303	2.085	1.961	1.270
Electric - Resistance (Panel)	Heat pump - Non-Ducted < 2.25 stars (< 3)	2.521	2.399	1.749	1.734	1.482	2.261	2.138	1.449
Electric - Resistance (Panel)	Heat pump - Non-Ducted < 3 stars (< 4.5)	2.441	2.319	1.669	1.653	1.401	2.181	2.057	1.368

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Electric - Resistance (Panel)	Heat pump - Non-ducted < 3.75 stars (< 6)	2.320	2.198	1.548	1.533	1.281	2.060	1.937	1.248
Electric - Resistance (Panel)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	2.199	2.077	1.427	1.412	1.160	1.940	1.816	1.127
Electric - Resistance (Panel)	Other or none specified	2.721	2.601	1.950	1.935	1.682	2.464	2.340	1.649
Wood Heater	Evaporative	1.574	1.440	0.801	0.780	0.528	1.303	1.180	0.494
Wood Heater	Heat pump - Ducted < 2.25 stars (< 3)	2.654	2.537	1.883	1.869	1.615	2.399	2.274	1.582
Wood Heater	Heat pump - Ducted < 3 stars (< 4.5)	2.560	2.442	1.788	1.775	1.520	2.304	2.180	1.488
Wood Heater	Heat pump - Ducted < 3.75 stars (< 6)	2.418	2.300	1.646	1.633	1.378	2.162	2.038	1.346
Wood Heater	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	2.276	2.158	1.504	1.490	1.236	2.020	1.896	1.204
Wood Heater	Heat pump - Non-ducted < 2.25 stars (< 3)	2.454	2.334	1.682	1.667	1.415	2.196	2.072	1.382
Wood Heater	Heat pump - Non-ducted < 3 stars (< 4.5)	2.374	2.254	1.602	1.587	1.335	2.116	1.992	1.302

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Wood Heater	Heat pump - Non-ducted < 3.75 stars (< 6)	2.253	2.133	1.481	1.466	1.214	1.995	1.871	1.181
Wood Heater	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	2.133	2.012	1.360	1.346	1.093	1.874	1.751	1.060
Wood Heater	Other or none specified	2.654	2.537	1.883	1.869	1.615	2.399	2.274	1.582
Electric - Resistance (Slab)	Evaporative	1.699	1.569	0.927	0.907	0.658	1.430	1.307	0.624
Electric - Resistance (Slab)	Heat pump - Ducted < 2.25 stars (< 3)	2.781	2.666	2.011	1.998	1.744	2.528	2.403	1.711
Electric - Resistance (Slab)	Heat pump - Ducted < 3 stars (< 4.5)	2.687	2.571	1.916	1.904	1.649	2.433	2.309	1.617
Electric - Resistance (Slab)	Heat pump - Ducted < 3.75 stars (< 6)	2.544	2.429	1.774	1.762	1.507	2.291	2.166	1.474
Electric - Resistance (Slab)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	2.402	2.287	1.632	1.619	1.365	2.149	2.024	1.332

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Electric - Resistance (Slab)	Heat pump - Non-ducted < 2.25 stars (< 3)	2.581	2.463	1.810	1.796	1.543	2.325	2.201	1.510
Electric - Resistance (Slab)	Heat pump - Non-ducted < 3 stars (< 4.5)	2.501	2.383	1.730	1.716	1.462	2.244	2.120	1.430
Electric - Resistance (Slab)	Heat pump - Non-ducted < 3.75 stars (< 6)	2.380	2.262	1.609	1.595	1.342	2.124	2.000	1.309
Electric - Resistance (Slab)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	2.259	2.141	1.488	1.474	1.221	2.003	1.879	1.188
Electric - Resistance (Slab)	Other or none specified	2.781	2.666	2.011	1.998	1.744	2.528	2.403	1.711
Other or none specified	Evaporative	1.560	1.424	0.786	0.765	0.513	1.287	1.165	0.479
Other or none specified	Heat pump - Ducted < 2.25 stars (< 3)	2.392	2.269	1.619	1.604	1.352	2.131	2.008	1.319
Other or none specified	Heat pump - Ducted < 3 stars (< 4.5)	2.297	2.174	1.525	1.509	1.257	2.037	1.913	1.224
Other or none specified	Heat pump - Ducted < 3.75 stars (< 6)	2.155	2.032	1.382	1.367	1.115	1.895	1.771	1.082

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Other or none specified	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	2.013	1.890	1.240	1.225	0.973	1.753	1.629	0.940
Other or none specified	Heat pump - Non-ducted < 2.25 stars (< 3)	2.229	2.104	1.457	1.440	1.189	1.967	1.843	1.156
Other or none specified	Heat pump - Non-ducted < 3 stars (< 4.5)	2.149	2.024	1.377	1.360	1.109	1.886	1.763	1.075
Other or none specified	Heat pump - Non-ducted < 3.75 stars (< 6)	2.028	1.903	1.256	1.239	0.988	1.766	1.642	0.955
Other or none specified	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	1.908	1.783	1.135	1.119	0.867	1.645	1.522	0.834
Other or none specified	Other or none specified	2.392	2.269	1.619	1.604	1.352	2.131	2.008	1.319

2.4.4 Climate zone 4

Table 4.1.1 Whole-of-home efficiency factors E_E (kW/100m²) – climate zone 4 – gas heating – New South Wales

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas – ducted < 3 Stars	Evaporative	3.925	2.941	2.236	1.955	2.094	3.757	3.322	1.750
Gas – ducted < 3 Stars	Heat pump - Ducted < 2.25 stars (< 3)	4.495	3.542	2.829	2.560	2.685	4.330	3.911	2.347
Gas – ducted < 3 Stars	Heat pump - Ducted < 3 stars (< 4.5)	4.430	3.476	2.764	2.494	2.619	4.265	3.846	2.282
Gas – ducted < 3 Stars	Heat pump - Ducted < 3.75 stars (< 6)	4.331	3.378	2.666	2.396	2.521	4.166	3.747	2.184
Gas – ducted < 3 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	4.233	3.280	2.568	2.298	2.423	4.068	3.649	2.086
Gas – ducted < 3 Stars	HP - Non-ducted < 2.25 stars (< 3)	4.377	3.420	2.712	2.436	2.565	4.210	3.789	2.225
Gas – ducted < 3 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	4.323	3.366	2.657	2.381	2.511	4.155	3.735	2.170
Gas – ducted < 3 Stars	Heat pump - Non-ducted < 3.75 stars (< 6)	4.241	3.284	2.576	2.299	2.429	4.073	3.653	2.089
Gas – ducted < 3 Stars	Heat pump - Non-Ducted ≥ 3.75 stars (≥ 6)	4.159	3.202	2.494	2.218	2.347	3.992	3.571	2.007

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas – ducted < 3 Stars	Other or none specified	4.495	3.542	2.829	2.560	2.685	4.330	3.911	2.347
Gas – ducted < 4.5 Stars	Evaporative	3.777	2.792	2.087	1.807	1.946	3.608	3.173	1.602
Gas – ducted < 4.5 Stars	Heat pump - Ducted < 2.25 stars (< 3)	4.347	3.393	2.681	2.411	2.536	4.182	3.763	2.199
Gas – ducted < 4.5 Stars	Heat pump - Ducted < 3 stars (< 4.5)	4.281	3.328	2.616	2.346	2.471	4.116	3.697	2.133
Gas – ducted < 4.5 Stars	Heat pump - Ducted < 3.75 stars (< 6)	4.183	3.230	2.517	2.248	2.372	4.018	3.599	2.035
Gas – ducted < 4.5 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	4.085	3.131	2.419	2.149	2.274	3.920	3.501	1.937
Gas – ducted < 4.5 Stars	Heat pump - Non-ducted < 2.25 stars (< 3)	4.229	3.272	2.563	2.287	2.417	4.061	3.640	2.076
Gas – ducted < 4.5 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	4.174	3.217	2.509	2.233	2.362	4.007	3.586	2.022
Gas – ducted < 4.5 Stars	Heat pump - Non-ducted < 3.75 stars (< 6)	4.092	3.135	2.427	2.151	2.280	3.925	3.504	1.940
Gas – ducted < 4.5 Stars	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	4.011	3.054	2.346	2.069	2.199	3.843	3.423	1.858

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas – ducted < 4.5 Stars	Other or none specified	4.347	3.393	2.681	2.411	2.536	4.182	3.763	2.199
Gas – ducted < 6 Stars	Evaporative	3.554	2.569	1.865	1.584	1.723	3.385	2.950	1.379
Gas – ducted < 6 Stars	Heat pump - Ducted < 2.25 stars (< 3)	4.124	3.170	2.458	2.189	2.313	3.959	3.540	1.976
Gas – ducted < 6 Stars	Heat pump - Ducted < 3 stars (< 4.5)	4.058	3.105	2.393	2.123	2.248	3.893	3.474	1.911
Gas – ducted < 6 Stars	Heat pump - Ducted < 3.75 stars (< 6)	3.960	3.007	2.295	2.025	2.150	3.795	3.376	1.812
Gas – ducted < 6 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	3.862	2.909	2.196	1.927	2.051	3.697	3.278	1.714
Gas – ducted < 6 Stars	Heat pump - Non-ducted < 2.25 stars (< 3)	4.006	3.049	2.341	2.064	2.194	3.838	3.418	1.854
Gas – ducted < 6 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	3.951	2.994	2.286	2.010	2.139	3.784	3.363	1.799
Gas – ducted < 6 Stars	Heat pump - Non-ducted < 3.75 stars (< 6)	3.870	2.913	2.204	1.928	2.058	3.702	3.282	1.717
Gas – ducted < 6 Stars	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	3.788	2.831	2.123	1.846	1.976	3.620	3.200	1.636

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas – ducted < 6 Stars	Other or none specified	4.124	3.170	2.458	2.189	2.313	3.959	3.540	1.976
Gas – ducted ≥ 6 Stars	Evaporative	3.331	2.347	1.642	1.361	1.500	3.163	2.728	1.156
Gas – ducted ≥ 6 Stars	Heat pump - Ducted < 2.25 stars (< 3)	3.901	2.948	2.235	1.966	2.091	3.736	3.317	1.753
Gas – ducted ≥ 6 Stars	Heat pump - Ducted < 3 stars (< 4.5)	3.836	2.882	2.170	1.900	2.025	3.671	3.252	1.688
Gas – ducted ≥ 6 Stars	Heat pump - Ducted < 3.75 stars (< 6)	3.737	2.784	2.072	1.802	1.927	3.572	3.153	1.590
Gas – ducted ≥ 6 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	3.639	2.686	1.974	1.704	1.829	3.474	3.055	1.492
Gas – ducted ≥ 6 Stars	Heat pump - Non-ducted < 2.25 stars (< 3)	3.783	2.826	2.118	1.842	1.971	3.616	3.195	1.631
Gas – ducted ≥ 6 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	3.729	2.772	2.063	1.787	1.917	3.561	3.141	1.576
Gas – ducted ≥ 6 Stars	Heat pump - Non-ducted < 3.75 stars (< 6)	3.647	2.690	1.982	1.705	1.835	3.479	3.059	1.495
Gas – ducted ≥ 6 Stars	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	3.565	2.608	1.900	1.624	1.753	3.398	2.977	1.413

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas – ducted ≥ 6 Stars	Other or none specified	3.901	2.948	2.235	1.966	2.091	3.736	3.317	1.753
Gas - non ducted < 3 Stars	Evaporative	3.542	2.542	1.880	1.579	1.732	3.342	2.913	1.385
Gas - non ducted < 3 Stars	Heat pump - Ducted < 2.25 stars (< 3)	4.116	3.147	2.461	2.180	2.311	3.929	3.512	1.985
Gas - non ducted < 3 Stars	Heat pump - Ducted < 3 stars (< 4.5)	4.051	3.082	2.395	2.115	2.246	3.864	3.447	1.919
Gas - non ducted < 3 Stars	Heat pump - Ducted < 3.75 stars (< 6)	3.953	2.983	2.297	2.016	2.147	3.766	3.348	1.821
Gas - non ducted < 3 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	3.854	2.885	2.199	1.918	2.049	3.667	3.250	1.723
Gas - non ducted < 3 Stars	Heat pump - Non-ducted < 2.25 stars (< 3)	4.001	3.024	2.340	2.060	2.190	3.807	3.391	1.863
Gas - non ducted < 3 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	3.947	2.970	2.286	2.006	2.136	3.753	3.336	1.809
Gas - non ducted < 3 Stars	Heat pump - Non-ducted < 3.75 stars (< 6)	3.865	2.888	2.204	1.924	2.054	3.671	3.255	1.727
Gas - non ducted < 3 Stars	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	3.783	2.806	2.122	1.843	1.973	3.590	3.173	1.646

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas - non ducted < 3 Stars	Other or none specified	4.116	3.147	2.461	2.180	2.311	3.929	3.512	1.985
Gas - non ducted < 4.5 Stars	Evaporative	3.467	2.467	1.805	1.504	1.657	3.267	2.837	1.309
Gas - non ducted < 4.5 Stars	Heat pump - Ducted < 2.25 stars (< 3)	4.041	3.072	2.386	2.105	2.236	3.854	3.437	1.909
Gas - non ducted < 4.5 Stars	Heat pump - Ducted < 3 stars (< 4.5)	3.975	3.006	2.320	2.039	2.170	3.789	3.371	1.844
Gas - non ducted < 4.5 Stars	Heat pump - Ducted < 3.75 stars (< 6)	3.877	2.908	2.222	1.941	2.072	3.690	3.273	1.746
Gas - non ducted < 4.5 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	3.779	2.810	2.124	1.843	1.974	3.592	3.175	1.648
Gas - non ducted < 4.5 Stars	Heat pump - Non-ducted < 2.25 stars (< 3)	3.926	2.949	2.265	1.985	2.115	3.732	3.315	1.788
Gas - non ducted < 4.5 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	3.871	2.894	2.210	1.931	2.061	3.678	3.261	1.734

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas - non ducted < 4.5 Stars	Heat pump - Non-ducted < 3.75 stars (< 6)	3.790	2.813	2.129	1.849	1.979	3.596	3.179	1.652
Gas - non ducted < 4.5 Stars	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	3.708	2.731	2.047	1.767	1.897	3.514	3.098	1.570
Gas - non ducted < 4.5 Stars	Other or none specified	4.041	3.072	2.386	2.105	2.236	3.854	3.437	1.909
Gas - non ducted < 6 Stars	Evaporative	3.354	2.354	1.692	1.391	1.544	3.154	2.724	1.197
Gas - non ducted < 6 Stars	Heat pump - Ducted < 2.25 stars (< 3)	3.928	2.959	2.273	1.992	2.123	3.741	3.324	1.797
Gas - non ducted < 6 Stars	Heat pump - Ducted < 3 stars (< 4.5)	3.863	2.893	2.207	1.926	2.057	3.676	3.258	1.731
Gas - non ducted < 6 Stars	Heat pump - Ducted < 3.75 stars (< 6)	3.764	2.795	2.109	1.828	1.959	3.577	3.160	1.633
Gas - non ducted < 6 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	3.666	2.697	2.011	1.730	1.861	3.479	3.062	1.535
Gas - non ducted < 6 Stars	Heat pump - Non-Ducted < 2.25 stars (< 3)	3.813	2.836	2.152	1.872	2.002	3.619	3.202	1.675

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas - non ducted < 6 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	3.759	2.781	2.097	1.818	1.948	3.565	3.148	1.621
Gas - non ducted < 6 Stars	Heat pump - Non-ducted < 3.75 stars (< 6)	3.677	2.700	2.016	1.736	1.866	3.483	3.066	1.539
Gas - non ducted < 6 Stars	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	3.595	2.618	1.934	1.654	1.784	3.401	2.985	1.457
Gas - non ducted < 6 Stars	Other or none specified	3.928	2.959	2.273	1.992	2.123	3.741	3.324	1.797
Gas - non ducted ≥ 6 Stars	Evaporative	3.241	2.241	1.579	1.278	1.431	3.041	2.612	1.084
Gas - non ducted ≥ 6 Stars	Heat pump - Ducted < 2.25 stars (< 3)	3.815	2.846	2.160	1.879	2.010	3.628	3.211	1.684
Gas - non ducted ≥ 6 Stars	Heat pump - Ducted < 3 stars (< 4.5)	3.750	2.780	2.094	1.813	1.945	3.563	3.145	1.618
Gas - non ducted ≥ 6 Stars	Heat pump - Ducted < 3.75 stars (< 6)	3.651	2.682	1.996	1.715	1.846	3.464	3.047	1.520
Gas - non ducted ≥ 6 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	3.553	2.584	1.898	1.617	1.748	3.366	2.949	1.422
Gas - non ducted ≥ 6 Stars	Heat pump - Non-ducted < 2.25 stars (< 3)	3.700	2.723	2.039	1.759	1.889	3.506	3.090	1.562

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas - non ducted ≥ 6 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	3.646	2.668	1.984	1.705	1.835	3.452	3.035	1.508
Gas - non ducted ≥ 6 Stars	Heat pump - Non-Ducted < 3.75 stars (< 6)	3.564	2.587	1.903	1.623	1.753	3.370	2.953	1.426
Gas - non ducted ≥ 6 Stars	Heat pump - Non-Ducted ≥ 3.75 stars (≥ 6)	3.482	2.505	1.821	1.541	1.671	3.288	2.872	1.344
Gas - non ducted ≥ 6 Stars	Other or none specified	3.815	2.846	2.160	1.879	2.010	3.628	3.211	1.684

Table 4.1.2 Whole-of-home efficiency factors E_E (kW/100m²) – climate zone 4 – gas heating – Victoria

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas – ducted < 3 Stars	Evaporative	2.985	2.631	1.603	1.501	1.465	2.177	1.970	1.146
Gas – ducted < 3 Stars	Heat pump - Ducted < 2.25 stars (< 3)	3.457	3.124	2.083	2.001	1.954	2.677	2.467	1.629
Gas – ducted < 3 Stars	Heat pump - Ducted < 3 stars (< 4.5)	3.402	3.070	2.029	1.947	1.900	2.622	2.413	1.575
Gas – ducted < 3 Stars	Heat pump - Ducted < 3.75 stars (< 6)	3.321	2.988	1.948	1.866	1.819	2.541	2.332	1.493
Gas – ducted < 3 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	3.240	2.907	1.866	1.784	1.737	2.460	2.250	1.412
Gas – ducted < 3 Stars	HP - Non-ducted < 2.25 stars (< 3)	3.363	3.024	1.988	1.902	1.857	2.577	2.366	1.526
Gas – ducted < 3 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	3.318	2.979	1.943	1.856	1.812	2.532	2.321	1.481
Gas – ducted < 3 Stars	Heat pump - Non-ducted < 3.75 stars (< 6)	3.250	2.912	1.875	1.789	1.744	2.464	2.254	1.413
Gas – ducted < 3 Stars	Heat pump - Non-Ducted ≥ 3.75 stars (≥ 6)	3.183	2.844	1.808	1.721	1.677	2.397	2.186	1.346
Gas – ducted < 3 Stars	Other or none specified	3.457	3.124	2.083	2.001	1.954	2.677	2.467	1.629

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas – ducted < 4.5 Stars	Evaporative	2.904	2.550	1.522	1.420	1.384	2.096	1.889	1.065
Gas – ducted < 4.5 Stars	Heat pump - Ducted < 2.25 stars (< 3)	3.376	3.043	2.002	1.920	1.873	2.596	2.386	1.548
Gas – ducted < 4.5 Stars	Heat pump - Ducted < 3 stars (< 4.5)	3.321	2.989	1.948	1.866	1.819	2.541	2.332	1.494
Gas – ducted < 4.5 Stars	Heat pump - Ducted < 3.75 stars (< 6)	3.240	2.907	1.867	1.785	1.738	2.460	2.251	1.412
Gas – ducted < 4.5 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	3.159	2.826	1.785	1.703	1.656	2.379	2.169	1.331
Gas – ducted < 4.5 Stars	Heat pump - Non-ducted < 2.25 stars (< 3)	3.282	2.943	1.907	1.821	1.776	2.496	2.285	1.445
Gas – ducted < 4.5 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	3.237	2.898	1.862	1.776	1.731	2.451	2.240	1.400
Gas – ducted < 4.5 Stars	Heat pump - Non-ducted < 3.75 stars (< 6)	3.169	2.831	1.794	1.708	1.663	2.383	2.173	1.333
Gas – ducted < 4.5 Stars	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	3.102	2.763	1.727	1.640	1.596	2.316	2.105	1.265
Gas – ducted < 4.5 Stars	Other or none specified	3.376	3.043	2.002	1.920	1.873	2.596	2.386	1.548

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas – ducted < 6 Stars	Evaporative	2.783	2.429	1.401	1.299	1.263	1.975	1.768	0.944
Gas – ducted < 6 Stars	Heat pump - Ducted < 2.25 stars (< 3)	3.254	2.922	1.881	1.799	1.752	2.474	2.265	1.427
Gas – ducted < 6 Stars	Heat pump - Ducted < 3 stars (< 4.5)	3.200	2.867	1.826	1.744	1.697	2.420	2.211	1.372
Gas – ducted < 6 Stars	Heat pump - Ducted < 3.75 stars (< 6)	3.119	2.786	1.745	1.663	1.616	2.339	2.129	1.291
Gas – ducted < 6 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	3.037	2.705	1.664	1.582	1.535	2.257	2.048	1.209
Gas – ducted < 6 Stars	Heat pump - Non-ducted < 2.25 stars (< 3)	3.161	2.822	1.786	1.699	1.654	2.375	2.164	1.324
Gas – ducted < 6 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	3.116	2.777	1.741	1.654	1.609	2.329	2.119	1.279
Gas – ducted < 6 Stars	Heat pump - Non-ducted < 3.75 stars (< 6)	3.048	2.709	1.673	1.586	1.542	2.262	2.051	1.211
Gas – ducted < 6 Stars	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	2.980	2.642	1.605	1.519	1.474	2.194	1.984	1.143
Gas – ducted < 6 Stars	Other or none specified	3.254	2.922	1.881	1.799	1.752	2.474	2.265	1.427

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas – ducted ≥ 6 Stars	Evaporative	2.661	2.307	1.279	1.177	1.141	1.853	1.647	0.823
Gas – ducted ≥ 6 Stars	Heat pump - Ducted < 2.25 stars (< 3)	3.133	2.800	1.759	1.677	1.630	2.353	2.143	1.305
Gas – ducted ≥ 6 Stars	Heat pump - Ducted < 3 stars (< 4.5)	3.078	2.746	1.705	1.623	1.576	2.298	2.089	1.251
Gas – ducted ≥ 6 Stars	Heat pump - Ducted < 3.75 stars (< 6)	2.997	2.665	1.624	1.542	1.495	2.217	2.008	1.169
Gas – ducted ≥ 6 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	2.916	2.583	1.542	1.460	1.413	2.136	1.926	1.088
Gas – ducted ≥ 6 Stars	Heat pump - Non-ducted < 2.25 stars (< 3)	3.039	2.701	1.664	1.578	1.533	2.253	2.042	1.202
Gas – ducted ≥ 6 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	2.994	2.655	1.619	1.533	1.488	2.208	1.997	1.157
Gas – ducted ≥ 6 Stars	Heat pump - Non-ducted < 3.75 stars (< 6)	2.927	2.588	1.552	1.465	1.420	2.140	1.930	1.090
Gas – ducted ≥ 6 Stars	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	2.859	2.520	1.484	1.397	1.353	2.073	1.862	1.022
Gas – ducted ≥ 6 Stars	Other or none specified	3.133	2.800	1.759	1.677	1.630	2.353	2.143	1.305

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas - non ducted < 3 Stars	Evaporative	2.766	2.399	1.391	1.289	1.263	1.951	1.747	0.939
Gas - non ducted < 3 Stars	Heat pump - Ducted < 2.25 stars (< 3)	3.241	2.892	1.875	1.784	1.742	2.449	2.240	1.418
Gas - non ducted < 3 Stars	Heat pump - Ducted < 3 stars (< 4.5)	3.186	2.838	1.821	1.730	1.688	2.395	2.186	1.363
Gas - non ducted < 3 Stars	Heat pump - Ducted < 3.75 stars (< 6)	3.105	2.757	1.740	1.648	1.606	2.314	2.105	1.282
Gas - non ducted < 3 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	3.024	2.675	1.658	1.567	1.525	2.232	2.023	1.201
Gas - non ducted < 3 Stars	Heat pump - Non-ducted < 2.25 stars (< 3)	3.146	2.793	1.778	1.683	1.643	2.349	2.139	1.324
Gas - non ducted < 3 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	3.101	2.748	1.733	1.638	1.598	2.304	2.094	1.279
Gas - non ducted < 3 Stars	Heat pump - Non-ducted < 3.75 stars (< 6)	3.034	2.680	1.666	1.570	1.530	2.236	2.026	1.212
Gas - non ducted < 3 Stars	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	2.966	2.613	1.598	1.502	1.463	2.168	1.959	1.144
Gas - non ducted < 3 Stars	Other or none specified	3.241	2.892	1.875	1.784	1.742	2.449	2.240	1.418

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas - non ducted < 4.5 Stars	Evaporative	2.725	2.358	1.350	1.248	1.222	1.910	1.706	0.898
Gas - non ducted < 4.5 Stars	Heat pump - Ducted < 2.25 stars (< 3)	3.200	2.851	1.834	1.743	1.701	2.408	2.199	1.377
Gas - non ducted < 4.5 Stars	Heat pump - Ducted < 3 stars (< 4.5)	3.145	2.797	1.780	1.689	1.647	2.354	2.145	1.322
Gas - non ducted < 4.5 Stars	Heat pump - Ducted < 3.75 stars (< 6)	3.064	2.716	1.698	1.607	1.565	2.273	2.064	1.241
Gas - non ducted < 4.5 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	2.982	2.634	1.617	1.526	1.484	2.191	1.982	1.160
Gas - non ducted < 4.5 Stars	Heat pump - Non-ducted < 2.25 stars (< 3)	3.105	2.752	1.737	1.642	1.602	2.307	2.098	1.283
Gas - non ducted < 4.5 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	3.060	2.707	1.692	1.596	1.557	2.262	2.053	1.238
Gas - non ducted < 4.5 Stars	Heat pump - Non-ducted < 3.75 stars (< 6)	2.993	2.639	1.625	1.529	1.489	2.195	1.985	1.171

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas - non ducted < 4.5 Stars	Heat pump - Non-ducted \geq 3.75 stars (\geq 6)	2.925	2.572	1.557	1.461	1.422	2.127	1.917	1.103
Gas - non ducted < 4.5 Stars	Other or none specified	3.200	2.851	1.834	1.743	1.701	2.408	2.199	1.377
Gas - non ducted < 6 Stars	Evaporative	2.664	2.296	1.288	1.186	1.160	1.849	1.644	0.836
Gas - non ducted < 6 Stars	Heat pump - Ducted < 2.25 stars (< 3)	3.138	2.790	1.773	1.681	1.639	2.347	2.138	1.315
Gas - non ducted < 6 Stars	Heat pump - Ducted < 3 stars (< 4.5)	3.084	2.735	1.718	1.627	1.585	2.293	2.083	1.261
Gas - non ducted < 6 Stars	Heat pump - Ducted < 3.75 stars (< 6)	3.002	2.654	1.637	1.546	1.504	2.211	2.002	1.179
Gas - non ducted < 6 Stars	Heat pump - Ducted \geq 3.75 stars (\geq 6)	2.921	2.573	1.555	1.464	1.422	2.130	1.921	1.098
Gas - non ducted < 6 Stars	Heat pump - Non-Ducted < 2.25 stars (< 3)	3.044	2.690	1.676	1.580	1.540	2.246	2.036	1.222
Gas - non ducted < 6 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	2.998	2.645	1.631	1.535	1.495	2.201	1.991	1.176

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas - non ducted < 6 Stars	Heat pump - Non-ducted < 3.75 stars (< 6)	2.931	2.578	1.563	1.467	1.427	2.133	1.923	1.109
Gas - non ducted < 6 Stars	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	2.863	2.510	1.496	1.400	1.360	2.066	1.856	1.041
Gas - non ducted < 6 Stars	Other or none specified	3.138	2.790	1.773	1.681	1.639	2.347	2.138	1.315
Gas - non ducted ≥ 6 Stars	Evaporative	2.602	2.234	1.227	1.125	1.098	1.787	1.582	0.775
Gas - non ducted ≥ 6 Stars	Heat pump - Ducted < 2.25 stars (< 3)	3.076	2.728	1.711	1.620	1.578	2.285	2.076	1.253
Gas - non ducted ≥ 6 Stars	Heat pump - Ducted < 3 stars (< 4.5)	3.022	2.674	1.657	1.565	1.523	2.231	2.022	1.199
Gas - non ducted ≥ 6 Stars	Heat pump - Ducted < 3.75 stars (< 6)	2.941	2.592	1.575	1.484	1.442	2.150	1.940	1.118
Gas - non ducted ≥ 6 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	2.859	2.511	1.494	1.403	1.361	2.068	1.859	1.036
Gas - non ducted ≥ 6 Stars	Heat pump - Non-ducted < 2.25 stars (< 3)	2.982	2.629	1.614	1.518	1.478	2.184	1.974	1.160
Gas - non ducted ≥ 6 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	2.937	2.584	1.569	1.473	1.433	2.139	1.929	1.115

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas - non ducted ≥ 6 Stars	Heat pump - Non-Ducted < 3.75 stars (< 6)	2.869	2.516	1.502	1.406	1.366	2.072	1.862	1.047
Gas - non ducted ≥ 6 Stars	Heat pump - Non-Ducted ≥ 3.75 stars (≥ 6)	2.802	2.449	1.434	1.338	1.298	2.004	1.794	0.980
Gas - non ducted ≥ 6 Stars	Other or none specified	3.076	2.728	1.711	1.620	1.578	2.285	2.076	1.253

Table 4.1.3 Whole-of-home efficiency factors E_E (kW/100m²) – climate zone 4 – gas heating – South Australia

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas – ducted < 3 Stars	Evaporative	4.096	3.314	2.297	2.072	2.147	3.880	3.420	1.776
Gas – ducted < 3 Stars	Heat pump - Ducted < 2.25 stars (< 3)	4.704	3.945	2.928	2.722	2.779	4.489	4.049	2.415
Gas – ducted < 3 Stars	Heat pump - Ducted < 3 stars (< 4.5)	4.634	3.876	2.859	2.653	2.709	4.420	3.980	2.345
Gas – ducted < 3 Stars	Heat pump - Ducted < 3.75 stars (< 6)	4.530	3.772	2.754	2.549	2.605	4.315	3.876	2.241
Gas – ducted < 3 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	4.426	3.668	2.650	2.444	2.501	4.211	3.771	2.137
Gas – ducted < 3 Stars	HP - Non-ducted < 2.25 stars (< 3)	4.578	3.814	2.803	2.590	2.651	4.358	3.918	2.281
Gas – ducted < 3 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	4.521	3.756	2.745	2.533	2.594	4.301	3.861	2.224
Gas – ducted < 3 Stars	Heat pump - Non-ducted < 3.75 stars (< 6)	4.434	3.670	2.659	2.446	2.507	4.214	3.774	2.137
Gas – ducted < 3 Stars	Heat pump - Non-Ducted ≥ 3.75 stars (≥ 6)	4.348	3.584	2.573	2.360	2.421	4.128	3.688	2.051
Gas – ducted < 3 Stars	Other or none specified	4.704	3.945	2.928	2.722	2.779	4.489	4.049	2.415

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas – ducted < 4.5 Stars	Evaporative	3.939	3.157	2.141	1.916	1.991	3.724	3.264	1.619
Gas – ducted < 4.5 Stars	Heat pump - Ducted < 2.25 stars (< 3)	4.547	3.789	2.772	2.566	2.622	4.333	3.893	2.258
Gas – ducted < 4.5 Stars	Heat pump - Ducted < 3 stars (< 4.5)	4.478	3.720	2.702	2.497	2.553	4.263	3.823	2.189
Gas – ducted < 4.5 Stars	Heat pump - Ducted < 3.75 stars (< 6)	4.374	3.615	2.598	2.392	2.448	4.159	3.719	2.085
Gas – ducted < 4.5 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	4.269	3.511	2.494	2.288	2.344	4.055	3.615	1.980
Gas – ducted < 4.5 Stars	Heat pump - Non-ducted < 2.25 stars (< 3)	4.422	3.658	2.646	2.434	2.495	4.202	3.762	2.125
Gas – ducted < 4.5 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	4.364	3.600	2.589	2.376	2.437	4.144	3.704	2.067
Gas – ducted < 4.5 Stars	Heat pump - Non-ducted < 3.75 stars (< 6)	4.278	3.514	2.503	2.290	2.351	4.058	3.618	1.981
Gas – ducted < 4.5 Stars	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	4.191	3.427	2.416	2.204	2.265	3.972	3.532	1.894
Gas – ducted < 4.5 Stars	Other or none specified	4.547	3.789	2.772	2.566	2.622	4.333	3.893	2.258

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas – ducted < 6 Stars	Evaporative	3.705	2.923	1.906	1.681	1.756	3.489	3.029	1.385
Gas – ducted < 6 Stars	Heat pump - Ducted < 2.25 stars (< 3)	4.313	3.555	2.537	2.331	2.388	4.098	3.658	2.024
Gas – ducted < 6 Stars	Heat pump - Ducted < 3 stars (< 4.5)	4.243	3.485	2.468	2.262	2.318	4.029	3.589	1.954
Gas – ducted < 6 Stars	Heat pump - Ducted < 3.75 stars (< 6)	4.139	3.381	2.363	2.158	2.214	3.924	3.485	1.850
Gas – ducted < 6 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	4.035	3.277	2.259	2.054	2.110	3.820	3.380	1.746
Gas – ducted < 6 Stars	Heat pump - Non-ducted < 2.25 stars (< 3)	4.187	3.423	2.412	2.199	2.260	3.967	3.527	1.890
Gas – ducted < 6 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	4.130	3.365	2.354	2.142	2.203	3.910	3.470	1.833
Gas – ducted < 6 Stars	Heat pump - Non-ducted < 3.75 stars (< 6)	4.043	3.279	2.268	2.055	2.117	3.823	3.383	1.746
Gas – ducted < 6 Stars	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	3.957	3.193	2.182	1.969	2.030	3.737	3.297	1.660
Gas – ducted < 6 Stars	Other or none specified	4.313	3.555	2.537	2.331	2.388	4.098	3.658	2.024

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas – ducted ≥ 6 Stars	Evaporative	3.470	2.688	1.672	1.447	1.522	3.255	2.794	1.150
Gas – ducted ≥ 6 Stars	Heat pump - Ducted < 2.25 stars (< 3)	4.078	3.320	2.303	2.097	2.153	3.864	3.424	1.789
Gas – ducted ≥ 6 Stars	Heat pump - Ducted < 3 stars (< 4.5)	4.009	3.250	2.233	2.027	2.084	3.794	3.354	1.720
Gas – ducted ≥ 6 Stars	Heat pump - Ducted < 3.75 stars (< 6)	3.905	3.146	2.129	1.923	1.979	3.690	3.250	1.616
Gas – ducted ≥ 6 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	3.800	3.042	2.025	1.819	1.875	3.586	3.146	1.511
Gas – ducted ≥ 6 Stars	Heat pump - Non-ducted < 2.25 stars (< 3)	3.953	3.188	2.177	1.965	2.026	3.733	3.293	1.656
Gas – ducted ≥ 6 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	3.895	3.131	2.120	1.907	1.968	3.675	3.235	1.598
Gas – ducted ≥ 6 Stars	Heat pump - Non-ducted < 3.75 stars (< 6)	3.809	3.045	2.033	1.821	1.882	3.589	3.149	1.512
Gas – ducted ≥ 6 Stars	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	3.722	2.958	1.947	1.735	1.796	3.503	3.063	1.425
Gas – ducted ≥ 6 Stars	Other or none specified	4.078	3.320	2.303	2.097	2.153	3.864	3.424	1.789

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas - non ducted < 3 Stars	Evaporative	3.694	2.880	1.923	1.679	1.771	3.438	2.988	1.394
Gas - non ducted < 3 Stars	Heat pump - Ducted < 2.25 stars (< 3)	4.301	3.525	2.543	2.321	2.389	4.064	3.627	2.033
Gas - non ducted < 3 Stars	Heat pump - Ducted < 3 stars (< 4.5)	4.232	3.455	2.474	2.252	2.319	3.995	3.558	1.964
Gas - non ducted < 3 Stars	Heat pump - Ducted < 3.75 stars (< 6)	4.128	3.351	2.370	2.147	2.215	3.891	3.454	1.859
Gas - non ducted < 3 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	4.024	3.247	2.265	2.043	2.111	3.787	3.349	1.755
Gas - non ducted < 3 Stars	Heat pump - Non-ducted < 2.25 stars (< 3)	4.177	3.394	2.415	2.189	2.258	3.934	3.496	1.904
Gas - non ducted < 3 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	4.120	3.336	2.357	2.131	2.200	3.876	3.439	1.846
Gas - non ducted < 3 Stars	Heat pump - Non-ducted < 3.75 stars (< 6)	4.033	3.250	2.271	2.045	2.114	3.790	3.353	1.760
Gas - non ducted < 3 Stars	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	3.947	3.164	2.184	1.958	2.028	3.703	3.266	1.674
Gas - non ducted < 3 Stars	Other or none specified	4.301	3.525	2.543	2.321	2.389	4.064	3.627	2.033

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas - non ducted < 4.5 Stars	Evaporative	3.615	2.802	1.844	1.600	1.692	3.359	2.909	1.315
Gas - non ducted < 4.5 Stars	Heat pump - Ducted < 2.25 stars (< 3)	4.223	3.446	2.465	2.242	2.310	3.986	3.549	1.954
Gas - non ducted < 4.5 Stars	Heat pump - Ducted < 3 stars (< 4.5)	4.153	3.377	2.395	2.173	2.240	3.916	3.479	1.885
Gas - non ducted < 4.5 Stars	Heat pump - Ducted < 3.75 stars (< 6)	4.049	3.273	2.291	2.069	2.136	3.812	3.375	1.781
Gas - non ducted < 4.5 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	3.945	3.168	2.187	1.964	2.032	3.708	3.271	1.676
Gas - non ducted < 4.5 Stars	Heat pump - Non-ducted < 2.25 stars (< 3)	4.099	3.315	2.336	2.110	2.179	3.855	3.418	1.825
Gas - non ducted < 4.5 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	4.041	3.258	2.278	2.052	2.122	3.797	3.360	1.768
Gas - non ducted < 4.5 Stars	Heat pump - Non-ducted < 3.75 stars (< 6)	3.955	3.171	2.192	1.966	2.035	3.711	3.274	1.681

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas - non ducted < 4.5 Stars	Heat pump - Non-ducted \geq 3.75 stars (\geq 6)	3.868	3.085	2.106	1.880	1.949	3.625	3.187	1.595
Gas - non ducted < 4.5 Stars	Other or none specified	4.223	3.446	2.465	2.242	2.310	3.986	3.549	1.954
Gas - non ducted < 6 Stars	Evaporative	3.497	2.683	1.726	1.482	1.574	3.241	2.791	1.197
Gas - non ducted < 6 Stars	Heat pump - Ducted < 2.25 stars (< 3)	4.105	3.328	2.346	2.124	2.192	3.868	3.430	1.836
Gas - non ducted < 6 Stars	Heat pump - Ducted < 3 stars (< 4.5)	4.035	3.259	2.277	2.055	2.122	3.798	3.361	1.767
Gas - non ducted < 6 Stars	Heat pump - Ducted < 3.75 stars (< 6)	3.931	3.154	2.173	1.951	2.018	3.694	3.257	1.662
Gas - non ducted < 6 Stars	Heat pump - Ducted \geq 3.75 stars (\geq 6)	3.827	3.050	2.069	1.846	1.914	3.590	3.153	1.558
Gas - non ducted < 6 Stars	Heat pump - Non-Ducted < 2.25 stars (< 3)	3.981	3.197	2.218	1.992	2.061	3.737	3.300	1.707
Gas - non ducted < 6 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	3.923	3.140	2.160	1.934	2.003	3.679	3.242	1.649

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas - non ducted < 6 Stars	Heat pump - Non-ducted < 3.75 stars (< 6)	3.837	3.053	2.074	1.848	1.917	3.593	3.156	1.563
Gas - non ducted < 6 Stars	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	3.750	2.967	1.988	1.762	1.831	3.507	3.069	1.477
Gas - non ducted < 6 Stars	Other or none specified	4.105	3.328	2.346	2.124	2.192	3.868	3.430	1.836
Gas - non ducted ≥ 6 Stars	Evaporative	3.379	2.565	1.608	1.364	1.456	3.123	2.673	1.079
Gas - non ducted ≥ 6 Stars	Heat pump - Ducted < 2.25 stars (< 3)	3.986	3.210	2.228	2.006	2.074	3.749	3.312	1.718
Gas - non ducted ≥ 6 Stars	Heat pump - Ducted < 3 stars (< 4.5)	3.917	3.140	2.159	1.937	2.004	3.680	3.243	1.649
Gas - non ducted ≥ 6 Stars	Heat pump - Ducted < 3.75 stars (< 6)	3.813	3.036	2.055	1.832	1.900	3.576	3.139	1.544
Gas - non ducted ≥ 6 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	3.709	2.932	1.950	1.728	1.796	3.472	3.034	1.440
Gas - non ducted ≥ 6 Stars	Heat pump - Non-ducted < 2.25 stars (< 3)	3.862	3.079	2.100	1.874	1.943	3.619	3.181	1.589
Gas - non ducted ≥ 6 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	3.805	3.021	2.042	1.816	1.885	3.561	3.124	1.531

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas - non ducted ≥ 6 Stars	Heat pump - Non-Ducted < 3.75 stars (< 6)	3.719	2.935	1.956	1.730	1.799	3.475	3.038	1.445
Gas - non ducted ≥ 6 Stars	Heat pump - Non-Ducted ≥ 3.75 stars (≥ 6)	3.632	2.849	1.869	1.644	1.713	3.388	2.951	1.359
Gas - non ducted ≥ 6 Stars	Other or none specified	3.986	3.210	2.228	2.006	2.074	3.749	3.312	1.718

Table 4.1.4 Whole-of-home efficiency factors E_E (kW/100m²) – climate zone 4 – gas heating – Western Australia

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas – ducted < 3 Stars	Evaporative	4.896	3.624	2.857	2.490	2.700	5.398	4.714	2.324
Gas – ducted < 3 Stars	Heat pump - Ducted < 2.25 stars (< 3)	5.550	4.321	3.565	3.213	3.402	5.989	5.348	3.048
Gas – ducted < 3 Stars	Heat pump - Ducted < 3 stars (< 4.5)	5.474	4.244	3.488	3.137	3.325	5.912	5.271	2.971
Gas – ducted < 3 Stars	Heat pump - Ducted < 3.75 stars (< 6)	5.359	4.129	3.373	3.022	3.211	5.797	5.157	2.856
Gas – ducted < 3 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	5.244	4.015	3.259	2.907	3.096	5.682	5.042	2.742
Gas – ducted < 3 Stars	HP - Non-ducted < 2.25 stars (< 3)	5.412	4.176	3.423	3.066	3.259	5.852	5.206	2.904
Gas – ducted < 3 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	5.348	4.112	3.359	3.001	3.194	5.788	5.142	2.839
Gas – ducted < 3 Stars	Heat pump - Non-ducted < 3.75 stars (< 6)	5.251	4.015	3.262	2.905	3.098	5.691	5.045	2.743
Gas – ducted < 3 Stars	Heat pump - Non-Ducted ≥ 3.75 stars (≥ 6)	5.155	3.918	3.165	2.808	3.001	5.595	4.949	2.646
Gas – ducted < 3 Stars	Other or none specified	5.550	4.321	3.565	3.213	3.402	5.989	5.348	3.048

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas – ducted < 4.5 Stars	Evaporative	4.674	3.403	2.636	2.268	2.478	5.176	4.492	2.102
Gas – ducted < 4.5 Stars	Heat pump - Ducted < 2.25 stars (< 3)	5.329	4.099	3.344	2.992	3.181	5.767	5.127	2.826
Gas – ducted < 4.5 Stars	Heat pump - Ducted < 3 stars (< 4.5)	5.252	4.023	3.267	2.915	3.104	5.691	5.050	2.750
Gas – ducted < 4.5 Stars	Heat pump - Ducted < 3.75 stars (< 6)	5.137	3.908	3.152	2.800	2.989	5.576	4.935	2.635
Gas – ducted < 4.5 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	5.022	3.793	3.037	2.685	2.874	5.461	4.820	2.520
Gas – ducted < 4.5 Stars	Heat pump - Non-ducted < 2.25 stars (< 3)	5.191	3.954	3.202	2.844	3.037	5.631	4.985	2.682
Gas – ducted < 4.5 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	5.126	3.890	3.137	2.780	2.973	5.567	4.921	2.618
Gas – ducted < 4.5 Stars	Heat pump - Non-ducted < 3.75 stars (< 6)	5.030	3.794	3.041	2.683	2.876	5.470	4.824	2.521
Gas – ducted < 4.5 Stars	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	4.933	3.697	2.944	2.587	2.780	5.373	4.727	2.425
Gas – ducted < 4.5 Stars	Other or none specified	5.329	4.099	3.344	2.992	3.181	5.767	5.127	2.826

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas – ducted < 6 Stars	Evaporative	4.342	3.071	2.304	1.936	2.146	4.844	4.160	1.770
Gas – ducted < 6 Stars	Heat pump - Ducted < 2.25 stars (< 3)	4.997	3.767	3.011	2.660	2.848	5.435	4.794	2.494
Gas – ducted < 6 Stars	Heat pump - Ducted < 3 stars (< 4.5)	4.920	3.691	2.935	2.583	2.772	5.359	4.718	2.418
Gas – ducted < 6 Stars	Heat pump - Ducted < 3.75 stars (< 6)	4.805	3.576	2.820	2.468	2.657	5.244	4.603	2.303
Gas – ducted < 6 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	4.690	3.461	2.705	2.353	2.542	5.129	4.488	2.188
Gas – ducted < 6 Stars	Heat pump - Non-ducted < 2.25 stars (< 3)	4.859	3.622	2.869	2.512	2.705	5.299	4.653	2.350
Gas – ducted < 6 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	4.794	3.558	2.805	2.448	2.641	5.234	4.588	2.286
Gas – ducted < 6 Stars	Heat pump - Non-ducted < 3.75 stars (< 6)	4.698	3.461	2.708	2.351	2.544	5.138	4.492	2.189
Gas – ducted < 6 Stars	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	4.601	3.365	2.612	2.255	2.448	5.041	4.395	2.093
Gas – ducted < 6 Stars	Other or none specified	4.997	3.767	3.011	2.660	2.848	5.435	4.794	2.494

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas – ducted ≥ 6 Stars	Evaporative	4.010	2.739	1.971	1.604	1.814	4.512	3.828	1.438
Gas – ducted ≥ 6 Stars	Heat pump - Ducted < 2.25 stars (< 3)	4.665	3.435	2.679	2.327	2.516	5.103	4.462	2.162
Gas – ducted ≥ 6 Stars	Heat pump - Ducted < 3 stars (< 4.5)	4.588	3.359	2.603	2.251	2.440	5.026	4.386	2.086
Gas – ducted ≥ 6 Stars	Heat pump - Ducted < 3.75 stars (< 6)	4.473	3.244	2.488	2.136	2.325	4.912	4.271	1.971
Gas – ducted ≥ 6 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	4.358	3.129	2.373	2.021	2.210	4.797	4.156	1.856
Gas – ducted ≥ 6 Stars	Heat pump - Non-ducted < 2.25 stars (< 3)	4.526	3.290	2.537	2.180	2.373	4.967	4.321	2.018
Gas – ducted ≥ 6 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	4.462	3.226	2.473	2.116	2.309	4.902	4.256	1.954
Gas – ducted ≥ 6 Stars	Heat pump - Non-ducted < 3.75 stars (< 6)	4.366	3.129	2.376	2.019	2.212	4.806	4.160	1.857
Gas – ducted ≥ 6 Stars	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	4.269	3.033	2.280	1.922	2.115	4.709	4.063	1.761
Gas – ducted ≥ 6 Stars	Other or none specified	4.665	3.435	2.679	2.327	2.516	5.103	4.462	2.162

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas - non ducted < 3 Stars	Evaporative	4.333	3.039	2.328	1.950	2.162	4.776	4.102	1.801
Gas - non ducted < 3 Stars	Heat pump - Ducted < 2.25 stars (< 3)	5.002	3.753	3.026	2.672	2.864	5.399	4.768	2.514
Gas - non ducted < 3 Stars	Heat pump - Ducted < 3 stars (< 4.5)	4.925	3.677	2.950	2.595	2.787	5.323	4.691	2.438
Gas - non ducted < 3 Stars	Heat pump - Ducted < 3.75 stars (< 6)	4.810	3.562	2.835	2.480	2.672	5.208	4.576	2.323
Gas - non ducted < 3 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	4.695	3.447	2.720	2.366	2.558	5.093	4.461	2.208
Gas - non ducted < 3 Stars	Heat pump - Non-ducted < 2.25 stars (< 3)	4.863	3.606	2.886	2.525	2.724	5.259	4.624	2.365
Gas - non ducted < 3 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	4.799	3.542	2.822	2.460	2.660	5.195	4.560	2.301
Gas - non ducted < 3 Stars	Heat pump - Non-ducted < 3.75 stars (< 6)	4.702	3.445	2.725	2.364	2.563	5.098	4.463	2.204
Gas - non ducted < 3 Stars	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	4.606	3.349	2.629	2.267	2.467	5.002	4.366	2.108
Gas - non ducted < 3 Stars	Other or none specified	5.002	3.753	3.026	2.672	2.864	5.399	4.768	2.514

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas - non ducted < 4.5 Stars	Evaporative	4.222	2.927	2.217	1.839	2.050	4.665	3.991	1.690
Gas - non ducted < 4.5 Stars	Heat pump - Ducted < 2.25 stars (< 3)	4.890	3.642	2.915	2.560	2.753	5.288	4.656	2.403
Gas - non ducted < 4.5 Stars	Heat pump - Ducted < 3 stars (< 4.5)	4.814	3.565	2.838	2.484	2.676	5.211	4.580	2.326
Gas - non ducted < 4.5 Stars	Heat pump - Ducted < 3.75 stars (< 6)	4.699	3.450	2.723	2.369	2.561	5.097	4.465	2.211
Gas - non ducted < 4.5 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	4.584	3.335	2.608	2.254	2.446	4.982	4.350	2.096
Gas - non ducted < 4.5 Stars	Heat pump - Non-ducted < 2.25 stars (< 3)	4.752	3.495	2.775	2.413	2.613	5.148	4.513	2.254
Gas - non ducted < 4.5 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	4.687	3.431	2.711	2.349	2.549	5.084	4.448	2.190
Gas - non ducted < 4.5 Stars	Heat pump - Non-ducted < 3.75 stars (< 6)	4.591	3.334	2.614	2.252	2.452	4.987	4.352	2.093

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas - non ducted < 4.5 Stars	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	4.494	3.237	2.517	2.156	2.355	4.890	4.255	1.996
Gas - non ducted < 4.5 Stars	Other or none specified	4.890	3.642	2.915	2.560	2.753	5.288	4.656	2.403
Gas - non ducted < 6 Stars	Evaporative	4.055	2.760	2.049	1.672	1.883	4.498	3.824	1.523
Gas - non ducted < 6 Stars	Heat pump - Ducted < 2.25 stars (< 3)	4.723	3.475	2.748	2.393	2.585	5.121	4.489	2.236
Gas - non ducted < 6 Stars	Heat pump - Ducted < 3 stars (< 4.5)	4.646	3.398	2.671	2.317	2.509	5.044	4.413	2.159
Gas - non ducted < 6 Stars	Heat pump - Ducted < 3.75 stars (< 6)	4.532	3.283	2.556	2.202	2.394	4.929	4.298	2.044
Gas - non ducted < 6 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	4.417	3.168	2.441	2.087	2.279	4.815	4.183	1.929
Gas - non ducted < 6 Stars	Heat pump - Non-Ducted < 2.25 stars (< 3)	4.585	3.328	2.608	2.246	2.446	4.981	4.345	2.087
Gas - non ducted < 6 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	4.520	3.263	2.543	2.182	2.381	4.916	4.281	2.023

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas - non ducted < 6 Stars	Heat pump - Non-ducted < 3.75 stars (< 6)	4.424	3.167	2.447	2.085	2.285	4.820	4.184	1.926
Gas - non ducted < 6 Stars	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	4.327	3.070	2.350	1.989	2.188	4.723	4.088	1.829
Gas - non ducted < 6 Stars	Other or none specified	4.723	3.475	2.748	2.393	2.585	5.121	4.489	2.236
Gas - non ducted ≥ 6 Stars	Evaporative	3.888	2.593	1.882	1.505	1.716	4.331	3.657	1.355
Gas - non ducted ≥ 6 Stars	Heat pump - Ducted < 2.25 stars (< 3)	4.556	3.307	2.581	2.226	2.418	4.954	4.322	2.068
Gas - non ducted ≥ 6 Stars	Heat pump - Ducted < 3 stars (< 4.5)	4.479	3.231	2.504	2.150	2.342	4.877	4.245	1.992
Gas - non ducted ≥ 6 Stars	Heat pump - Ducted < 3.75 stars (< 6)	4.364	3.116	2.389	2.035	2.227	4.762	4.131	1.877
Gas - non ducted ≥ 6 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	4.250	3.001	2.274	1.920	2.112	4.647	4.016	1.762
Gas - non ducted ≥ 6 Stars	Heat pump - Non-ducted < 2.25 stars (< 3)	4.418	3.161	2.441	2.079	2.279	4.814	4.178	1.920
Gas - non ducted ≥ 6 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	4.353	3.096	2.376	2.015	2.214	4.749	4.114	1.855

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas - non ducted ≥ 6 Stars	Heat pump - Non-Ducted < 3.75 stars (< 6)	4.257	3.000	2.280	1.918	2.118	4.653	4.017	1.759
Gas - non ducted ≥ 6 Stars	Heat pump - Non-Ducted ≥ 3.75 stars (≥ 6)	4.160	2.903	2.183	1.822	2.021	4.556	3.921	1.662
Gas - non ducted ≥ 6 Stars	Other or none specified	4.556	3.307	2.581	2.226	2.418	4.954	4.322	2.068

Table 4.2.1 Whole-of-home efficiency factors E_E (kW/100m²) – climate zone 4 – heat pump heating – New South Wales

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Ducted < 2.25 Stars (< 3)	Evaporative	2.950	1.894	1.333	1.029	1.192	2.650	2.245	0.857
Heat pump - Ducted < 2.25 Stars (< 3)	Heat pump - Ducted < 2.25 stars (< 3)	3.510	2.497	1.897	1.597	1.748	3.252	2.848	1.422
Heat pump - Ducted < 2.25 Stars (< 3)	Heat pump - Ducted < 3 stars (< 4.5)	3.444	2.431	1.831	1.532	1.683	3.186	2.783	1.356
Heat pump - Ducted < 2.25 Stars (< 3)	Heat pump - Ducted < 3.75 stars (< 6)	3.346	2.333	1.733	1.433	1.585	3.088	2.685	1.258
Heat pump - Ducted < 2.25 Stars (< 3)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	3.248	2.235	1.635	1.335	1.487	2.990	2.586	1.160
Heat pump - Ducted < 2.25 Stars (< 3)	HP - Non-ducted < 2.25 stars (< 3)	3.398	2.373	1.782	1.476	1.629	3.130	2.727	1.313
Heat pump - Ducted < 2.25 Stars (< 3)	Heat pump - Non-ducted < 3 stars (< 4.5)	3.343	2.319	1.727	1.422	1.575	3.075	2.673	1.258

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Ducted < 2.25 Stars (< 3)	Heat pump - Non-ducted < 3.75 stars (< 6)	3.261	2.237	1.645	1.340	1.493	2.994	2.591	1.177
Heat pump - Ducted < 2.25 Stars (< 3)	Heat pump - Non-Ducted ≥ 3.75 stars (≥ 6)	3.180	2.155	1.564	1.258	1.412	2.912	2.510	1.095
Heat pump - Ducted < 2.25 Stars (< 3)	Other or none specified	3.510	2.497	1.897	1.597	1.748	3.252	2.848	1.422
Heat pump - Ducted < 3.0 Stars (< 4.5)	Evaporative	2.903	1.847	1.286	0.982	1.145	2.603	2.198	0.810
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted < 2.25 stars (< 3)	3.463	2.450	1.850	1.550	1.701	3.205	2.801	1.375
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted < 3 stars (< 4.5)	3.397	2.384	1.784	1.485	1.636	3.139	2.736	1.309
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted < 3.75 stars (< 6)	3.299	2.286	1.686	1.386	1.538	3.041	2.638	1.211
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	3.201	2.188	1.588	1.288	1.440	2.943	2.539	1.113

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted < 2.25 stars (< 3)	3.351	2.326	1.735	1.429	1.582	3.083	2.680	1.266
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted < 3 stars (< 4.5)	3.296	2.272	1.680	1.375	1.528	3.028	2.626	1.211
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted < 3.75 stars (< 6)	3.214	2.190	1.598	1.293	1.446	2.947	2.544	1.130
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	3.133	2.108	1.517	1.211	1.365	2.865	2.463	1.048
Heat pump - Ducted < 3.0 Stars (< 4.5)	Other or none specified	3.463	2.450	1.850	1.550	1.701	3.205	2.801	1.375
Heat pump - Ducted < 3.75 Stars (< 6)	Evaporative	2.832	1.777	1.216	0.911	1.074	2.533	2.128	0.739
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Ducted < 2.25 stars (< 3)	3.392	2.379	1.779	1.480	1.631	3.134	2.731	1.304
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Ducted < 3 stars (< 4.5)	3.327	2.314	1.714	1.414	1.566	3.069	2.665	1.239

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Ducted < 3.75 stars (< 6)	3.228	2.216	1.615	1.316	1.467	2.971	2.567	1.140
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	3.130	2.117	1.517	1.218	1.369	2.872	2.469	1.042
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Non-ducted < 2.25 stars (< 3)	3.280	2.256	1.664	1.359	1.512	3.012	2.610	1.195
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Non-ducted < 3 stars (< 4.5)	3.226	2.201	1.610	1.304	1.457	2.958	2.555	1.141
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Non-ducted < 3.75 stars (< 6)	3.144	2.120	1.528	1.223	1.376	2.876	2.474	1.059
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	3.062	2.038	1.446	1.141	1.294	2.794	2.392	0.977
Heat pump - Ducted < 3.75 Stars (< 6)	Other or none specified	3.392	2.379	1.779	1.480	1.631	3.134	2.731	1.304
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Evaporative	2.762	1.707	1.145	0.841	1.004	2.462	2.057	0.669

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted < 2.25 stars (< 3)	3.322	2.309	1.709	1.409	1.561	3.064	2.660	1.234
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted < 3 stars (< 4.5)	3.256	2.243	1.643	1.344	1.495	2.998	2.595	1.168
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted < 3.75 stars (< 6)	3.158	2.145	1.545	1.246	1.397	2.900	2.497	1.070
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	3.060	2.047	1.447	1.147	1.299	2.802	2.398	0.972
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-ducted < 2.25 stars (< 3)	3.210	2.185	1.594	1.288	1.441	2.942	2.539	1.125
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-ducted < 3 stars (< 4.5)	3.155	2.131	1.539	1.234	1.387	2.887	2.485	1.070
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-ducted < 3.75 stars (< 6)	3.074	2.049	1.457	1.152	1.305	2.806	2.403	0.989
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	2.992	1.967	1.376	1.070	1.224	2.724	2.322	0.907

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Ducted \geq 3.75 Stars (\geq 6)	Other or none specified	3.322	2.309	1.709	1.409	1.561	3.064	2.660	1.234
Heat pump - Non Ducted $<$ 2.25 Stars ($<$ 3)	Evaporative	2.862	1.804	1.260	0.948	1.115	2.555	2.150	0.777
Heat pump - Non Ducted $<$ 2.25 Stars ($<$ 3)	Heat pump - Ducted $<$ 2.25 stars ($<$ 3)	3.423	2.405	1.816	1.512	1.666	3.158	2.757	1.348
Heat pump - Non Ducted $<$ 2.25 Stars ($<$ 3)	Heat pump - Ducted $<$ 3 stars ($<$ 4.5)	3.358	2.339	1.751	1.446	1.600	3.092	2.691	1.283
Heat pump - Non Ducted $<$ 2.25 Stars ($<$ 3)	Heat pump - Ducted $<$ 3.75 stars ($<$ 6)	3.260	2.241	1.653	1.348	1.502	2.994	2.593	1.185
Heat pump - Non Ducted $<$ 2.25 Stars ($<$ 3)	Heat pump - Ducted \geq 3.75 stars (\geq 6)	3.161	2.143	1.554	1.250	1.404	2.896	2.495	1.087
Heat pump - Non Ducted $<$ 2.25 Stars ($<$ 3)	Heat pump - Non-ducted $<$ 2.25 stars ($<$ 3)	3.312	2.280	1.700	1.400	1.545	3.035	2.636	1.239
Heat pump - Non Ducted $<$ 2.25 Stars ($<$ 3)	Heat pump - Non-ducted $<$ 3 stars ($<$ 4.5)	3.258	2.226	1.646	1.345	1.491	2.981	2.581	1.184

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Non Ducted < 2.25 Stars (< 3)	Heat pump - Non-ducted < 3.75 stars (< 6)	3.176	2.144	1.564	1.264	1.409	2.899	2.499	1.102
Heat pump - Non Ducted < 2.25 Stars (< 3)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	3.094	2.063	1.482	1.182	1.328	2.817	2.418	1.021
Heat pump - Non Ducted < 2.25 Stars (< 3)	Other or none specified	3.423	2.405	1.816	1.512	1.666	3.158	2.757	1.348
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Evaporative	2.823	1.765	1.221	0.909	1.076	2.516	2.111	0.737
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted < 2.25 stars (< 3)	3.384	2.366	1.777	1.473	1.627	3.119	2.718	1.309
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted < 3 stars (< 4.5)	3.319	2.300	1.712	1.407	1.561	3.053	2.652	1.244
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted < 3.75 stars (< 6)	3.221	2.202	1.614	1.309	1.463	2.955	2.554	1.146
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	3.122	2.104	1.515	1.211	1.365	2.857	2.456	1.047

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted < 2.25 stars (< 3)	3.273	2.241	1.661	1.361	1.506	2.996	2.596	1.200
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted < 3 stars (< 4.5)	3.218	2.187	1.607	1.306	1.452	2.942	2.542	1.145
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted < 3.75 stars (< 6)	3.137	2.105	1.525	1.225	1.370	2.860	2.460	1.063
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	3.055	2.023	1.443	1.143	1.288	2.778	2.379	0.982
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Other or none specified	3.384	2.366	1.777	1.473	1.627	3.119	2.718	1.309
Heat pump - Non Ducted < 3.75 Stars (< 6)	Evaporative	2.764	1.707	1.162	0.850	1.018	2.458	2.052	0.679
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Ducted < 2.25 stars (< 3)	3.326	2.307	1.719	1.414	1.568	3.060	2.659	1.251
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Ducted < 3 stars (< 4.5)	3.260	2.242	1.653	1.349	1.502	2.994	2.593	1.185

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Ducted < 3.75 stars (< 6)	3.162	2.144	1.555	1.250	1.404	2.896	2.495	1.087
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	3.064	2.045	1.457	1.152	1.306	2.798	2.397	0.989
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Non-Ducted < 2.25 stars (< 3)	3.214	2.183	1.603	1.302	1.448	2.938	2.538	1.141
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Non-ducted < 3 stars (< 4.5)	3.160	2.128	1.548	1.248	1.393	2.883	2.483	1.086
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Non-ducted < 3.75 stars (< 6)	3.078	2.046	1.466	1.166	1.311	2.801	2.402	1.005
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	2.996	1.965	1.385	1.084	1.230	2.720	2.320	0.923
Heat pump - Non Ducted < 3.75 Stars (< 6)	Other or none specified	3.326	2.307	1.719	1.414	1.568	3.060	2.659	1.251
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Evaporative	2.706	1.648	1.104	0.792	0.959	2.399	1.994	0.620

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted < 2.25 stars (< 3)	3.267	2.249	1.660	1.355	1.509	3.001	2.600	1.192
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted < 3 stars (< 4.5)	3.201	2.183	1.594	1.290	1.444	2.936	2.535	1.126
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted < 3.75 stars (< 6)	3.103	2.085	1.496	1.192	1.346	2.838	2.437	1.028
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	3.005	1.987	1.398	1.093	1.247	2.739	2.338	0.930
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-ducted < 2.25 stars (< 3)	3.156	2.124	1.544	1.243	1.389	2.879	2.479	1.082
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-ducted < 3 stars (< 4.5)	3.101	2.070	1.489	1.189	1.334	2.824	2.425	1.028
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-Ducted < 3.75 stars (< 6)	3.019	1.988	1.408	1.107	1.253	2.743	2.343	0.946
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-Ducted ≥ 3.75 stars (≥ 6)	2.938	1.906	1.326	1.025	1.171	2.661	2.261	0.864

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Non Ducted \geq 3.75 Stars (\geq 6)	Other or none specified	3.267	2.249	1.660	1.355	1.509	3.001	2.600	1.192

Table 4.2.2 Whole-of-home efficiency factors E_E (kW/100m²) – climate zone 4 – heat pump heating – Victoria

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Ducted < 2.25 Stars (< 3)	Evaporative	2.559	2.156	1.204	1.086	1.070	1.723	1.521	0.739
Heat pump - Ducted < 2.25 Stars (< 3)	Heat pump - Ducted < 2.25 stars (< 3)	3.025	2.653	1.671	1.566	1.533	2.214	2.015	1.227
Heat pump - Ducted < 2.25 Stars (< 3)	Heat pump - Ducted < 3 stars (< 4.5)	2.971	2.599	1.616	1.511	1.479	2.159	1.961	1.172
Heat pump - Ducted < 2.25 Stars (< 3)	Heat pump - Ducted < 3.75 stars (< 6)	2.889	2.517	1.535	1.430	1.398	2.078	1.879	1.091
Heat pump - Ducted < 2.25 Stars (< 3)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	2.808	2.436	1.454	1.349	1.316	1.997	1.798	1.010
Heat pump - Ducted < 3 Stars (< 2.25)	HP - Non-ducted < 2.25 stars (< 3)	2.930	2.554	1.573	1.463	1.435	2.114	1.917	1.132
Heat pump - Ducted < 2.25 Stars (< 3)	Heat pump - Non-ducted < 3 stars (< 4.5)	2.885	2.509	1.527	1.418	1.390	2.069	1.872	1.087

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Ducted < 2.25 Stars (< 3)	Heat pump - Non-ducted < 3.75 stars (< 6)	2.817	2.441	1.460	1.350	1.323	2.001	1.804	1.020
Heat pump - Ducted < 2.25 Stars (< 3)	Heat pump - Non-Ducted ≥ 3.75 stars (≥ 6)	2.750	2.374	1.392	1.283	1.255	1.933	1.736	0.952
Heat pump - Ducted < 2.25 Stars (< 3)	Other or none specified	3.025	2.653	1.671	1.566	1.533	2.214	2.015	1.227
Heat pump - Ducted < 3.0 Stars (< 4.5)	Evaporative	2.521	2.119	1.166	1.048	1.032	1.685	1.483	0.701
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted < 2.25 stars (< 3)	2.987	2.615	1.633	1.528	1.496	2.176	1.977	1.189
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted < 3 stars (< 4.5)	2.933	2.561	1.579	1.474	1.441	2.122	1.923	1.135
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted < 3.75 stars (< 6)	2.852	2.480	1.497	1.392	1.360	2.040	1.842	1.053
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	2.770	2.398	1.416	1.311	1.278	1.959	1.760	0.972

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted < 2.25 stars (< 3)	2.892	2.516	1.535	1.425	1.398	2.076	1.879	1.094
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted < 3 stars (< 4.5)	2.847	2.471	1.490	1.380	1.352	2.031	1.834	1.049
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted < 3.75 stars (< 6)	2.780	2.404	1.422	1.313	1.285	1.963	1.766	0.982
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	2.712	2.336	1.355	1.245	1.217	1.896	1.699	0.914
Heat pump - Ducted < 3.0 Stars (< 4.5)	Other or none specified	2.987	2.615	1.633	1.528	1.496	2.176	1.977	1.189
Heat pump - Ducted < 3.75 Stars (< 6)	Evaporative	2.465	2.062	1.109	0.991	0.975	1.628	1.426	0.644
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Ducted < 2.25 stars (< 3)	2.931	2.559	1.576	1.471	1.439	2.119	1.921	1.132
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Ducted < 3 stars (< 4.5)	2.876	2.504	1.522	1.417	1.385	2.065	1.866	1.078

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Ducted < 3.75 stars (< 6)	2.795	2.423	1.441	1.336	1.303	1.984	1.785	0.997
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	2.714	2.342	1.359	1.254	1.222	1.902	1.704	0.915
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Non-ducted < 2.25 stars (< 3)	2.836	2.459	1.478	1.368	1.341	2.019	1.822	1.038
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Non-ducted < 3 stars (< 4.5)	2.791	2.414	1.433	1.323	1.296	1.974	1.777	0.993
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Non-ducted < 3.75 stars (< 6)	2.723	2.347	1.366	1.256	1.228	1.907	1.710	0.925
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	2.655	2.279	1.298	1.188	1.161	1.839	1.642	0.858
Heat pump - Ducted < 3.75 Stars (< 6)	Other or none specified	2.931	2.559	1.576	1.471	1.439	2.119	1.921	1.132
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Evaporative	2.408	2.005	1.053	0.934	0.919	1.572	1.370	0.588

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted < 2.25 stars (< 3)	2.874	2.502	1.520	1.415	1.382	2.063	1.864	1.076
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted < 3 stars (< 4.5)	2.820	2.448	1.465	1.360	1.328	2.008	1.810	1.021
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted < 3.75 stars (< 6)	2.738	2.366	1.384	1.279	1.247	1.927	1.728	0.940
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	2.657	2.285	1.303	1.198	1.165	1.846	1.647	0.859
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-ducted < 2.25 stars (< 3)	2.779	2.403	1.421	1.312	1.284	1.963	1.766	0.981
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-ducted < 3 stars (< 4.5)	2.734	2.358	1.376	1.267	1.239	1.918	1.721	0.936
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-ducted < 3.75 stars (< 6)	2.666	2.290	1.309	1.199	1.172	1.850	1.653	0.868
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	2.599	2.223	1.241	1.132	1.104	1.782	1.585	0.801

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Ducted \geq 3.75 Stars (\geq 6)	Other or none specified	2.874	2.502	1.520	1.415	1.382	2.063	1.864	1.076
Heat pump - Non Ducted $<$ 2.25 Stars ($<$ 3)	Evaporative	2.493	2.083	1.142	1.020	1.007	1.652	1.450	0.686
Heat pump - Non Ducted $<$ 2.25 Stars ($<$ 3)	Heat pump - Ducted $<$ 2.25 stars ($<$ 3)	2.957	2.582	1.605	1.497	1.466	2.143	1.947	1.165
Heat pump - Non Ducted $<$ 2.25 Stars ($<$ 3)	Heat pump - Ducted $<$ 3 stars ($<$ 4.5)	2.903	2.528	1.551	1.443	1.412	2.089	1.893	1.111
Heat pump - Non Ducted $<$ 2.25 Stars ($<$ 3)	Heat pump - Ducted $<$ 3.75 stars ($<$ 6)	2.821	2.446	1.470	1.362	1.331	2.007	1.811	1.030
Heat pump - Non Ducted $<$ 2.25 Stars ($<$ 3)	Heat pump - Ducted \geq 3.75 stars (\geq 6)	2.740	2.365	1.388	1.280	1.249	1.926	1.730	0.948
Heat pump - Non Ducted $<$ 2.25 Stars ($<$ 3)	Heat pump - Non-ducted $<$ 2.25 stars ($<$ 3)	2.861	2.482	1.506	1.400	1.375	2.045	1.848	1.070
Heat pump - Non Ducted $<$ 2.25 Stars ($<$ 3)	Heat pump - Non-ducted $<$ 3 stars ($<$ 4.5)	2.816	2.437	1.461	1.355	1.330	2.000	1.803	1.025

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Non Ducted < 2.25 Stars (< 3)	Heat pump - Non-ducted < 3.75 stars (< 6)	2.749	2.370	1.394	1.288	1.263	1.932	1.735	0.958
Heat pump - Non Ducted < 2.25 Stars (< 3)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	2.681	2.302	1.326	1.220	1.195	1.865	1.668	0.890
Heat pump - Non Ducted < 2.25 Stars (< 3)	Other or none specified	2.957	2.582	1.605	1.497	1.466	2.143	1.947	1.165
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Evaporative	2.461	2.051	1.110	0.988	0.974	1.620	1.418	0.654
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted < 2.25 stars (< 3)	2.925	2.550	1.573	1.465	1.434	2.111	1.915	1.133
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted < 3 stars (< 4.5)	2.870	2.495	1.519	1.411	1.380	2.057	1.861	1.079
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted < 3.75 stars (< 6)	2.789	2.414	1.437	1.329	1.299	1.975	1.779	0.997
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	2.708	2.333	1.356	1.248	1.217	1.894	1.698	0.916

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted < 2.25 stars (< 3)	2.829	2.450	1.474	1.368	1.343	2.013	1.816	1.038
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted < 3 stars (< 4.5)	2.784	2.405	1.429	1.323	1.298	1.968	1.771	0.993
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted < 3.75 stars (< 6)	2.717	2.337	1.362	1.256	1.230	1.900	1.703	0.925
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	2.649	2.270	1.294	1.188	1.163	1.833	1.636	0.858
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Other or none specified	2.925	2.550	1.573	1.465	1.434	2.111	1.915	1.133
Heat pump - Non Ducted < 3.75 Stars (< 6)	Evaporative	2.413	2.003	1.062	0.940	0.926	1.572	1.370	0.606
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Ducted < 2.25 stars (< 3)	2.877	2.502	1.525	1.417	1.386	2.063	1.867	1.085
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Ducted < 3 stars (< 4.5)	2.822	2.447	1.471	1.363	1.332	2.008	1.813	1.031

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Ducted < 3.75 stars (< 6)	2.741	2.366	1.389	1.281	1.250	1.927	1.731	0.949
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	2.660	2.285	1.308	1.200	1.169	1.846	1.650	0.868
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Non-Ducted < 2.25 stars (< 3)	2.781	2.402	1.426	1.320	1.295	1.965	1.768	0.990
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Non-ducted < 3 stars (< 4.5)	2.736	2.357	1.381	1.275	1.250	1.920	1.723	0.945
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Non-ducted < 3.75 stars (< 6)	2.669	2.289	1.314	1.207	1.182	1.852	1.655	0.877
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	2.601	2.222	1.246	1.140	1.115	1.785	1.588	0.810
Heat pump - Non Ducted < 3.75 Stars (< 6)	Other or none specified	2.877	2.502	1.525	1.417	1.386	2.063	1.867	1.085
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Evaporative	2.364	1.955	1.014	0.892	0.878	1.524	1.322	0.558

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted < 2.25 stars (< 3)	2.828	2.453	1.477	1.369	1.338	2.015	1.819	1.037
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted < 3 stars (< 4.5)	2.774	2.399	1.423	1.315	1.284	1.960	1.764	0.983
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted < 3.75 stars (< 6)	2.693	2.318	1.341	1.233	1.202	1.879	1.683	0.901
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	2.611	2.236	1.260	1.152	1.121	1.798	1.602	0.820
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-ducted < 2.25 stars (< 3)	2.733	2.354	1.378	1.272	1.247	1.917	1.720	0.942
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-ducted < 3 stars (< 4.5)	2.688	2.309	1.333	1.227	1.202	1.872	1.675	0.897
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-Ducted < 3.75 stars (< 6)	2.620	2.241	1.265	1.159	1.134	1.804	1.607	0.829
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-Ducted ≥ 3.75 stars (≥ 6)	2.553	2.174	1.198	1.092	1.067	1.736	1.539	0.762

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Non Ducted \geq 3.75 Stars (\geq 6)	Other or none specified	2.828	2.453	1.477	1.369	1.338	2.015	1.819	1.037

Table 4.2.3 Whole-of-home efficiency factors E_E (kW/100m²) – climate zone 4 – heat pump heating – South Australia

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Ducted < 2.25 Stars (< 3)	Evaporative	3.095	2.206	1.377	1.123	1.233	2.732	2.311	0.877
Heat pump - Ducted < 2.25 Stars (< 3)	Heat pump - Ducted < 2.25 stars (< 3)	3.690	2.855	1.977	1.734	1.826	3.377	2.954	1.471
Heat pump - Ducted < 2.25 Stars (< 3)	Heat pump - Ducted < 3 stars (< 4.5)	3.621	2.785	1.908	1.665	1.757	3.307	2.885	1.402
Heat pump - Ducted < 2.25 Stars (< 3)	Heat pump - Ducted < 3.75 stars (< 6)	3.517	2.681	1.803	1.561	1.653	3.203	2.781	1.298
Heat pump - Ducted < 2.25 Stars (< 3)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	3.412	2.577	1.699	1.457	1.549	3.099	2.676	1.193
Heat pump - Ducted < 3 Stars (< 2.25)	HP - Non-ducted < 2.25 stars (< 3)	3.568	2.724	1.856	1.602	1.701	3.246	2.825	1.355
Heat pump - Ducted < 2.25 Stars (< 3)	Heat pump - Non-ducted < 3 stars (< 4.5)	3.511	2.667	1.799	1.544	1.643	3.188	2.768	1.298

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Ducted < 2.25 Stars (< 3)	Heat pump - Non-ducted < 3.75 stars (< 6)	3.425	2.580	1.712	1.458	1.557	3.102	2.681	1.212
Heat pump - Ducted < 2.25 Stars (< 3)	Heat pump - Non-Ducted ≥ 3.75 stars (≥ 6)	3.338	2.494	1.626	1.371	1.470	3.016	2.595	1.125
Heat pump - Ducted < 2.25 Stars (< 3)	Other or none specified	3.690	2.855	1.977	1.734	1.826	3.377	2.954	1.471
Heat pump - Ducted < 3.0 Stars (< 4.5)	Evaporative	3.044	2.156	1.326	1.072	1.183	2.681	2.260	0.826
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted < 2.25 stars (< 3)	3.640	2.804	1.926	1.684	1.776	3.326	2.904	1.420
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted < 3 stars (< 4.5)	3.570	2.735	1.857	1.614	1.706	3.256	2.834	1.351
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted < 3.75 stars (< 6)	3.466	2.630	1.753	1.510	1.602	3.152	2.730	1.247
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	3.362	2.526	1.648	1.406	1.498	3.048	2.626	1.143

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted < 2.25 stars (< 3)	3.518	2.673	1.805	1.551	1.650	3.195	2.774	1.305
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted < 3 stars (< 4.5)	3.460	2.616	1.748	1.493	1.592	3.138	2.717	1.247
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted < 3.75 stars (< 6)	3.374	2.530	1.661	1.407	1.506	3.051	2.630	1.161
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	3.287	2.443	1.575	1.321	1.420	2.965	2.544	1.074
Heat pump - Ducted < 3.0 Stars (< 4.5)	Other or none specified	3.640	2.804	1.926	1.684	1.776	3.326	2.904	1.420
Heat pump - Ducted < 3.75 Stars (< 6)	Evaporative	2.968	2.079	1.250	0.996	1.106	2.605	2.184	0.750
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Ducted < 2.25 stars (< 3)	3.563	2.728	1.850	1.607	1.699	3.250	2.827	1.344
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Ducted < 3 stars (< 4.5)	3.494	2.658	1.781	1.538	1.630	3.180	2.758	1.275

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Ducted < 3.75 stars (< 6)	3.390	2.554	1.676	1.434	1.526	3.076	2.654	1.170
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	3.285	2.450	1.572	1.330	1.422	2.972	2.549	1.066
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Non-ducted < 2.25 stars (< 3)	3.441	2.597	1.729	1.475	1.574	3.119	2.698	1.228
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Non-ducted < 3 stars (< 4.5)	3.384	2.540	1.671	1.417	1.516	3.061	2.641	1.171
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Non-ducted < 3.75 stars (< 6)	3.298	2.453	1.585	1.331	1.430	2.975	2.554	1.085
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	3.211	2.367	1.499	1.244	1.343	2.889	2.468	0.998
Heat pump - Ducted < 3.75 Stars (< 6)	Other or none specified	3.563	2.728	1.850	1.607	1.699	3.250	2.827	1.344
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Evaporative	2.891	2.003	1.173	0.920	1.030	2.529	2.108	0.674

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted < 2.25 stars (< 3)	3.487	2.652	1.774	1.531	1.623	3.174	2.751	1.268
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted < 3 stars (< 4.5)	3.418	2.582	1.704	1.462	1.554	3.104	2.682	1.198
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted < 3.75 stars (< 6)	3.313	2.478	1.600	1.358	1.450	3.000	2.577	1.094
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	3.209	2.374	1.496	1.253	1.345	2.896	2.473	0.990
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-ducted < 2.25 stars (< 3)	3.365	2.521	1.653	1.398	1.497	3.043	2.622	1.152
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-ducted < 3 stars (< 4.5)	3.308	2.463	1.595	1.341	1.440	2.985	2.564	1.095
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-ducted < 3.75 stars (< 6)	3.221	2.377	1.509	1.255	1.353	2.899	2.478	1.008
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	3.135	2.291	1.423	1.168	1.267	2.812	2.392	0.922

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Ducted \geq 3.75 Stars (\geq 6)	Other or none specified	3.487	2.652	1.774	1.531	1.623	3.174	2.751	1.268
Heat pump - Non Ducted $<$ 2.25 Stars ($<$ 3)	Evaporative	3.001	2.105	1.301	1.038	1.154	2.630	2.208	0.792
Heat pump - Non Ducted $<$ 2.25 Stars ($<$ 3)	Heat pump - Ducted $<$ 2.25 stars ($<$ 3)	3.596	2.756	1.893	1.643	1.739	3.276	2.856	1.393
Heat pump - Non Ducted $<$ 2.25 Stars ($<$ 3)	Heat pump - Ducted $<$ 3 stars ($<$ 4.5)	3.526	2.687	1.823	1.574	1.669	3.206	2.787	1.324
Heat pump - Non Ducted $<$ 2.25 Stars ($<$ 3)	Heat pump - Ducted $<$ 3.75 stars ($<$ 6)	3.422	2.582	1.719	1.470	1.565	3.102	2.682	1.220
Heat pump - Non Ducted $<$ 2.25 Stars ($<$ 3)	Heat pump - Ducted \geq 3.75 stars (\geq 6)	3.318	2.478	1.615	1.366	1.461	2.998	2.578	1.115
Heat pump - Non Ducted $<$ 2.25 Stars ($<$ 3)	Heat pump - Non-ducted $<$ 2.25 stars ($<$ 3)	3.476	2.625	1.770	1.512	1.612	3.144	2.726	1.278
Heat pump - Non Ducted $<$ 2.25 Stars ($<$ 3)	Heat pump - Non-ducted $<$ 3 stars ($<$ 4.5)	3.418	2.568	1.713	1.454	1.554	3.087	2.668	1.220

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Non Ducted < 2.25 Stars (< 3)	Heat pump - Non-ducted < 3.75 stars (< 6)	3.332	2.481	1.626	1.368	1.468	3.000	2.582	1.134
Heat pump - Non Ducted < 2.25 Stars (< 3)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	3.246	2.395	1.540	1.281	1.381	2.914	2.496	1.048
Heat pump - Non Ducted < 2.25 Stars (< 3)	Other or none specified	3.596	2.756	1.893	1.643	1.739	3.276	2.856	1.393
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Evaporative	2.959	2.063	1.258	0.995	1.111	2.587	2.165	0.749
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted < 2.25 stars (< 3)	3.553	2.713	1.850	1.601	1.696	3.233	2.813	1.350
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted < 3 stars (< 4.5)	3.484	2.644	1.780	1.531	1.627	3.163	2.744	1.281
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted < 3.75 stars (< 6)	3.379	2.540	1.676	1.427	1.522	3.059	2.640	1.177
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	3.275	2.435	1.572	1.323	1.418	2.955	2.535	1.073

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted < 2.25 stars (< 3)	3.433	2.583	1.728	1.469	1.569	3.101	2.683	1.235
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted < 3 stars (< 4.5)	3.376	2.525	1.670	1.411	1.511	3.044	2.625	1.178
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted < 3.75 stars (< 6)	3.289	2.439	1.584	1.325	1.425	2.958	2.539	1.091
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	3.203	2.352	1.497	1.239	1.339	2.871	2.453	1.005
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Other or none specified	3.553	2.713	1.850	1.601	1.696	3.233	2.813	1.350
Heat pump - Non Ducted < 3.75 Stars (< 6)	Evaporative	2.895	1.998	1.194	0.931	1.047	2.523	2.101	0.685
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Ducted < 2.25 stars (< 3)	3.489	2.649	1.786	1.536	1.632	3.169	2.749	1.286
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Ducted < 3 stars (< 4.5)	3.419	2.580	1.716	1.467	1.562	3.099	2.680	1.217

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Ducted < 3.75 stars (< 6)	3.315	2.476	1.612	1.363	1.458	2.995	2.576	1.113
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	3.211	2.371	1.508	1.259	1.354	2.891	2.471	1.008
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Non-Ducted < 2.25 stars (< 3)	3.369	2.518	1.663	1.405	1.505	3.037	2.619	1.171
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Non-ducted < 3 stars (< 4.5)	3.311	2.461	1.606	1.347	1.447	2.980	2.561	1.113
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Non-ducted < 3.75 stars (< 6)	3.225	2.375	1.519	1.261	1.361	2.893	2.475	1.027
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	3.139	2.288	1.433	1.174	1.274	2.807	2.389	0.941
Heat pump - Non Ducted < 3.75 Stars (< 6)	Other or none specified	3.489	2.649	1.786	1.536	1.632	3.169	2.749	1.286
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Evaporative	2.830	1.934	1.130	0.867	0.982	2.459	2.037	0.621

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted < 2.25 stars (< 3)	3.425	2.585	1.721	1.472	1.568	3.104	2.685	1.222
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted < 3 stars (< 4.5)	3.355	2.516	1.652	1.403	1.498	3.035	2.616	1.153
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted < 3.75 stars (< 6)	3.251	2.411	1.548	1.299	1.394	2.931	2.511	1.048
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	3.147	2.307	1.444	1.194	1.290	2.827	2.407	0.944
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-ducted < 2.25 stars (< 3)	3.305	2.454	1.599	1.340	1.441	2.973	2.555	1.107
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-ducted < 3 stars (< 4.5)	3.247	2.397	1.542	1.283	1.383	2.916	2.497	1.049
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-ducted < 3.75 stars (< 6)	3.161	2.310	1.455	1.197	1.297	2.829	2.411	0.963
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	3.075	2.224	1.369	1.110	1.210	2.743	2.324	0.877

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Non Ducted \geq 3.75 Stars (\geq 6)	Other or none specified	3.425	2.585	1.721	1.472	1.568	3.104	2.685	1.222

Table 4.2.4 Whole-of-home efficiency factors E_E (kW/100m²) – climate zone 4 – heat pump heating – Western Australia

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Ducted < 2.25 Stars (< 3)	Evaporative	3.354	1.990	1.455	1.077	1.304	3.590	2.961	0.960
Heat pump - Ducted < 2.25 Stars (< 3)	Heat pump - Ducted < 2.25 stars (< 3)	4.019	2.709	2.115	1.741	1.959	4.278	3.672	1.607
Heat pump - Ducted < 2.25 Stars (< 3)	Heat pump - Ducted < 3 stars (< 4.5)	3.942	2.632	2.039	1.665	1.882	4.201	3.595	1.531
Heat pump - Ducted < 2.25 Stars (< 3)	Heat pump - Ducted < 3.75 stars (< 6)	3.827	2.517	1.924	1.550	1.767	4.086	3.480	1.416
Heat pump - Ducted < 2.25 Stars (< 3)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	3.712	2.402	1.809	1.435	1.652	3.971	3.366	1.301
Heat pump - Ducted < 3 Stars (< 2.25)	HP - Non-ducted < 2.25 stars (< 3)	3.885	2.563	1.984	1.595	1.823	4.133	3.527	1.475
Heat pump - Ducted < 2.25 Stars (< 3)	Heat pump - Non-ducted < 3 stars (< 4.5)	3.820	2.499	1.920	1.531	1.759	4.069	3.463	1.411

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Ducted < 2.25 Stars (< 3)	Heat pump - Non-ducted < 3.75 stars (< 6)	3.724	2.402	1.823	1.434	1.663	3.972	3.366	1.314
Heat pump - Ducted < 2.25 Stars (< 3)	Heat pump - Non-Ducted ≥ 3.75 stars (≥ 6)	3.627	2.306	1.727	1.337	1.566	3.875	3.270	1.217
Heat pump - Ducted < 2.25 Stars (< 3)	Other or none specified	4.019	2.709	2.115	1.741	1.959	4.278	3.672	1.607
Heat pump - Ducted < 3.0 Stars (< 4.5)	Evaporative	3.296	1.932	1.397	1.019	1.246	3.533	2.903	0.902
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted < 2.25 stars (< 3)	3.961	2.651	2.057	1.684	1.901	4.220	3.614	1.549
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted < 3 stars (< 4.5)	3.884	2.574	1.981	1.607	1.824	4.143	3.538	1.473
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted < 3.75 stars (< 6)	3.770	2.459	1.866	1.492	1.709	4.028	3.423	1.358
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	3.655	2.344	1.751	1.377	1.595	3.914	3.308	1.243

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted < 2.25 stars (< 3)	3.827	2.505	1.927	1.537	1.766	4.075	3.469	1.417
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted < 3 stars (< 4.5)	3.763	2.441	1.862	1.473	1.701	4.011	3.405	1.353
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted < 3.75 stars (< 6)	3.666	2.344	1.766	1.376	1.605	3.914	3.308	1.256
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	3.569	2.248	1.669	1.280	1.508	3.818	3.212	1.160
Heat pump - Ducted < 3.0 Stars (< 4.5)	Other or none specified	3.961	2.651	2.057	1.684	1.901	4.220	3.614	1.549
Heat pump - Ducted < 3.75 Stars (< 6)	Evaporative	3.209	1.845	1.311	0.932	1.160	3.446	2.816	0.816
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Ducted < 2.25 stars (< 3)	3.874	2.564	1.971	1.597	1.814	4.133	3.527	1.463
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Ducted < 3 stars (< 4.5)	3.798	2.487	1.894	1.520	1.738	4.057	3.451	1.386

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Ducted < 3.75 stars (< 6)	3.683	2.373	1.779	1.405	1.623	3.942	3.336	1.271
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	3.568	2.258	1.664	1.291	1.508	3.827	3.221	1.156
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Non-ducted < 2.25 stars (< 3)	3.740	2.419	1.840	1.450	1.679	3.988	3.383	1.330
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Non-ducted < 3 stars (< 4.5)	3.676	2.354	1.775	1.386	1.615	3.924	3.318	1.266
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Non-ducted < 3.75 stars (< 6)	3.579	2.258	1.679	1.289	1.518	3.827	3.222	1.169
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	3.483	2.161	1.582	1.193	1.421	3.731	3.125	1.073
Heat pump - Ducted < 3.75 Stars (< 6)	Other or none specified	3.874	2.564	1.971	1.597	1.814	4.133	3.527	1.463
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Evaporative	3.122	1.759	1.224	0.845	1.073	3.359	2.730	0.729

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Ducted \geq 3.75 Stars (\geq 6)	Heat pump - Ducted < 2.25 stars (< 3)	3.788	2.477	1.884	1.510	1.727	4.046	3.441	1.376
Heat pump - Ducted \geq 3.75 Stars (\geq 6)	Heat pump - Ducted < 3 stars (< 4.5)	3.711	2.401	1.807	1.434	1.651	3.970	3.364	1.299
Heat pump - Ducted \geq 3.75 Stars (\geq 6)	Heat pump - Ducted < 3.75 stars (< 6)	3.596	2.286	1.693	1.319	1.536	3.855	3.249	1.184
Heat pump - Ducted \geq 3.75 Stars (\geq 6)	Heat pump - Ducted \geq 3.75 stars (\geq 6)	3.481	2.171	1.578	1.204	1.421	3.740	3.134	1.070
Heat pump - Ducted \geq 3.75 Stars (\geq 6)	Heat pump - Non-ducted < 2.25 stars (< 3)	3.653	2.332	1.753	1.364	1.592	3.902	3.296	1.244
Heat pump - Ducted \geq 3.75 Stars (\geq 6)	Heat pump - Non-ducted < 3 stars (< 4.5)	3.589	2.268	1.689	1.299	1.528	3.837	3.232	1.179
Heat pump - Ducted \geq 3.75 Stars (\geq 6)	Heat pump - Non-ducted < 3.75 stars (< 6)	3.492	2.171	1.592	1.203	1.431	3.741	3.135	1.083
Heat pump - Ducted \geq 3.75 Stars (\geq 6)	Heat pump - Non-ducted \geq 3.75 stars (\geq 6)	3.396	2.074	1.495	1.106	1.335	3.644	3.038	0.986

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Ducted \geq 3.75 Stars (\geq 6)	Other or none specified	3.788	2.477	1.884	1.510	1.727	4.046	3.441	1.376
Heat pump - Non Ducted $<$ 2.25 Stars ($<$ 3)	Evaporative	3.248	1.880	1.367	0.982	1.216	3.464	2.837	0.866
Heat pump - Non Ducted $<$ 2.25 Stars ($<$ 3)	Heat pump - Ducted $<$ 2.25 stars ($<$ 3)	3.910	2.596	2.019	1.638	1.861	4.158	3.555	1.514
Heat pump - Non Ducted $<$ 2.25 Stars ($<$ 3)	Heat pump - Ducted $<$ 3 stars ($<$ 4.5)	3.833	2.519	1.943	1.562	1.784	4.082	3.478	1.437
Heat pump - Non Ducted $<$ 2.25 Stars ($<$ 3)	Heat pump - Ducted $<$ 3.75 stars ($<$ 6)	3.718	2.404	1.828	1.447	1.669	3.967	3.363	1.323
Heat pump - Non Ducted $<$ 2.25 Stars ($<$ 3)	Heat pump - Ducted \geq 3.75 stars (\geq 6)	3.604	2.290	1.713	1.332	1.554	3.852	3.249	1.208
Heat pump - Non Ducted $<$ 2.25 Stars ($<$ 3)	Heat pump - Non-ducted $<$ 2.25 stars ($<$ 3)	3.775	2.449	1.888	1.501	1.724	4.013	3.409	1.386
Heat pump - Non Ducted $<$ 2.25 Stars ($<$ 3)	Heat pump - Non-ducted $<$ 3 stars ($<$ 4.5)	3.711	2.385	1.824	1.436	1.659	3.948	3.345	1.322

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Non Ducted < 2.25 Stars (< 3)	Heat pump - Non-ducted < 3.75 stars (< 6)	3.614	2.288	1.727	1.340	1.563	3.852	3.248	1.225
Heat pump - Non Ducted < 2.25 Stars (< 3)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	3.518	2.192	1.631	1.243	1.466	3.755	3.152	1.129
Heat pump - Non Ducted < 2.25 Stars (< 3)	Other or none specified	3.910	2.596	2.019	1.638	1.861	4.158	3.555	1.514
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Evaporative	3.201	1.833	1.319	0.935	1.169	3.416	2.790	0.818
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted < 2.25 stars (< 3)	3.862	2.548	1.972	1.591	1.813	4.111	3.507	1.466
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted < 3 stars (< 4.5)	3.786	2.472	1.895	1.514	1.736	4.034	3.431	1.390
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted < 3.75 stars (< 6)	3.671	2.357	1.780	1.399	1.622	3.919	3.316	1.275
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	3.556	2.242	1.665	1.285	1.507	3.804	3.201	1.160

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted < 2.25 stars (< 3)	3.728	2.401	1.841	1.453	1.676	3.965	3.362	1.339
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted < 3 stars (< 4.5)	3.663	2.337	1.776	1.389	1.612	3.901	3.298	1.274
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted < 3.75 stars (< 6)	3.567	2.241	1.680	1.292	1.515	3.804	3.201	1.178
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	3.470	2.144	1.583	1.196	1.418	3.708	3.104	1.081
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Other or none specified	3.862	2.548	1.972	1.591	1.813	4.111	3.507	1.466
Heat pump - Non Ducted < 3.75 Stars (< 6)	Evaporative	3.129	1.761	1.248	0.863	1.097	3.345	2.718	0.747
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Ducted < 2.25 stars (< 3)	3.791	2.477	1.900	1.520	1.742	4.039	3.436	1.395
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Ducted < 3 stars (< 4.5)	3.714	2.400	1.824	1.443	1.665	3.963	3.359	1.319

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Ducted < 3.75 stars (< 6)	3.600	2.286	1.709	1.328	1.550	3.848	3.245	1.204
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	3.485	2.171	1.594	1.213	1.435	3.733	3.130	1.089
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Non-Ducted < 2.25 stars (< 3)	3.656	2.330	1.770	1.382	1.605	3.894	3.291	1.267
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Non-ducted < 3 stars (< 4.5)	3.592	2.266	1.705	1.318	1.540	3.829	3.226	1.203
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Non-ducted < 3.75 stars (< 6)	3.495	2.169	1.609	1.221	1.444	3.733	3.130	1.106
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	3.399	2.073	1.512	1.124	1.347	3.636	3.033	1.010
Heat pump - Non Ducted < 3.75 Stars (< 6)	Other or none specified	3.791	2.477	1.900	1.520	1.742	4.039	3.436	1.395
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Evaporative	3.058	1.690	1.176	0.792	1.026	3.273	2.647	0.676

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted < 2.25 stars (< 3)	3.720	2.406	1.829	1.448	1.670	3.968	3.365	1.324
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted < 3 stars (< 4.5)	3.643	2.329	1.753	1.372	1.594	3.891	3.288	1.247
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted < 3.75 stars (< 6)	3.528	2.214	1.638	1.257	1.479	3.776	3.173	1.132
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	3.413	2.099	1.523	1.142	1.364	3.662	3.058	1.017
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-ducted < 2.25 stars (< 3)	3.585	2.259	1.698	1.311	1.533	3.823	3.219	1.196
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-ducted < 3 stars (< 4.5)	3.521	2.194	1.634	1.246	1.469	3.758	3.155	1.132
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-Ducted < 3.75 stars (< 6)	3.424	2.098	1.537	1.150	1.372	3.662	3.058	1.035
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-Ducted ≥ 3.75 stars (≥ 6)	3.328	2.001	1.441	1.053	1.276	3.565	2.962	0.938

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Non Ducted \geq 3.75 Stars (\geq 6)	Other or none specified	3.720	2.406	1.829	1.448	1.670	3.968	3.365	1.324

Table 4.3.1 Whole-of-home efficiency factors E_E (kW/100m²) – climate zone 4 – other heating – New South Wales

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Electric - Resistance (Panel)	Evaporative	4.102	3.121	2.416	2.128	2.274	3.931	3.497	1.923
Electric - Resistance (Panel)	Heat pump - Ducted < 2.25 stars (< 3)	4.839	3.887	3.179	2.907	3.035	4.668	4.252	2.699
Electric - Resistance (Panel)	Heat pump - Ducted < 3 stars (< 4.5)	4.774	3.821	3.113	2.842	2.970	4.603	4.186	2.633
Electric - Resistance (Panel)	Heat pump - Ducted < 3.75 stars (< 6)	4.675	3.723	3.015	2.743	2.872	4.504	4.088	2.535
Electric - Resistance (Panel)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	4.577	3.625	2.917	2.645	2.773	4.406	3.990	2.437
Electric - Resistance (Panel)	Heat pump - Non-Ducted < 2.25 stars (< 3)	4.697	3.738	3.031	2.758	2.887	4.520	4.103	2.551
Electric - Resistance (Panel)	Heat pump - Non-Ducted < 3 stars (< 4.5)	4.642	3.683	2.977	2.703	2.832	4.465	4.049	2.497

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Electric - Resistance (Panel)	Heat pump - Non-ducted < 3.75 stars (< 6)	4.561	3.601	2.895	2.621	2.751	4.384	3.967	2.415
Electric - Resistance (Panel)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	4.479	3.520	2.813	2.540	2.669	4.302	3.885	2.334
Electric - Resistance (Panel)	Other or none specified	4.839	3.887	3.179	2.907	3.035	4.668	4.252	2.699
Wood Heater	Evaporative	3.100	2.060	1.454	1.156	1.306	2.842	2.427	0.981
Wood Heater	Heat pump - Ducted < 2.25 stars (< 3)	3.841	2.858	2.204	1.933	2.060	3.629	3.220	1.744
Wood Heater	Heat pump - Ducted < 3 stars (< 4.5)	3.775	2.793	2.138	1.867	1.995	3.563	3.155	1.678
Wood Heater	Heat pump - Ducted < 3.75 stars (< 6)	3.677	2.694	2.040	1.769	1.897	3.465	3.056	1.580
Wood Heater	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	3.579	2.596	1.942	1.671	1.798	3.367	2.958	1.482
Wood Heater	Heat pump - Non-ducted < 2.25 stars (< 3)	3.697	2.707	2.059	1.782	1.918	3.477	3.068	1.589
Wood Heater	Heat pump - Non-ducted < 3 stars (< 4.5)	3.643	2.653	2.005	1.727	1.863	3.423	3.013	1.535

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Wood Heater	Heat pump - Non-ducted < 3.75 stars (< 6)	3.561	2.571	1.923	1.645	1.782	3.341	2.932	1.453
Wood Heater	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	3.479	2.489	1.841	1.564	1.700	3.259	2.850	1.372
Wood Heater	Other or none specified	3.841	2.858	2.204	1.933	2.060	3.629	3.220	1.744
Electric - Resistance (Slab)	Evaporative	3.602	2.609	1.926	1.636	1.782	3.415	2.985	1.431
Electric - Resistance (Slab)	Heat pump - Ducted < 2.25 stars (< 3)	4.351	3.400	2.696	2.429	2.550	4.184	3.767	2.220
Electric - Resistance (Slab)	Heat pump - Ducted < 3 stars (< 4.5)	4.286	3.335	2.630	2.363	2.485	4.119	3.702	2.154
Electric - Resistance (Slab)	Heat pump - Ducted < 3.75 stars (< 6)	4.188	3.236	2.532	2.265	2.387	4.021	3.604	2.056
Electric - Resistance (Slab)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	4.090	3.138	2.434	2.167	2.288	3.922	3.505	1.958

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Electric - Resistance (Slab)	Heat pump - Non-ducted < 2.25 stars (< 3)	4.205	3.249	2.549	2.274	2.402	4.034	3.615	2.068
Electric - Resistance (Slab)	Heat pump - Non-ducted < 3 stars (< 4.5)	4.151	3.194	2.494	2.220	2.347	3.979	3.561	2.013
Electric - Resistance (Slab)	Heat pump - Non-ducted < 3.75 stars (< 6)	4.069	3.113	2.413	2.138	2.265	3.898	3.479	1.931
Electric - Resistance (Slab)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	3.987	3.031	2.331	2.056	2.184	3.816	3.397	1.850
Electric - Resistance (Slab)	Other or none specified	4.351	3.400	2.696	2.429	2.550	4.184	3.767	2.220
Other or none specified	Evaporative	2.950	1.894	1.333	1.029	1.192	2.650	2.245	0.857
Other or none specified	Heat pump - Ducted < 2.25 stars (< 3)	3.510	2.497	1.897	1.597	1.748	3.252	2.848	1.422
Other or none specified	Heat pump - Ducted < 3 stars (< 4.5)	3.444	2.431	1.831	1.532	1.683	3.186	2.783	1.356
Other or none specified	Heat pump - Ducted < 3.75 stars (< 6)	3.346	2.333	1.733	1.433	1.585	3.088	2.685	1.258

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Other or none specified	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	3.248	2.235	1.635	1.335	1.487	2.990	2.586	1.160
Other or none specified	Heat pump - Non-ducted < 2.25 stars (< 3)	3.398	2.373	1.782	1.476	1.629	3.130	2.727	1.313
Other or none specified	Heat pump - Non-ducted < 3 stars (< 4.5)	3.343	2.319	1.727	1.422	1.575	3.075	2.673	1.258
Other or none specified	Heat pump - Non-ducted < 3.75 stars (< 6)	3.261	2.237	1.645	1.340	1.493	2.994	2.591	1.177
Other or none specified	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	3.180	2.155	1.564	1.258	1.412	2.912	2.510	1.095
Other or none specified	Other or none specified	3.510	2.497	1.897	1.597	1.748	3.252	2.848	1.422

Table 4.3.2 Whole-of-home efficiency factors E_E (kW/100m²) – climate zone 4 – other heating – Victoria

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Electric - Resistance (Panel)	Evaporative	3.441	3.115	2.048	1.967	1.922	2.658	2.446	1.587
Electric - Resistance (Panel)	Heat pump - Ducted < 2.25 stars (< 3)	4.058	3.743	2.679	2.608	2.552	3.294	3.083	2.224
Electric - Resistance (Panel)	Heat pump - Ducted < 3 stars (< 4.5)	4.003	3.689	2.625	2.554	2.498	3.240	3.029	2.170
Electric - Resistance (Panel)	Heat pump - Ducted < 3.75 stars (< 6)	3.922	3.607	2.544	2.473	2.416	3.159	2.947	2.089
Electric - Resistance (Panel)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	3.841	3.526	2.462	2.391	2.335	3.077	2.866	2.007
Electric - Resistance (Panel)	Heat pump - Non-Ducted < 2.25 stars (< 3)	3.941	3.621	2.560	2.487	2.432	3.173	2.961	2.100
Electric - Resistance (Panel)	Heat pump - Non-Ducted < 3 stars (< 4.5)	3.896	3.576	2.515	2.442	2.387	3.128	2.916	2.055

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Electric - Resistance (Panel)	Heat pump - Non-ducted < 3.75 stars (< 6)	3.828	3.509	2.447	2.374	2.319	3.060	2.848	1.988
Electric - Resistance (Panel)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	3.761	3.441	2.380	2.307	2.252	2.993	2.781	1.920
Electric - Resistance (Panel)	Other or none specified	4.058	3.743	2.679	2.608	2.552	3.294	3.083	2.224
Wood Heater	Evaporative	2.684	2.310	1.312	1.207	1.182	1.865	1.661	0.857
Wood Heater	Heat pump - Ducted < 2.25 stars (< 3)	3.299	2.957	1.939	1.854	1.809	2.516	2.309	1.488
Wood Heater	Heat pump - Ducted < 3 stars (< 4.5)	3.245	2.903	1.885	1.799	1.755	2.462	2.255	1.433
Wood Heater	Heat pump - Ducted < 3.75 stars (< 6)	3.163	2.822	1.803	1.718	1.673	2.380	2.173	1.352
Wood Heater	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	3.082	2.740	1.722	1.637	1.592	2.299	2.092	1.271
Wood Heater	Heat pump - Non-ducted < 2.25 stars (< 3)	3.183	2.833	1.820	1.729	1.687	2.392	2.183	1.365
Wood Heater	Heat pump - Non-ducted < 3 stars (< 4.5)	3.138	2.788	1.775	1.684	1.642	2.346	2.138	1.319

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Wood Heater	Heat pump - Non-ducted < 3.75 stars (< 6)	3.070	2.720	1.708	1.616	1.575	2.279	2.070	1.252
Wood Heater	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	3.003	2.653	1.640	1.549	1.507	2.211	2.003	1.184
Wood Heater	Other or none specified	3.299	2.957	1.939	1.854	1.809	2.516	2.309	1.488
Electric - Resistance (Slab)	Evaporative	3.556	3.261	2.158	2.088	2.028	2.795	2.576	1.698
Electric - Resistance (Slab)	Heat pump - Ducted < 2.25 stars (< 3)	4.176	3.892	2.796	2.737	2.667	3.436	3.221	2.346
Electric - Resistance (Slab)	Heat pump - Ducted < 3 stars (< 4.5)	4.122	3.837	2.742	2.682	2.613	3.382	3.166	2.291
Electric - Resistance (Slab)	Heat pump - Ducted < 3.75 stars (< 6)	4.040	3.756	2.660	2.601	2.531	3.300	3.085	2.210
Electric - Resistance (Slab)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	3.959	3.675	2.579	2.520	2.450	3.219	3.004	2.129

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Electric - Resistance (Slab)	Heat pump - Non-ducted < 2.25 stars (< 3)	4.058	3.769	2.675	2.614	2.546	3.314	3.098	2.220
Electric - Resistance (Slab)	Heat pump - Non-ducted < 3 stars (< 4.5)	4.013	3.724	2.630	2.569	2.501	3.269	3.053	2.175
Electric - Resistance (Slab)	Heat pump - Non-ducted < 3.75 stars (< 6)	3.946	3.657	2.563	2.502	2.434	3.201	2.985	2.108
Electric - Resistance (Slab)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	3.878	3.589	2.495	2.434	2.366	3.134	2.918	2.040
Electric - Resistance (Slab)	Other or none specified	4.176	3.892	2.796	2.737	2.667	3.436	3.221	2.346
Other or none specified	Evaporative	2.559	2.156	1.204	1.086	1.070	1.723	1.521	0.739
Other or none specified	Heat pump - Ducted < 2.25 stars (< 3)	3.025	2.653	1.671	1.566	1.533	2.214	2.015	1.227
Other or none specified	Heat pump - Ducted < 3 stars (< 4.5)	2.971	2.599	1.616	1.511	1.479	2.159	1.961	1.172
Other or none specified	Heat pump - Ducted < 3.75 stars (< 6)	2.889	2.517	1.535	1.430	1.398	2.078	1.879	1.091

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Other or none specified	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	2.808	2.436	1.454	1.349	1.316	1.997	1.798	1.010
Other or none specified	Heat pump - Non-ducted < 2.25 stars (< 3)	2.930	2.554	1.573	1.463	1.435	2.114	1.917	1.132
Other or none specified	Heat pump - Non-ducted < 3 stars (< 4.5)	2.885	2.509	1.527	1.418	1.390	2.069	1.872	1.087
Other or none specified	Heat pump - Non-ducted < 3.75 stars (< 6)	2.817	2.441	1.460	1.350	1.323	2.001	1.804	1.020
Other or none specified	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	2.750	2.374	1.392	1.283	1.255	1.933	1.736	0.952
Other or none specified	Other or none specified	3.025	2.653	1.671	1.566	1.533	2.214	2.015	1.227

Table 4.3.3 Whole-of-home efficiency factors E_E (kW/100m²) – climate zone 4 – other heating – South Australia

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Electric - Resistance (Panel)	Evaporative	4.355	3.573	2.549	2.327	2.405	4.138	3.681	2.019
Electric - Resistance (Panel)	Heat pump - Ducted < 2.25 stars (< 3)	5.135	4.377	3.365	3.160	3.219	4.916	4.481	2.849
Electric - Resistance (Panel)	Heat pump - Ducted < 3 stars (< 4.5)	5.066	4.308	3.295	3.090	3.149	4.847	4.412	2.780
Electric - Resistance (Panel)	Heat pump - Ducted < 3.75 stars (< 6)	4.962	4.203	3.191	2.986	3.045	4.742	4.308	2.675
Electric - Resistance (Panel)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	4.857	4.099	3.087	2.882	2.941	4.638	4.203	2.571
Electric - Resistance (Panel)	Heat pump - Non-Ducted < 2.25 stars (< 3)	4.981	4.216	3.208	2.999	3.061	4.757	4.321	2.692
Electric - Resistance (Panel)	Heat pump - Non-Ducted < 3 stars (< 4.5)	4.923	4.159	3.151	2.941	3.003	4.700	4.263	2.634

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Electric - Resistance (Panel)	Heat pump - Non-ducted < 3.75 stars (< 6)	4.837	4.072	3.065	2.855	2.917	4.613	4.177	2.548
Electric - Resistance (Panel)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	4.750	3.986	2.978	2.768	2.830	4.527	4.091	2.462
Electric - Resistance (Panel)	Other or none specified	5.135	4.377	3.365	3.160	3.219	4.916	4.481	2.849
Wood Heater	Evaporative	3.092	2.221	1.361	1.111	1.216	2.753	2.326	0.862
Wood Heater	Heat pump - Ducted < 2.25 stars (< 3)	3.880	3.076	2.153	1.934	2.007	3.601	3.177	1.664
Wood Heater	Heat pump - Ducted < 3 stars (< 4.5)	3.811	3.006	2.083	1.864	1.937	3.532	3.108	1.594
Wood Heater	Heat pump - Ducted < 3.75 stars (< 6)	3.706	2.902	1.979	1.760	1.833	3.428	3.004	1.490
Wood Heater	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	3.602	2.798	1.875	1.656	1.729	3.323	2.900	1.386
Wood Heater	Heat pump - Non-ducted < 2.25 stars (< 3)	3.727	2.910	2.002	1.772	1.854	3.439	3.013	1.496
Wood Heater	Heat pump - Non-ducted < 3 stars (< 4.5)	3.670	2.852	1.945	1.714	1.796	3.381	2.955	1.439

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Wood Heater	Heat pump - Non-ducted < 3.75 stars (< 6)	3.583	2.766	1.858	1.628	1.710	3.295	2.869	1.352
Wood Heater	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	3.497	2.680	1.772	1.542	1.624	3.208	2.782	1.266
Wood Heater	Other or none specified	3.880	3.076	2.153	1.934	2.007	3.601	3.177	1.664
Electric - Resistance (Slab)	Evaporative	4.000	3.227	2.201	1.975	2.046	3.796	3.333	1.678
Electric - Resistance (Slab)	Heat pump - Ducted < 2.25 stars (< 3)	4.800	4.057	3.031	2.828	2.874	4.602	4.161	2.524
Electric - Resistance (Slab)	Heat pump - Ducted < 3 stars (< 4.5)	4.730	3.988	2.961	2.758	2.805	4.533	4.091	2.454
Electric - Resistance (Slab)	Heat pump - Ducted < 3.75 stars (< 6)	4.626	3.884	2.857	2.654	2.701	4.429	3.987	2.350
Electric - Resistance (Slab)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	4.522	3.779	2.753	2.550	2.596	4.324	3.883	2.246

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Electric - Resistance (Slab)	Heat pump - Non-ducted < 2.25 stars (< 3)	4.645	3.895	2.868	2.666	2.717	4.440	3.998	2.359
Electric - Resistance (Slab)	Heat pump - Non-ducted < 3 stars (< 4.5)	4.587	3.837	2.810	2.608	2.659	4.383	3.941	2.301
Electric - Resistance (Slab)	Heat pump - Non-ducted < 3.75 stars (< 6)	4.501	3.751	2.724	2.522	2.573	4.296	3.855	2.215
Electric - Resistance (Slab)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	4.414	3.665	2.637	2.436	2.486	4.210	3.768	2.129
Electric - Resistance (Slab)	Other or none specified	4.800	4.057	3.031	2.828	2.874	4.602	4.161	2.524
Other or none specified	Evaporative	3.095	2.206	1.377	1.123	1.233	2.732	2.311	0.877
Other or none specified	Heat pump - Ducted < 2.25 stars (< 3)	3.690	2.855	1.977	1.734	1.826	3.377	2.954	1.471
Other or none specified	Heat pump - Ducted < 3 stars (< 4.5)	3.621	2.785	1.908	1.665	1.757	3.307	2.885	1.402
Other or none specified	Heat pump - Ducted < 3.75 stars (< 6)	3.517	2.681	1.803	1.561	1.653	3.203	2.781	1.298

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Other or none specified	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	3.412	2.577	1.699	1.457	1.549	3.099	2.676	1.193
Other or none specified	Heat pump - Non-ducted < 2.25 stars (< 3)	3.568	2.724	1.856	1.602	1.701	3.246	2.825	1.355
Other or none specified	Heat pump - Non-ducted < 3 stars (< 4.5)	3.511	2.667	1.799	1.544	1.643	3.188	2.768	1.298
Other or none specified	Heat pump - Non-ducted < 3.75 stars (< 6)	3.425	2.580	1.712	1.458	1.557	3.102	2.681	1.212
Other or none specified	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	3.338	2.494	1.626	1.371	1.470	3.016	2.595	1.125
Other or none specified	Other or none specified	3.690	2.855	1.977	1.734	1.826	3.377	2.954	1.471

Table 4.3.4 Whole-of-home efficiency factors E_E (kW/100m²) – climate zone 4 – other heating – Western Australia

Main type of heater	Main type of cooler	Electric Storage (peak)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Electric - Resistance (Panel)	Evaporative	4.830	3.543	2.799	2.430	2.646	5.285	4.613	2.271
Electric - Resistance (Panel)	Heat pump - Ducted < 2.25 stars (< 3)	5.679	4.441	3.708	3.355	3.551	6.075	5.449	3.195
Electric - Resistance (Panel)	Heat pump - Ducted < 3 stars (< 4.5)	5.603	4.364	3.632	3.278	3.474	5.999	5.373	3.119
Electric - Resistance (Panel)	Heat pump - Ducted < 3.75 stars (< 6)	5.488	4.249	3.517	3.163	3.360	5.884	5.258	3.004
Electric - Resistance (Panel)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	5.373	4.134	3.402	3.048	3.245	5.769	5.143	2.889
Electric - Resistance (Panel)	Heat pump - Non-Ducted < 2.25 stars (< 3)	5.509	4.261	3.532	3.177	3.377	5.903	5.273	3.017
Electric - Resistance (Panel)	Heat pump - Non-Ducted < 3 stars (< 4.5)	5.445	4.197	3.468	3.113	3.313	5.838	5.209	2.952

Main type of heater	Main type of cooler	Electric Storage (peak)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Electric - Resistance (Panel)	Heat pump - Non-ducted < 3.75 stars (< 6)	5.348	4.100	3.371	3.016	3.216	5.742	5.112	2.856
Electric - Resistance (Panel)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	5.251	4.004	3.275	2.919	3.120	5.645	5.016	2.759
Electric - Resistance (Panel)	Other or none specified	5.679	4.441	3.708	3.355	3.551	6.075	5.449	3.195
Wood Heater	Evaporative	3.518	2.177	1.592	1.201	1.419	3.836	3.187	1.081
Wood Heater	Heat pump - Ducted < 2.25 stars (< 3)	4.404	3.133	2.477	2.114	2.310	4.734	4.119	1.977
Wood Heater	Heat pump - Ducted < 3 stars (< 4.5)	4.327	3.056	2.400	2.038	2.234	4.657	4.042	1.900
Wood Heater	Heat pump - Ducted < 3.75 stars (< 6)	4.212	2.941	2.285	1.923	2.119	4.543	3.928	1.785
Wood Heater	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	4.097	2.826	2.170	1.808	2.004	4.428	3.813	1.670
Wood Heater	Heat pump - Non-ducted < 2.25 stars (< 3)	4.232	2.948	2.299	1.937	2.138	4.553	3.937	1.800
Wood Heater	Heat pump - Non-ducted < 3 stars (< 4.5)	4.168	2.884	2.235	1.873	2.073	4.488	3.873	1.736

Main type of heater	Main type of cooler	Electric Storage (peak)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Wood Heater	Heat pump - Non-ducted < 3.75 stars (< 6)	4.071	2.787	2.139	1.777	1.977	4.392	3.776	1.639
Wood Heater	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	3.975	2.690	2.042	1.680	1.880	4.295	3.679	1.543
Wood Heater	Other or none specified	4.404	3.133	2.477	2.114	2.310	4.734	4.119	1.977
Electric - Resistance (Slab)	Evaporative	3.996	2.684	2.007	1.626	1.851	4.403	3.736	1.478
Electric - Resistance (Slab)	Heat pump - Ducted < 2.25 stars (< 3)	4.882	3.634	2.919	2.569	2.758	5.265	4.640	2.415
Electric - Resistance (Slab)	Heat pump - Ducted < 3 stars (< 4.5)	4.805	3.557	2.843	2.493	2.681	5.188	4.563	2.338
Electric - Resistance (Slab)	Heat pump - Ducted < 3.75 stars (< 6)	4.690	3.442	2.728	2.378	2.566	5.073	4.449	2.224
Electric - Resistance (Slab)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	4.575	3.327	2.613	2.263	2.452	4.958	4.334	2.109

Main type of heater	Main type of cooler	Electric Storage (peak)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Electric - Resistance (Slab)	Heat pump - Non-ducted < 2.25 stars (< 3)	4.709	3.452	2.745	2.386	2.583	5.085	4.459	2.230
Electric - Resistance (Slab)	Heat pump - Non-ducted < 3 stars (< 4.5)	4.645	3.388	2.681	2.322	2.519	5.020	4.394	2.165
Electric - Resistance (Slab)	Heat pump - Non-ducted < 3.75 stars (< 6)	4.548	3.291	2.584	2.225	2.422	4.924	4.298	2.069
Electric - Resistance (Slab)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	4.452	3.195	2.488	2.128	2.326	4.827	4.201	1.972
Electric - Resistance (Slab)	Other or none specified	4.882	3.634	2.919	2.569	2.758	5.265	4.640	2.415
Other or none specified	Evaporative	3.354	1.990	1.455	1.077	1.304	3.590	2.961	0.960
Other or none specified	Heat pump - Ducted < 2.25 stars (< 3)	4.019	2.709	2.115	1.741	1.959	4.278	3.672	1.607
Other or none specified	Heat pump - Ducted < 3 stars (< 4.5)	3.942	2.632	2.039	1.665	1.882	4.201	3.595	1.531
Other or none specified	Heat pump - Ducted < 3.75 stars (< 6)	3.827	2.517	1.924	1.550	1.767	4.086	3.480	1.416

Main type of heater	Main type of cooler	Electric Storage (peak)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Other or none specified	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	3.712	2.402	1.809	1.435	1.652	3.971	3.366	1.301
Other or none specified	Heat pump - Non-ducted < 2.25 stars (< 3)	3.885	2.563	1.984	1.595	1.823	4.133	3.527	1.475
Other or none specified	Heat pump - Non-ducted < 3 stars (< 4.5)	3.820	2.499	1.920	1.531	1.759	4.069	3.463	1.411
Other or none specified	Heat pump - Non-ducted < 3.75 stars (< 6)	3.724	2.402	1.823	1.434	1.663	3.972	3.366	1.314
Other or none specified	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	3.627	2.306	1.727	1.337	1.566	3.875	3.270	1.217
Other or none specified	Other or none specified	4.019	2.709	2.115	1.741	1.959	4.278	3.672	1.607

2.4.5 Climate zone 5

Table 5.1.1 Whole-of-home efficiency factors E_E (kW/100m²) – climate zone 5 – gas heating – New South Wales

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas – ducted < 3 Stars	Evaporative	4.040	2.927	2.138	1.812	1.963	3.860	3.355	1.575
Gas – ducted < 3 Stars	Heat pump - Ducted < 2.25 stars (< 3)	4.373	3.287	2.485	2.165	2.302	4.212	3.711	1.940
Gas – ducted < 3 Stars	Heat pump - Ducted < 3 stars (< 4.5)	4.334	3.248	2.446	2.126	2.262	4.173	3.672	1.900
Gas – ducted < 3 Stars	Heat pump - Ducted < 3.75 stars (< 6)	4.275	3.189	2.387	2.068	2.204	4.114	3.613	1.842
Gas – ducted < 3 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	4.216	3.131	2.329	2.009	2.145	4.055	3.554	1.783
Gas – ducted < 3 Stars	HP - Non-ducted < 2.25 stars (< 3)	4.305	3.215	2.414	2.094	2.228	4.140	3.638	1.866
Gas – ducted < 3 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	4.272	3.183	2.381	2.062	2.196	4.107	3.606	1.833
Gas – ducted < 3 Stars	Heat pump - Non-ducted < 3.75 stars (< 6)	4.223	3.134	2.332	2.013	2.147	4.058	3.557	1.784
Gas – ducted < 3 Stars	Heat pump - Non-Ducted ≥ 3.75 stars (≥ 6)	4.175	3.085	2.283	1.964	2.098	4.009	3.508	1.735

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas – ducted < 3 Stars	Other or none specified	4.373	3.287	2.485	2.165	2.302	4.212	3.711	1.940
Gas – ducted < 4.5 Stars	Evaporative	3.908	2.795	2.005	1.680	1.831	3.727	3.223	1.443
Gas – ducted < 4.5 Stars	Heat pump - Ducted < 2.25 stars (< 3)	4.240	3.155	2.353	2.033	2.169	4.079	3.578	1.807
Gas – ducted < 4.5 Stars	Heat pump - Ducted < 3 stars (< 4.5)	4.201	3.115	2.313	1.994	2.130	4.040	3.539	1.768
Gas – ducted < 4.5 Stars	Heat pump - Ducted < 3.75 stars (< 6)	4.142	3.057	2.255	1.935	2.071	3.981	3.480	1.709
Gas – ducted < 4.5 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	4.084	2.998	2.196	1.877	2.013	3.923	3.422	1.651
Gas – ducted < 4.5 Stars	Heat pump - Non-ducted < 2.25 stars (< 3)	4.172	3.083	2.281	1.962	2.096	4.007	3.506	1.733
Gas – ducted < 4.5 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	4.140	3.050	2.249	1.929	2.063	3.975	3.473	1.701
Gas – ducted < 4.5 Stars	Heat pump - Non-ducted < 3.75 stars (< 6)	4.091	3.001	2.200	1.880	2.014	3.926	3.424	1.652
Gas – ducted < 4.5 Stars	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	4.042	2.952	2.151	1.832	1.966	3.877	3.375	1.603

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas – ducted < 4.5 Stars	Other or none specified	4.240	3.155	2.353	2.033	2.169	4.079	3.578	1.807
Gas – ducted < 6 Stars	Evaporative	3.709	2.596	1.807	1.481	1.632	3.528	3.024	1.244
Gas – ducted < 6 Stars	Heat pump - Ducted < 2.25 stars (< 3)	4.041	2.956	2.154	1.834	1.970	3.880	3.379	1.608
Gas – ducted < 6 Stars	Heat pump - Ducted < 3 stars (< 4.5)	4.002	2.917	2.115	1.795	1.931	3.841	3.340	1.569
Gas – ducted < 6 Stars	Heat pump - Ducted < 3.75 stars (< 6)	3.944	2.858	2.056	1.736	1.873	3.783	3.282	1.511
Gas – ducted < 6 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	3.885	2.799	1.997	1.678	1.814	3.724	3.223	1.452
Gas – ducted < 6 Stars	Heat pump - Non-ducted < 2.25 stars (< 3)	3.974	2.884	2.083	1.763	1.897	3.809	3.307	1.534
Gas – ducted < 6 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	3.941	2.851	2.050	1.731	1.865	3.776	3.274	1.502
Gas – ducted < 6 Stars	Heat pump - Non-ducted < 3.75 stars (< 6)	3.892	2.802	2.001	1.682	1.816	3.727	3.225	1.453
Gas – ducted < 6 Stars	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	3.843	2.754	1.952	1.633	1.767	3.678	3.177	1.404

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas – ducted < 6 Stars	Other or none specified	4.041	2.956	2.154	1.834	1.970	3.880	3.379	1.608
Gas – ducted ≥ 6 Stars	Evaporative	3.510	2.397	1.608	1.282	1.433	3.330	2.825	1.045
Gas – ducted ≥ 6 Stars	Heat pump - Ducted < 2.25 stars (< 3)	3.843	2.757	1.955	1.635	1.772	3.682	3.181	1.410
Gas – ducted ≥ 6 Stars	Heat pump - Ducted < 3 stars (< 4.5)	3.803	2.718	1.916	1.596	1.732	3.642	3.142	1.370
Gas – ducted ≥ 6 Stars	Heat pump - Ducted < 3.75 stars (< 6)	3.745	2.659	1.857	1.538	1.674	3.584	3.083	1.312
Gas – ducted ≥ 6 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	3.686	2.601	1.799	1.479	1.615	3.525	3.024	1.253
Gas – ducted ≥ 6 Stars	Heat pump - Non-ducted < 2.25 stars (< 3)	3.775	2.685	1.884	1.564	1.698	3.610	3.108	1.336
Gas – ducted ≥ 6 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	3.742	2.653	1.851	1.532	1.666	3.577	3.076	1.303
Gas – ducted ≥ 6 Stars	Heat pump - Non-ducted < 3.75 stars (< 6)	3.693	2.604	1.802	1.483	1.617	3.528	3.027	1.254
Gas – ducted ≥ 6 Stars	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	3.645	2.555	1.753	1.434	1.568	3.479	2.978	1.205

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas – ducted ≥ 6 Stars	Other or none specified	3.843	2.757	1.955	1.635	1.772	3.682	3.181	1.410
Gas - non ducted < 3 Stars	Evaporative	3.701	2.567	1.820	1.471	1.636	3.483	2.986	1.266
Gas - non ducted < 3 Stars	Heat pump - Ducted < 2.25 stars (< 3)	4.033	2.923	2.153	1.839	1.980	3.840	3.344	1.614
Gas - non ducted < 3 Stars	Heat pump - Ducted < 3 stars (< 4.5)	3.994	2.884	2.114	1.800	1.941	3.801	3.305	1.575
Gas - non ducted < 3 Stars	Heat pump - Ducted < 3.75 stars (< 6)	3.936	2.825	2.055	1.741	1.883	3.743	3.247	1.516
Gas - non ducted < 3 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	3.877	2.766	1.996	1.683	1.824	3.684	3.188	1.457
Gas - non ducted < 3 Stars	Heat pump - Non-ducted < 2.25 stars (< 3)	3.967	2.850	2.086	1.764	1.911	3.768	3.273	1.536
Gas - non ducted < 3 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	3.934	2.817	2.054	1.732	1.878	3.735	3.240	1.504
Gas - non ducted < 3 Stars	Heat pump - Non-ducted < 3.75 stars (< 6)	3.886	2.769	2.005	1.683	1.829	3.686	3.191	1.455
Gas - non ducted < 3 Stars	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	3.837	2.720	1.956	1.634	1.780	3.638	3.142	1.406

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas - non ducted < 3 Stars	Other or none specified	4.033	2.923	2.153	1.839	1.980	3.840	3.344	1.614
Gas - non ducted < 4.5 Stars	Evaporative	3.633	2.500	1.753	1.403	1.568	3.415	2.919	1.198
Gas - non ducted < 4.5 Stars	Heat pump - Ducted < 2.25 stars (< 3)	3.966	2.855	2.085	1.772	1.913	3.773	3.277	1.546
Gas - non ducted < 4.5 Stars	Heat pump - Ducted < 3 stars (< 4.5)	3.927	2.816	2.046	1.732	1.874	3.734	3.238	1.507
Gas - non ducted < 4.5 Stars	Heat pump - Ducted < 3.75 stars (< 6)	3.868	2.757	1.987	1.674	1.815	3.675	3.179	1.448
Gas - non ducted < 4.5 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	3.809	2.699	1.929	1.615	1.757	3.616	3.120	1.390
Gas - non ducted < 4.5 Stars	Heat pump - Non-ducted < 2.25 stars (< 3)	3.900	2.783	2.019	1.697	1.843	3.700	3.205	1.469
Gas - non ducted < 4.5 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	3.867	2.750	1.986	1.664	1.811	3.668	3.173	1.436

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas - non ducted < 4.5 Stars	Heat pump - Non-ducted < 3.75 stars (< 6)	3.818	2.701	1.937	1.615	1.762	3.619	3.124	1.387
Gas - non ducted < 4.5 Stars	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	3.769	2.652	1.888	1.566	1.713	3.570	3.075	1.338
Gas - non ducted < 4.5 Stars	Other or none specified	3.966	2.855	2.085	1.772	1.913	3.773	3.277	1.546
Gas - non ducted < 6 Stars	Evaporative	3.532	2.398	1.651	1.302	1.467	3.314	2.817	1.097
Gas - non ducted < 6 Stars	Heat pump - Ducted < 2.25 stars (< 3)	3.864	2.754	1.984	1.670	1.812	3.671	3.176	1.445
Gas - non ducted < 6 Stars	Heat pump - Ducted < 3 stars (< 4.5)	3.825	2.715	1.945	1.631	1.772	3.632	3.136	1.406
Gas - non ducted < 6 Stars	Heat pump - Ducted < 3.75 stars (< 6)	3.767	2.656	1.886	1.573	1.714	3.574	3.078	1.347
Gas - non ducted < 6 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	3.708	2.598	1.827	1.514	1.655	3.515	3.019	1.289
Gas - non ducted < 6 Stars	Heat pump - Non-Ducted < 2.25 stars (< 3)	3.798	2.681	1.917	1.596	1.742	3.599	3.104	1.367

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas - non ducted < 6 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	3.766	2.649	1.885	1.563	1.709	3.567	3.071	1.335
Gas - non ducted < 6 Stars	Heat pump - Non-ducted < 3.75 stars (< 6)	3.717	2.600	1.836	1.514	1.661	3.518	3.022	1.286
Gas - non ducted < 6 Stars	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	3.668	2.551	1.787	1.465	1.612	3.469	2.974	1.237
Gas - non ducted < 6 Stars	Other or none specified	3.864	2.754	1.984	1.670	1.812	3.671	3.176	1.445
Gas - non ducted ≥ 6 Stars	Evaporative	3.431	2.297	1.550	1.200	1.366	3.213	2.716	0.995
Gas - non ducted ≥ 6 Stars	Heat pump - Ducted < 2.25 stars (< 3)	3.763	2.653	1.883	1.569	1.710	3.570	3.074	1.344
Gas - non ducted ≥ 6 Stars	Heat pump - Ducted < 3 stars (< 4.5)	3.724	2.613	1.843	1.530	1.671	3.531	3.035	1.305
Gas - non ducted ≥ 6 Stars	Heat pump - Ducted < 3.75 stars (< 6)	3.665	2.555	1.785	1.471	1.613	3.472	2.976	1.246
Gas - non ducted ≥ 6 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	3.607	2.496	1.726	1.413	1.554	3.414	2.918	1.187
Gas - non ducted ≥ 6 Stars	Heat pump - Non-ducted < 2.25 stars (< 3)	3.697	2.580	1.816	1.494	1.641	3.498	3.003	1.266

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas - non ducted ≥ 6 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	3.664	2.547	1.784	1.462	1.608	3.465	2.970	1.234
Gas - non ducted ≥ 6 Stars	Heat pump - Non-Ducted < 3.75 stars (< 6)	3.615	2.498	1.735	1.413	1.559	3.416	2.921	1.185
Gas - non ducted ≥ 6 Stars	Heat pump - Non-Ducted ≥ 3.75 stars (≥ 6)	3.567	2.450	1.686	1.364	1.510	3.367	2.872	1.136
Gas - non ducted ≥ 6 Stars	Other or none specified	3.763	2.653	1.883	1.569	1.710	3.570	3.074	1.344

Table 5.1.2 Whole-of-home efficiency factors E_E (kW/100m²) – climate zone 5 – gas heating – Queensland

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas – ducted < 3 Stars	Evaporative	4.271	3.841	2.650	2.541	2.492	5.519	4.803	2.299
Gas – ducted < 3 Stars	Heat pump - Ducted < 2.25 stars (< 3)	4.567	4.145	2.950	2.848	2.794	5.807	5.099	2.611
Gas – ducted < 3 Stars	Heat pump - Ducted < 3 stars (< 4.5)	4.533	4.111	2.915	2.813	2.760	5.772	5.064	2.576
Gas – ducted < 3 Stars	Heat pump - Ducted < 3.75 stars (< 6)	4.481	4.059	2.863	2.761	2.708	5.720	5.012	2.524
Gas – ducted < 3 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	4.429	4.007	2.811	2.709	2.656	5.668	4.960	2.472
Gas – ducted < 3 Stars	HP - Non-ducted < 2.25 stars (< 3)	4.509	4.084	2.889	2.787	2.734	5.747	5.038	2.549
Gas – ducted < 3 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	4.479	4.055	2.860	2.758	2.705	5.718	5.009	2.519
Gas – ducted < 3 Stars	Heat pump - Non-ducted < 3.75 stars (< 6)	4.436	4.011	2.817	2.714	2.662	5.674	4.965	2.476
Gas – ducted < 3 Stars	Heat pump - Non-Ducted ≥ 3.75 stars (≥ 6)	4.392	3.968	2.773	2.671	2.618	5.630	4.922	2.432
Gas – ducted < 3 Stars	Other or none specified	4.567	4.145	2.950	2.848	2.794	5.807	5.099	2.611

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas – ducted < 4.5 Stars	Evaporative	4.086	3.656	2.465	2.356	2.308	5.334	4.618	2.114
Gas – ducted < 4.5 Stars	Heat pump - Ducted < 2.25 stars (< 3)	4.382	3.961	2.765	2.663	2.609	5.622	4.914	2.426
Gas – ducted < 4.5 Stars	Heat pump - Ducted < 3 stars (< 4.5)	4.348	3.926	2.730	2.628	2.575	5.587	4.879	2.391
Gas – ducted < 4.5 Stars	Heat pump - Ducted < 3.75 stars (< 6)	4.296	3.874	2.678	2.576	2.523	5.535	4.827	2.339
Gas – ducted < 4.5 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	4.244	3.822	2.626	2.524	2.471	5.483	4.775	2.287
Gas – ducted < 4.5 Stars	Heat pump - Non-ducted < 2.25 stars (< 3)	4.324	3.899	2.705	2.602	2.549	5.562	4.853	2.364
Gas – ducted < 4.5 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	4.295	3.870	2.675	2.573	2.520	5.533	4.824	2.335
Gas – ducted < 4.5 Stars	Heat pump - Non-ducted < 3.75 stars (< 6)	4.251	3.826	2.632	2.529	2.477	5.489	4.780	2.291
Gas – ducted < 4.5 Stars	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	4.207	3.783	2.588	2.486	2.433	5.445	4.737	2.247
Gas – ducted < 4.5 Stars	Other or none specified	4.382	3.961	2.765	2.663	2.609	5.622	4.914	2.426

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas – ducted < 6 Stars	Evaporative	3.809	3.379	2.188	2.078	2.030	5.056	4.341	1.837
Gas – ducted < 6 Stars	Heat pump - Ducted < 2.25 stars (< 3)	4.105	3.683	2.488	2.386	2.332	5.344	4.637	2.149
Gas – ducted < 6 Stars	Heat pump - Ducted < 3 stars (< 4.5)	4.070	3.648	2.453	2.351	2.297	5.310	4.602	2.114
Gas – ducted < 6 Stars	Heat pump - Ducted < 3.75 stars (< 6)	4.018	3.596	2.401	2.299	2.245	5.258	4.550	2.062
Gas – ducted < 6 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	3.966	3.544	2.349	2.247	2.193	5.206	4.498	2.010
Gas – ducted < 6 Stars	Heat pump - Non-ducted < 2.25 stars (< 3)	4.046	3.622	2.427	2.325	2.272	5.284	4.576	2.086
Gas – ducted < 6 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	4.017	3.593	2.398	2.296	2.243	5.255	4.547	2.057
Gas – ducted < 6 Stars	Heat pump - Non-ducted < 3.75 stars (< 6)	3.973	3.549	2.354	2.252	2.199	5.212	4.503	2.013
Gas – ducted < 6 Stars	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	3.930	3.505	2.311	2.208	2.155	5.168	4.459	1.970
Gas – ducted < 6 Stars	Other or none specified	4.105	3.683	2.488	2.386	2.332	5.344	4.637	2.149

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas – ducted ≥ 6 Stars	Evaporative	3.532	3.101	1.911	1.801	1.753	4.779	4.063	1.560
Gas – ducted ≥ 6 Stars	Heat pump - Ducted < 2.25 stars (< 3)	3.828	3.406	2.210	2.108	2.054	5.067	4.359	1.871
Gas – ducted ≥ 6 Stars	Heat pump - Ducted < 3 stars (< 4.5)	3.793	3.371	2.175	2.074	2.020	5.032	4.325	1.837
Gas – ducted ≥ 6 Stars	Heat pump - Ducted < 3.75 stars (< 6)	3.741	3.319	2.123	2.022	1.968	4.980	4.273	1.785
Gas – ducted ≥ 6 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	3.689	3.267	2.071	1.970	1.916	4.928	4.221	1.733
Gas – ducted ≥ 6 Stars	Heat pump - Non-ducted < 2.25 stars (< 3)	3.769	3.344	2.150	2.047	1.995	5.007	4.298	1.809
Gas – ducted ≥ 6 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	3.740	3.315	2.121	2.018	1.965	4.978	4.269	1.780
Gas – ducted ≥ 6 Stars	Heat pump - Non-ducted < 3.75 stars (< 6)	3.696	3.272	2.077	1.975	1.922	4.934	4.225	1.736
Gas – ducted ≥ 6 Stars	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	3.652	3.228	2.033	1.931	1.878	4.891	4.182	1.692
Gas – ducted ≥ 6 Stars	Other or none specified	3.828	3.406	2.210	2.108	2.054	5.067	4.359	1.871

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas - non ducted < 3 Stars	Evaporative	3.829	3.369	2.207	2.085	2.049	5.037	4.324	1.854
Gas - non ducted < 3 Stars	Heat pump - Ducted < 2.25 stars (< 3)	4.122	3.676	2.513	2.396	2.351	5.330	4.625	2.160
Gas - non ducted < 3 Stars	Heat pump - Ducted < 3 stars (< 4.5)	4.088	3.641	2.478	2.362	2.317	5.295	4.590	2.126
Gas - non ducted < 3 Stars	Heat pump - Ducted < 3.75 stars (< 6)	4.036	3.589	2.426	2.310	2.265	5.243	4.538	2.074
Gas - non ducted < 3 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	3.984	3.537	2.374	2.258	2.213	5.191	4.486	2.022
Gas - non ducted < 3 Stars	Heat pump - Non-ducted < 2.25 stars (< 3)	4.065	3.614	2.451	2.333	2.289	5.269	4.564	2.099
Gas - non ducted < 3 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	4.035	3.585	2.422	2.304	2.260	5.240	4.535	2.069
Gas - non ducted < 3 Stars	Heat pump - Non-ducted < 3.75 stars (< 6)	3.992	3.541	2.379	2.260	2.216	5.197	4.491	2.026
Gas - non ducted < 3 Stars	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	3.948	3.498	2.335	2.217	2.173	5.153	4.447	1.982
Gas - non ducted < 3 Stars	Other or none specified	4.122	3.676	2.513	2.396	2.351	5.330	4.625	2.160

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas - non ducted < 4.5 Stars	Evaporative	3.733	3.273	2.110	1.988	1.952	4.941	4.228	1.758
Gas - non ducted < 4.5 Stars	Heat pump - Ducted < 2.25 stars (< 3)	4.026	3.579	2.416	2.300	2.255	5.233	4.528	2.064
Gas - non ducted < 4.5 Stars	Heat pump - Ducted < 3 stars (< 4.5)	3.991	3.545	2.381	2.265	2.220	5.199	4.494	2.029
Gas - non ducted < 4.5 Stars	Heat pump - Ducted < 3.75 stars (< 6)	3.939	3.493	2.329	2.213	2.168	5.147	4.442	1.977
Gas - non ducted < 4.5 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	3.887	3.441	2.277	2.161	2.116	5.095	4.390	1.925
Gas - non ducted < 4.5 Stars	Heat pump - Non-ducted < 2.25 stars (< 3)	3.968	3.518	2.355	2.236	2.192	5.173	4.467	2.002
Gas - non ducted < 4.5 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	3.939	3.489	2.326	2.207	2.163	5.144	4.438	1.973
Gas - non ducted < 4.5 Stars	Heat pump - Non-ducted < 3.75 stars (< 6)	3.895	3.445	2.282	2.164	2.120	5.100	4.394	1.929

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas - non ducted < 4.5 Stars	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	3.852	3.401	2.239	2.120	2.076	5.056	4.351	1.886
Gas - non ducted < 4.5 Stars	Other or none specified	4.026	3.579	2.416	2.300	2.255	5.233	4.528	2.064
Gas - non ducted < 6 Stars	Evaporative	3.588	3.128	1.966	1.843	1.807	4.796	4.083	1.613
Gas - non ducted < 6 Stars	Heat pump - Ducted < 2.25 stars (< 3)	3.881	3.434	2.271	2.155	2.110	5.089	4.384	1.919
Gas - non ducted < 6 Stars	Heat pump - Ducted < 3 stars (< 4.5)	3.846	3.400	2.237	2.120	2.075	5.054	4.349	1.884
Gas - non ducted < 6 Stars	Heat pump - Ducted < 3.75 stars (< 6)	3.794	3.348	2.185	2.068	2.023	5.002	4.297	1.832
Gas - non ducted < 6 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	3.742	3.296	2.133	2.016	1.971	4.950	4.245	1.780
Gas - non ducted < 6 Stars	Heat pump - Non-Ducted < 2.25 stars (< 3)	3.823	3.373	2.210	2.092	2.048	5.028	4.322	1.857
Gas - non ducted < 6 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	3.794	3.344	2.181	2.062	2.019	4.999	4.293	1.828

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas - non ducted < 6 Stars	Heat pump - Non-ducted < 3.75 stars (< 6)	3.750	3.300	2.137	2.019	1.975	4.955	4.250	1.784
Gas - non ducted < 6 Stars	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	3.707	3.256	2.094	1.975	1.931	4.912	4.206	1.741
Gas - non ducted < 6 Stars	Other or none specified	3.881	3.434	2.271	2.155	2.110	5.089	4.384	1.919
Gas - non ducted ≥ 6 Stars	Evaporative	3.443	2.983	1.821	1.699	1.662	4.651	3.938	1.468
Gas - non ducted ≥ 6 Stars	Heat pump - Ducted < 2.25 stars (< 3)	3.736	3.290	2.126	2.010	1.965	4.944	4.239	1.774
Gas - non ducted ≥ 6 Stars	Heat pump - Ducted < 3 stars (< 4.5)	3.702	3.255	2.092	1.975	1.930	4.909	4.204	1.739
Gas - non ducted ≥ 6 Stars	Heat pump - Ducted < 3.75 stars (< 6)	3.650	3.203	2.040	1.923	1.878	4.857	4.152	1.688
Gas - non ducted ≥ 6 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	3.598	3.151	1.988	1.871	1.826	4.805	4.100	1.636
Gas - non ducted ≥ 6 Stars	Heat pump - Non-ducted < 2.25 stars (< 3)	3.678	3.228	2.065	1.947	1.903	4.883	4.177	1.712
Gas - non ducted ≥ 6 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	3.649	3.199	2.036	1.918	1.874	4.854	4.148	1.683

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas - non ducted ≥ 6 Stars	Heat pump - Non-Ducted < 3.75 stars (< 6)	3.605	3.155	1.992	1.874	1.830	4.810	4.105	1.640
Gas - non ducted ≥ 6 Stars	Heat pump - Non-Ducted ≥ 3.75 stars (≥ 6)	3.562	3.112	1.949	1.830	1.786	4.767	4.061	1.596
Gas - non ducted ≥ 6 Stars	Other or none specified	3.736	3.290	2.126	2.010	1.965	4.944	4.239	1.774

Table 5.1.3 Whole-of-home efficiency factors E_E (kW/100m²) – climate zone 5 – gas heating – South Australia

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas – ducted < 3 Stars	Evaporative	4.023	3.196	2.061	1.815	1.911	3.840	3.327	1.482
Gas – ducted < 3 Stars	Heat pump - Ducted < 2.25 stars (< 3)	4.469	3.662	2.542	2.308	2.383	4.296	3.794	1.993
Gas – ducted < 3 Stars	Heat pump - Ducted < 3 stars (< 4.5)	4.415	3.608	2.488	2.255	2.329	4.243	3.741	1.939
Gas – ducted < 3 Stars	Heat pump - Ducted < 3.75 stars (< 6)	4.334	3.528	2.407	2.174	2.249	4.162	3.660	1.859
Gas – ducted < 3 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	4.254	3.447	2.327	2.094	2.169	4.082	3.580	1.778
Gas – ducted < 3 Stars	HP - Non-ducted < 2.25 stars (< 3)	4.375	3.565	2.441	2.203	2.280	4.202	3.697	1.888
Gas – ducted < 3 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	4.331	3.521	2.396	2.159	2.236	4.158	3.653	1.844
Gas – ducted < 3 Stars	Heat pump - Non-ducted < 3.75 stars (< 6)	4.265	3.455	2.330	2.093	2.169	4.092	3.587	1.778
Gas – ducted < 3 Stars	Heat pump - Non-Ducted ≥ 3.75 stars (≥ 6)	4.199	3.389	2.264	2.026	2.103	4.026	3.521	1.712
Gas – ducted < 3 Stars	Other or none specified	4.469	3.662	2.542	2.308	2.383	4.296	3.794	1.993

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas – ducted < 4.5 Stars	Evaporative	3.892	3.064	1.930	1.683	1.780	3.708	3.195	1.350
Gas – ducted < 4.5 Stars	Heat pump - Ducted < 2.25 stars (< 3)	4.337	3.530	2.410	2.177	2.251	4.164	3.663	1.861
Gas – ducted < 4.5 Stars	Heat pump - Ducted < 3 stars (< 4.5)	4.283	3.477	2.356	2.123	2.198	4.111	3.609	1.808
Gas – ducted < 4.5 Stars	Heat pump - Ducted < 3.75 stars (< 6)	4.203	3.396	2.276	2.043	2.117	4.030	3.529	1.727
Gas – ducted < 4.5 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	4.122	3.316	2.195	1.962	2.037	3.950	3.448	1.647
Gas – ducted < 4.5 Stars	Heat pump - Non-ducted < 2.25 stars (< 3)	4.243	3.433	2.309	2.071	2.148	4.071	3.565	1.756
Gas – ducted < 4.5 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	4.199	3.389	2.265	2.027	2.104	4.027	3.521	1.712
Gas – ducted < 4.5 Stars	Heat pump - Non-ducted < 3.75 stars (< 6)	4.133	3.323	2.199	1.961	2.038	3.960	3.455	1.646
Gas – ducted < 4.5 Stars	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	4.067	3.257	2.132	1.895	1.972	3.894	3.389	1.580
Gas – ducted < 4.5 Stars	Other or none specified	4.337	3.530	2.410	2.177	2.251	4.164	3.663	1.861

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas – ducted < 6 Stars	Evaporative	3.694	2.866	1.732	1.486	1.582	3.511	2.997	1.153
Gas – ducted < 6 Stars	Heat pump - Ducted < 2.25 stars (< 3)	4.139	3.333	2.212	1.979	2.054	3.967	3.465	1.664
Gas – ducted < 6 Stars	Heat pump - Ducted < 3 stars (< 4.5)	4.086	3.279	2.159	1.925	2.000	3.913	3.411	1.610
Gas – ducted < 6 Stars	Heat pump - Ducted < 3.75 stars (< 6)	4.005	3.199	2.078	1.845	1.920	3.833	3.331	1.530
Gas – ducted < 6 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	3.925	3.118	1.998	1.765	1.839	3.752	3.251	1.449
Gas – ducted < 6 Stars	Heat pump - Non-ducted < 2.25 stars (< 3)	4.046	3.236	2.111	1.873	1.950	3.873	3.368	1.559
Gas – ducted < 6 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	4.002	3.192	2.067	1.829	1.906	3.829	3.323	1.515
Gas – ducted < 6 Stars	Heat pump - Non-ducted < 3.75 stars (< 6)	3.936	3.126	2.001	1.763	1.840	3.763	3.257	1.448
Gas – ducted < 6 Stars	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	3.869	3.059	1.935	1.697	1.774	3.697	3.191	1.382
Gas – ducted < 6 Stars	Other or none specified	4.139	3.333	2.212	1.979	2.054	3.967	3.465	1.664

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas – ducted ≥ 6 Stars	Evaporative	3.496	2.669	1.534	1.288	1.384	3.313	2.800	0.955
Gas – ducted ≥ 6 Stars	Heat pump - Ducted < 2.25 stars (< 3)	3.942	3.135	2.015	1.781	1.856	3.769	3.267	1.466
Gas – ducted ≥ 6 Stars	Heat pump - Ducted < 3 stars (< 4.5)	3.888	3.081	1.961	1.728	1.803	3.716	3.214	1.412
Gas – ducted ≥ 6 Stars	Heat pump - Ducted < 3.75 stars (< 6)	3.808	3.001	1.880	1.647	1.722	3.635	3.133	1.332
Gas – ducted ≥ 6 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	3.727	2.920	1.800	1.567	1.642	3.555	3.053	1.251
Gas – ducted ≥ 6 Stars	Heat pump - Non-ducted < 2.25 stars (< 3)	3.848	3.038	1.914	1.676	1.753	3.675	3.170	1.361
Gas – ducted ≥ 6 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	3.804	2.994	1.869	1.632	1.709	3.631	3.126	1.317
Gas – ducted ≥ 6 Stars	Heat pump - Non-ducted < 3.75 stars (< 6)	3.738	2.928	1.803	1.566	1.642	3.565	3.060	1.251
Gas – ducted ≥ 6 Stars	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	3.672	2.862	1.737	1.499	1.576	3.499	2.994	1.185
Gas – ducted ≥ 6 Stars	Other or none specified	3.942	3.135	2.015	1.781	1.856	3.769	3.267	1.466

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas - non ducted < 3 Stars	Evaporative	3.682	2.830	1.745	1.472	1.584	3.468	2.959	1.189
Gas - non ducted < 3 Stars	Heat pump - Ducted < 2.25 stars (< 3)	4.129	3.307	2.212	1.984	2.062	3.933	3.434	1.674
Gas - non ducted < 3 Stars	Heat pump - Ducted < 3 stars (< 4.5)	4.075	3.253	2.159	1.931	2.008	3.880	3.381	1.620
Gas - non ducted < 3 Stars	Heat pump - Ducted < 3.75 stars (< 6)	3.995	3.173	2.078	1.850	1.928	3.799	3.300	1.540
Gas - non ducted < 3 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	3.914	3.092	1.998	1.770	1.848	3.719	3.220	1.459
Gas - non ducted < 3 Stars	Heat pump - Non-ducted < 2.25 stars (< 3)	4.037	3.208	2.115	1.880	1.965	3.837	3.336	1.564
Gas - non ducted < 3 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	3.993	3.164	2.071	1.836	1.921	3.793	3.292	1.520
Gas - non ducted < 3 Stars	Heat pump - Non-ducted < 3.75 stars (< 6)	3.927	3.098	2.005	1.770	1.854	3.727	3.226	1.454
Gas - non ducted < 3 Stars	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	3.861	3.032	1.939	1.704	1.788	3.661	3.160	1.388
Gas - non ducted < 3 Stars	Other or none specified	4.129	3.307	2.212	1.984	2.062	3.933	3.434	1.674

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas - non ducted < 4.5 Stars	Evaporative	3.616	2.763	1.678	1.406	1.518	3.401	2.892	1.122
Gas - non ducted < 4.5 Stars	Heat pump - Ducted < 2.25 stars (< 3)	4.062	3.240	2.146	1.918	1.995	3.867	3.368	1.607
Gas - non ducted < 4.5 Stars	Heat pump - Ducted < 3 stars (< 4.5)	4.008	3.187	2.092	1.864	1.942	3.813	3.314	1.554
Gas - non ducted < 4.5 Stars	Heat pump - Ducted < 3.75 stars (< 6)	3.928	3.106	2.012	1.784	1.861	3.733	3.234	1.473
Gas - non ducted < 4.5 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	3.848	3.026	1.931	1.703	1.781	3.652	3.153	1.393
Gas - non ducted < 4.5 Stars	Heat pump - Non-ducted < 2.25 stars (< 3)	3.971	3.142	2.048	1.814	1.898	3.771	3.270	1.497
Gas - non ducted < 4.5 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	3.926	3.098	2.004	1.769	1.854	3.727	3.226	1.453
Gas - non ducted < 4.5 Stars	Heat pump - Non-ducted < 3.75 stars (< 6)	3.860	3.031	1.938	1.703	1.788	3.660	3.159	1.387

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas - non ducted < 4.5 Stars	Heat pump - Non-ducted \geq 3.75 stars (\geq 6)	3.794	2.965	1.872	1.637	1.722	3.594	3.093	1.321
Gas - non ducted < 4.5 Stars	Other or none specified	4.062	3.240	2.146	1.918	1.995	3.867	3.368	1.607
Gas - non ducted < 6 Stars	Evaporative	3.516	2.663	1.578	1.306	1.418	3.301	2.792	1.022
Gas - non ducted < 6 Stars	Heat pump - Ducted < 2.25 stars (< 3)	3.962	3.140	2.046	1.818	1.896	3.767	3.268	1.507
Gas - non ducted < 6 Stars	Heat pump - Ducted < 3 stars (< 4.5)	3.909	3.087	1.992	1.764	1.842	3.713	3.214	1.454
Gas - non ducted < 6 Stars	Heat pump - Ducted < 3.75 stars (< 6)	3.828	3.006	1.912	1.684	1.762	3.633	3.134	1.373
Gas - non ducted < 6 Stars	Heat pump - Ducted \geq 3.75 stars (\geq 6)	3.748	2.926	1.831	1.603	1.681	3.552	3.053	1.293
Gas - non ducted < 6 Stars	Heat pump - Non-Ducted < 2.25 stars (< 3)	3.871	3.042	1.948	1.714	1.798	3.671	3.170	1.397
Gas - non ducted < 6 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	3.827	2.998	1.904	1.670	1.754	3.627	3.126	1.353

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas - non ducted < 6 Stars	Heat pump - Non-ducted < 3.75 stars (< 6)	3.760	2.932	1.838	1.603	1.688	3.561	3.060	1.287
Gas - non ducted < 6 Stars	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	3.694	2.865	1.772	1.537	1.622	3.494	2.993	1.221
Gas - non ducted < 6 Stars	Other or none specified	3.962	3.140	2.046	1.818	1.896	3.767	3.268	1.507
Gas - non ducted ≥ 6 Stars	Evaporative	3.416	2.564	1.479	1.206	1.318	3.202	2.692	0.922
Gas - non ducted ≥ 6 Stars	Heat pump - Ducted < 2.25 stars (< 3)	3.862	3.040	1.946	1.718	1.796	3.667	3.168	1.408
Gas - non ducted ≥ 6 Stars	Heat pump - Ducted < 3 stars (< 4.5)	3.809	2.987	1.892	1.664	1.742	3.613	3.114	1.354
Gas - non ducted ≥ 6 Stars	Heat pump - Ducted < 3.75 stars (< 6)	3.728	2.906	1.812	1.584	1.662	3.533	3.034	1.274
Gas - non ducted ≥ 6 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	3.648	2.826	1.732	1.504	1.581	3.452	2.953	1.193
Gas - non ducted ≥ 6 Stars	Heat pump - Non-ducted < 2.25 stars (< 3)	3.771	2.942	1.849	1.614	1.698	3.571	3.070	1.298
Gas - non ducted ≥ 6 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	3.727	2.898	1.804	1.570	1.654	3.527	3.026	1.254

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas - non ducted ≥ 6 Stars	Heat pump - Non-Ducted < 3.75 stars (< 6)	3.661	2.832	1.738	1.504	1.588	3.461	2.960	1.187
Gas - non ducted ≥ 6 Stars	Heat pump - Non-Ducted ≥ 3.75 stars (≥ 6)	3.594	2.765	1.672	1.437	1.522	3.394	2.894	1.121
Gas - non ducted ≥ 6 Stars	Other or none specified	3.862	3.040	1.946	1.718	1.796	3.667	3.168	1.408

Table 5.1.4 Whole-of-home efficiency factors E_E (kW/100m²) – climate zone 5 – gas heating – Western Australia

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas – ducted < 3 Stars	Evaporative	4.869	3.724	2.929	2.597	2.731	5.464	4.776	2.403
Gas – ducted < 3 Stars	Heat pump - Ducted < 2.25 stars (< 3)	5.555	4.442	3.636	3.321	3.437	6.167	5.489	3.126
Gas – ducted < 3 Stars	Heat pump - Ducted < 3 stars (< 4.5)	5.479	4.366	3.560	3.245	3.361	6.091	5.413	3.049
Gas – ducted < 3 Stars	Heat pump - Ducted < 3.75 stars (< 6)	5.365	4.252	3.445	3.130	3.247	5.977	5.298	2.935
Gas – ducted < 3 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	5.250	4.137	3.331	3.016	3.132	5.862	5.184	2.821
Gas – ducted < 3 Stars	HP - Non-ducted < 2.25 stars (< 3)	5.417	4.298	3.494	3.173	3.293	6.024	5.345	2.978
Gas – ducted < 3 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	5.354	4.235	3.431	3.110	3.230	5.961	5.282	2.914
Gas – ducted < 3 Stars	Heat pump - Non-ducted < 3.75 stars (< 6)	5.259	4.140	3.336	3.015	3.135	5.866	5.187	2.820
Gas – ducted < 3 Stars	Heat pump - Non-Ducted ≥ 3.75 stars (≥ 6)	5.165	4.045	3.242	2.920	3.041	5.771	5.092	2.725
Gas – ducted < 3 Stars	Other or none specified	5.555	4.442	3.636	3.321	3.437	6.167	5.489	3.126

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas – ducted < 4.5 Stars	Evaporative	4.646	3.502	2.707	2.375	2.509	5.241	4.553	2.180
Gas – ducted < 4.5 Stars	Heat pump - Ducted < 2.25 stars (< 3)	5.332	4.220	3.413	3.098	3.215	5.945	5.266	2.903
Gas – ducted < 4.5 Stars	Heat pump - Ducted < 3 stars (< 4.5)	5.256	4.144	3.337	3.022	3.138	5.869	5.190	2.827
Gas – ducted < 4.5 Stars	Heat pump - Ducted < 3.75 stars (< 6)	5.142	4.029	3.223	2.908	3.024	5.754	5.076	2.712
Gas – ducted < 4.5 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	5.028	3.915	3.108	2.793	2.910	5.640	4.961	2.598
Gas – ducted < 4.5 Stars	Heat pump - Non-ducted < 2.25 stars (< 3)	5.195	4.075	3.272	2.950	3.070	5.801	5.122	2.755
Gas – ducted < 4.5 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	5.131	4.012	3.208	2.887	3.007	5.738	5.059	2.692
Gas – ducted < 4.5 Stars	Heat pump - Non-ducted < 3.75 stars (< 6)	5.037	3.917	3.114	2.792	2.913	5.644	4.964	2.597
Gas – ducted < 4.5 Stars	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	4.942	3.823	3.019	2.698	2.818	5.549	4.870	2.502
Gas – ducted < 4.5 Stars	Other or none specified	5.332	4.220	3.413	3.098	3.215	5.945	5.266	2.903

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas – ducted < 6 Stars	Evaporative	4.312	3.168	2.373	2.041	2.175	4.907	4.219	1.846
Gas – ducted < 6 Stars	Heat pump - Ducted < 2.25 stars (< 3)	4.999	3.886	3.079	2.764	2.881	5.611	4.932	2.569
Gas – ducted < 6 Stars	Heat pump - Ducted < 3 stars (< 4.5)	4.922	3.810	3.003	2.688	2.804	5.535	4.856	2.493
Gas – ducted < 6 Stars	Heat pump - Ducted < 3.75 stars (< 6)	4.808	3.695	2.889	2.574	2.690	5.420	4.742	2.379
Gas – ducted < 6 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	4.694	3.581	2.774	2.459	2.576	5.306	4.627	2.264
Gas – ducted < 6 Stars	Heat pump - Non-ducted < 2.25 stars (< 3)	4.861	3.741	2.938	2.616	2.737	5.467	4.788	2.421
Gas – ducted < 6 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	4.797	3.678	2.874	2.553	2.673	5.404	4.725	2.358
Gas – ducted < 6 Stars	Heat pump - Non-ducted < 3.75 stars (< 6)	4.703	3.584	2.780	2.458	2.579	5.310	4.630	2.263
Gas – ducted < 6 Stars	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	4.608	3.489	2.685	2.364	2.484	5.215	4.536	2.168
Gas – ducted < 6 Stars	Other or none specified	4.999	3.886	3.079	2.764	2.881	5.611	4.932	2.569

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas – ducted ≥ 6 Stars	Evaporative	3.978	2.834	2.039	1.707	1.841	4.573	3.885	1.512
Gas – ducted ≥ 6 Stars	Heat pump - Ducted < 2.25 stars (< 3)	4.665	3.552	2.746	2.430	2.547	5.277	4.598	2.235
Gas – ducted ≥ 6 Stars	Heat pump - Ducted < 3 stars (< 4.5)	4.588	3.476	2.669	2.354	2.470	5.201	4.522	2.159
Gas – ducted ≥ 6 Stars	Heat pump - Ducted < 3.75 stars (< 6)	4.474	3.361	2.555	2.240	2.356	5.086	4.408	2.045
Gas – ducted ≥ 6 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	4.360	3.247	2.441	2.125	2.242	4.972	4.293	1.930
Gas – ducted ≥ 6 Stars	Heat pump - Non-ducted < 2.25 stars (< 3)	4.527	3.407	2.604	2.282	2.403	5.133	4.454	2.087
Gas – ducted ≥ 6 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	4.464	3.344	2.540	2.219	2.339	5.070	4.391	2.024
Gas – ducted ≥ 6 Stars	Heat pump - Non-ducted < 3.75 stars (< 6)	4.369	3.250	2.446	2.124	2.245	4.976	4.297	1.929
Gas – ducted ≥ 6 Stars	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	4.274	3.155	2.351	2.030	2.150	4.881	4.202	1.835
Gas – ducted ≥ 6 Stars	Other or none specified	4.665	3.552	2.746	2.430	2.547	5.277	4.598	2.235

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas - non ducted < 3 Stars	Evaporative	4.312	3.146	2.384	2.038	2.180	4.864	4.182	1.855
Gas - non ducted < 3 Stars	Heat pump - Ducted < 2.25 stars (< 3)	4.996	3.867	3.088	2.764	2.883	5.576	4.901	2.578
Gas - non ducted < 3 Stars	Heat pump - Ducted < 3 stars (< 4.5)	4.919	3.791	3.011	2.688	2.807	5.500	4.825	2.502
Gas - non ducted < 3 Stars	Heat pump - Ducted < 3.75 stars (< 6)	4.805	3.676	2.897	2.573	2.693	5.386	4.710	2.387
Gas - non ducted < 3 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	4.691	3.562	2.783	2.459	2.578	5.271	4.596	2.273
Gas - non ducted < 3 Stars	Heat pump - Non-ducted < 2.25 stars (< 3)	4.859	3.720	2.941	2.617	2.743	5.432	4.757	2.429
Gas - non ducted < 3 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	4.796	3.657	2.878	2.554	2.679	5.369	4.693	2.366
Gas - non ducted < 3 Stars	Heat pump - Non-ducted < 3.75 stars (< 6)	4.701	3.562	2.783	2.459	2.585	5.274	4.599	2.271
Gas - non ducted < 3 Stars	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	4.607	3.468	2.689	2.365	2.490	5.180	4.504	2.176
Gas - non ducted < 3 Stars	Other or none specified	4.996	3.867	3.088	2.764	2.883	5.576	4.901	2.578

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas - non ducted < 4.5 Stars	Evaporative	4.198	3.032	2.270	1.924	2.067	4.750	4.068	1.741
Gas - non ducted < 4.5 Stars	Heat pump - Ducted < 2.25 stars (< 3)	4.882	3.753	2.974	2.650	2.769	5.462	4.787	2.464
Gas - non ducted < 4.5 Stars	Heat pump - Ducted < 3 stars (< 4.5)	4.805	3.677	2.898	2.574	2.693	5.386	4.711	2.388
Gas - non ducted < 4.5 Stars	Heat pump - Ducted < 3.75 stars (< 6)	4.691	3.562	2.783	2.460	2.579	5.272	4.597	2.273
Gas - non ducted < 4.5 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	4.577	3.448	2.669	2.345	2.464	5.157	4.482	2.159
Gas - non ducted < 4.5 Stars	Heat pump - Non-ducted < 2.25 stars (< 3)	4.745	3.606	2.827	2.503	2.629	5.318	4.643	2.315
Gas - non ducted < 4.5 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	4.682	3.543	2.764	2.440	2.566	5.255	4.579	2.252
Gas - non ducted < 4.5 Stars	Heat pump - Non-ducted < 3.75 stars (< 6)	4.587	3.448	2.669	2.346	2.471	5.161	4.485	2.157

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas - non ducted < 4.5 Stars	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	4.493	3.354	2.575	2.251	2.376	5.066	4.390	2.062
Gas - non ducted < 4.5 Stars	Other or none specified	4.882	3.753	2.974	2.650	2.769	5.462	4.787	2.464
Gas - non ducted < 6 Stars	Evaporative	4.028	2.861	2.099	1.753	1.896	4.579	3.897	1.570
Gas - non ducted < 6 Stars	Heat pump - Ducted < 2.25 stars (< 3)	4.711	3.582	2.803	2.479	2.599	5.291	4.616	2.293
Gas - non ducted < 6 Stars	Heat pump - Ducted < 3 stars (< 4.5)	4.635	3.506	2.727	2.403	2.522	5.215	4.540	2.217
Gas - non ducted < 6 Stars	Heat pump - Ducted < 3.75 stars (< 6)	4.520	3.392	2.612	2.289	2.408	5.101	4.426	2.102
Gas - non ducted < 6 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	4.406	3.277	2.498	2.174	2.294	4.986	4.311	1.988
Gas - non ducted < 6 Stars	Heat pump - Non-Ducted < 2.25 stars (< 3)	4.574	3.435	2.656	2.332	2.458	5.148	4.472	2.144
Gas - non ducted < 6 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	4.511	3.372	2.593	2.269	2.395	5.084	4.409	2.081

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas - non ducted < 6 Stars	Heat pump - Non-ducted < 3.75 stars (< 6)	4.416	3.278	2.499	2.175	2.300	4.990	4.314	1.986
Gas - non ducted < 6 Stars	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	4.322	3.183	2.404	2.080	2.205	4.895	4.219	1.892
Gas - non ducted < 6 Stars	Other or none specified	4.711	3.582	2.803	2.479	2.599	5.291	4.616	2.293
Gas - non ducted ≥ 6 Stars	Evaporative	3.857	2.690	1.928	1.582	1.725	4.408	3.726	1.399
Gas - non ducted ≥ 6 Stars	Heat pump - Ducted < 2.25 stars (< 3)	4.540	3.411	2.632	2.308	2.428	5.120	4.445	2.122
Gas - non ducted ≥ 6 Stars	Heat pump - Ducted < 3 stars (< 4.5)	4.464	3.335	2.556	2.232	2.351	5.044	4.369	2.046
Gas - non ducted ≥ 6 Stars	Heat pump - Ducted < 3.75 stars (< 6)	4.349	3.221	2.441	2.118	2.237	4.930	4.255	1.932
Gas - non ducted ≥ 6 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	4.235	3.106	2.327	2.003	2.123	4.816	4.140	1.817
Gas - non ducted ≥ 6 Stars	Heat pump - Non-ducted < 2.25 stars (< 3)	4.403	3.265	2.485	2.162	2.287	4.977	4.301	1.973
Gas - non ducted ≥ 6 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	4.340	3.201	2.422	2.098	2.224	4.914	4.238	1.910

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas - non ducted ≥ 6 Stars	Heat pump - Non-Ducted < 3.75 stars (< 6)	4.246	3.107	2.328	2.004	2.129	4.819	4.143	1.815
Gas - non ducted ≥ 6 Stars	Heat pump - Non-Ducted ≥ 3.75 stars (≥ 6)	4.151	3.012	2.233	1.909	2.034	4.724	4.048	1.721
Gas - non ducted ≥ 6 Stars	Other or none specified	4.540	3.411	2.632	2.308	2.428	5.120	4.445	2.122

Table 5.2.1 Whole-of-home efficiency factors E_E (kW/100m²) – climate zone 5 – heat pump heating – New South Wales

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Ducted < 2.25 Stars (< 3)	Evaporative	3.141	1.952	1.314	0.971	1.145	2.821	2.352	0.776
Heat pump - Ducted < 2.25 Stars (< 3)	Heat pump - Ducted < 2.25 stars (< 3)	3.464	2.305	1.649	1.315	1.461	3.179	2.705	1.134
Heat pump - Ducted < 2.25 Stars (< 3)	Heat pump - Ducted < 3 stars (< 4.5)	3.425	2.266	1.610	1.276	1.422	3.140	2.666	1.095
Heat pump - Ducted < 2.25 Stars (< 3)	Heat pump - Ducted < 3.75 stars (< 6)	3.366	2.208	1.551	1.218	1.363	3.081	2.607	1.037
Heat pump - Ducted < 2.25 Stars (< 3)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	3.307	2.149	1.492	1.159	1.304	3.022	2.548	0.978
Heat pump - Ducted < 2.25 Stars (< 3)	HP - Non-ducted < 2.25 stars (< 3)	3.400	2.231	1.577	1.248	1.395	3.107	2.634	1.065
Heat pump - Ducted < 2.25 Stars (< 3)	Heat pump - Non-ducted < 3 stars (< 4.5)	3.367	2.199	1.544	1.216	1.363	3.075	2.602	1.033

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Ducted < 2.25 Stars (< 3)	Heat pump - Non-ducted < 3.75 stars (< 6)	3.318	2.150	1.495	1.167	1.314	3.026	2.553	0.984
Heat pump - Ducted < 2.25 Stars (< 3)	Heat pump - Non-Ducted ≥ 3.75 stars (≥ 6)	3.269	2.101	1.446	1.118	1.265	2.977	2.504	0.935
Heat pump - Ducted < 2.25 Stars (< 3)	Other or none specified	3.464	2.305	1.649	1.315	1.461	3.179	2.705	1.134
Heat pump - Ducted < 3.0 Stars (< 4.5)	Evaporative	3.100	1.911	1.273	0.929	1.103	2.780	2.311	0.735
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted < 2.25 stars (< 3)	3.423	2.264	1.608	1.274	1.419	3.137	2.664	1.093
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted < 3 stars (< 4.5)	3.383	2.225	1.568	1.235	1.380	3.098	2.624	1.054
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted < 3.75 stars (< 6)	3.325	2.166	1.510	1.176	1.322	3.040	2.566	0.995
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	3.266	2.108	1.451	1.118	1.263	2.981	2.507	0.937

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted < 2.25 stars (< 3)	3.358	2.190	1.535	1.207	1.354	3.066	2.593	1.024
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted < 3 stars (< 4.5)	3.326	2.157	1.503	1.174	1.321	3.033	2.560	0.992
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted < 3.75 stars (< 6)	3.277	2.108	1.454	1.126	1.272	2.984	2.511	0.943
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	3.228	2.060	1.405	1.077	1.223	2.936	2.463	0.894
Heat pump - Ducted < 3.0 Stars (< 4.5)	Other or none specified	3.423	2.264	1.608	1.274	1.419	3.137	2.664	1.093
Heat pump - Ducted < 3.75 Stars (< 6)	Evaporative	3.038	1.849	1.211	0.868	1.041	2.718	2.249	0.673
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Ducted < 2.25 stars (< 3)	3.361	2.202	1.546	1.212	1.358	3.075	2.602	1.031
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Ducted < 3 stars (< 4.5)	3.322	2.163	1.507	1.173	1.319	3.036	2.563	0.992

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Ducted < 3.75 stars (< 6)	3.263	2.105	1.448	1.114	1.260	2.978	2.504	0.934
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	3.204	2.046	1.389	1.056	1.201	2.919	2.445	0.875
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Non-ducted < 2.25 stars (< 3)	3.297	2.128	1.474	1.145	1.292	3.004	2.531	0.962
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Non-ducted < 3 stars (< 4.5)	3.264	2.095	1.441	1.113	1.259	2.971	2.498	0.930
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Non-ducted < 3.75 stars (< 6)	3.215	2.047	1.392	1.064	1.210	2.923	2.450	0.881
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	3.166	1.998	1.343	1.015	1.162	2.874	2.401	0.832
Heat pump - Ducted < 3.75 Stars (< 6)	Other or none specified	3.361	2.202	1.546	1.212	1.358	3.075	2.602	1.031
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Evaporative	2.976	1.787	1.149	0.806	0.980	2.656	2.187	0.611

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted < 2.25 stars (< 3)	3.299	2.140	1.484	1.150	1.296	3.014	2.540	0.969
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted < 3 stars (< 4.5)	3.260	2.101	1.445	1.111	1.257	2.974	2.501	0.930
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted < 3.75 stars (< 6)	3.201	2.043	1.386	1.053	1.198	2.916	2.442	0.872
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	3.142	1.984	1.327	0.994	1.139	2.857	2.383	0.813
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-ducted < 2.25 stars (< 3)	3.235	2.066	1.412	1.083	1.230	2.942	2.469	0.900
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-ducted < 3 stars (< 4.5)	3.202	2.034	1.379	1.051	1.197	2.910	2.437	0.868
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-ducted < 3.75 stars (< 6)	3.153	1.985	1.330	1.002	1.149	2.861	2.388	0.819
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	3.104	1.936	1.281	0.953	1.100	2.812	2.339	0.770

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Ducted \geq 3.75 Stars (\geq 6)	Other or none specified	3.299	2.140	1.484	1.150	1.296	3.014	2.540	0.969
Heat pump - Non Ducted $<$ 2.25 Stars ($<$ 3)	Evaporative	3.065	1.872	1.252	0.901	1.079	2.737	2.268	0.712
Heat pump - Non Ducted $<$ 2.25 Stars ($<$ 3)	Heat pump - Ducted $<$ 2.25 stars ($<$ 3)	3.390	2.224	1.578	1.251	1.396	3.094	2.624	1.071
Heat pump - Non Ducted $<$ 2.25 Stars ($<$ 3)	Heat pump - Ducted $<$ 3 stars ($<$ 4.5)	3.351	2.185	1.539	1.212	1.357	3.055	2.585	1.031
Heat pump - Non Ducted $<$ 2.25 Stars ($<$ 3)	Heat pump - Ducted $<$ 3.75 stars ($<$ 6)	3.292	2.126	1.481	1.154	1.298	2.996	2.526	0.973
Heat pump - Non Ducted $<$ 2.25 Stars ($<$ 3)	Heat pump - Ducted \geq 3.75 stars (\geq 6)	3.233	2.067	1.422	1.095	1.240	2.938	2.467	0.914
Heat pump - Non Ducted $<$ 2.25 Stars ($<$ 3)	Heat pump - Non-ducted $<$ 2.25 stars ($<$ 3)	3.325	2.149	1.505	1.183	1.334	3.022	2.552	1.001
Heat pump - Non Ducted $<$ 2.25 Stars ($<$ 3)	Heat pump - Non-ducted $<$ 3 stars ($<$ 4.5)	3.292	2.116	1.473	1.151	1.301	2.990	2.520	0.968

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Non Ducted < 2.25 Stars (< 3)	Heat pump - Non-ducted < 3.75 stars (< 6)	3.244	2.067	1.424	1.102	1.252	2.941	2.471	0.919
Heat pump - Non Ducted < 2.25 Stars (< 3)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	3.195	2.018	1.375	1.053	1.203	2.892	2.422	0.870
Heat pump - Non Ducted < 2.25 Stars (< 3)	Other or none specified	3.390	2.224	1.578	1.251	1.396	3.094	2.624	1.071
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Evaporative	3.030	1.838	1.217	0.866	1.044	2.703	2.234	0.677
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted < 2.25 stars (< 3)	3.355	2.189	1.544	1.217	1.362	3.060	2.589	1.036
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted < 3 stars (< 4.5)	3.316	2.150	1.505	1.178	1.323	3.020	2.550	0.997
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted < 3.75 stars (< 6)	3.257	2.091	1.446	1.119	1.264	2.962	2.491	0.938
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	3.199	2.033	1.387	1.060	1.205	2.903	2.433	0.880

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted < 2.25 stars (< 3)	3.291	2.114	1.471	1.149	1.299	2.988	2.518	0.966
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted < 3 stars (< 4.5)	3.258	2.082	1.438	1.116	1.267	2.955	2.485	0.934
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted < 3.75 stars (< 6)	3.209	2.033	1.389	1.067	1.218	2.906	2.436	0.885
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	3.160	1.984	1.340	1.019	1.169	2.858	2.387	0.836
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Other or none specified	3.355	2.189	1.544	1.217	1.362	3.060	2.589	1.036
Heat pump - Non Ducted < 3.75 Stars (< 6)	Evaporative	2.979	1.786	1.166	0.815	0.993	2.651	2.182	0.625
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Ducted < 2.25 stars (< 3)	3.303	2.137	1.492	1.165	1.310	3.008	2.537	0.984
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Ducted < 3 stars (< 4.5)	3.264	2.098	1.453	1.126	1.271	2.969	2.498	0.945

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Ducted < 3.75 stars (< 6)	3.206	2.040	1.394	1.067	1.212	2.910	2.440	0.887
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	3.147	1.981	1.336	1.009	1.154	2.851	2.381	0.828
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Non-Ducted < 2.25 stars (< 3)	3.239	2.063	1.419	1.097	1.248	2.936	2.466	0.915
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Non-ducted < 3 stars (< 4.5)	3.206	2.030	1.386	1.065	1.215	2.904	2.433	0.882
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Non-ducted < 3.75 stars (< 6)	3.157	1.981	1.337	1.016	1.166	2.855	2.385	0.833
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	3.108	1.932	1.289	0.967	1.117	2.806	2.336	0.784
Heat pump - Non Ducted < 3.75 Stars (< 6)	Other or none specified	3.303	2.137	1.492	1.165	1.310	3.008	2.537	0.984
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Evaporative	2.927	1.734	1.114	0.763	0.941	2.599	2.130	0.574

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Non Ducted \geq 3.75 Stars (\geq 6)	Heat pump - Ducted < 2.25 stars (< 3)	3.252	2.086	1.440	1.113	1.258	2.956	2.486	0.933
Heat pump - Non Ducted \geq 3.75 Stars (\geq 6)	Heat pump - Ducted < 3 stars (< 4.5)	3.213	2.047	1.401	1.074	1.219	2.917	2.447	0.893
Heat pump - Non Ducted \geq 3.75 Stars (\geq 6)	Heat pump - Ducted < 3.75 stars (< 6)	3.154	1.988	1.343	1.016	1.160	2.858	2.388	0.835
Heat pump - Non Ducted \geq 3.75 Stars (\geq 6)	Heat pump - Ducted \geq 3.75 stars (\geq 6)	3.095	1.929	1.284	0.957	1.102	2.800	2.329	0.776
Heat pump - Non Ducted \geq 3.75 Stars (\geq 6)	Heat pump - Non-ducted < 2.25 stars (< 3)	3.187	2.011	1.367	1.045	1.196	2.884	2.414	0.863
Heat pump - Non Ducted \geq 3.75 Stars (\geq 6)	Heat pump - Non-ducted < 3 stars (< 4.5)	3.154	1.978	1.335	1.013	1.163	2.852	2.382	0.830
Heat pump - Non Ducted \geq 3.75 Stars (\geq 6)	Heat pump - Non-Ducted < 3.75 stars (< 6)	3.106	1.929	1.286	0.964	1.114	2.803	2.333	0.781
Heat pump - Non Ducted \geq 3.75 Stars (\geq 6)	Heat pump - Non-Ducted \geq 3.75 stars (\geq 6)	3.057	1.880	1.237	0.915	1.065	2.754	2.284	0.732

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Non Ducted \geq 3.75 Stars (\geq 6)	Other or none specified	3.252	2.086	1.440	1.113	1.258	2.956	2.486	0.933

Table 5.2.2 Whole-of-home efficiency factors E_E (kW/100m²) – climate zone 5 – heat pump heating – Queensland

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Ducted < 2.25 Stars (< 3)	Evaporative	2.776	2.215	1.215	1.044	1.054	3.823	3.132	0.844
Heat pump - Ducted < 2.25 Stars (< 3)	Heat pump - Ducted < 2.25 stars (< 3)	3.070	2.524	1.503	1.346	1.344	4.125	3.437	1.157
Heat pump - Ducted < 2.25 Stars (< 3)	Heat pump - Ducted < 3 stars (< 4.5)	3.035	2.489	1.468	1.312	1.309	4.090	3.402	1.122
Heat pump - Ducted < 2.25 Stars (< 3)	Heat pump - Ducted < 3.75 stars (< 6)	2.983	2.437	1.416	1.260	1.257	4.038	3.350	1.070
Heat pump - Ducted < 2.25 Stars (< 3)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	2.931	2.385	1.364	1.208	1.205	3.986	3.298	1.018
Heat pump - Ducted < 2.25 Stars (< 3)	HP - Non-ducted < 2.25 stars (< 3)	3.011	2.462	1.441	1.287	1.287	4.064	3.376	1.096
Heat pump - Ducted < 2.25 Stars (< 3)	Heat pump - Non-ducted < 3 stars (< 4.5)	2.982	2.433	1.412	1.258	1.258	4.035	3.347	1.067

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Ducted < 2.25 Stars (< 3)	Heat pump - Non-ducted < 3.75 stars (< 6)	2.938	2.389	1.368	1.214	1.214	3.991	3.303	1.023
Heat pump - Ducted < 2.25 Stars (< 3)	Heat pump - Non-Ducted ≥ 3.75 stars (≥ 6)	2.895	2.346	1.324	1.171	1.171	3.948	3.260	0.980
Heat pump - Ducted < 2.25 Stars (< 3)	Other or none specified	3.070	2.524	1.503	1.346	1.344	4.125	3.437	1.157
Heat pump - Ducted < 3.0 Stars (< 4.5)	Evaporative	2.741	2.180	1.180	1.009	1.019	3.788	3.097	0.809
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted < 2.25 stars (< 3)	3.035	2.489	1.468	1.311	1.309	4.090	3.402	1.122
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted < 3 stars (< 4.5)	3.000	2.454	1.433	1.277	1.274	4.055	3.367	1.087
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted < 3.75 stars (< 6)	2.948	2.402	1.381	1.225	1.222	4.003	3.315	1.035
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	2.896	2.350	1.329	1.173	1.170	3.951	3.263	0.983

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted < 2.25 stars (< 3)	2.976	2.427	1.406	1.252	1.252	4.029	3.341	1.061
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted < 3 stars (< 4.5)	2.947	2.398	1.377	1.223	1.223	4.000	3.312	1.032
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted < 3.75 stars (< 6)	2.903	2.354	1.333	1.179	1.179	3.956	3.268	0.988
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	2.860	2.311	1.289	1.136	1.136	3.913	3.225	0.945
Heat pump - Ducted < 3.0 Stars (< 4.5)	Other or none specified	3.035	2.489	1.468	1.311	1.309	4.090	3.402	1.122
Heat pump - Ducted < 3.75 Stars (< 6)	Evaporative	2.688	2.127	1.127	0.957	0.967	3.736	3.044	0.756
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Ducted < 2.25 stars (< 3)	2.982	2.436	1.415	1.259	1.256	4.037	3.349	1.069
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Ducted < 3 stars (< 4.5)	2.947	2.402	1.381	1.224	1.222	4.003	3.315	1.035

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Ducted < 3.75 stars (< 6)	2.895	2.350	1.329	1.172	1.170	3.951	3.263	0.983
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	2.843	2.298	1.277	1.120	1.118	3.899	3.211	0.931
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Non-ducted < 2.25 stars (< 3)	2.923	2.374	1.353	1.199	1.200	3.976	3.289	1.008
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Non-ducted < 3 stars (< 4.5)	2.894	2.345	1.324	1.170	1.170	3.947	3.259	0.979
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Non-ducted < 3.75 stars (< 6)	2.851	2.302	1.280	1.127	1.127	3.904	3.216	0.936
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	2.807	2.258	1.237	1.083	1.083	3.860	3.172	0.892
Heat pump - Ducted < 3.75 Stars (< 6)	Other or none specified	2.982	2.436	1.415	1.259	1.256	4.037	3.349	1.069
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Evaporative	2.636	2.075	1.075	0.904	0.914	3.683	2.992	0.704

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted < 2.25 stars (< 3)	2.929	2.384	1.363	1.206	1.204	3.985	3.297	1.017
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted < 3 stars (< 4.5)	2.895	2.349	1.328	1.171	1.169	3.950	3.262	0.982
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted < 3.75 stars (< 6)	2.843	2.297	1.276	1.119	1.117	3.898	3.210	0.930
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	2.791	2.245	1.224	1.067	1.065	3.846	3.158	0.878
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-ducted < 2.25 stars (< 3)	2.871	2.322	1.301	1.147	1.147	3.924	3.236	0.956
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-ducted < 3 stars (< 4.5)	2.842	2.293	1.271	1.118	1.118	3.895	3.207	0.927
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-ducted < 3.75 stars (< 6)	2.798	2.249	1.228	1.074	1.074	3.851	3.163	0.883
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	2.754	2.205	1.184	1.030	1.030	3.807	3.120	0.839

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Ducted \geq 3.75 Stars (\geq 6)	Other or none specified	2.929	2.384	1.363	1.206	1.204	3.985	3.297	1.017
Heat pump - Non Ducted $<$ 2.25 Stars ($<$ 3)	Evaporative	2.716	2.147	1.160	0.985	0.998	3.754	3.064	0.785
Heat pump - Non Ducted $<$ 2.25 Stars ($<$ 3)	Heat pump - Ducted $<$ 2.25 stars ($<$ 3)	3.008	2.458	1.445	1.291	1.290	4.057	3.370	1.101
Heat pump - Non Ducted $<$ 2.25 Stars ($<$ 3)	Heat pump - Ducted $<$ 3 stars ($<$ 4.5)	2.973	2.423	1.411	1.256	1.256	4.023	3.335	1.067
Heat pump - Non Ducted $<$ 2.25 Stars ($<$ 3)	Heat pump - Ducted $<$ 3.75 stars ($<$ 6)	2.921	2.371	1.359	1.204	1.204	3.971	3.283	1.015
Heat pump - Non Ducted $<$ 2.25 Stars ($<$ 3)	Heat pump - Ducted \geq 3.75 stars (\geq 6)	2.869	2.319	1.307	1.152	1.152	3.919	3.231	0.963
Heat pump - Non Ducted $<$ 2.25 Stars ($<$ 3)	Heat pump - Non-ducted $<$ 2.25 stars ($<$ 3)	2.949	2.396	1.385	1.231	1.233	3.996	3.309	1.040
Heat pump - Non Ducted $<$ 2.25 Stars ($<$ 3)	Heat pump - Non-ducted $<$ 3 stars ($<$ 4.5)	2.920	2.367	1.356	1.202	1.204	3.967	3.280	1.011

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Non Ducted < 2.25 Stars (< 3)	Heat pump - Non-ducted < 3.75 stars (< 6)	2.876	2.323	1.312	1.158	1.160	3.923	3.236	0.967
Heat pump - Non Ducted < 2.25 Stars (< 3)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	2.832	2.279	1.268	1.115	1.117	3.880	3.192	0.924
Heat pump - Non Ducted < 2.25 Stars (< 3)	Other or none specified	3.008	2.458	1.445	1.291	1.290	4.057	3.370	1.101
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Evaporative	2.686	2.118	1.131	0.956	0.968	3.725	3.034	0.755
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted < 2.25 stars (< 3)	2.978	2.429	1.416	1.261	1.261	4.028	3.340	1.072
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted < 3 stars (< 4.5)	2.944	2.394	1.381	1.227	1.226	3.993	3.306	1.037
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted < 3.75 stars (< 6)	2.892	2.342	1.329	1.175	1.174	3.941	3.254	0.985
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	2.840	2.290	1.277	1.123	1.122	3.889	3.202	0.933

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted < 2.25 stars (< 3)	2.919	2.366	1.356	1.202	1.204	3.967	3.279	1.011
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted < 3 stars (< 4.5)	2.890	2.337	1.326	1.172	1.175	3.938	3.250	0.982
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted < 3.75 stars (< 6)	2.846	2.293	1.283	1.129	1.131	3.894	3.207	0.938
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	2.803	2.250	1.239	1.085	1.087	3.850	3.163	0.894
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Other or none specified	2.978	2.429	1.416	1.261	1.261	4.028	3.340	1.072
Heat pump - Non Ducted < 3.75 Stars (< 6)	Evaporative	2.642	2.074	1.087	0.912	0.924	3.681	2.990	0.711
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Ducted < 2.25 stars (< 3)	2.934	2.384	1.372	1.217	1.217	3.984	3.296	1.028
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Ducted < 3 stars (< 4.5)	2.899	2.350	1.337	1.183	1.182	3.949	3.261	0.993

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Ducted < 3.75 stars (< 6)	2.847	2.298	1.285	1.131	1.130	3.897	3.209	0.941
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	2.796	2.246	1.233	1.079	1.078	3.845	3.157	0.889
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Non-Ducted < 2.25 stars (< 3)	2.875	2.322	1.311	1.158	1.160	3.923	3.235	0.967
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Non-ducted < 3 stars (< 4.5)	2.846	2.293	1.282	1.128	1.131	3.894	3.206	0.937
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Non-ducted < 3.75 stars (< 6)	2.802	2.249	1.239	1.085	1.087	3.850	3.163	0.894
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	2.759	2.206	1.195	1.041	1.043	3.806	3.119	0.850
Heat pump - Non Ducted < 3.75 Stars (< 6)	Other or none specified	2.934	2.384	1.372	1.217	1.217	3.984	3.296	1.028
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Evaporative	2.598	2.030	1.043	0.868	0.880	3.637	2.946	0.667

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted < 2.25 stars (< 3)	2.890	2.340	1.328	1.173	1.173	3.940	3.252	0.984
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted < 3 stars (< 4.5)	2.855	2.306	1.293	1.139	1.138	3.905	3.217	0.949
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted < 3.75 stars (< 6)	2.803	2.254	1.241	1.087	1.086	3.853	3.165	0.897
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	2.751	2.202	1.189	1.035	1.034	3.801	3.113	0.845
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-ducted < 2.25 stars (< 3)	2.831	2.278	1.267	1.113	1.116	3.879	3.191	0.923
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-ducted < 3 stars (< 4.5)	2.802	2.249	1.238	1.084	1.087	3.850	3.162	0.893
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-Ducted < 3.75 stars (< 6)	2.758	2.205	1.195	1.041	1.043	3.806	3.118	0.850
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-Ducted ≥ 3.75 stars (≥ 6)	2.715	2.162	1.151	0.997	0.999	3.762	3.075	0.806

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Non Ducted \geq 3.75 Stars (\geq 6)	Other or none specified	2.890	2.340	1.328	1.173	1.173	3.940	3.252	0.984

Table 5.2.3 Whole-of-home efficiency factors E_E (kW/100m²) – climate zone 5 – heat pump heating – South Australia

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Ducted < 2.25 Stars (< 3)	Evaporative	3.148	2.206	1.290	1.013	1.146	2.800	2.324	0.747
Heat pump - Ducted < 2.25 Stars (< 3)	Heat pump - Ducted < 2.25 stars (< 3)	3.588	2.686	1.745	1.469	1.587	3.272	2.799	1.229
Heat pump - Ducted < 2.25 Stars (< 3)	Heat pump - Ducted < 3 stars (< 4.5)	3.535	2.632	1.691	1.415	1.533	3.218	2.746	1.175
Heat pump - Ducted < 2.25 Stars (< 3)	Heat pump - Ducted < 3.75 stars (< 6)	3.454	2.552	1.611	1.335	1.453	3.138	2.665	1.095
Heat pump - Ducted < 2.25 Stars (< 3)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	3.374	2.471	1.530	1.254	1.372	3.058	2.585	1.014
Heat pump - Ducted < 2.25 Stars (< 3)	HP - Non-ducted < 2.25 stars (< 3)	3.495	2.587	1.645	1.378	1.483	3.174	2.701	1.136
Heat pump - Ducted < 2.25 Stars (< 3)	Heat pump - Non-ducted < 3 stars (< 4.5)	3.451	2.542	1.601	1.334	1.439	3.130	2.657	1.092

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Ducted < 2.25 Stars (< 3)	Heat pump - Non-ducted < 3.75 stars (< 6)	3.384	2.476	1.535	1.268	1.373	3.064	2.591	1.026
Heat pump - Ducted < 2.25 Stars (< 3)	Heat pump - Non-Ducted ≥ 3.75 stars (≥ 6)	3.318	2.410	1.469	1.202	1.307	2.998	2.525	0.960
Heat pump - Ducted < 2.25 Stars (< 3)	Other or none specified	3.588	2.686	1.745	1.469	1.587	3.272	2.799	1.229
Heat pump - Ducted < 3.0 Stars (< 4.5)	Evaporative	3.106	2.164	1.248	0.971	1.104	2.758	2.282	0.705
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted < 2.25 stars (< 3)	3.546	2.643	1.702	1.427	1.544	3.230	2.757	1.187
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted < 3 stars (< 4.5)	3.492	2.590	1.649	1.373	1.491	3.176	2.703	1.133
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted < 3.75 stars (< 6)	3.412	2.509	1.568	1.293	1.410	3.096	2.623	1.053
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	3.332	2.429	1.488	1.212	1.330	3.015	2.543	0.972

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted < 2.25 stars (< 3)	3.453	2.544	1.603	1.336	1.441	3.132	2.659	1.094
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted < 3 stars (< 4.5)	3.408	2.500	1.559	1.292	1.397	3.088	2.615	1.050
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted < 3.75 stars (< 6)	3.342	2.434	1.493	1.226	1.331	3.022	2.549	0.983
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	3.276	2.368	1.427	1.160	1.265	2.956	2.483	0.917
Heat pump - Ducted < 3.0 Stars (< 4.5)	Other or none specified	3.546	2.643	1.702	1.427	1.544	3.230	2.757	1.187
Heat pump - Ducted < 3.75 Stars (< 6)	Evaporative	3.043	2.100	1.185	0.907	1.041	2.695	2.219	0.642
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Ducted < 2.25 stars (< 3)	3.483	2.580	1.639	1.363	1.481	3.167	2.694	1.123
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Ducted < 3 stars (< 4.5)	3.429	2.527	1.585	1.310	1.428	3.113	2.640	1.070

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Ducted < 3.75 stars (< 6)	3.349	2.446	1.505	1.229	1.347	3.032	2.560	0.989
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	3.268	2.366	1.425	1.149	1.267	2.952	2.479	0.909
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Non-ducted < 2.25 stars (< 3)	3.389	2.481	1.540	1.273	1.378	3.069	2.596	1.030
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Non-ducted < 3 stars (< 4.5)	3.345	2.437	1.496	1.229	1.334	3.025	2.552	0.986
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Non-ducted < 3.75 stars (< 6)	3.279	2.371	1.430	1.163	1.268	2.959	2.486	0.920
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	3.213	2.305	1.364	1.097	1.202	2.893	2.419	0.854
Heat pump - Ducted < 3.75 Stars (< 6)	Other or none specified	3.483	2.580	1.639	1.363	1.481	3.167	2.694	1.123
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Evaporative	2.980	2.037	1.122	0.844	0.978	2.632	2.155	0.578

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted < 2.25 stars (< 3)	3.419	2.517	1.576	1.300	1.418	3.103	2.630	1.060
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted < 3 stars (< 4.5)	3.366	2.463	1.522	1.247	1.364	3.050	2.577	1.007
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted < 3.75 stars (< 6)	3.285	2.383	1.442	1.166	1.284	2.969	2.496	0.926
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	3.205	2.302	1.361	1.086	1.203	2.889	2.416	0.846
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-ducted < 2.25 stars (< 3)	3.326	2.418	1.477	1.210	1.315	3.006	2.533	0.967
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-ducted < 3 stars (< 4.5)	3.282	2.374	1.433	1.166	1.271	2.962	2.488	0.923
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-ducted < 3.75 stars (< 6)	3.216	2.308	1.366	1.099	1.205	2.895	2.422	0.857
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	3.150	2.241	1.300	1.033	1.138	2.829	2.356	0.791

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Ducted \geq 3.75 Stars (\geq 6)	Other or none specified	3.419	2.517	1.576	1.300	1.418	3.103	2.630	1.060
Heat pump - Non Ducted $<$ 2.25 Stars ($<$ 3)	Evaporative	3.069	2.120	1.228	0.941	1.080	2.716	2.239	0.695
Heat pump - Non Ducted $<$ 2.25 Stars ($<$ 3)	Heat pump - Ducted $<$ 2.25 stars ($<$ 3)	3.509	2.606	1.673	1.405	1.512	3.190	2.720	1.165
Heat pump - Non Ducted $<$ 2.25 Stars ($<$ 3)	Heat pump - Ducted $<$ 3 stars ($<$ 4.5)	3.455	2.552	1.619	1.352	1.459	3.136	2.666	1.112
Heat pump - Non Ducted $<$ 2.25 Stars ($<$ 3)	Heat pump - Ducted $<$ 3.75 stars ($<$ 6)	3.375	2.472	1.539	1.271	1.378	3.056	2.586	1.031
Heat pump - Non Ducted $<$ 2.25 Stars ($<$ 3)	Heat pump - Ducted \geq 3.75 stars (\geq 6)	3.294	2.392	1.458	1.191	1.298	2.976	2.505	0.951
Heat pump - Non Ducted $<$ 2.25 Stars ($<$ 3)	Heat pump - Non-ducted $<$ 2.25 stars ($<$ 3)	3.419	2.506	1.572	1.314	1.417	3.091	2.620	1.071
Heat pump - Non Ducted $<$ 2.25 Stars ($<$ 3)	Heat pump - Non-ducted $<$ 3 stars ($<$ 4.5)	3.375	2.461	1.528	1.270	1.373	3.047	2.576	1.027

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Non Ducted < 2.25 Stars (< 3)	Heat pump - Non-ducted < 3.75 stars (< 6)	3.309	2.395	1.462	1.204	1.307	2.981	2.510	0.961
Heat pump - Non Ducted < 2.25 Stars (< 3)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	3.242	2.329	1.396	1.138	1.241	2.915	2.444	0.895
Heat pump - Non Ducted < 2.25 Stars (< 3)	Other or none specified	3.509	2.606	1.673	1.405	1.512	3.190	2.720	1.165
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Evaporative	3.034	2.085	1.193	0.906	1.044	2.681	2.203	0.660
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted < 2.25 stars (< 3)	3.473	2.571	1.637	1.370	1.477	3.155	2.684	1.130
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted < 3 stars (< 4.5)	3.420	2.517	1.584	1.316	1.423	3.101	2.631	1.076
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted < 3.75 stars (< 6)	3.339	2.437	1.503	1.236	1.343	3.021	2.550	0.996
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	3.259	2.356	1.423	1.156	1.262	2.940	2.470	0.915

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted < 2.25 stars (< 3)	3.383	2.470	1.537	1.279	1.382	3.056	2.585	1.036
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted < 3 stars (< 4.5)	3.339	2.426	1.493	1.235	1.338	3.012	2.541	0.992
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted < 3.75 stars (< 6)	3.273	2.360	1.427	1.169	1.271	2.946	2.475	0.926
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	3.207	2.294	1.360	1.103	1.205	2.879	2.409	0.859
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Other or none specified	3.473	2.571	1.637	1.370	1.477	3.155	2.684	1.130
Heat pump - Non Ducted < 3.75 Stars (< 6)	Evaporative	2.981	2.032	1.140	0.853	0.991	2.627	2.150	0.607
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Ducted < 2.25 stars (< 3)	3.420	2.517	1.584	1.317	1.424	3.101	2.631	1.077
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Ducted < 3 stars (< 4.5)	3.366	2.464	1.531	1.263	1.370	3.048	2.577	1.023

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Ducted < 3.75 stars (< 6)	3.286	2.383	1.450	1.183	1.290	2.967	2.497	0.943
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	3.206	2.303	1.370	1.102	1.209	2.887	2.417	0.862
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Non-Ducted < 2.25 stars (< 3)	3.330	2.417	1.484	1.226	1.328	3.003	2.532	0.983
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Non-ducted < 3 stars (< 4.5)	3.286	2.373	1.440	1.182	1.284	2.959	2.488	0.939
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Non-ducted < 3.75 stars (< 6)	3.220	2.307	1.373	1.116	1.218	2.892	2.422	0.872
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	3.154	2.241	1.307	1.049	1.152	2.826	2.355	0.806
Heat pump - Non Ducted < 3.75 Stars (< 6)	Other or none specified	3.420	2.517	1.584	1.317	1.424	3.101	2.631	1.077
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Evaporative	2.928	1.979	1.086	0.800	0.938	2.574	2.097	0.553

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted < 2.25 stars (< 3)	3.367	2.464	1.531	1.264	1.371	3.048	2.578	1.024
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted < 3 stars (< 4.5)	3.313	2.411	1.478	1.210	1.317	2.995	2.524	0.970
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted < 3.75 stars (< 6)	3.233	2.330	1.397	1.130	1.237	2.914	2.444	0.890
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	3.152	2.250	1.317	1.049	1.156	2.834	2.363	0.809
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-ducted < 2.25 stars (< 3)	3.277	2.364	1.431	1.173	1.275	2.950	2.479	0.930
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-ducted < 3 stars (< 4.5)	3.233	2.320	1.387	1.129	1.231	2.906	2.435	0.885
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-Ducted < 3.75 stars (< 6)	3.167	2.254	1.320	1.062	1.165	2.839	2.368	0.819
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-Ducted ≥ 3.75 stars (≥ 6)	3.101	2.188	1.254	0.996	1.099	2.773	2.302	0.753

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Non Ducted \geq 3.75 Stars (\geq 6)	Other or none specified	3.367	2.464	1.531	1.264	1.371	3.048	2.578	1.024

Table 5.2.4 Whole-of-home efficiency factors E_E (kW/100m²) – climate zone 5 – heat pump heating – Western Australia

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Ducted < 2.25 Stars (< 3)	Evaporative	3.296	2.034	1.451	1.103	1.278	3.623	2.984	0.962
Heat pump - Ducted < 2.25 Stars (< 3)	Heat pump - Ducted < 2.25 stars (< 3)	3.957	2.741	2.109	1.761	1.922	4.336	3.696	1.598
Heat pump - Ducted < 2.25 Stars (< 3)	Heat pump - Ducted < 3 stars (< 4.5)	3.880	2.664	2.033	1.684	1.846	4.260	3.620	1.522
Heat pump - Ducted < 2.25 Stars (< 3)	Heat pump - Ducted < 3.75 stars (< 6)	3.766	2.550	1.919	1.570	1.731	4.145	3.505	1.408
Heat pump - Ducted < 2.25 Stars (< 3)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	3.652	2.436	1.804	1.456	1.617	4.031	3.391	1.294
Heat pump - Ducted < 2.25 Stars (< 3)	HP - Non-ducted < 2.25 stars (< 3)	3.822	2.597	1.979	1.617	1.787	4.192	3.553	1.464
Heat pump - Ducted < 2.25 Stars (< 3)	Heat pump - Non-ducted < 3 stars (< 4.5)	3.759	2.534	1.916	1.554	1.724	4.129	3.490	1.401

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Ducted < 2.25 Stars (< 3)	Heat pump - Non-ducted < 3.75 stars (< 6)	3.664	2.439	1.821	1.459	1.629	4.035	3.395	1.306
Heat pump - Ducted < 2.25 Stars (< 3)	Heat pump - Non-Ducted ≥ 3.75 stars (≥ 6)	3.569	2.344	1.726	1.365	1.534	3.940	3.300	1.211
Heat pump - Ducted < 2.25 Stars (< 3)	Other or none specified	3.957	2.741	2.109	1.761	1.922	4.336	3.696	1.598
Heat pump - Ducted < 3.0 Stars (< 4.5)	Evaporative	3.238	1.975	1.393	1.044	1.219	3.564	2.926	0.904
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted < 2.25 stars (< 3)	3.898	2.682	2.051	1.702	1.863	4.278	3.638	1.540
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted < 3 stars (< 4.5)	3.822	2.606	1.974	1.626	1.787	4.201	3.561	1.464
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted < 3.75 stars (< 6)	3.708	2.491	1.860	1.512	1.673	4.087	3.447	1.349
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	3.593	2.377	1.746	1.397	1.558	3.973	3.333	1.235

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted < 2.25 stars (< 3)	3.763	2.538	1.920	1.559	1.729	4.134	3.494	1.405
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted < 3 stars (< 4.5)	3.700	2.475	1.857	1.496	1.665	4.071	3.431	1.342
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted < 3.75 stars (< 6)	3.606	2.381	1.762	1.401	1.571	3.976	3.337	1.248
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	3.511	2.286	1.668	1.306	1.476	3.882	3.242	1.153
Heat pump - Ducted < 3.0 Stars (< 4.5)	Other or none specified	3.898	2.682	2.051	1.702	1.863	4.278	3.638	1.540
Heat pump - Ducted < 3.75 Stars (< 6)	Evaporative	3.150	1.888	1.305	0.957	1.132	3.477	2.838	0.816
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Ducted < 2.25 stars (< 3)	3.811	2.594	1.963	1.615	1.776	4.190	3.550	1.452
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Ducted < 3 stars (< 4.5)	3.734	2.518	1.887	1.538	1.700	4.114	3.474	1.376

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Ducted < 3.75 stars (< 6)	3.620	2.404	1.772	1.424	1.585	3.999	3.359	1.262
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	3.506	2.289	1.658	1.310	1.471	3.885	3.245	1.147
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Non-ducted < 2.25 stars (< 3)	3.676	2.451	1.833	1.471	1.641	4.046	3.407	1.318
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Non-ducted < 3 stars (< 4.5)	3.613	2.388	1.770	1.408	1.578	3.983	3.344	1.255
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Non-ducted < 3.75 stars (< 6)	3.518	2.293	1.675	1.313	1.483	3.889	3.249	1.160
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	3.423	2.198	1.580	1.219	1.388	3.794	3.154	1.065
Heat pump - Ducted < 3.75 Stars (< 6)	Other or none specified	3.811	2.594	1.963	1.615	1.776	4.190	3.550	1.452
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Evaporative	3.063	1.800	1.218	0.869	1.044	3.389	2.751	0.728

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted < 2.25 stars (< 3)	3.723	2.507	1.875	1.527	1.688	4.102	3.462	1.365
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted < 3 stars (< 4.5)	3.647	2.431	1.799	1.451	1.612	4.026	3.386	1.289
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted < 3.75 stars (< 6)	3.532	2.316	1.685	1.336	1.498	3.912	3.272	1.174
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	3.418	2.202	1.570	1.222	1.383	3.797	3.157	1.060
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-ducted < 2.25 stars (< 3)	3.588	2.363	1.745	1.384	1.553	3.959	3.319	1.230
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-ducted < 3 stars (< 4.5)	3.525	2.300	1.682	1.320	1.490	3.896	3.256	1.167
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-ducted < 3.75 stars (< 6)	3.430	2.205	1.587	1.226	1.395	3.801	3.161	1.072
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	3.336	2.111	1.493	1.131	1.301	3.706	3.067	0.978

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Ducted \geq 3.75 Stars (\geq 6)	Other or none specified	3.723	2.507	1.875	1.527	1.688	4.102	3.462	1.365
Heat pump - Non Ducted $<$ 2.25 Stars ($<$ 3)	Evaporative	3.188	1.920	1.359	1.003	1.185	3.504	2.865	0.862
Heat pump - Non Ducted $<$ 2.25 Stars ($<$ 3)	Heat pump - Ducted $<$ 2.25 stars ($<$ 3)	3.846	2.628	2.009	1.653	1.818	4.220	3.581	1.496
Heat pump - Non Ducted $<$ 2.25 Stars ($<$ 3)	Heat pump - Ducted $<$ 3 stars ($<$ 4.5)	3.770	2.552	1.932	1.577	1.742	4.143	3.505	1.420
Heat pump - Non Ducted $<$ 2.25 Stars ($<$ 3)	Heat pump - Ducted $<$ 3.75 stars ($<$ 6)	3.655	2.438	1.818	1.462	1.627	4.029	3.390	1.306
Heat pump - Non Ducted $<$ 2.25 Stars ($<$ 3)	Heat pump - Ducted \geq 3.75 stars (\geq 6)	3.541	2.323	1.704	1.348	1.513	3.915	3.276	1.191
Heat pump - Non Ducted $<$ 2.25 Stars ($<$ 3)	Heat pump - Non-ducted $<$ 2.25 stars ($<$ 3)	3.710	2.483	1.877	1.512	1.681	4.075	3.436	1.370
Heat pump - Non Ducted $<$ 2.25 Stars ($<$ 3)	Heat pump - Non-ducted $<$ 3 stars ($<$ 4.5)	3.647	2.420	1.814	1.449	1.618	4.012	3.373	1.307

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Non Ducted < 2.25 Stars (< 3)	Heat pump - Non-ducted < 3.75 stars (< 6)	3.552	2.325	1.719	1.354	1.524	3.918	3.279	1.212
Heat pump - Non Ducted < 2.25 Stars (< 3)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	3.458	2.231	1.624	1.259	1.429	3.823	3.184	1.117
Heat pump - Non Ducted < 2.25 Stars (< 3)	Other or none specified	3.846	2.628	2.009	1.653	1.818	4.220	3.581	1.496
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Evaporative	3.140	1.872	1.311	0.955	1.137	3.456	2.817	0.814
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted < 2.25 stars (< 3)	3.798	2.580	1.961	1.605	1.770	4.172	3.533	1.448
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted < 3 stars (< 4.5)	3.722	2.504	1.884	1.529	1.694	4.096	3.457	1.372
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted < 3.75 stars (< 6)	3.607	2.390	1.770	1.414	1.579	3.981	3.342	1.258
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	3.493	2.275	1.656	1.300	1.465	3.867	3.228	1.143

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted < 2.25 stars (< 3)	3.662	2.435	1.829	1.464	1.633	4.027	3.389	1.322
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted < 3 stars (< 4.5)	3.599	2.372	1.766	1.401	1.570	3.964	3.325	1.259
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted < 3.75 stars (< 6)	3.504	2.277	1.671	1.306	1.476	3.870	3.231	1.164
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	3.410	2.183	1.576	1.211	1.381	3.775	3.136	1.069
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Other or none specified	3.798	2.580	1.961	1.605	1.770	4.172	3.533	1.448
Heat pump - Non Ducted < 3.75 Stars (< 6)	Evaporative	3.068	1.800	1.239	0.883	1.065	3.384	2.745	0.742
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Ducted < 2.25 stars (< 3)	3.726	2.508	1.889	1.533	1.698	4.100	3.461	1.376
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Ducted < 3 stars (< 4.5)	3.650	2.432	1.812	1.457	1.622	4.024	3.385	1.300

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Ducted < 3.75 stars (< 6)	3.535	2.318	1.698	1.342	1.508	3.909	3.271	1.186
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	3.421	2.203	1.584	1.228	1.393	3.795	3.156	1.071
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Non-Ducted < 2.25 stars (< 3)	3.590	2.363	1.757	1.392	1.561	3.955	3.317	1.250
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Non-ducted < 3 stars (< 4.5)	3.527	2.300	1.694	1.329	1.498	3.892	3.253	1.187
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Non-ducted < 3.75 stars (< 6)	3.432	2.206	1.599	1.234	1.404	3.798	3.159	1.092
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	3.338	2.111	1.504	1.139	1.309	3.703	3.064	0.997
Heat pump - Non Ducted < 3.75 Stars (< 6)	Other or none specified	3.726	2.508	1.889	1.533	1.698	4.100	3.461	1.376
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Evaporative	2.996	1.728	1.167	0.811	0.993	3.312	2.673	0.670

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted < 2.25 stars (< 3)	3.654	2.436	1.817	1.461	1.626	4.028	3.389	1.304
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted < 3 stars (< 4.5)	3.578	2.360	1.741	1.385	1.550	3.952	3.313	1.228
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted < 3.75 stars (< 6)	3.463	2.246	1.626	1.270	1.436	3.837	3.199	1.114
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	3.349	2.131	1.512	1.156	1.321	3.723	3.084	0.999
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-ducted < 2.25 stars (< 3)	3.518	2.291	1.685	1.320	1.490	3.883	3.245	1.178
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-ducted < 3 stars (< 4.5)	3.455	2.228	1.622	1.257	1.426	3.820	3.181	1.115
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-Ducted < 3.75 stars (< 6)	3.360	2.134	1.527	1.162	1.332	3.726	3.087	1.020
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-Ducted ≥ 3.75 stars (≥ 6)	3.266	2.039	1.432	1.067	1.237	3.631	2.992	0.925

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Non Ducted \geq 3.75 Stars (\geq 6)	Other or none specified	3.654	2.436	1.817	1.461	1.626	4.028	3.389	1.304

Table 5.3.1 Whole-of-home efficiency factors E_E (kW/100m²) – climate zone 5 – other heating – New South Wales

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Electric - Resistance (Panel)	Evaporative	4.144	3.034	2.247	1.920	2.069	3.950	3.453	1.689
Electric - Resistance (Panel)	Heat pump - Ducted < 2.25 stars (< 3)	4.578	3.489	2.690	2.382	2.520	4.402	3.910	2.144
Electric - Resistance (Panel)	Heat pump - Ducted < 3 stars (< 4.5)	4.539	3.449	2.651	2.343	2.481	4.363	3.871	2.105
Electric - Resistance (Panel)	Heat pump - Ducted < 3.75 stars (< 6)	4.480	3.391	2.592	2.284	2.423	4.304	3.812	2.047
Electric - Resistance (Panel)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	4.422	3.332	2.534	2.226	2.364	4.246	3.754	1.988
Electric - Resistance (Panel)	Heat pump - Non-Ducted < 2.25 stars (< 3)	4.496	3.402	2.605	2.291	2.433	4.314	3.823	2.052
Electric - Resistance (Panel)	Heat pump - Non-Ducted < 3 stars (< 4.5)	4.463	3.369	2.572	2.258	2.401	4.282	3.790	2.020

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Electric - Resistance (Panel)	Heat pump - Non-ducted < 3.75 stars (< 6)	4.415	3.320	2.524	2.209	2.352	4.233	3.741	1.971
Electric - Resistance (Panel)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	4.366	3.271	2.475	2.160	2.303	4.184	3.692	1.922
Electric - Resistance (Panel)	Other or none specified	4.578	3.489	2.690	2.382	2.520	4.402	3.910	2.144
Wood Heater	Evaporative	3.294	2.127	1.433	1.101	1.261	3.027	2.540	0.903
Wood Heater	Heat pump - Ducted < 2.25 stars (< 3)	3.726	2.601	1.891	1.564	1.713	3.493	3.009	1.354
Wood Heater	Heat pump - Ducted < 3 stars (< 4.5)	3.687	2.562	1.852	1.525	1.674	3.454	2.970	1.315
Wood Heater	Heat pump - Ducted < 3.75 stars (< 6)	3.629	2.503	1.793	1.466	1.616	3.395	2.911	1.256
Wood Heater	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	3.570	2.445	1.735	1.408	1.557	3.337	2.853	1.198
Wood Heater	Heat pump - Non-ducted < 2.25 stars (< 3)	3.642	2.510	1.804	1.465	1.621	3.404	2.917	1.269
Wood Heater	Heat pump - Non-ducted < 3 stars (< 4.5)	3.610	2.477	1.771	1.432	1.589	3.371	2.885	1.237

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Wood Heater	Heat pump - Non-ducted < 3.75 stars (< 6)	3.561	2.428	1.722	1.383	1.540	3.323	2.836	1.188
Wood Heater	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	3.512	2.379	1.673	1.334	1.491	3.274	2.787	1.139
Wood Heater	Other or none specified	3.726	2.601	1.891	1.564	1.713	3.493	3.009	1.354
Electric - Resistance (Slab)	Evaporative	3.754	2.631	1.864	1.525	1.684	3.556	3.055	1.301
Electric - Resistance (Slab)	Heat pump - Ducted < 2.25 stars (< 3)	4.186	3.102	2.315	2.000	2.131	4.021	3.521	1.779
Electric - Resistance (Slab)	Heat pump - Ducted < 3 stars (< 4.5)	4.147	3.063	2.276	1.961	2.091	3.982	3.482	1.740
Electric - Resistance (Slab)	Heat pump - Ducted < 3.75 stars (< 6)	4.088	3.004	2.217	1.902	2.033	3.923	3.424	1.681
Electric - Resistance (Slab)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	4.029	2.945	2.159	1.843	1.974	3.865	3.365	1.623

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Electric - Resistance (Slab)	Heat pump - Non-ducted < 2.25 stars (< 3)	4.104	3.011	2.224	1.909	2.041	3.932	3.432	1.684
Electric - Resistance (Slab)	Heat pump - Non-ducted < 3 stars (< 4.5)	4.071	2.978	2.191	1.876	2.009	3.899	3.399	1.652
Electric - Resistance (Slab)	Heat pump - Non-ducted < 3.75 stars (< 6)	4.022	2.929	2.142	1.827	1.960	3.850	3.350	1.603
Electric - Resistance (Slab)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	3.973	2.881	2.094	1.779	1.911	3.801	3.301	1.554
Electric - Resistance (Slab)	Other or none specified	4.186	3.102	2.315	2.000	2.131	4.021	3.521	1.779
Other or none specified	Evaporative	3.141	1.952	1.314	0.971	1.145	2.821	2.352	0.776
Other or none specified	Heat pump - Ducted < 2.25 stars (< 3)	3.464	2.305	1.649	1.315	1.461	3.179	2.705	1.134
Other or none specified	Heat pump - Ducted < 3 stars (< 4.5)	3.425	2.266	1.610	1.276	1.422	3.140	2.666	1.095
Other or none specified	Heat pump - Ducted < 3.75 stars (< 6)	3.366	2.208	1.551	1.218	1.363	3.081	2.607	1.037

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Other or none specified	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	3.307	2.149	1.492	1.159	1.304	3.022	2.548	0.978
Other or none specified	Heat pump - Non-ducted < 2.25 stars (< 3)	3.400	2.231	1.577	1.248	1.395	3.107	2.634	1.065
Other or none specified	Heat pump - Non-ducted < 3 stars (< 4.5)	3.367	2.199	1.544	1.216	1.363	3.075	2.602	1.033
Other or none specified	Heat pump - Non-ducted < 3.75 stars (< 6)	3.318	2.150	1.495	1.167	1.314	3.026	2.553	0.984
Other or none specified	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	3.269	2.101	1.446	1.118	1.265	2.977	2.504	0.935
Other or none specified	Other or none specified	3.464	2.305	1.649	1.315	1.461	3.179	2.705	1.134

Table 5.3.2 Whole-of-home efficiency factors E_E (kW/100m²) – climate zone 5 – other heating – Queensland

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Electric - Resistance (Panel)	Evaporative	3.583	3.087	1.970	1.836	1.815	4.723	4.023	1.610
Electric - Resistance (Panel)	Heat pump - Ducted < 2.25 stars (< 3)	3.962	3.481	2.364	2.236	2.204	5.108	4.414	2.010
Electric - Resistance (Panel)	Heat pump - Ducted < 3 stars (< 4.5)	3.928	3.447	2.329	2.201	2.170	5.073	4.380	1.975
Electric - Resistance (Panel)	Heat pump - Ducted < 3.75 stars (< 6)	3.876	3.395	2.277	2.149	2.118	5.021	4.328	1.923
Electric - Resistance (Panel)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	3.824	3.343	2.225	2.097	2.066	4.969	4.276	1.871
Electric - Resistance (Panel)	Heat pump - Non-Ducted < 2.25 stars (< 3)	3.891	3.406	2.287	2.157	2.128	5.033	4.339	1.934
Electric - Resistance (Panel)	Heat pump - Non-Ducted < 3 stars (< 4.5)	3.862	3.377	2.258	2.128	2.098	5.003	4.310	1.905

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Electric - Resistance (Panel)	Heat pump - Non-ducted < 3.75 stars (< 6)	3.818	3.333	2.215	2.084	2.055	4.960	4.266	1.861
Electric - Resistance (Panel)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	3.775	3.290	2.171	2.041	2.011	4.916	4.223	1.817
Electric - Resistance (Panel)	Other or none specified	3.962	3.481	2.364	2.236	2.204	5.108	4.414	2.010
Wood Heater	Evaporative	2.994	2.464	1.395	1.244	1.240	4.099	3.396	1.041
Wood Heater	Heat pump - Ducted < 2.25 stars (< 3)	3.373	2.868	1.801	1.657	1.638	4.495	3.798	1.442
Wood Heater	Heat pump - Ducted < 3 stars (< 4.5)	3.339	2.833	1.766	1.623	1.603	4.461	3.764	1.407
Wood Heater	Heat pump - Ducted < 3.75 stars (< 6)	3.287	2.781	1.714	1.571	1.551	4.409	3.712	1.355
Wood Heater	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	3.235	2.729	1.662	1.519	1.499	4.357	3.660	1.303
Wood Heater	Heat pump - Non-ducted < 2.25 stars (< 3)	3.302	2.789	1.724	1.575	1.558	4.419	3.722	1.359
Wood Heater	Heat pump - Non-ducted < 3 stars (< 4.5)	3.272	2.760	1.694	1.546	1.529	4.390	3.693	1.329

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Wood Heater	Heat pump - Non-ducted < 3.75 stars (< 6)	3.229	2.717	1.651	1.502	1.485	4.347	3.649	1.286
Wood Heater	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	3.185	2.673	1.607	1.458	1.441	4.303	3.606	1.242
Wood Heater	Other or none specified	3.373	2.868	1.801	1.657	1.638	4.495	3.798	1.442
Electric - Resistance (Slab)	Evaporative	3.643	3.177	2.022	1.898	1.865	4.841	4.129	1.668
Electric - Resistance (Slab)	Heat pump - Ducted < 2.25 stars (< 3)	4.025	3.577	2.423	2.307	2.262	5.229	4.525	2.073
Electric - Resistance (Slab)	Heat pump - Ducted < 3 stars (< 4.5)	3.990	3.543	2.389	2.272	2.227	5.194	4.490	2.039
Electric - Resistance (Slab)	Heat pump - Ducted < 3.75 stars (< 6)	3.938	3.491	2.337	2.220	2.175	5.142	4.438	1.987
Electric - Resistance (Slab)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	3.886	3.439	2.285	2.168	2.123	5.090	4.386	1.935

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Electric - Resistance (Slab)	Heat pump - Non-ducted < 2.25 stars (< 3)	3.953	3.501	2.346	2.227	2.183	5.153	4.449	1.995
Electric - Resistance (Slab)	Heat pump - Non-ducted < 3 stars (< 4.5)	3.924	3.472	2.317	2.197	2.154	5.124	4.420	1.965
Electric - Resistance (Slab)	Heat pump - Non-ducted < 3.75 stars (< 6)	3.881	3.428	2.273	2.154	2.110	5.080	4.376	1.922
Electric - Resistance (Slab)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	3.837	3.385	2.230	2.110	2.067	5.037	4.333	1.878
Electric - Resistance (Slab)	Other or none specified	4.025	3.577	2.423	2.307	2.262	5.229	4.525	2.073
Other or none specified	Evaporative	2.776	2.215	1.215	1.044	1.054	3.823	3.132	0.844
Other or none specified	Heat pump - Ducted < 2.25 stars (< 3)	3.070	2.524	1.503	1.346	1.344	4.125	3.437	1.157
Other or none specified	Heat pump - Ducted < 3 stars (< 4.5)	3.035	2.489	1.468	1.312	1.309	4.090	3.402	1.122
Other or none specified	Heat pump - Ducted < 3.75 stars (< 6)	2.983	2.437	1.416	1.260	1.257	4.038	3.350	1.070

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Other or none specified	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	2.931	2.385	1.364	1.208	1.205	3.986	3.298	1.018
Other or none specified	Heat pump - Non-ducted < 2.25 stars (< 3)	3.011	2.462	1.441	1.287	1.287	4.064	3.376	1.096
Other or none specified	Heat pump - Non-ducted < 3 stars (< 4.5)	2.982	2.433	1.412	1.258	1.258	4.035	3.347	1.067
Other or none specified	Heat pump - Non-ducted < 3.75 stars (< 6)	2.938	2.389	1.368	1.214	1.214	3.991	3.303	1.023
Other or none specified	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	2.895	2.346	1.324	1.171	1.171	3.948	3.260	0.980
Other or none specified	Other or none specified	3.070	2.524	1.503	1.346	1.344	4.125	3.437	1.157

Table 5.3.3 Whole-of-home efficiency factors E_E (kW/100m²) – climate zone 5 – other heating – South Australia

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Electric - Resistance (Panel)	Evaporative	4.195	3.322	2.246	1.991	2.100	3.936	3.447	1.678
Electric - Resistance (Panel)	Heat pump - Ducted < 2.25 stars (< 3)	4.766	3.909	2.848	2.613	2.704	4.510	4.033	2.300
Electric - Resistance (Panel)	Heat pump - Ducted < 3 stars (< 4.5)	4.712	3.855	2.795	2.560	2.651	4.457	3.980	2.247
Electric - Resistance (Panel)	Heat pump - Ducted < 3.75 stars (< 6)	4.632	3.775	2.714	2.479	2.570	4.376	3.899	2.166
Electric - Resistance (Panel)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	4.551	3.694	2.634	2.399	2.490	4.296	3.819	2.086
Electric - Resistance (Panel)	Heat pump - Non-Ducted < 2.25 stars (< 3)	4.654	3.792	2.728	2.490	2.585	4.396	3.917	2.173
Electric - Resistance (Panel)	Heat pump - Non-Ducted < 3 stars (< 4.5)	4.610	3.748	2.684	2.446	2.541	4.352	3.873	2.128

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Electric - Resistance (Panel)	Heat pump - Non-ducted < 3.75 stars (< 6)	4.544	3.682	2.617	2.380	2.475	4.286	3.807	2.062
Electric - Resistance (Panel)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	4.478	3.616	2.551	2.314	2.409	4.220	3.741	1.996
Electric - Resistance (Panel)	Other or none specified	4.766	3.909	2.848	2.613	2.704	4.510	4.033	2.300
Wood Heater	Evaporative	3.161	2.254	1.277	1.007	1.132	2.873	2.376	0.733
Wood Heater	Heat pump - Ducted < 2.25 stars (< 3)	3.752	2.899	1.896	1.653	1.744	3.501	3.022	1.366
Wood Heater	Heat pump - Ducted < 3 stars (< 4.5)	3.698	2.845	1.842	1.599	1.690	3.448	2.968	1.313
Wood Heater	Heat pump - Ducted < 3.75 stars (< 6)	3.618	2.765	1.762	1.519	1.610	3.367	2.888	1.232
Wood Heater	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	3.537	2.685	1.681	1.438	1.529	3.287	2.807	1.152
Wood Heater	Heat pump - Non-ducted < 2.25 stars (< 3)	3.633	2.768	1.773	1.515	1.615	3.377	2.891	1.249
Wood Heater	Heat pump - Non-ducted < 3 stars (< 4.5)	3.589	2.724	1.729	1.471	1.571	3.333	2.847	1.205

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Wood Heater	Heat pump - Non-ducted < 3.75 stars (< 6)	3.523	2.658	1.663	1.405	1.505	3.266	2.781	1.139
Wood Heater	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	3.457	2.592	1.597	1.338	1.439	3.200	2.715	1.073
Wood Heater	Other or none specified	3.752	2.899	1.896	1.653	1.744	3.501	3.022	1.366
Electric - Resistance (Slab)	Evaporative	3.947	3.133	1.979	1.741	1.830	3.781	3.265	1.401
Electric - Resistance (Slab)	Heat pump - Ducted < 2.25 stars (< 3)	4.536	3.751	2.618	2.403	2.463	4.383	3.884	2.072
Electric - Resistance (Slab)	Heat pump - Ducted < 3 stars (< 4.5)	4.483	3.697	2.564	2.350	2.410	4.329	3.830	2.018
Electric - Resistance (Slab)	Heat pump - Ducted < 3.75 stars (< 6)	4.402	3.617	2.484	2.269	2.329	4.249	3.750	1.938
Electric - Resistance (Slab)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	4.322	3.536	2.404	2.189	2.249	4.169	3.669	1.857

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Electric - Resistance (Slab)	Heat pump - Non-ducted < 2.25 stars (< 3)	4.419	3.627	2.492	2.269	2.335	4.263	3.761	1.945
Electric - Resistance (Slab)	Heat pump - Non-ducted < 3 stars (< 4.5)	4.375	3.583	2.448	2.225	2.291	4.219	3.717	1.901
Electric - Resistance (Slab)	Heat pump - Non-ducted < 3.75 stars (< 6)	4.309	3.517	2.382	2.159	2.225	4.153	3.651	1.835
Electric - Resistance (Slab)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	4.243	3.451	2.316	2.093	2.159	4.087	3.584	1.768
Electric - Resistance (Slab)	Other or none specified	4.536	3.751	2.618	2.403	2.463	4.383	3.884	2.072
Other or none specified	Evaporative	3.148	2.206	1.290	1.013	1.146	2.800	2.324	0.747
Other or none specified	Heat pump - Ducted < 2.25 stars (< 3)	3.588	2.686	1.745	1.469	1.587	3.272	2.799	1.229
Other or none specified	Heat pump - Ducted < 3 stars (< 4.5)	3.535	2.632	1.691	1.415	1.533	3.218	2.746	1.175
Other or none specified	Heat pump - Ducted < 3.75 stars (< 6)	3.454	2.552	1.611	1.335	1.453	3.138	2.665	1.095

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Other or none specified	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	3.374	2.471	1.530	1.254	1.372	3.058	2.585	1.014
Other or none specified	Heat pump - Non-ducted < 2.25 stars (< 3)	3.495	2.587	1.645	1.378	1.483	3.174	2.701	1.136
Other or none specified	Heat pump - Non-ducted < 3 stars (< 4.5)	3.451	2.542	1.601	1.334	1.439	3.130	2.657	1.092
Other or none specified	Heat pump - Non-ducted < 3.75 stars (< 6)	3.384	2.476	1.535	1.268	1.373	3.064	2.591	1.026
Other or none specified	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	3.318	2.410	1.469	1.202	1.307	2.998	2.525	0.960
Other or none specified	Other or none specified	3.588	2.686	1.745	1.469	1.587	3.272	2.799	1.229

Table 5.3.4 Whole-of-home efficiency factors E_E (kW/100m²) – climate zone 5 – other heating – Western Australia

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Electric - Resistance (Panel)	Evaporative	4.757	3.564	2.856	2.511	2.670	5.208	4.559	2.336
Electric - Resistance (Panel)	Heat pump - Ducted < 2.25 stars (< 3)	5.622	4.462	3.737	3.405	3.547	6.098	5.455	3.229
Electric - Resistance (Panel)	Heat pump - Ducted < 3 stars (< 4.5)	5.546	4.386	3.661	3.329	3.471	6.021	5.378	3.153
Electric - Resistance (Panel)	Heat pump - Ducted < 3.75 stars (< 6)	5.431	4.271	3.546	3.215	3.357	5.907	5.264	3.039
Electric - Resistance (Panel)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	5.317	4.157	3.432	3.100	3.242	5.793	5.150	2.924
Electric - Resistance (Panel)	Heat pump - Non-Ducted < 2.25 stars (< 3)	5.456	4.288	3.564	3.233	3.379	5.926	5.282	3.055
Electric - Resistance (Panel)	Heat pump - Non-Ducted < 3 stars (< 4.5)	5.393	4.225	3.501	3.170	3.316	5.863	5.219	2.992

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Electric - Resistance (Panel)	Heat pump - Non-ducted < 3.75 stars (< 6)	5.298	4.130	3.407	3.075	3.221	5.768	5.124	2.897
Electric - Resistance (Panel)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	5.204	4.036	3.312	2.980	3.127	5.673	5.030	2.803
Electric - Resistance (Panel)	Other or none specified	5.622	4.462	3.737	3.405	3.547	6.098	5.455	3.229
Wood Heater	Evaporative	3.480	2.260	1.598	1.234	1.389	3.928	3.261	1.083
Wood Heater	Heat pump - Ducted < 2.25 stars (< 3)	4.367	3.213	2.498	2.160	2.295	4.873	4.212	1.990
Wood Heater	Heat pump - Ducted < 3 stars (< 4.5)	4.291	3.137	2.421	2.083	2.219	4.797	4.136	1.914
Wood Heater	Heat pump - Ducted < 3.75 stars (< 6)	4.177	3.022	2.307	1.969	2.105	4.682	4.021	1.800
Wood Heater	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	4.062	2.908	2.193	1.855	1.990	4.568	3.907	1.685
Wood Heater	Heat pump - Non-ducted < 2.25 stars (< 3)	4.195	3.028	2.319	1.982	2.116	4.692	4.030	1.813
Wood Heater	Heat pump - Non-ducted < 3 stars (< 4.5)	4.132	2.965	2.256	1.919	2.053	4.629	3.967	1.749

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Wood Heater	Heat pump - Non-ducted < 3.75 stars (< 6)	4.037	2.870	2.161	1.825	1.958	4.534	3.872	1.655
Wood Heater	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	3.943	2.776	2.067	1.730	1.863	4.439	3.777	1.560
Wood Heater	Other or none specified	4.367	3.213	2.498	2.160	2.295	4.873	4.212	1.990
Electric - Resistance (Slab)	Evaporative	3.972	2.789	2.045	1.701	1.852	4.498	3.819	1.517
Electric - Resistance (Slab)	Heat pump - Ducted < 2.25 stars (< 3)	4.864	3.739	2.972	2.653	2.769	5.435	4.765	2.469
Electric - Resistance (Slab)	Heat pump - Ducted < 3 stars (< 4.5)	4.788	3.663	2.896	2.577	2.693	5.359	4.689	2.393
Electric - Resistance (Slab)	Heat pump - Ducted < 3.75 stars (< 6)	4.674	3.548	2.782	2.462	2.578	5.244	4.574	2.279
Electric - Resistance (Slab)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	4.559	3.434	2.668	2.348	2.464	5.130	4.460	2.164

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Electric - Resistance (Slab)	Heat pump - Non-ducted < 2.25 stars (< 3)	4.694	3.555	2.790	2.469	2.593	5.255	4.584	2.283
Electric - Resistance (Slab)	Heat pump - Non-ducted < 3 stars (< 4.5)	4.631	3.492	2.727	2.406	2.529	5.192	4.521	2.220
Electric - Resistance (Slab)	Heat pump - Non-ducted < 3.75 stars (< 6)	4.536	3.397	2.632	2.311	2.435	5.098	4.426	2.125
Electric - Resistance (Slab)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	4.441	3.302	2.538	2.216	2.340	5.003	4.331	2.031
Electric - Resistance (Slab)	Other or none specified	4.864	3.739	2.972	2.653	2.769	5.435	4.765	2.469
Other or none specified	Evaporative	3.296	2.034	1.451	1.103	1.278	3.623	2.984	0.962
Other or none specified	Heat pump - Ducted < 2.25 stars (< 3)	3.957	2.741	2.109	1.761	1.922	4.336	3.696	1.598
Other or none specified	Heat pump - Ducted < 3 stars (< 4.5)	3.880	2.664	2.033	1.684	1.846	4.260	3.620	1.522
Other or none specified	Heat pump - Ducted < 3.75 stars (< 6)	3.766	2.550	1.919	1.570	1.731	4.145	3.505	1.408

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Other or none specified	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	3.652	2.436	1.804	1.456	1.617	4.031	3.391	1.294
Other or none specified	Heat pump - Non-ducted < 2.25 stars (< 3)	3.822	2.597	1.979	1.617	1.787	4.192	3.553	1.464
Other or none specified	Heat pump - Non-ducted < 3 stars (< 4.5)	3.759	2.534	1.916	1.554	1.724	4.129	3.490	1.401
Other or none specified	Heat pump - Non-ducted < 3.75 stars (< 6)	3.664	2.439	1.821	1.459	1.629	4.035	3.395	1.306
Other or none specified	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	3.569	2.344	1.726	1.365	1.534	3.940	3.300	1.211
Other or none specified	Other or none specified	3.957	2.741	2.109	1.761	1.922	4.336	3.696	1.598

2.4.6 Climate zone 6

Table 6.1.1 Whole-of-home efficiency factors E_E (kW/100m²) – climate zone 6 – gas heating – New South Wales

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas – ducted < 3 Stars	Evaporative	6.753	5.623	4.590	4.265	5.042	6.738	6.122	4.315
Gas – ducted < 3 Stars	Heat pump - Ducted < 2.25 stars (< 3)	7.059	5.938	4.908	4.589	5.355	7.043	6.433	4.639
Gas – ducted < 3 Stars	Heat pump - Ducted < 3 stars (< 4.5)	7.023	5.902	4.872	4.553	5.319	7.007	6.397	4.603
Gas – ducted < 3 Stars	Heat pump - Ducted < 3.75 stars (< 6)	6.968	5.848	4.818	4.499	5.265	6.952	6.343	4.549
Gas – ducted < 3 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	6.914	5.793	4.763	4.444	5.210	6.898	6.288	4.495
Gas – ducted < 3 Stars	HP - Non-ducted < 2.25 stars (< 3)	6.997	5.874	4.845	4.525	5.292	6.979	6.369	4.575
Gas – ducted < 3 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	6.967	5.843	4.814	4.494	5.262	6.948	6.338	4.544
Gas – ducted < 3 Stars	Heat pump - Non-ducted < 3.75 stars (< 6)	6.921	5.797	4.769	4.448	5.216	6.902	6.292	4.498
Gas – ducted < 3 Stars	Heat pump - Non-Ducted ≥ 3.75 stars (≥ 6)	6.875	5.752	4.723	4.402	5.170	6.856	6.247	4.452

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas – ducted < 3 Stars	Other or none specified	7.059	5.938	4.908	4.589	5.355	7.043	6.433	4.639
Gas – ducted < 4.5 Stars	Evaporative	6.387	5.257	4.223	3.899	4.676	6.372	5.755	3.949
Gas – ducted < 4.5 Stars	Heat pump - Ducted < 2.25 stars (< 3)	6.693	5.572	4.542	4.223	4.989	6.676	6.067	4.273
Gas – ducted < 4.5 Stars	Heat pump - Ducted < 3 stars (< 4.5)	6.656	5.535	4.506	4.186	4.952	6.640	6.030	4.237
Gas – ducted < 4.5 Stars	Heat pump - Ducted < 3.75 stars (< 6)	6.602	5.481	4.451	4.132	4.898	6.586	5.976	4.182
Gas – ducted < 4.5 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	6.548	5.427	4.397	4.078	4.844	6.531	5.922	4.128
Gas – ducted < 4.5 Stars	Heat pump - Non-ducted < 2.25 stars (< 3)	6.631	5.507	4.478	4.158	4.926	6.612	6.002	4.208
Gas – ducted < 4.5 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	6.600	5.477	4.448	4.127	4.895	6.582	5.972	4.178
Gas – ducted < 4.5 Stars	Heat pump - Non-ducted < 3.75 stars (< 6)	6.554	5.431	4.402	4.082	4.849	6.536	5.926	4.132
Gas – ducted < 4.5 Stars	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	6.508	5.385	4.356	4.036	4.804	6.490	5.880	4.086

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas – ducted < 4.5 Stars	Other or none specified	6.693	5.572	4.542	4.223	4.989	6.676	6.067	4.273
Gas – ducted < 6 Stars	Evaporative	5.837	4.707	3.673	3.349	4.126	5.822	5.205	3.399
Gas – ducted < 6 Stars	Heat pump - Ducted < 2.25 stars (< 3)	6.143	5.022	3.992	3.673	4.439	6.126	5.517	3.723
Gas – ducted < 6 Stars	Heat pump - Ducted < 3 stars (< 4.5)	6.106	4.986	3.956	3.637	4.403	6.090	5.481	3.687
Gas – ducted < 6 Stars	Heat pump - Ducted < 3.75 stars (< 6)	6.052	4.931	3.901	3.582	4.348	6.036	5.426	3.633
Gas – ducted < 6 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	5.998	4.877	3.847	3.528	4.294	5.982	5.372	3.578
Gas – ducted < 6 Stars	Heat pump - Non-ducted < 2.25 stars (< 3)	6.081	4.958	3.929	3.608	4.376	6.062	5.453	3.658
Gas – ducted < 6 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	6.050	4.927	3.898	3.578	4.345	6.032	5.422	3.628
Gas – ducted < 6 Stars	Heat pump - Non-ducted < 3.75 stars (< 6)	6.005	4.881	3.852	3.532	4.300	5.986	5.376	3.582
Gas – ducted < 6 Stars	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	5.959	4.835	3.806	3.486	4.254	5.940	5.330	3.536

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas – ducted < 6 Stars	Other or none specified	6.143	5.022	3.992	3.673	4.439	6.126	5.517	3.723
Gas – ducted ≥ 6 Stars	Evaporative	5.287	4.157	3.124	2.799	3.576	5.272	4.656	2.849
Gas – ducted ≥ 6 Stars	Heat pump - Ducted < 2.25 stars (< 3)	5.593	4.472	3.442	3.123	3.889	5.577	4.967	3.173
Gas – ducted ≥ 6 Stars	Heat pump - Ducted < 3 stars (< 4.5)	5.557	4.436	3.406	3.087	3.853	5.540	4.931	3.137
Gas – ducted ≥ 6 Stars	Heat pump - Ducted < 3.75 stars (< 6)	5.502	4.382	3.352	3.033	3.798	5.486	4.876	3.083
Gas – ducted ≥ 6 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	5.448	4.327	3.297	2.978	3.744	5.432	4.822	3.028
Gas – ducted ≥ 6 Stars	Heat pump - Non-ducted < 2.25 stars (< 3)	5.531	4.408	3.379	3.058	3.826	5.513	4.903	3.109
Gas – ducted ≥ 6 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	5.501	4.377	3.348	3.028	3.796	5.482	4.872	3.078
Gas – ducted ≥ 6 Stars	Heat pump - Non-ducted < 3.75 stars (< 6)	5.455	4.331	3.302	2.982	3.750	5.436	4.826	3.032
Gas – ducted ≥ 6 Stars	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	5.409	4.285	3.257	2.936	3.704	5.390	4.780	2.986

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas – ducted ≥ 6 Stars	Other or none specified	5.593	4.472	3.442	3.123	3.889	5.577	4.967	3.173
Gas - non ducted < 3 Stars	Evaporative	5.838	4.670	3.671	3.330	4.115	5.777	5.164	3.379
Gas - non ducted < 3 Stars	Heat pump - Ducted < 2.25 stars (< 3)	6.146	4.992	3.991	3.656	4.430	6.090	5.483	3.705
Gas - non ducted < 3 Stars	Heat pump - Ducted < 3 stars (< 4.5)	6.110	4.955	3.955	3.620	4.393	6.054	5.447	3.669
Gas - non ducted < 3 Stars	Heat pump - Ducted < 3.75 stars (< 6)	6.056	4.901	3.901	3.566	4.339	6.000	5.393	3.615
Gas - non ducted < 3 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	6.001	4.847	3.846	3.511	4.285	5.945	5.338	3.561
Gas - non ducted < 3 Stars	Heat pump - Non-ducted < 2.25 stars (< 3)	6.085	4.927	3.927	3.590	4.367	6.026	5.419	3.639
Gas - non ducted < 3 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	6.054	4.896	3.897	3.560	4.336	5.995	5.388	3.609
Gas - non ducted < 3 Stars	Heat pump - Non-ducted < 3.75 stars (< 6)	6.008	4.851	3.851	3.514	4.290	5.949	5.342	3.563
Gas - non ducted < 3 Stars	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	5.963	4.805	3.805	3.468	4.244	5.903	5.296	3.517

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas - non ducted < 3 Stars	Other or none specified	6.146	4.992	3.991	3.656	4.430	6.090	5.483	3.705
Gas - non ducted < 4.5 Stars	Evaporative	5.649	4.481	3.482	3.141	3.926	5.587	4.975	3.190
Gas - non ducted < 4.5 Stars	Heat pump - Ducted < 2.25 stars (< 3)	5.957	4.802	3.802	3.467	4.240	5.901	5.294	3.516
Gas - non ducted < 4.5 Stars	Heat pump - Ducted < 3 stars (< 4.5)	5.921	4.766	3.766	3.431	4.204	5.865	5.258	3.480
Gas - non ducted < 4.5 Stars	Heat pump - Ducted < 3.75 stars (< 6)	5.866	4.712	3.712	3.376	4.150	5.811	5.203	3.426
Gas - non ducted < 4.5 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	5.812	4.658	3.657	3.322	4.096	5.756	5.149	3.371
Gas - non ducted < 4.5 Stars	Heat pump - Non-ducted < 2.25 stars (< 3)	5.896	4.738	3.738	3.401	4.178	5.837	5.229	3.450
Gas - non ducted < 4.5 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	5.865	4.707	3.708	3.370	4.147	5.806	5.199	3.420

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas - non ducted < 4.5 Stars	Heat pump - Non-ducted < 3.75 stars (< 6)	5.819	4.661	3.662	3.324	4.101	5.760	5.153	3.374
Gas - non ducted < 4.5 Stars	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	5.773	4.615	3.616	3.279	4.055	5.714	5.107	3.328
Gas - non ducted < 4.5 Stars	Other or none specified	5.957	4.802	3.802	3.467	4.240	5.901	5.294	3.516
Gas - non ducted < 6 Stars	Evaporative	5.365	4.197	3.198	2.857	3.642	5.304	4.691	2.906
Gas - non ducted < 6 Stars	Heat pump - Ducted < 2.25 stars (< 3)	5.673	4.519	3.518	3.183	3.957	5.617	5.010	3.232
Gas - non ducted < 6 Stars	Heat pump - Ducted < 3 stars (< 4.5)	5.637	4.482	3.482	3.147	3.920	5.581	4.974	3.196
Gas - non ducted < 6 Stars	Heat pump - Ducted < 3.75 stars (< 6)	5.583	4.428	3.428	3.093	3.866	5.527	4.920	3.142
Gas - non ducted < 6 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	5.528	4.374	3.373	3.038	3.812	5.472	4.865	3.088
Gas - non ducted < 6 Stars	Heat pump - Non-Ducted < 2.25 stars (< 3)	5.612	4.454	3.454	3.117	3.894	5.553	4.946	3.166

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas - non ducted < 6 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	5.581	4.423	3.424	3.087	3.863	5.522	4.915	3.136
Gas - non ducted < 6 Stars	Heat pump - Non-ducted < 3.75 stars (< 6)	5.535	4.378	3.378	3.041	3.817	5.476	4.869	3.090
Gas - non ducted < 6 Stars	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	5.490	4.332	3.332	2.995	3.772	5.430	4.823	3.044
Gas - non ducted < 6 Stars	Other or none specified	5.673	4.519	3.518	3.183	3.957	5.617	5.010	3.232
Gas - non ducted ≥ 6 Stars	Evaporative	5.081	3.914	2.914	2.573	3.358	5.020	4.407	2.622
Gas - non ducted ≥ 6 Stars	Heat pump - Ducted < 2.25 stars (< 3)	5.389	4.235	3.235	2.899	3.673	5.334	4.726	2.949
Gas - non ducted ≥ 6 Stars	Heat pump - Ducted < 3 stars (< 4.5)	5.353	4.199	3.198	2.863	3.637	5.297	4.690	2.912
Gas - non ducted ≥ 6 Stars	Heat pump - Ducted < 3.75 stars (< 6)	5.299	4.144	3.144	2.809	3.582	5.243	4.636	2.858
Gas - non ducted ≥ 6 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	5.245	4.090	3.090	2.755	3.528	5.189	4.582	2.804
Gas - non ducted ≥ 6 Stars	Heat pump - Non-ducted < 2.25 stars (< 3)	5.328	4.170	3.171	2.833	3.610	5.269	4.662	2.883

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas - non ducted ≥ 6 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	5.298	4.140	3.140	2.803	3.580	5.238	4.631	2.852
Gas - non ducted ≥ 6 Stars	Heat pump - Non-Ducted < 3.75 stars (< 6)	5.252	4.094	3.094	2.757	3.534	5.193	4.585	2.806
Gas - non ducted ≥ 6 Stars	Heat pump - Non-Ducted ≥ 3.75 stars (≥ 6)	5.206	4.048	3.048	2.711	3.488	5.147	4.540	2.760
Gas - non ducted ≥ 6 Stars	Other or none specified	5.389	4.235	3.235	2.899	3.673	5.334	4.726	2.949

Table 6.1.2 Whole-of-home efficiency factors E_E (kW/100m²) – climate zone 6 – gas heating – Victoria

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas – ducted < 3 Stars	Evaporative	4.708	4.334	2.934	2.844	3.260	3.756	3.452	2.503
Gas – ducted < 3 Stars	Heat pump - Ducted < 2.25 stars (< 3)	4.961	4.596	3.197	3.111	3.518	4.021	3.717	2.771
Gas – ducted < 3 Stars	Heat pump - Ducted < 3 stars (< 4.5)	4.932	4.566	3.167	3.081	3.488	3.991	3.687	2.741
Gas – ducted < 3 Stars	Heat pump - Ducted < 3.75 stars (< 6)	4.887	4.521	3.122	3.036	3.443	3.946	3.643	2.696
Gas – ducted < 3 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	4.842	4.477	3.078	2.992	3.398	3.901	3.598	2.651
Gas – ducted < 3 Stars	HP - Non-ducted < 2.25 stars (< 3)	4.911	4.543	3.143	3.057	3.466	3.967	3.664	2.716
Gas – ducted < 3 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	4.886	4.519	3.119	3.032	3.441	3.943	3.639	2.692
Gas – ducted < 3 Stars	Heat pump - Non-ducted < 3.75 stars (< 6)	4.849	4.482	3.082	2.995	3.404	3.906	3.602	2.655
Gas – ducted < 3 Stars	Heat pump - Non-Ducted ≥ 3.75 stars (≥ 6)	4.812	4.445	3.045	2.958	3.367	3.869	3.565	2.618
Gas – ducted < 3 Stars	Other or none specified	4.961	4.596	3.197	3.111	3.518	4.021	3.717	2.771

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas – ducted < 4.5 Stars	Evaporative	4.511	4.137	2.737	2.647	3.062	3.558	3.255	2.306
Gas – ducted < 4.5 Stars	Heat pump - Ducted < 2.25 stars (< 3)	4.764	4.398	2.999	2.913	3.320	3.823	3.520	2.573
Gas – ducted < 4.5 Stars	Heat pump - Ducted < 3 stars (< 4.5)	4.734	4.369	2.969	2.883	3.290	3.793	3.490	2.543
Gas – ducted < 4.5 Stars	Heat pump - Ducted < 3.75 stars (< 6)	4.689	4.324	2.925	2.839	3.246	3.748	3.445	2.499
Gas – ducted < 4.5 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	4.645	4.279	2.880	2.794	3.201	3.704	3.400	2.454
Gas – ducted < 4.5 Stars	Heat pump - Non-ducted < 2.25 stars (< 3)	4.713	4.346	2.946	2.859	3.268	3.770	3.466	2.519
Gas – ducted < 4.5 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	4.689	4.321	2.921	2.834	3.243	3.745	3.441	2.494
Gas – ducted < 4.5 Stars	Heat pump - Non-ducted < 3.75 stars (< 6)	4.652	4.284	2.884	2.797	3.207	3.708	3.405	2.457
Gas – ducted < 4.5 Stars	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	4.615	4.247	2.847	2.761	3.170	3.671	3.368	2.420
Gas – ducted < 4.5 Stars	Other or none specified	4.764	4.398	2.999	2.913	3.320	3.823	3.520	2.573

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas – ducted < 6 Stars	Evaporative	4.214	3.840	2.440	2.350	2.766	3.262	2.959	2.009
Gas – ducted < 6 Stars	Heat pump - Ducted < 2.25 stars (< 3)	4.468	4.102	2.703	2.617	3.024	3.527	3.223	2.277
Gas – ducted < 6 Stars	Heat pump - Ducted < 3 stars (< 4.5)	4.438	4.072	2.673	2.587	2.994	3.497	3.194	2.247
Gas – ducted < 6 Stars	Heat pump - Ducted < 3.75 stars (< 6)	4.393	4.028	2.628	2.542	2.949	3.452	3.149	2.202
Gas – ducted < 6 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	4.348	3.983	2.584	2.498	2.905	3.407	3.104	2.158
Gas – ducted < 6 Stars	Heat pump - Non-ducted < 2.25 stars (< 3)	4.417	4.049	2.649	2.563	2.972	3.473	3.170	2.222
Gas – ducted < 6 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	4.392	4.025	2.625	2.538	2.947	3.449	3.145	2.198
Gas – ducted < 6 Stars	Heat pump - Non-ducted < 3.75 stars (< 6)	4.355	3.988	2.588	2.501	2.910	3.412	3.108	2.161
Gas – ducted < 6 Stars	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	4.318	3.951	2.551	2.464	2.873	3.375	3.071	2.124
Gas – ducted < 6 Stars	Other or none specified	4.468	4.102	2.703	2.617	3.024	3.527	3.223	2.277

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas – ducted ≥ 6 Stars	Evaporative	3.918	3.544	2.144	2.054	2.470	2.966	2.662	1.713
Gas – ducted ≥ 6 Stars	Heat pump - Ducted < 2.25 stars (< 3)	4.171	3.806	2.407	2.321	2.727	3.230	2.927	1.980
Gas – ducted ≥ 6 Stars	Heat pump - Ducted < 3 stars (< 4.5)	4.141	3.776	2.377	2.291	2.698	3.201	2.897	1.951
Gas – ducted ≥ 6 Stars	Heat pump - Ducted < 3.75 stars (< 6)	4.097	3.731	2.332	2.246	2.653	3.156	2.853	1.906
Gas – ducted ≥ 6 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	4.052	3.686	2.287	2.201	2.608	3.111	2.808	1.861
Gas – ducted ≥ 6 Stars	Heat pump - Non-ducted < 2.25 stars (< 3)	4.120	3.753	2.353	2.266	2.675	3.177	2.873	1.926
Gas – ducted ≥ 6 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	4.096	3.728	2.328	2.242	2.651	3.153	2.849	1.902
Gas – ducted ≥ 6 Stars	Heat pump - Non-ducted < 3.75 stars (< 6)	4.059	3.692	2.292	2.205	2.614	3.116	2.812	1.865
Gas – ducted ≥ 6 Stars	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	4.022	3.655	2.255	2.168	2.577	3.079	2.775	1.828
Gas – ducted ≥ 6 Stars	Other or none specified	4.171	3.806	2.407	2.321	2.727	3.230	2.927	1.980

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas - non ducted < 3 Stars	Evaporative	4.190	3.795	2.421	2.317	2.738	3.219	2.918	1.982
Gas - non ducted < 3 Stars	Heat pump - Ducted < 2.25 stars (< 3)	4.445	4.058	2.683	2.587	2.997	3.484	3.185	2.250
Gas - non ducted < 3 Stars	Heat pump - Ducted < 3 stars (< 4.5)	4.416	4.028	2.653	2.557	2.968	3.454	3.156	2.220
Gas - non ducted < 3 Stars	Heat pump - Ducted < 3.75 stars (< 6)	4.371	3.984	2.609	2.512	2.923	3.410	3.111	2.176
Gas - non ducted < 3 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	4.326	3.939	2.564	2.467	2.878	3.365	3.066	2.131
Gas - non ducted < 3 Stars	Heat pump - Non-ducted < 2.25 stars (< 3)	4.394	4.005	2.630	2.532	2.944	3.431	3.131	2.195
Gas - non ducted < 3 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	4.369	3.981	2.605	2.507	2.920	3.406	3.106	2.170
Gas - non ducted < 3 Stars	Heat pump - Non-ducted < 3.75 stars (< 6)	4.332	3.944	2.569	2.471	2.883	3.369	3.070	2.133
Gas - non ducted < 3 Stars	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	4.296	3.907	2.532	2.434	2.846	3.332	3.033	2.097
Gas - non ducted < 3 Stars	Other or none specified	4.445	4.058	2.683	2.587	2.997	3.484	3.185	2.250

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas - non ducted < 4.5 Stars	Evaporative	4.089	3.694	2.320	2.217	2.638	3.118	2.817	1.881
Gas - non ducted < 4.5 Stars	Heat pump - Ducted < 2.25 stars (< 3)	4.345	3.957	2.582	2.486	2.897	3.383	3.085	2.149
Gas - non ducted < 4.5 Stars	Heat pump - Ducted < 3 stars (< 4.5)	4.315	3.928	2.553	2.456	2.867	3.353	3.055	2.120
Gas - non ducted < 4.5 Stars	Heat pump - Ducted < 3.75 stars (< 6)	4.270	3.883	2.508	2.411	2.822	3.309	3.010	2.075
Gas - non ducted < 4.5 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	4.225	3.838	2.463	2.367	2.777	3.264	2.965	2.030
Gas - non ducted < 4.5 Stars	Heat pump - Non-ducted < 2.25 stars (< 3)	4.293	3.905	2.529	2.431	2.844	3.330	3.030	2.094
Gas - non ducted < 4.5 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	4.269	3.880	2.505	2.407	2.819	3.305	3.006	2.070
Gas - non ducted < 4.5 Stars	Heat pump - Non-ducted < 3.75 stars (< 6)	4.232	3.843	2.468	2.370	2.782	3.268	2.969	2.033

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas - non ducted < 4.5 Stars	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	4.195	3.806	2.431	2.333	2.745	3.231	2.932	1.996
Gas - non ducted < 4.5 Stars	Other or none specified	4.345	3.957	2.582	2.486	2.897	3.383	3.085	2.149
Gas - non ducted < 6 Stars	Evaporative	3.938	3.543	2.169	2.066	2.487	2.967	2.666	1.730
Gas - non ducted < 6 Stars	Heat pump - Ducted < 2.25 stars (< 3)	4.194	3.806	2.431	2.335	2.746	3.232	2.933	1.998
Gas - non ducted < 6 Stars	Heat pump - Ducted < 3 stars (< 4.5)	4.164	3.777	2.401	2.305	2.716	3.202	2.904	1.968
Gas - non ducted < 6 Stars	Heat pump - Ducted < 3.75 stars (< 6)	4.119	3.732	2.357	2.260	2.671	3.158	2.859	1.924
Gas - non ducted < 6 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	4.074	3.687	2.312	2.216	2.626	3.113	2.814	1.879
Gas - non ducted < 6 Stars	Heat pump - Non-Ducted < 2.25 stars (< 3)	4.142	3.754	2.378	2.280	2.692	3.179	2.879	1.943
Gas - non ducted < 6 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	4.117	3.729	2.354	2.256	2.668	3.154	2.855	1.918

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas - non ducted < 6 Stars	Heat pump - Non-ducted < 3.75 stars (< 6)	4.081	3.692	2.317	2.219	2.631	3.117	2.818	1.882
Gas - non ducted < 6 Stars	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	4.044	3.655	2.280	2.182	2.594	3.080	2.781	1.845
Gas - non ducted < 6 Stars	Other or none specified	4.194	3.806	2.431	2.335	2.746	3.232	2.933	1.998
Gas - non ducted ≥ 6 Stars	Evaporative	3.787	3.392	2.018	1.914	2.335	2.816	2.514	1.579
Gas - non ducted ≥ 6 Stars	Heat pump - Ducted < 2.25 stars (< 3)	4.042	3.655	2.280	2.184	2.594	3.081	2.782	1.847
Gas - non ducted ≥ 6 Stars	Heat pump - Ducted < 3 stars (< 4.5)	4.013	3.625	2.250	2.154	2.565	3.051	2.753	1.817
Gas - non ducted ≥ 6 Stars	Heat pump - Ducted < 3.75 stars (< 6)	3.968	3.581	2.206	2.109	2.520	3.006	2.708	1.773
Gas - non ducted ≥ 6 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	3.923	3.536	2.161	2.064	2.475	2.962	2.663	1.728
Gas - non ducted ≥ 6 Stars	Heat pump - Non-ducted < 2.25 stars (< 3)	3.991	3.602	2.227	2.129	2.541	3.028	2.728	1.792
Gas - non ducted ≥ 6 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	3.966	3.578	2.202	2.104	2.517	3.003	2.703	1.767

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas - non ducted ≥ 6 Stars	Heat pump - Non-Ducted < 3.75 stars (< 6)	3.929	3.541	2.166	2.067	2.480	2.966	2.666	1.730
Gas - non ducted ≥ 6 Stars	Heat pump - Non-Ducted ≥ 3.75 stars (≥ 6)	3.893	3.504	2.129	2.031	2.443	2.929	2.630	1.694
Gas - non ducted ≥ 6 Stars	Other or none specified	4.042	3.655	2.280	2.184	2.594	3.081	2.782	1.847

Table 6.1.3 Whole-of-home efficiency factors E_E (kW/100m²) – climate zone 6 – gas heating – South Australia

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas – ducted < 3 Stars	Evaporative	7.102	6.247	4.783	4.551	5.284	7.053	6.398	4.481
Gas – ducted < 3 Stars	Heat pump - Ducted < 2.25 stars (< 3)	7.426	6.579	5.125	4.899	5.619	7.376	6.730	4.829
Gas – ducted < 3 Stars	Heat pump - Ducted < 3 stars (< 4.5)	7.387	6.540	5.086	4.860	5.580	7.337	6.692	4.791
Gas – ducted < 3 Stars	Heat pump - Ducted < 3.75 stars (< 6)	7.329	6.482	5.028	4.802	5.522	7.280	6.634	4.733
Gas – ducted < 3 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	7.271	6.425	4.970	4.744	5.464	7.222	6.576	4.675
Gas – ducted < 3 Stars	HP - Non-ducted < 2.25 stars (< 3)	7.360	6.510	5.057	4.829	5.551	7.307	6.661	4.759
Gas – ducted < 3 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	7.327	6.477	5.024	4.796	5.518	7.275	6.628	4.727
Gas – ducted < 3 Stars	Heat pump - Non-ducted < 3.75 stars (< 6)	7.278	6.428	4.975	4.748	5.470	7.226	6.580	4.678
Gas – ducted < 3 Stars	Heat pump - Non-Ducted ≥ 3.75 stars (≥ 6)	7.229	6.379	4.926	4.699	5.421	7.177	6.531	4.629
Gas – ducted < 3 Stars	Other or none specified	7.426	6.579	5.125	4.899	5.619	7.376	6.730	4.829

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas – ducted < 4.5 Stars	Evaporative	6.713	5.858	4.394	4.162	4.895	6.664	6.009	4.092
Gas – ducted < 4.5 Stars	Heat pump - Ducted < 2.25 stars (< 3)	7.037	6.190	4.735	4.510	5.230	6.987	6.341	4.440
Gas – ducted < 4.5 Stars	Heat pump - Ducted < 3 stars (< 4.5)	6.998	6.151	4.697	4.471	5.191	6.948	6.303	4.402
Gas – ducted < 4.5 Stars	Heat pump - Ducted < 3.75 stars (< 6)	6.940	6.093	4.639	4.413	5.133	6.890	6.245	4.344
Gas – ducted < 4.5 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	6.882	6.035	4.581	4.355	5.075	6.833	6.187	4.286
Gas – ducted < 4.5 Stars	Heat pump - Non-ducted < 2.25 stars (< 3)	6.971	6.120	4.668	4.440	5.162	6.918	6.272	4.370
Gas – ducted < 4.5 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	6.938	6.088	4.635	4.407	5.129	6.885	6.239	4.338
Gas – ducted < 4.5 Stars	Heat pump - Non-ducted < 3.75 stars (< 6)	6.889	6.039	4.586	4.358	5.080	6.837	6.190	4.289
Gas – ducted < 4.5 Stars	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	6.840	5.990	4.537	4.310	5.032	6.788	6.142	4.240
Gas – ducted < 4.5 Stars	Other or none specified	7.037	6.190	4.735	4.510	5.230	6.987	6.341	4.440

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas – ducted < 6 Stars	Evaporative	6.129	5.274	3.810	3.578	4.312	6.080	5.425	3.508
Gas – ducted < 6 Stars	Heat pump - Ducted < 2.25 stars (< 3)	6.453	5.606	4.152	3.926	4.646	6.403	5.758	3.857
Gas – ducted < 6 Stars	Heat pump - Ducted < 3 stars (< 4.5)	6.414	5.568	4.113	3.887	4.607	6.365	5.719	3.818
Gas – ducted < 6 Stars	Heat pump - Ducted < 3.75 stars (< 6)	6.357	5.510	4.055	3.830	4.550	6.307	5.661	3.760
Gas – ducted < 6 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	6.299	5.452	3.998	3.772	4.492	6.249	5.603	3.702
Gas – ducted < 6 Stars	Heat pump - Non-ducted < 2.25 stars (< 3)	6.387	5.537	4.084	3.856	4.578	6.334	5.688	3.787
Gas – ducted < 6 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	6.354	5.504	4.051	3.824	4.546	6.302	5.656	3.754
Gas – ducted < 6 Stars	Heat pump - Non-ducted < 3.75 stars (< 6)	6.306	5.455	4.003	3.775	4.497	6.253	5.607	3.705
Gas – ducted < 6 Stars	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	6.257	5.407	3.954	3.726	4.448	6.204	5.558	3.657
Gas – ducted < 6 Stars	Other or none specified	6.453	5.606	4.152	3.926	4.646	6.403	5.758	3.857

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas – ducted ≥ 6 Stars	Evaporative	5.545	4.690	3.227	2.994	3.728	5.496	4.842	2.924
Gas – ducted ≥ 6 Stars	Heat pump - Ducted < 2.25 stars (< 3)	5.869	5.022	3.568	3.342	4.062	5.820	5.174	3.273
Gas – ducted ≥ 6 Stars	Heat pump - Ducted < 3 stars (< 4.5)	5.831	4.984	3.530	3.304	4.024	5.781	5.135	3.234
Gas – ducted ≥ 6 Stars	Heat pump - Ducted < 3.75 stars (< 6)	5.773	4.926	3.472	3.246	3.966	5.723	5.078	3.177
Gas – ducted ≥ 6 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	5.715	4.868	3.414	3.188	3.908	5.665	5.020	3.119
Gas – ducted ≥ 6 Stars	Heat pump - Non-ducted < 2.25 stars (< 3)	5.803	4.953	3.500	3.273	3.995	5.751	5.105	3.203
Gas – ducted ≥ 6 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	5.771	4.921	3.468	3.240	3.962	5.718	5.072	3.171
Gas – ducted ≥ 6 Stars	Heat pump - Non-ducted < 3.75 stars (< 6)	5.722	4.872	3.419	3.191	3.913	5.669	5.023	3.122
Gas – ducted ≥ 6 Stars	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	5.673	4.823	3.370	3.142	3.864	5.621	4.974	3.073
Gas – ducted ≥ 6 Stars	Other or none specified	5.869	5.022	3.568	3.342	4.062	5.820	5.174	3.273

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas - non ducted < 3 Stars	Evaporative	6.129	5.230	3.808	3.553	4.297	6.028	5.377	3.484
Gas - non ducted < 3 Stars	Heat pump - Ducted < 2.25 stars (< 3)	6.458	5.571	4.151	3.906	4.636	6.362	5.719	3.837
Gas - non ducted < 3 Stars	Heat pump - Ducted < 3 stars (< 4.5)	6.419	5.533	4.112	3.867	4.597	6.324	5.680	3.798
Gas - non ducted < 3 Stars	Heat pump - Ducted < 3.75 stars (< 6)	6.362	5.475	4.054	3.809	4.539	6.266	5.623	3.740
Gas - non ducted < 3 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	6.304	5.417	3.997	3.752	4.482	6.208	5.565	3.682
Gas - non ducted < 3 Stars	Heat pump - Non-ducted < 2.25 stars (< 3)	6.392	5.502	4.083	3.835	4.568	6.293	5.649	3.765
Gas - non ducted < 3 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	6.359	5.469	4.050	3.802	4.536	6.260	5.617	3.733
Gas - non ducted < 3 Stars	Heat pump - Non-ducted < 3.75 stars (< 6)	6.310	5.421	4.001	3.753	4.487	6.211	5.568	3.684
Gas - non ducted < 3 Stars	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	6.262	5.372	3.952	3.705	4.438	6.162	5.519	3.635
Gas - non ducted < 3 Stars	Other or none specified	6.458	5.571	4.151	3.906	4.636	6.362	5.719	3.837

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas - non ducted < 4.5 Stars	Evaporative	5.929	5.029	3.608	3.353	4.097	5.827	5.177	3.284
Gas - non ducted < 4.5 Stars	Heat pump - Ducted < 2.25 stars (< 3)	6.257	5.371	3.950	3.705	4.435	6.162	5.518	3.636
Gas - non ducted < 4.5 Stars	Heat pump - Ducted < 3 stars (< 4.5)	6.219	5.332	3.912	3.667	4.397	6.123	5.480	3.597
Gas - non ducted < 4.5 Stars	Heat pump - Ducted < 3.75 stars (< 6)	6.161	5.274	3.854	3.609	4.339	6.065	5.422	3.540
Gas - non ducted < 4.5 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	6.103	5.216	3.796	3.551	4.281	6.007	5.364	3.482
Gas - non ducted < 4.5 Stars	Heat pump - Non-ducted < 2.25 stars (< 3)	6.191	5.301	3.882	3.634	4.368	6.092	5.449	3.565
Gas - non ducted < 4.5 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	6.159	5.269	3.849	3.602	4.335	6.060	5.416	3.532
Gas - non ducted < 4.5 Stars	Heat pump - Non-ducted < 3.75 stars (< 6)	6.110	5.220	3.801	3.553	4.286	6.011	5.367	3.483

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas - non ducted < 4.5 Stars	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	6.061	5.171	3.752	3.504	4.237	5.962	5.318	3.435
Gas - non ducted < 4.5 Stars	Other or none specified	6.257	5.371	3.950	3.705	4.435	6.162	5.518	3.636
Gas - non ducted < 6 Stars	Evaporative	5.628	4.729	3.307	3.052	3.796	5.526	4.876	2.983
Gas - non ducted < 6 Stars	Heat pump - Ducted < 2.25 stars (< 3)	5.957	5.070	3.649	3.404	4.135	5.861	5.218	3.335
Gas - non ducted < 6 Stars	Heat pump - Ducted < 3 stars (< 4.5)	5.918	5.031	3.611	3.366	4.096	5.822	5.179	3.297
Gas - non ducted < 6 Stars	Heat pump - Ducted < 3.75 stars (< 6)	5.860	4.973	3.553	3.308	4.038	5.765	5.121	3.239
Gas - non ducted < 6 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	5.802	4.916	3.495	3.250	3.980	5.707	5.063	3.181
Gas - non ducted < 6 Stars	Heat pump - Non-Ducted < 2.25 stars (< 3)	5.890	5.000	3.581	3.333	4.067	5.791	5.148	3.264
Gas - non ducted < 6 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	5.858	4.968	3.549	3.301	4.034	5.759	5.115	3.231

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas - non ducted < 6 Stars	Heat pump - Non-ducted < 3.75 stars (< 6)	5.809	4.919	3.500	3.252	3.985	5.710	5.066	3.183
Gas - non ducted < 6 Stars	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	5.760	4.870	3.451	3.203	3.937	5.661	5.018	3.134
Gas - non ducted < 6 Stars	Other or none specified	5.957	5.070	3.649	3.404	4.135	5.861	5.218	3.335
Gas - non ducted ≥ 6 Stars	Evaporative	5.327	4.428	3.006	2.751	3.495	5.226	4.575	2.682
Gas - non ducted ≥ 6 Stars	Heat pump - Ducted < 2.25 stars (< 3)	5.656	4.769	3.349	3.104	3.834	5.560	4.917	3.034
Gas - non ducted ≥ 6 Stars	Heat pump - Ducted < 3 stars (< 4.5)	5.617	4.730	3.310	3.065	3.795	5.522	4.878	2.996
Gas - non ducted ≥ 6 Stars	Heat pump - Ducted < 3.75 stars (< 6)	5.559	4.673	3.252	3.007	3.737	5.464	4.820	2.938
Gas - non ducted ≥ 6 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	5.501	4.615	3.194	2.949	3.679	5.406	4.762	2.880
Gas - non ducted ≥ 6 Stars	Heat pump - Non-ducted < 2.25 stars (< 3)	5.590	4.700	3.280	3.033	3.766	5.490	4.847	2.963
Gas - non ducted ≥ 6 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	5.557	4.667	3.248	3.000	3.733	5.458	4.814	2.931

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas - non ducted ≥ 6 Stars	Heat pump - Non-Ducted < 3.75 stars (< 6)	5.508	4.618	3.199	2.951	3.685	5.409	4.766	2.882
Gas - non ducted ≥ 6 Stars	Heat pump - Non-Ducted ≥ 3.75 stars (≥ 6)	5.459	4.569	3.150	2.902	3.636	5.360	4.717	2.833
Gas - non ducted ≥ 6 Stars	Other or none specified	5.656	4.769	3.349	3.104	3.834	5.560	4.917	3.034

Table 6.1.4 Whole-of-home efficiency factors E_E (kW/100m²) – climate zone 6 – gas heating – Western Australia

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas – ducted < 3 Stars	Evaporative	8.876	7.480	6.319	5.907	6.918	9.859	8.922	6.209
Gas – ducted < 3 Stars	Heat pump - Ducted < 2.25 stars (< 3)	9.214	7.836	6.695	6.288	7.277	X	9.255	6.587
Gas – ducted < 3 Stars	Heat pump - Ducted < 3 stars (< 4.5)	9.172	7.794	6.653	6.246	7.235	X	9.213	6.544
Gas – ducted < 3 Stars	Heat pump - Ducted < 3.75 stars (< 6)	9.109	7.731	6.589	6.183	7.172	X	9.149	6.481
Gas – ducted < 3 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	9.046	7.668	6.526	6.120	7.109	X	9.086	6.418
Gas – ducted < 3 Stars	HP - Non-ducted < 2.25 stars (< 3)	9.141	7.759	6.617	6.209	7.201	X	9.179	6.508
Gas – ducted < 3 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	9.106	7.723	6.582	6.174	7.166	X	9.144	6.472
Gas – ducted < 3 Stars	Heat pump - Non-ducted < 3.75 stars (< 6)	9.052	7.670	6.528	6.121	7.112	X	9.090	6.419
Gas – ducted < 3 Stars	Heat pump - Non-Ducted ≥ 3.75 stars (≥ 6)	8.999	7.617	6.475	6.067	7.059	9.958	9.037	6.366
Gas – ducted < 3 Stars	Other or none specified	9.214	7.836	6.695	6.288	7.277	X	9.255	6.587

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas – ducted < 4.5 Stars	Evaporative	8.324	6.929	5.767	5.356	6.366	9.307	8.371	5.658
Gas – ducted < 4.5 Stars	Heat pump - Ducted < 2.25 stars (< 3)	8.663	7.284	6.143	5.736	6.726	9.623	8.703	6.035
Gas – ducted < 4.5 Stars	Heat pump - Ducted < 3 stars (< 4.5)	8.621	7.242	6.101	5.694	6.684	9.580	8.661	5.993
Gas – ducted < 4.5 Stars	Heat pump - Ducted < 3.75 stars (< 6)	8.557	7.179	6.038	5.631	6.620	9.517	8.598	5.930
Gas – ducted < 4.5 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	8.494	7.116	5.975	5.568	6.557	9.454	8.535	5.866
Gas – ducted < 4.5 Stars	Heat pump - Non-ducted < 2.25 stars (< 3)	8.589	7.207	6.066	5.658	6.650	9.548	8.628	5.956
Gas – ducted < 4.5 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	8.554	7.172	6.030	5.622	6.614	9.513	8.592	5.921
Gas – ducted < 4.5 Stars	Heat pump - Non-ducted < 3.75 stars (< 6)	8.501	7.119	5.977	5.569	6.561	9.460	8.539	5.867
Gas – ducted < 4.5 Stars	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	8.448	7.065	5.924	5.516	6.508	9.406	8.486	5.814
Gas – ducted < 4.5 Stars	Other or none specified	8.663	7.284	6.143	5.736	6.726	9.623	8.703	6.035

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas – ducted < 6 Stars	Evaporative	7.496	6.101	4.940	4.528	5.539	8.480	7.543	4.830
Gas – ducted < 6 Stars	Heat pump - Ducted < 2.25 stars (< 3)	7.835	6.457	5.316	4.909	5.898	8.795	7.876	5.207
Gas – ducted < 6 Stars	Heat pump - Ducted < 3 stars (< 4.5)	7.793	6.415	5.273	4.867	5.856	8.753	7.833	5.165
Gas – ducted < 6 Stars	Heat pump - Ducted < 3.75 stars (< 6)	7.730	6.352	5.210	4.804	5.793	8.690	7.770	5.102
Gas – ducted < 6 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	7.667	6.289	5.147	4.740	5.730	8.627	7.707	5.039
Gas – ducted < 6 Stars	Heat pump - Non-ducted < 2.25 stars (< 3)	7.762	6.380	5.238	4.830	5.822	8.721	7.800	5.129
Gas – ducted < 6 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	7.727	6.344	5.203	4.795	5.787	8.685	7.765	5.093
Gas – ducted < 6 Stars	Heat pump - Non-ducted < 3.75 stars (< 6)	7.673	6.291	5.149	4.742	5.733	8.632	7.711	5.040
Gas – ducted < 6 Stars	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	7.620	6.238	5.096	4.688	5.680	8.579	7.658	4.987
Gas – ducted < 6 Stars	Other or none specified	7.835	6.457	5.316	4.909	5.898	8.795	7.876	5.207

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas – ducted ≥ 6 Stars	Evaporative	6.669	5.274	4.112	3.701	4.711	7.652	6.716	4.003
Gas – ducted ≥ 6 Stars	Heat pump - Ducted < 2.25 stars (< 3)	7.008	5.629	4.488	4.081	5.071	7.968	7.048	4.380
Gas – ducted ≥ 6 Stars	Heat pump - Ducted < 3 stars (< 4.5)	6.966	5.587	4.446	4.039	5.029	7.926	7.006	4.338
Gas – ducted ≥ 6 Stars	Heat pump - Ducted < 3.75 stars (< 6)	6.902	5.524	4.383	3.976	4.966	7.862	6.943	4.275
Gas – ducted ≥ 6 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	6.839	5.461	4.320	3.913	4.902	7.799	6.880	4.211
Gas – ducted ≥ 6 Stars	Heat pump - Non-ducted < 2.25 stars (< 3)	6.935	5.552	4.411	4.003	4.995	7.893	6.973	4.301
Gas – ducted ≥ 6 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	6.899	5.517	4.375	3.967	4.959	7.858	6.937	4.266
Gas – ducted ≥ 6 Stars	Heat pump - Non-ducted < 3.75 stars (< 6)	6.846	5.464	4.322	3.914	4.906	7.805	6.884	4.213
Gas – ducted ≥ 6 Stars	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	6.793	5.410	4.269	3.861	4.853	7.751	6.831	4.159
Gas – ducted ≥ 6 Stars	Other or none specified	7.008	5.629	4.488	4.081	5.071	7.968	7.048	4.380

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas - non ducted < 3 Stars	Evaporative	7.560	6.080	4.958	4.523	5.548	8.456	7.519	4.819
Gas - non ducted < 3 Stars	Heat pump - Ducted < 2.25 stars (< 3)	7.914	6.455	5.342	4.915	5.920	8.792	7.872	5.210
Gas - non ducted < 3 Stars	Heat pump - Ducted < 3 stars (< 4.5)	7.871	6.412	5.300	4.873	5.878	8.750	7.830	5.168
Gas - non ducted < 3 Stars	Heat pump - Ducted < 3.75 stars (< 6)	7.808	6.349	5.237	4.810	5.814	8.687	7.766	5.104
Gas - non ducted < 3 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	7.745	6.286	5.173	4.747	5.751	8.624	7.703	5.041
Gas - non ducted < 3 Stars	Heat pump - Non-ducted < 2.25 stars (< 3)	7.840	6.376	5.264	4.837	5.843	8.716	7.795	5.131
Gas - non ducted < 3 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	7.804	6.340	5.229	4.801	5.808	8.680	7.759	5.095
Gas - non ducted < 3 Stars	Heat pump - Non-ducted < 3.75 stars (< 6)	7.751	6.287	5.176	4.748	5.754	8.627	7.706	5.042
Gas - non ducted < 3 Stars	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	7.698	6.234	5.122	4.695	5.701	8.574	7.653	4.989
Gas - non ducted < 3 Stars	Other or none specified	7.914	6.455	5.342	4.915	5.920	8.792	7.872	5.210

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas - non ducted < 4.5 Stars	Evaporative	7.274	5.794	4.672	4.237	5.262	8.170	7.233	4.533
Gas - non ducted < 4.5 Stars	Heat pump - Ducted < 2.25 stars (< 3)	7.628	6.169	5.056	4.630	5.634	8.506	7.586	4.924
Gas - non ducted < 4.5 Stars	Heat pump - Ducted < 3 stars (< 4.5)	7.585	6.126	5.014	4.587	5.592	8.464	7.544	4.882
Gas - non ducted < 4.5 Stars	Heat pump - Ducted < 3.75 stars (< 6)	7.522	6.063	4.951	4.524	5.528	8.401	7.481	4.818
Gas - non ducted < 4.5 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	7.459	6.000	4.887	4.461	5.465	8.338	7.417	4.755
Gas - non ducted < 4.5 Stars	Heat pump - Non-ducted < 2.25 stars (< 3)	7.554	6.090	4.978	4.551	5.557	8.430	7.509	4.845
Gas - non ducted < 4.5 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	7.518	6.054	4.943	4.515	5.522	8.394	7.473	4.809
Gas - non ducted < 4.5 Stars	Heat pump - Non-ducted < 3.75 stars (< 6)	7.465	6.001	4.890	4.462	5.468	8.341	7.420	4.756

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas - non ducted < 4.5 Stars	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	7.412	5.948	4.836	4.409	5.415	8.288	7.367	4.703
Gas - non ducted < 4.5 Stars	Other or none specified	7.628	6.169	5.056	4.630	5.634	8.506	7.586	4.924
Gas - non ducted < 6 Stars	Evaporative	6.845	5.365	4.243	3.808	4.833	7.741	6.804	4.104
Gas - non ducted < 6 Stars	Heat pump - Ducted < 2.25 stars (< 3)	7.199	5.740	4.627	4.201	5.205	8.077	7.157	4.495
Gas - non ducted < 6 Stars	Heat pump - Ducted < 3 stars (< 4.5)	7.157	5.698	4.585	4.158	5.163	8.035	7.115	4.453
Gas - non ducted < 6 Stars	Heat pump - Ducted < 3.75 stars (< 6)	7.093	5.634	4.522	4.095	5.099	7.972	7.052	4.389
Gas - non ducted < 6 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	7.030	5.571	4.458	4.032	5.036	7.909	6.988	4.326
Gas - non ducted < 6 Stars	Heat pump - Non-Ducted < 2.25 stars (< 3)	7.125	5.661	4.549	4.122	5.128	8.001	7.080	4.416
Gas - non ducted < 6 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	7.089	5.625	4.514	4.086	5.093	7.966	7.044	4.380

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas - non ducted < 6 Stars	Heat pump - Non-ducted < 3.75 stars (< 6)	7.036	5.572	4.461	4.033	5.039	7.912	6.991	4.327
Gas - non ducted < 6 Stars	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	6.983	5.519	4.408	3.980	4.986	7.859	6.938	4.274
Gas - non ducted < 6 Stars	Other or none specified	7.199	5.740	4.627	4.201	5.205	8.077	7.157	4.495
Gas - non ducted ≥ 6 Stars	Evaporative	6.416	4.936	3.814	3.379	4.404	7.312	6.375	3.675
Gas - non ducted ≥ 6 Stars	Heat pump - Ducted < 2.25 stars (< 3)	6.770	5.311	4.198	3.772	4.776	7.648	6.728	4.066
Gas - non ducted ≥ 6 Stars	Heat pump - Ducted < 3 stars (< 4.5)	6.728	5.269	4.156	3.730	4.734	7.606	6.686	4.024
Gas - non ducted ≥ 6 Stars	Heat pump - Ducted < 3.75 stars (< 6)	6.664	5.205	4.093	3.666	4.670	7.543	6.623	3.961
Gas - non ducted ≥ 6 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	6.601	5.142	4.029	3.603	4.607	7.480	6.559	3.897
Gas - non ducted ≥ 6 Stars	Heat pump - Non-ducted < 2.25 stars (< 3)	6.696	5.232	4.121	3.693	4.699	7.572	6.651	3.987
Gas - non ducted ≥ 6 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	6.660	5.197	4.085	3.657	4.664	7.537	6.615	3.951

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas - non ducted ≥ 6 Stars	Heat pump - Non-Ducted < 3.75 stars (< 6)	6.607	5.143	4.032	3.604	4.610	7.483	6.562	3.898
Gas - non ducted ≥ 6 Stars	Heat pump - Non-Ducted ≥ 3.75 stars (≥ 6)	6.554	5.090	3.979	3.551	4.557	7.430	6.509	3.845
Gas - non ducted ≥ 6 Stars	Other or none specified	6.770	5.311	4.198	3.772	4.776	7.648	6.728	4.066

Table 6.2.1 Whole-of-home efficiency factors E_E (kW/100m²) – climate zone 6 – heat pump heating – New South Wales

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Ducted < 2.25 Stars (< 3)	Evaporative	4.355	3.045	2.231	1.835	2.640	4.072	3.498	1.878
Heat pump - Ducted < 2.25 Stars (< 3)	Heat pump - Ducted < 2.25 stars (< 3)	4.657	3.365	2.542	2.146	2.940	4.391	3.819	2.188
Heat pump - Ducted < 2.25 Stars (< 3)	Heat pump - Ducted < 3 stars (< 4.5)	4.621	3.328	2.506	2.110	2.904	4.354	3.782	2.152
Heat pump - Ducted < 2.25 Stars (< 3)	Heat pump - Ducted < 3.75 stars (< 6)	4.566	3.274	2.451	2.056	2.849	4.300	3.728	2.097
Heat pump - Ducted < 2.25 Stars (< 3)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	4.512	3.220	2.397	2.002	2.795	4.246	3.674	2.043
Heat pump - Ducted < 2.25 Stars (< 3)	HP - Non-ducted < 2.25 stars (< 3)	4.597	3.300	2.479	2.084	2.877	4.327	3.754	2.126
Heat pump - Ducted < 2.25 Stars (< 3)	Heat pump - Non-ducted < 3 stars (< 4.5)	4.566	3.270	2.449	2.054	2.847	4.296	3.723	2.095

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Ducted < 2.25 Stars (< 3)	Heat pump - Non-ducted < 3.75 stars (< 6)	4.521	3.224	2.403	2.008	2.801	4.250	3.678	2.049
Heat pump - Ducted < 2.25 Stars (< 3)	Heat pump - Non-Ducted ≥ 3.75 stars (≥ 6)	4.475	3.178	2.357	1.962	2.755	4.205	3.632	2.004
Heat pump - Ducted < 2.25 Stars (< 3)	Other or none specified	4.657	3.365	2.542	2.146	2.940	4.391	3.819	2.188
Heat pump - Ducted < 3.0 Stars (< 4.5)	Evaporative	4.237	2.926	2.112	1.716	2.521	3.953	3.379	1.760
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted < 2.25 stars (< 3)	4.538	3.246	2.423	2.028	2.821	4.272	3.700	2.069
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted < 3 stars (< 4.5)	4.502	3.210	2.387	1.992	2.785	4.236	3.664	2.033
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted < 3.75 stars (< 6)	4.448	3.155	2.333	1.937	2.731	4.181	3.609	1.978
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	4.393	3.101	2.278	1.883	2.676	4.127	3.555	1.924

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted < 2.25 stars (< 3)	4.478	3.181	2.361	1.965	2.758	4.208	3.635	2.007
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted < 3 stars (< 4.5)	4.448	3.151	2.330	1.935	2.728	4.178	3.605	1.977
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted < 3.75 stars (< 6)	4.402	3.105	2.284	1.889	2.682	4.132	3.559	1.931
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	4.356	3.059	2.238	1.843	2.636	4.086	3.513	1.885
Heat pump - Ducted < 3.0 Stars (< 4.5)	Other or none specified	4.538	3.246	2.423	2.028	2.821	4.272	3.700	2.069
Heat pump - Ducted < 3.75 Stars (< 6)	Evaporative	4.059	2.748	1.934	1.538	2.343	3.775	3.201	1.582
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Ducted < 2.25 stars (< 3)	4.360	3.068	2.245	1.850	2.643	4.094	3.522	1.891
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Ducted < 3 stars (< 4.5)	4.324	3.032	2.209	1.814	2.607	4.058	3.486	1.855

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Ducted < 3.75 stars (< 6)	4.270	2.977	2.155	1.759	2.553	4.003	3.431	1.800
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	4.215	2.923	2.100	1.705	2.498	3.949	3.377	1.746
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Non-ducted < 2.25 stars (< 3)	4.300	3.003	2.183	1.787	2.580	4.030	3.457	1.829
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Non-ducted < 3 stars (< 4.5)	4.270	2.973	2.152	1.757	2.550	4.000	3.427	1.799
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Non-ducted < 3.75 stars (< 6)	4.224	2.927	2.106	1.711	2.504	3.954	3.381	1.753
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	4.178	2.881	2.060	1.665	2.458	3.908	3.335	1.707
Heat pump - Ducted < 3.75 Stars (< 6)	Other or none specified	4.360	3.068	2.245	1.850	2.643	4.094	3.522	1.891
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Evaporative	3.881	2.570	1.756	1.360	2.165	3.597	3.023	1.404

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted < 2.25 stars (< 3)	4.182	2.890	2.067	1.672	2.465	3.916	3.344	1.713
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted < 3 stars (< 4.5)	4.146	2.854	2.031	1.635	2.429	3.880	3.308	1.677
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted < 3.75 stars (< 6)	4.092	2.799	1.977	1.581	2.375	3.825	3.253	1.622
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	4.037	2.745	1.922	1.527	2.320	3.771	3.199	1.568
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-ducted < 2.25 stars (< 3)	4.122	2.825	2.005	1.609	2.402	3.852	3.279	1.651
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-ducted < 3 stars (< 4.5)	4.092	2.795	1.974	1.579	2.372	3.822	3.249	1.621
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-ducted < 3.75 stars (< 6)	4.046	2.749	1.928	1.533	2.326	3.776	3.203	1.575
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	4.000	2.703	1.882	1.487	2.280	3.730	3.157	1.529

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Ducted \geq 3.75 Stars (\geq 6)	Other or none specified	4.182	2.890	2.067	1.672	2.465	3.916	3.344	1.713
Heat pump - Non Ducted $<$ 2.25 Stars ($<$ 3)	Evaporative	4.149	2.829	2.037	1.632	2.436	3.853	3.282	1.676
Heat pump - Non Ducted $<$ 2.25 Stars ($<$ 3)	Heat pump - Ducted $<$ 2.25 stars ($<$ 3)	4.451	3.151	2.342	1.951	2.739	4.173	3.601	1.993
Heat pump - Non Ducted $<$ 2.25 Stars ($<$ 3)	Heat pump - Ducted $<$ 3 stars ($<$ 4.5)	4.415	3.115	2.306	1.915	2.702	4.137	3.565	1.957
Heat pump - Non Ducted $<$ 2.25 Stars ($<$ 3)	Heat pump - Ducted $<$ 3.75 stars ($<$ 6)	4.361	3.061	2.251	1.860	2.648	4.082	3.510	1.902
Heat pump - Non Ducted $<$ 2.25 Stars ($<$ 3)	Heat pump - Ducted \geq 3.75 stars (\geq 6)	4.306	3.006	2.197	1.806	2.594	4.028	3.456	1.848
Heat pump - Non Ducted $<$ 2.25 Stars ($<$ 3)	Heat pump - Non-ducted $<$ 2.25 stars ($<$ 3)	4.390	3.086	2.279	1.887	2.678	4.109	3.537	1.929
Heat pump - Non Ducted $<$ 2.25 Stars ($<$ 3)	Heat pump - Non-ducted $<$ 3 stars ($<$ 4.5)	4.360	3.055	2.248	1.856	2.647	4.079	3.506	1.899

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Non Ducted < 2.25 Stars (< 3)	Heat pump - Non-ducted < 3.75 stars (< 6)	4.314	3.009	2.202	1.810	2.601	4.033	3.460	1.853
Heat pump - Non Ducted < 2.25 Stars (< 3)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	4.268	2.963	2.156	1.765	2.555	3.987	3.414	1.807
Heat pump - Non Ducted < 2.25 Stars (< 3)	Other or none specified	4.451	3.151	2.342	1.951	2.739	4.173	3.601	1.993
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Evaporative	4.050	2.730	1.938	1.533	2.338	3.754	3.183	1.577
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted < 2.25 stars (< 3)	4.352	3.052	2.243	1.852	2.640	4.074	3.502	1.894
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted < 3 stars (< 4.5)	4.316	3.016	2.207	1.816	2.604	4.038	3.466	1.858
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted < 3.75 stars (< 6)	4.262	2.962	2.153	1.761	2.549	3.983	3.412	1.803
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	4.207	2.907	2.098	1.707	2.495	3.929	3.357	1.749

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted < 2.25 stars (< 3)	4.292	2.987	2.180	1.788	2.579	4.010	3.438	1.831
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted < 3 stars (< 4.5)	4.261	2.956	2.149	1.757	2.548	3.980	3.407	1.800
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted < 3.75 stars (< 6)	4.215	2.910	2.103	1.712	2.502	3.934	3.361	1.754
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	4.169	2.864	2.057	1.666	2.456	3.888	3.316	1.708
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Other or none specified	4.352	3.052	2.243	1.852	2.640	4.074	3.502	1.894
Heat pump - Non Ducted < 3.75 Stars (< 6)	Evaporative	3.902	2.581	1.790	1.384	2.189	3.606	3.035	1.429
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Ducted < 2.25 stars (< 3)	4.204	2.904	2.095	1.704	2.491	3.926	3.354	1.746
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Ducted < 3 stars (< 4.5)	4.168	2.868	2.059	1.667	2.455	3.889	3.318	1.709

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Ducted < 3.75 stars (< 6)	4.113	2.813	2.004	1.613	2.401	3.835	3.263	1.655
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	4.059	2.759	1.950	1.559	2.346	3.781	3.209	1.601
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Non-Ducted < 2.25 stars (< 3)	4.143	2.838	2.031	1.640	2.430	3.862	3.290	1.682
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Non-ducted < 3 stars (< 4.5)	4.113	2.808	2.001	1.609	2.400	3.831	3.259	1.652
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Non-ducted < 3.75 stars (< 6)	4.067	2.762	1.955	1.563	2.354	3.786	3.213	1.606
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	4.021	2.716	1.909	1.517	2.308	3.740	3.167	1.560
Heat pump - Non Ducted < 3.75 Stars (< 6)	Other or none specified	4.204	2.904	2.095	1.704	2.491	3.926	3.354	1.746
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Evaporative	3.754	2.433	1.642	1.236	2.041	3.458	2.887	1.280

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted < 2.25 stars (< 3)	4.056	2.756	1.946	1.555	2.343	3.777	3.205	1.597
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted < 3 stars (< 4.5)	4.019	2.719	1.910	1.519	2.307	3.741	3.169	1.561
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted < 3.75 stars (< 6)	3.965	2.665	1.856	1.465	2.252	3.687	3.115	1.507
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	3.911	2.611	1.801	1.410	2.198	3.632	3.061	1.452
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-ducted < 2.25 stars (< 3)	3.995	2.690	1.883	1.491	2.282	3.714	3.141	1.534
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-ducted < 3 stars (< 4.5)	3.964	2.659	1.852	1.461	2.252	3.683	3.111	1.503
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-ducted < 3.75 stars (< 6)	3.918	2.614	1.806	1.415	2.206	3.637	3.065	1.457
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	3.872	2.568	1.761	1.369	2.160	3.591	3.019	1.411

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Non Ducted \geq 3.75 Stars (\geq 6)	Other or none specified	4.056	2.756	1.946	1.555	2.343	3.777	3.205	1.597

Table 6.2.2 Whole-of-home efficiency factors E_E (kW/100m²) – climate zone 6 – heat pump heating – Victoria

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Ducted < 2.25 Stars (< 3)	Evaporative	3.680	3.214	1.932	1.797	2.237	2.648	2.363	1.478
Heat pump - Ducted < 2.25 Stars (< 3)	Heat pump - Ducted < 2.25 stars (< 3)	3.932	3.474	2.183	2.057	2.493	2.910	2.627	1.744
Heat pump - Ducted < 2.25 Stars (< 3)	Heat pump - Ducted < 3 stars (< 4.5)	3.902	3.444	2.154	2.027	2.463	2.880	2.597	1.714
Heat pump - Ducted < 2.25 Stars (< 3)	Heat pump - Ducted < 3.75 stars (< 6)	3.857	3.399	2.109	1.983	2.418	2.835	2.552	1.670
Heat pump - Ducted < 2.25 Stars (< 3)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	3.812	3.354	2.064	1.938	2.374	2.790	2.507	1.625
Heat pump - Ducted < 2.25 Stars (< 3)	HP - Non-ducted < 2.25 stars (< 3)	3.881	3.421	2.131	2.005	2.441	2.856	2.573	1.690
Heat pump - Ducted < 2.25 Stars (< 3)	Heat pump - Non-ducted < 3 stars (< 4.5)	3.856	3.397	2.106	1.980	2.416	2.831	2.549	1.666

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Ducted < 2.25 Stars (< 3)	Heat pump - Non-ducted < 3.75 stars (< 6)	3.819	3.360	2.070	1.943	2.379	2.794	2.512	1.629
Heat pump - Ducted < 2.25 Stars (< 3)	Heat pump - Non-Ducted ≥ 3.75 stars (≥ 6)	3.783	3.323	2.033	1.906	2.342	2.757	2.475	1.592
Heat pump - Ducted < 2.25 Stars (< 3)	Other or none specified	3.932	3.474	2.183	2.057	2.493	2.910	2.627	1.744
Heat pump - Ducted < 3.0 Stars (< 4.5)	Evaporative	3.588	3.122	1.840	1.705	2.145	2.556	2.271	1.386
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted < 2.25 stars (< 3)	3.840	3.382	2.092	1.965	2.401	2.818	2.535	1.652
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted < 3 stars (< 4.5)	3.810	3.352	2.062	1.936	2.371	2.788	2.505	1.623
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted < 3.75 stars (< 6)	3.765	3.307	2.017	1.891	2.326	2.743	2.460	1.578
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	3.721	3.263	1.972	1.846	2.282	2.699	2.416	1.533

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted < 2.25 stars (< 3)	3.789	3.329	2.039	1.913	2.349	2.764	2.481	1.598
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted < 3 stars (< 4.5)	3.765	3.305	2.015	1.888	2.324	2.739	2.457	1.574
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted < 3.75 stars (< 6)	3.728	3.268	1.978	1.851	2.288	2.702	2.420	1.537
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	3.691	3.231	1.941	1.815	2.251	2.665	2.383	1.500
Heat pump - Ducted < 3.0 Stars (< 4.5)	Other or none specified	3.840	3.382	2.092	1.965	2.401	2.818	2.535	1.652
Heat pump - Ducted < 3.75 Stars (< 6)	Evaporative	3.450	2.984	1.703	1.568	2.007	2.419	2.134	1.249
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Ducted < 2.25 stars (< 3)	3.702	3.244	1.954	1.828	2.263	2.680	2.397	1.515
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Ducted < 3 stars (< 4.5)	3.672	3.214	1.924	1.798	2.233	2.650	2.367	1.485

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Ducted < 3.75 stars (< 6)	3.628	3.170	1.879	1.753	2.189	2.606	2.323	1.440
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	3.583	3.125	1.835	1.709	2.144	2.561	2.278	1.395
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Non-ducted < 2.25 stars (< 3)	3.651	3.192	1.902	1.775	2.211	2.626	2.344	1.461
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Non-ducted < 3 stars (< 4.5)	3.627	3.167	1.877	1.751	2.187	2.602	2.319	1.436
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Non-ducted < 3.75 stars (< 6)	3.590	3.130	1.840	1.714	2.150	2.565	2.282	1.399
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	3.553	3.093	1.803	1.677	2.113	2.528	2.245	1.362
Heat pump - Ducted < 3.75 Stars (< 6)	Other or none specified	3.702	3.244	1.954	1.828	2.263	2.680	2.397	1.515
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Evaporative	3.313	2.847	1.565	1.430	1.869	2.281	1.996	1.111

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted < 2.25 stars (< 3)	3.564	3.106	1.816	1.690	2.126	2.542	2.259	1.377
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted < 3 stars (< 4.5)	3.535	3.077	1.786	1.660	2.096	2.513	2.230	1.347
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted < 3.75 stars (< 6)	3.490	3.032	1.742	1.616	2.051	2.468	2.185	1.302
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	3.445	2.987	1.697	1.571	2.006	2.423	2.140	1.258
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-ducted < 2.25 stars (< 3)	3.514	3.054	1.764	1.638	2.074	2.488	2.206	1.323
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-ducted < 3 stars (< 4.5)	3.489	3.029	1.739	1.613	2.049	2.464	2.181	1.298
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-ducted < 3.75 stars (< 6)	3.452	2.992	1.702	1.576	2.012	2.427	2.144	1.262
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	3.415	2.955	1.665	1.539	1.975	2.390	2.108	1.225

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Ducted \geq 3.75 Stars (\geq 6)	Other or none specified	3.564	3.106	1.816	1.690	2.126	2.542	2.259	1.377
Heat pump - Non Ducted $<$ 2.25 Stars ($<$ 3)	Evaporative	3.519	3.048	1.779	1.637	2.078	2.484	2.198	1.329
Heat pump - Non Ducted $<$ 2.25 Stars ($<$ 3)	Heat pump - Ducted $<$ 2.25 stars ($<$ 3)	3.773	3.309	2.031	1.901	2.334	2.746	2.464	1.587
Heat pump - Non Ducted $<$ 2.25 Stars ($<$ 3)	Heat pump - Ducted $<$ 3 stars ($<$ 4.5)	3.743	3.280	2.001	1.871	2.304	2.717	2.435	1.557
Heat pump - Non Ducted $<$ 2.25 Stars ($<$ 3)	Heat pump - Ducted $<$ 3.75 stars ($<$ 6)	3.698	3.235	1.957	1.826	2.259	2.672	2.390	1.512
Heat pump - Non Ducted $<$ 2.25 Stars ($<$ 3)	Heat pump - Ducted \geq 3.75 stars (\geq 6)	3.653	3.190	1.912	1.782	2.215	2.627	2.345	1.467
Heat pump - Non Ducted $<$ 2.25 Stars ($<$ 3)	Heat pump - Non-ducted $<$ 2.25 stars ($<$ 3)	3.721	3.256	1.980	1.848	2.281	2.693	2.410	1.532
Heat pump - Non Ducted $<$ 2.25 Stars ($<$ 3)	Heat pump - Non-ducted $<$ 3 stars ($<$ 4.5)	3.697	3.232	1.956	1.823	2.257	2.669	2.386	1.507

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Non Ducted < 2.25 Stars (< 3)	Heat pump - Non-ducted < 3.75 stars (< 6)	3.660	3.195	1.919	1.786	2.220	2.632	2.349	1.470
Heat pump - Non Ducted < 2.25 Stars (< 3)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	3.623	3.158	1.882	1.749	2.183	2.595	2.312	1.433
Heat pump - Non Ducted < 2.25 Stars (< 3)	Other or none specified	3.773	3.309	2.031	1.901	2.334	2.746	2.464	1.587
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Evaporative	3.441	2.970	1.701	1.559	2.001	2.406	2.121	1.252
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted < 2.25 stars (< 3)	3.695	3.232	1.954	1.824	2.256	2.669	2.387	1.509
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted < 3 stars (< 4.5)	3.665	3.202	1.924	1.794	2.227	2.639	2.357	1.479
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted < 3.75 stars (< 6)	3.621	3.158	1.879	1.749	2.182	2.595	2.313	1.435
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	3.576	3.113	1.835	1.704	2.137	2.550	2.268	1.390

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted < 2.25 stars (< 3)	3.644	3.179	1.903	1.770	2.204	2.616	2.333	1.454
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted < 3 stars (< 4.5)	3.620	3.154	1.878	1.746	2.179	2.591	2.308	1.430
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted < 3.75 stars (< 6)	3.583	3.118	1.842	1.709	2.143	2.554	2.271	1.393
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	3.546	3.081	1.805	1.672	2.106	2.517	2.235	1.356
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Other or none specified	3.695	3.232	1.954	1.824	2.256	2.669	2.387	1.509
Heat pump - Non Ducted < 3.75 Stars (< 6)	Evaporative	3.326	2.854	1.586	1.443	1.885	2.290	2.005	1.136
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Ducted < 2.25 stars (< 3)	3.579	3.116	1.838	1.708	2.141	2.553	2.271	1.393
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Ducted < 3 stars (< 4.5)	3.549	3.086	1.808	1.678	2.111	2.523	2.241	1.364

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Ducted < 3.75 stars (< 6)	3.505	3.042	1.763	1.633	2.066	2.479	2.197	1.319
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	3.460	2.997	1.719	1.588	2.021	2.434	2.152	1.274
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Non-Ducted < 2.25 stars (< 3)	3.528	3.063	1.787	1.654	2.088	2.500	2.217	1.339
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Non-ducted < 3 stars (< 4.5)	3.504	3.038	1.763	1.630	2.064	2.475	2.192	1.314
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Non-ducted < 3.75 stars (< 6)	3.467	3.002	1.726	1.593	2.027	2.438	2.156	1.277
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	3.430	2.965	1.689	1.556	1.990	2.401	2.119	1.240
Heat pump - Non Ducted < 3.75 Stars (< 6)	Other or none specified	3.579	3.116	1.838	1.708	2.141	2.553	2.271	1.393
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Evaporative	3.210	2.738	1.470	1.327	1.769	2.174	1.889	1.020

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted < 2.25 stars (< 3)	3.463	3.000	1.722	1.592	2.025	2.437	2.155	1.277
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted < 3 stars (< 4.5)	3.434	2.970	1.692	1.562	1.995	2.407	2.125	1.248
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted < 3.75 stars (< 6)	3.389	2.926	1.647	1.517	1.950	2.363	2.081	1.203
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	3.344	2.881	1.603	1.473	1.905	2.318	2.036	1.158
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-ducted < 2.25 stars (< 3)	3.412	2.947	1.671	1.538	1.972	2.384	2.101	1.223
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-ducted < 3 stars (< 4.5)	3.388	2.923	1.647	1.514	1.948	2.359	2.076	1.198
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-Ducted < 3.75 stars (< 6)	3.351	2.886	1.610	1.477	1.911	2.322	2.040	1.161
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-Ducted ≥ 3.75 stars (≥ 6)	3.314	2.849	1.573	1.440	1.874	2.285	2.003	1.124

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Non Ducted \geq 3.75 Stars (\geq 6)	Other or none specified	3.463	3.000	1.722	1.592	2.025	2.437	2.155	1.277

Table 6.2.3 Whole-of-home efficiency factors E_E (kW/100m²) – climate zone 6 – heat pump heating – South Australia

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Ducted < 2.25 Stars (< 3)	Evaporative	4.613	3.534	2.346	2.016	2.789	4.262	3.657	1.956
Heat pump - Ducted < 2.25 Stars (< 3)	Heat pump - Ducted < 2.25 stars (< 3)	4.931	3.877	2.675	2.352	3.114	4.606	4.001	2.287
Heat pump - Ducted < 2.25 Stars (< 3)	Heat pump - Ducted < 3 stars (< 4.5)	4.893	3.839	2.636	2.314	3.076	4.567	3.963	2.249
Heat pump - Ducted < 2.25 Stars (< 3)	Heat pump - Ducted < 3.75 stars (< 6)	4.835	3.781	2.578	2.256	3.018	4.509	3.905	2.191
Heat pump - Ducted < 2.25 Stars (< 3)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	4.777	3.723	2.520	2.198	2.960	4.451	3.847	2.133
Heat pump - Ducted < 2.25 Stars (< 3)	HP - Non-ducted < 2.25 stars (< 3)	4.868	3.808	2.609	2.281	3.047	4.537	3.933	2.217
Heat pump - Ducted < 2.25 Stars (< 3)	Heat pump - Non-ducted < 3 stars (< 4.5)	4.836	3.776	2.576	2.249	3.015	4.504	3.900	2.184

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Ducted < 2.25 Stars (< 3)	Heat pump - Non-ducted < 3.75 stars (< 6)	4.787	3.727	2.527	2.200	2.966	4.456	3.851	2.136
Heat pump - Ducted < 2.25 Stars (< 3)	Heat pump - Non-Ducted ≥ 3.75 stars (≥ 6)	4.738	3.678	2.478	2.151	2.917	4.407	3.802	2.087
Heat pump - Ducted < 2.25 Stars (< 3)	Other or none specified	4.931	3.877	2.675	2.352	3.114	4.606	4.001	2.287
Heat pump - Ducted < 3.0 Stars (< 4.5)	Evaporative	4.484	3.405	2.217	1.887	2.659	4.133	3.527	1.826
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted < 2.25 stars (< 3)	4.802	3.748	2.545	2.223	2.985	4.476	3.872	2.158
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted < 3 stars (< 4.5)	4.763	3.709	2.506	2.184	2.946	4.437	3.833	2.119
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted < 3.75 stars (< 6)	4.705	3.651	2.449	2.126	2.888	4.380	3.775	2.061
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	4.648	3.593	2.391	2.068	2.831	4.322	3.718	2.004

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted < 2.25 stars (< 3)	4.739	3.679	2.479	2.152	2.918	4.407	3.803	2.087
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted < 3 stars (< 4.5)	4.706	3.646	2.447	2.119	2.885	4.375	3.770	2.055
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted < 3.75 stars (< 6)	4.657	3.597	2.398	2.070	2.836	4.326	3.722	2.006
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	4.609	3.549	2.349	2.022	2.788	4.277	3.673	1.957
Heat pump - Ducted < 3.0 Stars (< 4.5)	Other or none specified	4.802	3.748	2.545	2.223	2.985	4.476	3.872	2.158
Heat pump - Ducted < 3.75 Stars (< 6)	Evaporative	4.289	3.210	2.022	1.692	2.465	3.938	3.333	1.632
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Ducted < 2.25 stars (< 3)	4.608	3.553	2.351	2.028	2.791	4.282	3.678	1.964
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Ducted < 3 stars (< 4.5)	4.569	3.515	2.312	1.990	2.752	4.243	3.639	1.925

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Ducted < 3.75 stars (< 6)	4.511	3.457	2.254	1.932	2.694	4.185	3.581	1.867
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	4.453	3.399	2.196	1.874	2.636	4.127	3.523	1.809
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Non-ducted < 2.25 stars (< 3)	4.544	3.484	2.285	1.957	2.723	4.213	3.609	1.893
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Non-ducted < 3 stars (< 4.5)	4.512	3.452	2.252	1.925	2.691	4.181	3.576	1.860
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Non-ducted < 3.75 stars (< 6)	4.463	3.403	2.203	1.876	2.642	4.132	3.527	1.812
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	4.414	3.354	2.155	1.827	2.593	4.083	3.479	1.763
Heat pump - Ducted < 3.75 Stars (< 6)	Other or none specified	4.608	3.553	2.351	2.028	2.791	4.282	3.678	1.964
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Evaporative	4.095	3.016	1.828	1.498	2.271	3.744	3.139	1.437

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted < 2.25 stars (< 3)	4.413	3.359	2.156	1.834	2.596	4.087	3.483	1.769
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted < 3 stars (< 4.5)	4.375	3.321	2.118	1.795	2.558	4.049	3.445	1.731
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted < 3.75 stars (< 6)	4.317	3.263	2.060	1.738	2.500	3.991	3.387	1.673
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	4.259	3.205	2.002	1.680	2.442	3.933	3.329	1.615
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-ducted < 2.25 stars (< 3)	4.350	3.290	2.090	1.763	2.529	4.019	3.414	1.699
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-ducted < 3 stars (< 4.5)	4.318	3.258	2.058	1.731	2.497	3.986	3.382	1.666
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-ducted < 3.75 stars (< 6)	4.269	3.209	2.009	1.682	2.448	3.937	3.333	1.617
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	4.220	3.160	1.960	1.633	2.399	3.889	3.284	1.568

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Ducted \geq 3.75 Stars (\geq 6)	Other or none specified	4.413	3.359	2.156	1.834	2.596	4.087	3.483	1.769
Heat pump - Non Ducted $<$ 2.25 Stars ($<$ 3)	Evaporative	4.389	3.300	2.130	1.800	2.571	4.024	3.421	1.739
Heat pump - Non Ducted $<$ 2.25 Stars ($<$ 3)	Heat pump - Ducted $<$ 2.25 stars ($<$ 3)	4.711	3.641	2.461	2.133	2.889	4.367	3.765	2.074
Heat pump - Non Ducted $<$ 2.25 Stars ($<$ 3)	Heat pump - Ducted $<$ 3 stars ($<$ 4.5)	4.672	3.603	2.422	2.095	2.850	4.329	3.727	2.036
Heat pump - Non Ducted $<$ 2.25 Stars ($<$ 3)	Heat pump - Ducted $<$ 3.75 stars ($<$ 6)	4.614	3.545	2.365	2.037	2.793	4.271	3.669	1.978
Heat pump - Non Ducted $<$ 2.25 Stars ($<$ 3)	Heat pump - Ducted \geq 3.75 stars (\geq 6)	4.556	3.487	2.307	1.979	2.735	4.213	3.611	1.920
Heat pump - Non Ducted $<$ 2.25 Stars ($<$ 3)	Heat pump - Non-ducted $<$ 2.25 stars ($<$ 3)	4.647	3.572	2.394	2.067	2.825	4.298	3.695	2.007
Heat pump - Non Ducted $<$ 2.25 Stars ($<$ 3)	Heat pump - Non-ducted $<$ 3 stars ($<$ 4.5)	4.614	3.540	2.361	2.034	2.792	4.266	3.663	1.974

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Non Ducted < 2.25 Stars (< 3)	Heat pump - Non-ducted < 3.75 stars (< 6)	4.565	3.491	2.313	1.985	2.743	4.217	3.614	1.926
Heat pump - Non Ducted < 2.25 Stars (< 3)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	4.517	3.442	2.264	1.936	2.695	4.168	3.565	1.877
Heat pump - Non Ducted < 2.25 Stars (< 3)	Other or none specified	4.711	3.641	2.461	2.133	2.889	4.367	3.765	2.074
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Evaporative	4.281	3.192	2.022	1.691	2.463	3.915	3.312	1.630
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted < 2.25 stars (< 3)	4.602	3.533	2.353	2.025	2.781	4.259	3.657	1.966
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted < 3 stars (< 4.5)	4.564	3.494	2.314	1.987	2.742	4.220	3.619	1.927
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted < 3.75 stars (< 6)	4.506	3.437	2.256	1.929	2.684	4.162	3.561	1.869
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	4.448	3.379	2.198	1.871	2.626	4.105	3.503	1.811

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted < 2.25 stars (< 3)	4.538	3.464	2.286	1.958	2.716	4.190	3.587	1.899
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted < 3 stars (< 4.5)	4.506	3.432	2.253	1.926	2.684	4.158	3.555	1.866
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted < 3.75 stars (< 6)	4.457	3.383	2.204	1.877	2.635	4.109	3.506	1.817
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	4.408	3.334	2.155	1.828	2.586	4.060	3.457	1.768
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Other or none specified	4.602	3.533	2.353	2.025	2.781	4.259	3.657	1.966
Heat pump - Non Ducted < 3.75 Stars (< 6)	Evaporative	4.118	3.030	1.860	1.529	2.300	3.753	3.150	1.468
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Ducted < 2.25 stars (< 3)	4.440	3.370	2.190	1.863	2.618	4.096	3.495	1.803
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Ducted < 3 stars (< 4.5)	4.401	3.332	2.152	1.824	2.580	4.058	3.456	1.765

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Ducted < 3.75 stars (< 6)	4.343	3.274	2.094	1.766	2.522	4.000	3.398	1.707
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	4.286	3.216	2.036	1.708	2.464	3.942	3.340	1.649
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Non-Ducted < 2.25 stars (< 3)	4.376	3.302	2.123	1.796	2.554	4.027	3.425	1.736
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Non-ducted < 3 stars (< 4.5)	4.343	3.269	2.090	1.763	2.521	3.995	3.392	1.703
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Non-ducted < 3.75 stars (< 6)	4.294	3.220	2.042	1.714	2.472	3.946	3.343	1.655
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	4.246	3.171	1.993	1.666	2.424	3.897	3.294	1.606
Heat pump - Non Ducted < 3.75 Stars (< 6)	Other or none specified	4.440	3.370	2.190	1.863	2.618	4.096	3.495	1.803
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Evaporative	3.956	2.867	1.697	1.366	2.138	3.590	2.987	1.305

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted < 2.25 stars (< 3)	4.277	3.208	2.028	1.700	2.456	3.934	3.332	1.641
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted < 3 stars (< 4.5)	4.239	3.169	1.989	1.661	2.417	3.895	3.293	1.602
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted < 3.75 stars (< 6)	4.181	3.111	1.931	1.604	2.359	3.837	3.236	1.544
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	4.123	3.054	1.873	1.546	2.301	3.780	3.178	1.486
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-ducted < 2.25 stars (< 3)	4.213	3.139	1.960	1.633	2.391	3.865	3.262	1.573
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-ducted < 3 stars (< 4.5)	4.181	3.106	1.928	1.601	2.359	3.832	3.230	1.541
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-Ducted < 3.75 stars (< 6)	4.132	3.058	1.879	1.552	2.310	3.784	3.181	1.492
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-Ducted ≥ 3.75 stars (≥ 6)	4.083	3.009	1.830	1.503	2.261	3.735	3.132	1.443

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Non Ducted \geq 3.75 Stars (\geq 6)	Other or none specified	4.277	3.208	2.028	1.700	2.456	3.934	3.332	1.641

Table 6.2.4 Whole-of-home efficiency factors E_E (kW/100m²) – climate zone 6 – heat pump heating – Western Australia

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Ducted < 2.25 Stars (< 3)	Evaporative	5.083	3.369	2.552	2.026	3.064	5.557	4.674	2.260
Heat pump - Ducted < 2.25 Stars (< 3)	Heat pump - Ducted < 2.25 stars (< 3)	5.440	3.750	2.907	2.397	3.424	5.931	5.055	2.643
Heat pump - Ducted < 2.25 Stars (< 3)	Heat pump - Ducted < 3 stars (< 4.5)	5.398	3.708	2.865	2.355	3.382	5.889	5.013	2.601
Heat pump - Ducted < 2.25 Stars (< 3)	Heat pump - Ducted < 3.75 stars (< 6)	5.335	3.645	2.802	2.292	3.319	5.826	4.950	2.538
Heat pump - Ducted < 2.25 Stars (< 3)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	5.272	3.581	2.738	2.229	3.256	5.763	4.886	2.475
Heat pump - Ducted < 2.25 Stars (< 3)	HP - Non-ducted < 2.25 stars (< 3)	5.369	3.672	2.835	2.318	3.352	5.854	4.978	2.565
Heat pump - Ducted < 2.25 Stars (< 3)	Heat pump - Non-ducted < 3 stars (< 4.5)	5.334	3.637	2.800	2.282	3.316	5.818	4.943	2.530

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Ducted < 2.25 Stars (< 3)	Heat pump - Non-ducted < 3.75 stars (< 6)	5.281	3.583	2.746	2.229	3.263	5.765	4.889	2.477
Heat pump - Ducted < 2.25 Stars (< 3)	Heat pump - Non-Ducted ≥ 3.75 stars (≥ 6)	5.227	3.530	2.693	2.176	3.210	5.712	4.836	2.423
Heat pump - Ducted < 2.25 Stars (< 3)	Other or none specified	5.440	3.750	2.907	2.397	3.424	5.931	5.055	2.643
Heat pump - Ducted < 3.0 Stars (< 4.5)	Evaporative	4.934	3.220	2.403	1.877	2.916	5.408	4.525	2.111
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted < 2.25 stars (< 3)	5.292	3.601	2.758	2.248	3.276	5.782	4.906	2.494
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted < 3 stars (< 4.5)	5.250	3.559	2.716	2.206	3.234	5.740	4.864	2.452
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted < 3.75 stars (< 6)	5.186	3.496	2.653	2.143	3.170	5.677	4.801	2.389
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	5.123	3.433	2.590	2.080	3.107	5.614	4.738	2.326

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted < 2.25 stars (< 3)	5.221	3.523	2.686	2.169	3.203	5.705	4.829	2.417
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted < 3 stars (< 4.5)	5.185	3.488	2.651	2.134	3.167	5.670	4.794	2.381
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted < 3.75 stars (< 6)	5.132	3.435	2.598	2.080	3.114	5.616	4.741	2.328
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	5.079	3.381	2.544	2.027	3.061	5.563	4.687	2.275
Heat pump - Ducted < 3.0 Stars (< 4.5)	Other or none specified	5.292	3.601	2.758	2.248	3.276	5.782	4.906	2.494
Heat pump - Ducted < 3.75 Stars (< 6)	Evaporative	4.711	2.997	2.180	1.654	2.692	5.185	4.302	1.888
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Ducted < 2.25 stars (< 3)	5.068	3.378	2.535	2.025	3.052	5.559	4.683	2.271
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Ducted < 3 stars (< 4.5)	5.026	3.336	2.493	1.983	3.010	5.517	4.641	2.229

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Ducted < 3.75 stars (< 6)	4.963	3.273	2.430	1.920	2.947	5.454	4.578	2.166
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	4.900	3.209	2.366	1.857	2.884	5.391	4.514	2.103
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Non-ducted < 2.25 stars (< 3)	4.997	3.300	2.463	1.946	2.980	5.482	4.606	2.193
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Non-ducted < 3 stars (< 4.5)	4.962	3.265	2.428	1.910	2.944	5.446	4.571	2.158
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Non-ducted < 3.75 stars (< 6)	4.909	3.211	2.374	1.857	2.891	5.393	4.517	2.105
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	4.856	3.158	2.321	1.804	2.838	5.340	4.464	2.051
Heat pump - Ducted < 3.75 Stars (< 6)	Other or none specified	5.068	3.378	2.535	2.025	3.052	5.559	4.683	2.271
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Evaporative	4.488	2.774	1.957	1.431	2.469	4.962	4.079	1.665

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted < 2.25 stars (< 3)	4.845	3.155	2.312	1.802	2.829	5.336	4.460	2.048
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted < 3 stars (< 4.5)	4.803	3.113	2.270	1.760	2.787	5.294	4.418	2.006
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted < 3.75 stars (< 6)	4.740	3.049	2.206	1.696	2.724	5.231	4.354	1.943
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	4.677	2.986	2.143	1.633	2.661	5.168	4.291	1.879
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-ducted < 2.25 stars (< 3)	4.774	3.077	2.240	1.723	2.756	5.259	4.383	1.970
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-ducted < 3 stars (< 4.5)	4.739	3.041	2.204	1.687	2.721	5.223	4.348	1.935
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-ducted < 3.75 stars (< 6)	4.686	2.988	2.151	1.634	2.668	5.170	4.294	1.882
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	4.632	2.935	2.098	1.581	2.615	5.117	4.241	1.828

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Ducted \geq 3.75 Stars (\geq 6)	Other or none specified	4.845	3.155	2.312	1.802	2.829	5.336	4.460	2.048
Heat pump - Non Ducted $<$ 2.25 Stars ($<$ 3)	Evaporative	4.825	3.099	2.305	1.781	2.808	5.277	4.395	2.014
Heat pump - Non Ducted $<$ 2.25 Stars ($<$ 3)	Heat pump - Ducted $<$ 2.25 stars ($<$ 3)	5.182	3.482	2.668	2.149	3.170	5.655	4.780	2.387
Heat pump - Non Ducted $<$ 2.25 Stars ($<$ 3)	Heat pump - Ducted $<$ 3 stars ($<$ 4.5)	5.140	3.440	2.626	2.107	3.128	5.612	4.738	2.345
Heat pump - Non Ducted $<$ 2.25 Stars ($<$ 3)	Heat pump - Ducted $<$ 3.75 stars ($<$ 6)	5.077	3.377	2.563	2.044	3.064	5.549	4.675	2.282
Heat pump - Non Ducted $<$ 2.25 Stars ($<$ 3)	Heat pump - Ducted \geq 3.75 stars (\geq 6)	5.013	3.314	2.499	1.981	3.001	5.486	4.612	2.219
Heat pump - Non Ducted $<$ 2.25 Stars ($<$ 3)	Heat pump - Non-ducted $<$ 2.25 stars ($<$ 3)	5.110	3.405	2.595	2.076	3.095	5.577	4.703	2.308
Heat pump - Non Ducted $<$ 2.25 Stars ($<$ 3)	Heat pump - Non-ducted $<$ 3 stars ($<$ 4.5)	5.075	3.369	2.559	2.040	3.060	5.542	4.667	2.272

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Non Ducted < 2.25 Stars (< 3)	Heat pump - Non-ducted < 3.75 stars (< 6)	5.021	3.316	2.506	1.987	3.006	5.488	4.614	2.219
Heat pump - Non Ducted < 2.25 Stars (< 3)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	4.968	3.263	2.453	1.934	2.953	5.435	4.561	2.166
Heat pump - Non Ducted < 2.25 Stars (< 3)	Other or none specified	5.182	3.482	2.668	2.149	3.170	5.655	4.780	2.387
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Evaporative	4.701	2.975	2.181	1.657	2.684	5.153	4.271	1.889
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted < 2.25 stars (< 3)	5.058	3.358	2.544	2.025	3.046	5.530	4.656	2.263
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted < 3 stars (< 4.5)	5.016	3.316	2.502	1.983	3.003	5.488	4.614	2.221
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted < 3.75 stars (< 6)	4.953	3.253	2.438	1.920	2.940	5.425	4.551	2.158
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	4.889	3.189	2.375	1.857	2.877	5.362	4.487	2.095

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted < 2.25 stars (< 3)	4.986	3.280	2.471	1.952	2.971	5.453	4.579	2.184
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted < 3 stars (< 4.5)	4.951	3.245	2.435	1.916	2.935	5.418	4.543	2.148
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted < 3.75 stars (< 6)	4.897	3.192	2.382	1.863	2.882	5.364	4.490	2.095
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	4.844	3.138	2.329	1.810	2.829	5.311	4.437	2.042
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Other or none specified	5.058	3.358	2.544	2.025	3.046	5.530	4.656	2.263
Heat pump - Non Ducted < 3.75 Stars (< 6)	Evaporative	4.515	2.789	1.994	1.471	2.498	4.966	4.085	1.703
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Ducted < 2.25 stars (< 3)	4.872	3.172	2.357	1.839	2.859	5.344	4.470	2.077
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Ducted < 3 stars (< 4.5)	4.829	3.130	2.315	1.797	2.817	5.302	4.428	2.035

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Ducted < 3.75 stars (< 6)	4.766	3.066	2.252	1.734	2.754	5.239	4.364	1.972
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	4.703	3.003	2.189	1.671	2.691	5.176	4.301	1.909
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Non-Ducted < 2.25 stars (< 3)	4.800	3.094	2.284	1.765	2.785	5.267	4.393	1.998
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Non-ducted < 3 stars (< 4.5)	4.764	3.059	2.249	1.730	2.749	5.231	4.357	1.962
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Non-ducted < 3.75 stars (< 6)	4.711	3.005	2.196	1.677	2.696	5.178	4.304	1.909
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	4.658	2.952	2.142	1.623	2.643	5.125	4.251	1.856
Heat pump - Non Ducted < 3.75 Stars (< 6)	Other or none specified	4.872	3.172	2.357	1.839	2.859	5.344	4.470	2.077
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Evaporative	4.328	2.602	1.808	1.285	2.311	4.780	3.899	1.517

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted < 2.25 stars (< 3)	4.685	2.985	2.171	1.653	2.673	5.158	4.283	1.891
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted < 3 stars (< 4.5)	4.643	2.943	2.129	1.611	2.631	5.116	4.241	1.849
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted < 3.75 stars (< 6)	4.580	2.880	2.066	1.548	2.568	5.053	4.178	1.786
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	4.517	2.817	2.003	1.484	2.505	4.990	4.115	1.722
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-ducted < 2.25 stars (< 3)	4.614	2.908	2.098	1.579	2.599	5.081	4.206	1.811
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-ducted < 3 stars (< 4.5)	4.578	2.873	2.063	1.544	2.563	5.045	4.171	1.776
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-Ducted < 3.75 stars (< 6)	4.525	2.819	2.010	1.490	2.510	4.992	4.118	1.723
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-Ducted ≥ 3.75 stars (≥ 6)	4.472	2.766	1.956	1.437	2.457	4.939	4.064	1.669

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Non Ducted \geq 3.75 Stars (\geq 6)	Other or none specified	4.685	2.985	2.171	1.653	2.673	5.158	4.283	1.891

Table 6.3.1 Whole-of-home efficiency factors E_E (kW/100m²) – climate zone 6 – other heating – New South Wales

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Electric - Resistance (Panel)	Evaporative	7.054	5.863	4.908	4.560	5.366	6.923	6.336	4.609
Electric - Resistance (Panel)	Heat pump - Ducted < 2.25 stars (< 3)	7.433	6.254	5.303	4.959	5.755	7.304	6.725	5.008
Electric - Resistance (Panel)	Heat pump - Ducted < 3 stars (< 4.5)	7.397	6.218	5.267	4.923	5.719	7.268	6.688	4.972
Electric - Resistance (Panel)	Heat pump - Ducted < 3.75 stars (< 6)	7.342	6.163	5.213	4.868	5.665	7.213	6.634	4.917
Electric - Resistance (Panel)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	7.288	6.109	5.159	4.814	5.610	7.159	6.580	4.863
Electric - Resistance (Panel)	Heat pump - Non-Ducted < 2.25 stars (< 3)	7.361	6.178	5.228	4.882	5.680	7.228	6.648	4.932
Electric - Resistance (Panel)	Heat pump - Non-Ducted < 3 stars (< 4.5)	7.330	6.147	5.198	4.852	5.650	7.197	6.618	4.901

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Electric - Resistance (Panel)	Heat pump - Non-ducted < 3.75 stars (< 6)	7.284	6.101	5.152	4.806	5.604	7.151	6.572	4.855
Electric - Resistance (Panel)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	7.238	6.055	5.106	4.760	5.558	7.106	6.526	4.809
Electric - Resistance (Panel)	Other or none specified	7.433	6.254	5.303	4.959	5.755	7.304	6.725	5.008
Wood Heater	Evaporative	4.737	3.501	2.580	2.204	3.004	4.586	3.984	2.251
Wood Heater	Heat pump - Ducted < 2.25 stars (< 3)	5.140	3.930	2.999	2.639	3.415	5.008	4.410	2.684
Wood Heater	Heat pump - Ducted < 3 stars (< 4.5)	5.104	3.894	2.962	2.602	3.378	4.972	4.374	2.648
Wood Heater	Heat pump - Ducted < 3.75 stars (< 6)	5.050	3.840	2.908	2.548	3.324	4.917	4.319	2.593
Wood Heater	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	4.995	3.785	2.854	2.494	3.270	4.863	4.265	2.539
Wood Heater	Heat pump - Non-ducted < 2.25 stars (< 3)	5.063	3.848	2.917	2.555	3.336	4.927	4.328	2.601
Wood Heater	Heat pump - Non-ducted < 3 stars (< 4.5)	5.033	3.818	2.886	2.525	3.305	4.897	4.298	2.570

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Wood Heater	Heat pump - Non-ducted < 3.75 stars (< 6)	4.987	3.772	2.840	2.479	3.259	4.851	4.252	2.525
Wood Heater	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	4.941	3.726	2.795	2.433	3.213	4.805	4.206	2.479
Wood Heater	Other or none specified	5.140	3.930	2.999	2.639	3.415	5.008	4.410	2.684
Electric - Resistance (Slab)	Evaporative	5.975	4.832	3.811	3.481	4.257	5.946	5.330	3.530
Electric - Resistance (Slab)	Heat pump - Ducted < 2.25 stars (< 3)	6.377	5.251	4.230	3.909	4.669	6.354	5.745	3.958
Electric - Resistance (Slab)	Heat pump - Ducted < 3 stars (< 4.5)	6.341	5.215	4.193	3.873	4.632	6.318	5.709	3.922
Electric - Resistance (Slab)	Heat pump - Ducted < 3.75 stars (< 6)	6.287	5.160	4.139	3.819	4.578	6.263	5.655	3.868
Electric - Resistance (Slab)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	6.232	5.106	4.085	3.764	4.524	6.209	5.600	3.813

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Electric - Resistance (Slab)	Heat pump - Non-ducted < 2.25 stars (< 3)	6.301	5.171	4.149	3.827	4.591	6.274	5.665	3.876
Electric - Resistance (Slab)	Heat pump - Non-ducted < 3 stars (< 4.5)	6.270	5.140	4.119	3.796	4.560	6.244	5.634	3.846
Electric - Resistance (Slab)	Heat pump - Non-ducted < 3.75 stars (< 6)	6.225	5.094	4.073	3.751	4.514	6.198	5.589	3.800
Electric - Resistance (Slab)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	6.179	5.048	4.027	3.705	4.468	6.152	5.543	3.754
Electric - Resistance (Slab)	Other or none specified	6.377	5.251	4.230	3.909	4.669	6.354	5.745	3.958
Other or none specified	Evaporative	4.355	3.045	2.231	1.835	2.640	4.072	3.498	1.878
Other or none specified	Heat pump - Ducted < 2.25 stars (< 3)	4.657	3.365	2.542	2.146	2.940	4.391	3.819	2.188
Other or none specified	Heat pump - Ducted < 3 stars (< 4.5)	4.621	3.328	2.506	2.110	2.904	4.354	3.782	2.152
Other or none specified	Heat pump - Ducted < 3.75 stars (< 6)	4.566	3.274	2.451	2.056	2.849	4.300	3.728	2.097

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Other or none specified	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	4.512	3.220	2.397	2.002	2.795	4.246	3.674	2.043
Other or none specified	Heat pump - Non-ducted < 2.25 stars (< 3)	4.597	3.300	2.479	2.084	2.877	4.327	3.754	2.126
Other or none specified	Heat pump - Non-ducted < 3 stars (< 4.5)	4.566	3.270	2.449	2.054	2.847	4.296	3.723	2.095
Other or none specified	Heat pump - Non-ducted < 3.75 stars (< 6)	4.521	3.224	2.403	2.008	2.801	4.250	3.678	2.049
Other or none specified	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	4.475	3.178	2.357	1.962	2.755	4.205	3.632	2.004
Other or none specified	Other or none specified	4.657	3.365	2.542	2.146	2.940	4.391	3.819	2.188

Table 6.3.2 Whole-of-home efficiency factors E_E (kW/100m²) – climate zone 6 – other heating – Victoria

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Electric - Resistance (Panel)	Evaporative	5.755	5.372	3.992	3.906	4.331	4.800	4.504	3.568
Electric - Resistance (Panel)	Heat pump - Ducted < 2.25 stars (< 3)	6.077	5.697	4.321	4.236	4.655	5.129	4.833	3.899
Electric - Resistance (Panel)	Heat pump - Ducted < 3 stars (< 4.5)	6.047	5.667	4.291	4.206	4.625	5.099	4.803	3.869
Electric - Resistance (Panel)	Heat pump - Ducted < 3.75 stars (< 6)	6.002	5.623	4.247	4.161	4.581	5.055	4.758	3.824
Electric - Resistance (Panel)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	5.958	5.578	4.202	4.117	4.536	5.010	4.714	3.780
Electric - Resistance (Panel)	Heat pump - Non-Ducted < 2.25 stars (< 3)	6.016	5.634	4.258	4.172	4.593	5.066	4.770	3.835
Electric - Resistance (Panel)	Heat pump - Non-Ducted < 3 stars (< 4.5)	5.991	5.610	4.234	4.148	4.569	5.042	4.745	3.811

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Electric - Resistance (Panel)	Heat pump - Non-ducted < 3.75 stars (< 6)	5.954	5.573	4.197	4.111	4.532	5.005	4.708	3.774
Electric - Resistance (Panel)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	5.917	5.536	4.160	4.074	4.495	4.968	4.671	3.737
Electric - Resistance (Panel)	Other or none specified	6.077	5.697	4.321	4.236	4.655	5.129	4.833	3.899
Wood Heater	Evaporative	3.988	3.584	2.218	2.110	2.536	3.009	2.708	1.779
Wood Heater	Heat pump - Ducted < 2.25 stars (< 3)	4.320	3.929	2.563	2.465	2.874	3.357	3.060	2.130
Wood Heater	Heat pump - Ducted < 3 stars (< 4.5)	4.290	3.899	2.533	2.435	2.845	3.327	3.030	2.101
Wood Heater	Heat pump - Ducted < 3.75 stars (< 6)	4.246	3.854	2.488	2.390	2.800	3.283	2.985	2.056
Wood Heater	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	4.201	3.810	2.443	2.346	2.755	3.238	2.941	2.011
Wood Heater	Heat pump - Non-ducted < 2.25 stars (< 3)	4.256	3.863	2.497	2.397	2.808	3.290	2.992	2.062
Wood Heater	Heat pump - Non-ducted < 3 stars (< 4.5)	4.231	3.838	2.472	2.372	2.784	3.265	2.967	2.037

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Wood Heater	Heat pump - Non-ducted < 3.75 stars (< 6)	4.194	3.801	2.435	2.335	2.747	3.228	2.930	2.000
Wood Heater	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	4.158	3.764	2.398	2.298	2.710	3.192	2.894	1.963
Wood Heater	Other or none specified	4.320	3.929	2.563	2.465	2.874	3.357	3.060	2.130
Electric - Resistance (Slab)	Evaporative	6.069	5.786	4.310	4.264	4.645	5.206	4.892	3.910
Electric - Resistance (Slab)	Heat pump - Ducted < 2.25 stars (< 3)	6.400	6.118	4.649	4.606	4.979	5.542	5.231	4.254
Electric - Resistance (Slab)	Heat pump - Ducted < 3 stars (< 4.5)	6.370	6.088	4.620	4.576	4.950	5.513	5.201	4.224
Electric - Resistance (Slab)	Heat pump - Ducted < 3.75 stars (< 6)	6.325	6.043	4.575	4.531	4.905	5.468	5.157	4.179
Electric - Resistance (Slab)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	6.280	5.999	4.530	4.486	4.860	5.423	5.112	4.135

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Electric - Resistance (Slab)	Heat pump - Non-ducted < 2.25 stars (< 3)	6.337	6.053	4.585	4.541	4.915	5.478	5.166	4.188
Electric - Resistance (Slab)	Heat pump - Non-ducted < 3 stars (< 4.5)	6.312	6.029	4.560	4.516	4.891	5.453	5.142	4.163
Electric - Resistance (Slab)	Heat pump - Non-ducted < 3.75 stars (< 6)	6.275	5.992	4.523	4.479	4.854	5.416	5.105	4.126
Electric - Resistance (Slab)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	6.238	5.955	4.486	4.442	4.817	5.379	5.068	4.089
Electric - Resistance (Slab)	Other or none specified	6.400	6.118	4.649	4.606	4.979	5.542	5.231	4.254
Other or none specified	Evaporative	3.680	3.214	1.932	1.797	2.237	2.648	2.363	1.478
Other or none specified	Heat pump - Ducted < 2.25 stars (< 3)	3.932	3.474	2.183	2.057	2.493	2.910	2.627	1.744
Other or none specified	Heat pump - Ducted < 3 stars (< 4.5)	3.902	3.444	2.154	2.027	2.463	2.880	2.597	1.714
Other or none specified	Heat pump - Ducted < 3.75 stars (< 6)	3.857	3.399	2.109	1.983	2.418	2.835	2.552	1.670

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Other or none specified	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	3.812	3.354	2.064	1.938	2.374	2.790	2.507	1.625
Other or none specified	Heat pump - Non-ducted < 2.25 stars (< 3)	3.881	3.421	2.131	2.005	2.441	2.856	2.573	1.690
Other or none specified	Heat pump - Non-ducted < 3 stars (< 4.5)	3.856	3.397	2.106	1.980	2.416	2.831	2.549	1.666
Other or none specified	Heat pump - Non-ducted < 3.75 stars (< 6)	3.819	3.360	2.070	1.943	2.379	2.794	2.512	1.629
Other or none specified	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	3.783	3.323	2.033	1.906	2.342	2.757	2.475	1.592
Other or none specified	Other or none specified	3.932	3.474	2.183	2.057	2.493	2.910	2.627	1.744

Table 6.3.3 Whole-of-home efficiency factors E_E (kW/100m²) – climate zone 6 – other heating – South Australia

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Electric - Resistance (Panel)	Evaporative	7.550	6.628	5.263	5.003	5.771	7.381	6.764	4.935
Electric - Resistance (Panel)	Heat pump - Ducted < 2.25 stars (< 3)	7.947	7.037	5.685	5.427	6.183	7.781	7.173	5.361
Electric - Resistance (Panel)	Heat pump - Ducted < 3 stars (< 4.5)	7.909	6.999	5.646	5.389	6.144	7.743	7.134	5.323
Electric - Resistance (Panel)	Heat pump - Ducted < 3.75 stars (< 6)	7.851	6.941	5.588	5.331	6.087	7.685	7.076	5.265
Electric - Resistance (Panel)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	7.793	6.883	5.530	5.273	6.029	7.627	7.019	5.207
Electric - Resistance (Panel)	Heat pump - Non-Ducted < 2.25 stars (< 3)	7.871	6.956	5.604	5.346	6.103	7.700	7.091	5.280
Electric - Resistance (Panel)	Heat pump - Non-Ducted < 3 stars (< 4.5)	7.838	6.923	5.571	5.313	6.070	7.668	7.059	5.247

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Electric - Resistance (Panel)	Heat pump - Non-ducted < 3.75 stars (< 6)	7.789	6.875	5.522	5.265	6.021	7.619	7.010	5.198
Electric - Resistance (Panel)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	7.741	6.826	5.473	5.216	5.972	7.570	6.961	5.149
Electric - Resistance (Panel)	Other or none specified	7.947	7.037	5.685	5.427	6.183	7.781	7.173	5.361
Wood Heater	Evaporative	4.633	3.619	2.337	2.021	2.787	4.387	3.755	1.957
Wood Heater	Heat pump - Ducted < 2.25 stars (< 3)	5.061	4.079	2.779	2.492	3.231	4.843	4.215	2.426
Wood Heater	Heat pump - Ducted < 3 stars (< 4.5)	5.023	4.040	2.740	2.453	3.193	4.804	4.176	2.387
Wood Heater	Heat pump - Ducted < 3.75 stars (< 6)	4.965	3.982	2.682	2.395	3.135	4.746	4.118	2.329
Wood Heater	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	4.907	3.924	2.625	2.337	3.077	4.689	4.061	2.271
Wood Heater	Heat pump - Non-ducted < 2.25 stars (< 3)	4.979	3.991	2.694	2.401	3.146	4.756	4.126	2.334
Wood Heater	Heat pump - Non-ducted < 3 stars (< 4.5)	4.946	3.958	2.661	2.368	3.113	4.723	4.093	2.302

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Wood Heater	Heat pump - Non-ducted < 3.75 stars (< 6)	4.897	3.909	2.612	2.320	3.064	4.675	4.045	2.253
Wood Heater	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	4.849	3.861	2.564	2.271	3.016	4.626	3.996	2.204
Wood Heater	Other or none specified	5.061	4.079	2.779	2.492	3.231	4.843	4.215	2.426
Electric - Resistance (Slab)	Evaporative	6.874	6.045	4.561	4.341	5.060	6.855	6.198	4.270
Electric - Resistance (Slab)	Heat pump - Ducted < 2.25 stars (< 3)	7.298	6.481	5.010	4.797	5.498	7.282	6.635	4.726
Electric - Resistance (Slab)	Heat pump - Ducted < 3 stars (< 4.5)	7.259	6.443	4.971	4.758	5.460	7.243	6.597	4.688
Electric - Resistance (Slab)	Heat pump - Ducted < 3.75 stars (< 6)	7.201	6.385	4.913	4.700	5.402	7.185	6.539	4.630
Electric - Resistance (Slab)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	7.144	6.327	4.855	4.642	5.344	7.127	6.481	4.572

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Electric - Resistance (Slab)	Heat pump - Non-ducted < 2.25 stars (< 3)	7.217	6.395	4.924	4.710	5.414	7.196	6.549	4.640
Electric - Resistance (Slab)	Heat pump - Non-ducted < 3 stars (< 4.5)	7.184	6.363	4.892	4.677	5.381	7.164	6.517	4.607
Electric - Resistance (Slab)	Heat pump - Non-ducted < 3.75 stars (< 6)	7.135	6.314	4.843	4.628	5.333	7.115	6.468	4.558
Electric - Resistance (Slab)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	7.087	6.265	4.794	4.579	5.284	7.066	6.419	4.509
Electric - Resistance (Slab)	Other or none specified	7.298	6.481	5.010	4.797	5.498	7.282	6.635	4.726
Other or none specified	Evaporative	4.613	3.534	2.346	2.016	2.789	4.262	3.657	1.956
Other or none specified	Heat pump - Ducted < 2.25 stars (< 3)	4.931	3.877	2.675	2.352	3.114	4.606	4.001	2.287
Other or none specified	Heat pump - Ducted < 3 stars (< 4.5)	4.893	3.839	2.636	2.314	3.076	4.567	3.963	2.249
Other or none specified	Heat pump - Ducted < 3.75 stars (< 6)	4.835	3.781	2.578	2.256	3.018	4.509	3.905	2.191

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Other or none specified	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	4.777	3.723	2.520	2.198	2.960	4.451	3.847	2.133
Other or none specified	Heat pump - Non-ducted < 2.25 stars (< 3)	4.868	3.808	2.609	2.281	3.047	4.537	3.933	2.217
Other or none specified	Heat pump - Non-ducted < 3 stars (< 4.5)	4.836	3.776	2.576	2.249	3.015	4.504	3.900	2.184
Other or none specified	Heat pump - Non-ducted < 3.75 stars (< 6)	4.787	3.727	2.527	2.200	2.966	4.456	3.851	2.136
Other or none specified	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	4.738	3.678	2.478	2.151	2.917	4.407	3.802	2.087
Other or none specified	Other or none specified	4.931	3.877	2.675	2.352	3.114	4.606	4.001	2.287

Table 6.3.4 Whole-of-home efficiency factors E_E (kW/100m²) – climate zone 6 – other heating – Western Australia

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Electric - Resistance (Panel)	Evaporative	8.463	6.955	5.935	5.472	6.536	9.166	8.295	5.754
Electric - Resistance (Panel)	Heat pump - Ducted < 2.25 stars (< 3)	8.888	7.405	6.401	5.944	6.986	9.579	8.723	6.222
Electric - Resistance (Panel)	Heat pump - Ducted < 3 stars (< 4.5)	8.846	7.363	6.359	5.902	6.944	9.537	8.681	6.180
Electric - Resistance (Panel)	Heat pump - Ducted < 3.75 stars (< 6)	8.783	7.300	6.296	5.838	6.881	9.474	8.618	6.117
Electric - Resistance (Panel)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	8.720	7.237	6.233	5.775	6.818	9.410	8.555	6.054
Electric - Resistance (Panel)	Heat pump - Non-Ducted < 2.25 stars (< 3)	8.805	7.314	6.310	5.852	6.896	9.490	8.633	6.130
Electric - Resistance (Panel)	Heat pump - Non-Ducted < 3 stars (< 4.5)	8.769	7.279	6.275	5.816	6.861	9.454	8.598	6.095

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Electric - Resistance (Panel)	Heat pump - Non-ducted < 3.75 stars (< 6)	8.716	7.225	6.221	5.763	6.808	9.401	8.545	6.042
Electric - Resistance (Panel)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	8.663	7.172	6.168	5.710	6.754	9.348	8.491	5.988
Electric - Resistance (Panel)	Other or none specified	8.888	7.405	6.401	5.944	6.986	9.579	8.723	6.222
Wood Heater	Evaporative	5.544	3.925	2.951	2.454	3.497	6.247	5.319	2.721
Wood Heater	Heat pump - Ducted < 2.25 stars (< 3)	6.023	4.442	3.447	2.976	3.994	6.739	5.825	3.247
Wood Heater	Heat pump - Ducted < 3 stars (< 4.5)	5.981	4.400	3.405	2.934	3.952	6.697	5.783	3.205
Wood Heater	Heat pump - Ducted < 3.75 stars (< 6)	5.918	4.337	3.342	2.870	3.889	6.634	5.719	3.141
Wood Heater	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	5.855	4.273	3.279	2.807	3.825	6.571	5.656	3.078
Wood Heater	Heat pump - Non-ducted < 2.25 stars (< 3)	5.933	4.342	3.352	2.872	3.898	6.641	5.726	3.145
Wood Heater	Heat pump - Non-ducted < 3 stars (< 4.5)	5.897	4.307	3.316	2.837	3.863	6.606	5.691	3.110

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Wood Heater	Heat pump - Non-ducted < 3.75 stars (< 6)	5.844	4.254	3.263	2.783	3.810	6.553	5.638	3.056
Wood Heater	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	5.791	4.200	3.210	2.730	3.756	6.500	5.584	3.003
Wood Heater	Other or none specified	6.023	4.442	3.447	2.976	3.994	6.739	5.825	3.247
Electric - Resistance (Slab)	Evaporative	6.732	5.210	4.119	3.669	4.699	7.578	6.641	3.959
Electric - Resistance (Slab)	Heat pump - Ducted < 2.25 stars (< 3)	7.205	5.714	4.624	4.188	5.193	8.044	7.126	4.477
Electric - Resistance (Slab)	Heat pump - Ducted < 3 stars (< 4.5)	7.163	5.672	4.582	4.146	5.151	8.002	7.083	4.435
Electric - Resistance (Slab)	Heat pump - Ducted < 3.75 stars (< 6)	7.100	5.609	4.519	4.083	5.088	7.939	7.020	4.372
Electric - Resistance (Slab)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	7.036	5.546	4.456	4.020	5.025	7.876	6.957	4.309

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Electric - Resistance (Slab)	Heat pump - Non-ducted < 2.25 stars (< 3)	7.114	5.616	4.528	4.088	5.098	7.948	7.028	4.378
Electric - Resistance (Slab)	Heat pump - Non-ducted < 3 stars (< 4.5)	7.079	5.581	4.492	4.052	5.063	7.913	6.993	4.342
Electric - Resistance (Slab)	Heat pump - Non-ducted < 3.75 stars (< 6)	7.025	5.528	4.439	3.999	5.009	7.859	6.940	4.289
Electric - Resistance (Slab)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	6.972	5.474	4.386	3.946	4.956	7.806	6.887	4.236
Electric - Resistance (Slab)	Other or none specified	7.205	5.714	4.624	4.188	5.193	8.044	7.126	4.477
Other or none specified	Evaporative	5.083	3.369	2.552	2.026	3.064	5.557	4.674	2.260
Other or none specified	Heat pump - Ducted < 2.25 stars (< 3)	5.440	3.750	2.907	2.397	3.424	5.931	5.055	2.643
Other or none specified	Heat pump - Ducted < 3 stars (< 4.5)	5.398	3.708	2.865	2.355	3.382	5.889	5.013	2.601
Other or none specified	Heat pump - Ducted < 3.75 stars (< 6)	5.335	3.645	2.802	2.292	3.319	5.826	4.950	2.538

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Other or none specified	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	5.272	3.581	2.738	2.229	3.256	5.763	4.886	2.475
Other or none specified	Heat pump - Non-ducted < 2.25 stars (< 3)	5.369	3.672	2.835	2.318	3.352	5.854	4.978	2.565
Other or none specified	Heat pump - Non-ducted < 3 stars (< 4.5)	5.334	3.637	2.800	2.282	3.316	5.818	4.943	2.530
Other or none specified	Heat pump - Non-ducted < 3.75 stars (< 6)	5.281	3.583	2.746	2.229	3.263	5.765	4.889	2.477
Other or none specified	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	5.227	3.530	2.693	2.176	3.210	5.712	4.836	2.423
Other or none specified	Other or none specified	5.440	3.750	2.907	2.397	3.424	5.931	5.055	2.643

2.4.7 Climate zone 7

Table 7.1.1 Whole-of-home efficiency factors E_E (kW/100m²) – climate zone 7 – gas heating – New South Wales

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas – ducted < 3 Stars	Evaporative	6.878	5.956	4.935	4.691	4.828	6.988	6.428	4.446
Gas – ducted < 3 Stars	Heat pump - Ducted < 2.25 stars (< 3)	7.226	6.308	5.292	5.051	5.183	7.337	6.780	4.808
Gas – ducted < 3 Stars	Heat pump - Ducted < 3 stars (< 4.5)	7.182	6.264	5.249	5.008	5.139	7.293	6.736	4.765
Gas – ducted < 3 Stars	Heat pump - Ducted < 3.75 stars (< 6)	7.117	6.199	5.183	4.942	5.073	7.227	6.670	4.699
Gas – ducted < 3 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	7.051	6.133	5.117	4.876	5.007	7.161	6.604	4.633
Gas – ducted < 3 Stars	HP - Non-ducted < 2.25 stars (< 3)	7.157	6.238	5.221	4.979	5.112	7.267	6.709	4.735
Gas – ducted < 3 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	7.121	6.201	5.185	4.943	5.075	7.230	6.673	4.699
Gas – ducted < 3 Stars	Heat pump - Non-ducted < 3.75 stars (< 6)	7.066	6.146	5.129	4.888	5.020	7.175	6.618	4.644
Gas – ducted < 3 Stars	Heat pump - Non-Ducted ≥ 3.75 stars (≥ 6)	7.010	6.091	5.074	4.833	4.965	7.120	6.563	4.589

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas – ducted < 3 Stars	Other or none specified	7.226	6.308	5.292	5.051	5.183	7.337	6.780	4.808
Gas – ducted < 4.5 Stars	Evaporative	6.466	5.544	4.523	4.279	4.416	6.576	6.016	4.034
Gas – ducted < 4.5 Stars	Heat pump - Ducted < 2.25 stars (< 3)	6.814	5.896	4.881	4.639	4.771	6.925	6.368	4.396
Gas – ducted < 4.5 Stars	Heat pump - Ducted < 3 stars (< 4.5)	6.770	5.852	4.837	4.596	4.727	6.881	6.324	4.353
Gas – ducted < 4.5 Stars	Heat pump - Ducted < 3.75 stars (< 6)	6.705	5.787	4.771	4.530	4.661	6.815	6.258	4.287
Gas – ducted < 4.5 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	6.639	5.721	4.705	4.464	4.595	6.749	6.192	4.221
Gas – ducted < 4.5 Stars	Heat pump - Non-ducted < 2.25 stars (< 3)	6.745	5.826	4.809	4.567	4.700	6.855	6.297	4.323
Gas – ducted < 4.5 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	6.709	5.789	4.773	4.531	4.663	6.818	6.261	4.287
Gas – ducted < 4.5 Stars	Heat pump - Non-ducted < 3.75 stars (< 6)	6.654	5.734	4.717	4.476	4.608	6.763	6.206	4.232
Gas – ducted < 4.5 Stars	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	6.598	5.679	4.662	4.421	4.553	6.708	6.151	4.177

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas – ducted < 4.5 Stars	Other or none specified	6.814	5.896	4.881	4.639	4.771	6.925	6.368	4.396
Gas – ducted < 6 Stars	Evaporative	5.848	4.926	3.905	3.661	3.798	5.958	5.398	3.416
Gas – ducted < 6 Stars	Heat pump - Ducted < 2.25 stars (< 3)	6.196	5.278	4.263	4.021	4.153	6.307	5.750	3.778
Gas – ducted < 6 Stars	Heat pump - Ducted < 3 stars (< 4.5)	6.152	5.234	4.219	3.978	4.109	6.263	5.706	3.735
Gas – ducted < 6 Stars	Heat pump - Ducted < 3.75 stars (< 6)	6.087	5.169	4.153	3.912	4.043	6.197	5.640	3.669
Gas – ducted < 6 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	6.021	5.103	4.087	3.846	3.977	6.131	5.574	3.603
Gas – ducted < 6 Stars	Heat pump - Non-ducted < 2.25 stars (< 3)	6.127	5.208	4.191	3.949	4.082	6.237	5.679	3.705
Gas – ducted < 6 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	6.091	5.171	4.155	3.913	4.046	6.200	5.643	3.669
Gas – ducted < 6 Stars	Heat pump - Non-ducted < 3.75 stars (< 6)	6.036	5.116	4.099	3.858	3.990	6.145	5.588	3.614
Gas – ducted < 6 Stars	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	5.980	5.061	4.044	3.803	3.935	6.090	5.533	3.559

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas – ducted < 6 Stars	Other or none specified	6.196	5.278	4.263	4.021	4.153	6.307	5.750	3.778
Gas – ducted ≥ 6 Stars	Evaporative	5.230	4.308	3.287	3.043	3.180	5.340	4.780	2.798
Gas – ducted ≥ 6 Stars	Heat pump - Ducted < 2.25 stars (< 3)	5.578	4.660	3.645	3.403	3.535	5.689	5.132	3.160
Gas – ducted ≥ 6 Stars	Heat pump - Ducted < 3 stars (< 4.5)	5.535	4.616	3.601	3.360	3.491	5.645	5.088	3.117
Gas – ducted ≥ 6 Stars	Heat pump - Ducted < 3.75 stars (< 6)	5.469	4.551	3.535	3.294	3.425	5.579	5.022	3.051
Gas – ducted ≥ 6 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	5.403	4.485	3.469	3.228	3.359	5.513	4.956	2.985
Gas – ducted ≥ 6 Stars	Heat pump - Non-ducted < 2.25 stars (< 3)	5.509	4.590	3.573	3.331	3.464	5.619	5.061	3.087
Gas – ducted ≥ 6 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	5.473	4.553	3.537	3.295	3.428	5.582	5.025	3.051
Gas – ducted ≥ 6 Stars	Heat pump - Non-ducted < 3.75 stars (< 6)	5.418	4.498	3.481	3.240	3.372	5.527	4.970	2.996
Gas – ducted ≥ 6 Stars	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	5.363	4.443	3.426	3.185	3.317	5.472	4.915	2.941

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas – ducted ≥ 6 Stars	Other or none specified	5.578	4.660	3.645	3.403	3.535	5.689	5.132	3.160
Gas - non ducted < 3 Stars	Evaporative	5.851	4.905	3.899	3.644	3.789	5.931	5.372	3.401
Gas - non ducted < 3 Stars	Heat pump - Ducted < 2.25 stars (< 3)	6.202	5.262	4.264	4.014	4.150	6.285	5.729	3.773
Gas - non ducted < 3 Stars	Heat pump - Ducted < 3 stars (< 4.5)	6.158	5.218	4.220	3.970	4.106	6.241	5.685	3.729
Gas - non ducted < 3 Stars	Heat pump - Ducted < 3.75 stars (< 6)	6.092	5.152	4.154	3.904	4.040	6.175	5.619	3.664
Gas - non ducted < 3 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	6.026	5.086	4.089	3.839	3.975	6.109	5.553	3.598
Gas - non ducted < 3 Stars	Heat pump - Non-ducted < 2.25 stars (< 3)	6.132	5.191	4.189	3.938	4.077	6.214	5.658	3.696
Gas - non ducted < 3 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	6.095	5.154	4.153	3.902	4.040	6.178	5.621	3.659
Gas - non ducted < 3 Stars	Heat pump - Non-ducted < 3.75 stars (< 6)	6.040	5.099	4.098	3.847	3.985	6.123	5.566	3.604
Gas - non ducted < 3 Stars	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	5.985	5.044	4.043	3.792	3.930	6.067	5.511	3.549

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas - non ducted < 3 Stars	Other or none specified	6.202	5.262	4.264	4.014	4.150	6.285	5.729	3.773
Gas - non ducted < 4.5 Stars	Evaporative	5.636	4.691	3.684	3.430	3.575	5.717	5.158	3.187
Gas - non ducted < 4.5 Stars	Heat pump - Ducted < 2.25 stars (< 3)	5.987	5.048	4.050	3.800	3.936	6.071	5.515	3.559
Gas - non ducted < 4.5 Stars	Heat pump - Ducted < 3 stars (< 4.5)	5.943	5.004	4.006	3.756	3.892	6.027	5.471	3.515
Gas - non ducted < 4.5 Stars	Heat pump - Ducted < 3.75 stars (< 6)	5.878	4.938	3.940	3.690	3.826	5.961	5.405	3.449
Gas - non ducted < 4.5 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	5.812	4.872	3.874	3.624	3.760	5.895	5.339	3.383
Gas - non ducted < 4.5 Stars	Heat pump - Non-ducted < 2.25 stars (< 3)	5.918	4.977	3.975	3.724	3.862	6.000	5.444	3.482
Gas - non ducted < 4.5 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	5.881	4.940	3.938	3.687	3.826	5.963	5.407	3.445

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas - non ducted < 4.5 Stars	Heat pump - Non-ducted < 3.75 stars (< 6)	5.826	4.885	3.883	3.632	3.771	5.908	5.352	3.390
Gas - non ducted < 4.5 Stars	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	5.771	4.830	3.828	3.577	3.716	5.853	5.297	3.335
Gas - non ducted < 4.5 Stars	Other or none specified	5.987	5.048	4.050	3.800	3.936	6.071	5.515	3.559
Gas - non ducted < 6 Stars	Evaporative	5.315	4.369	3.363	3.108	3.253	5.396	4.837	2.866
Gas - non ducted < 6 Stars	Heat pump - Ducted < 2.25 stars (< 3)	5.666	4.726	3.729	3.479	3.615	5.749	5.193	3.238
Gas - non ducted < 6 Stars	Heat pump - Ducted < 3 stars (< 4.5)	5.622	4.682	3.685	3.435	3.571	5.705	5.149	3.194
Gas - non ducted < 6 Stars	Heat pump - Ducted < 3.75 stars (< 6)	5.556	4.617	3.619	3.369	3.505	5.640	5.084	3.128
Gas - non ducted < 6 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	5.490	4.551	3.553	3.303	3.439	5.574	5.018	3.062
Gas - non ducted < 6 Stars	Heat pump - Non-Ducted < 2.25 stars (< 3)	5.596	4.655	3.654	3.403	3.541	5.679	5.122	3.160

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas - non ducted < 6 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	5.560	4.619	3.617	3.366	3.504	5.642	5.086	3.123
Gas - non ducted < 6 Stars	Heat pump - Non-ducted < 3.75 stars (< 6)	5.505	4.563	3.562	3.311	3.449	5.587	5.031	3.068
Gas - non ducted < 6 Stars	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	5.450	4.508	3.507	3.256	3.394	5.532	4.975	3.013
Gas - non ducted < 6 Stars	Other or none specified	5.666	4.726	3.729	3.479	3.615	5.749	5.193	3.238
Gas - non ducted ≥ 6 Stars	Evaporative	4.994	4.048	3.042	2.787	2.932	5.074	4.515	2.544
Gas - non ducted ≥ 6 Stars	Heat pump - Ducted < 2.25 stars (< 3)	5.345	4.405	3.407	3.157	3.293	5.428	4.872	2.916
Gas - non ducted ≥ 6 Stars	Heat pump - Ducted < 3 stars (< 4.5)	5.301	4.361	3.363	3.113	3.249	5.384	4.828	2.873
Gas - non ducted ≥ 6 Stars	Heat pump - Ducted < 3.75 stars (< 6)	5.235	4.295	3.297	3.047	3.183	5.318	4.762	2.807
Gas - non ducted ≥ 6 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	5.169	4.229	3.232	2.982	3.118	5.252	4.696	2.741
Gas - non ducted ≥ 6 Stars	Heat pump - Non-ducted < 2.25 stars (< 3)	5.275	4.334	3.332	3.081	3.220	5.357	4.801	2.839

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas - non ducted ≥ 6 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	5.238	4.297	3.296	3.045	3.183	5.321	4.764	2.802
Gas - non ducted ≥ 6 Stars	Heat pump - Non-Ducted < 3.75 stars (< 6)	5.183	4.242	3.241	2.990	3.128	5.266	4.709	2.747
Gas - non ducted ≥ 6 Stars	Heat pump - Non-Ducted ≥ 3.75 stars (≥ 6)	5.128	4.187	3.186	2.935	3.073	5.210	4.654	2.692
Gas - non ducted ≥ 6 Stars	Other or none specified	5.345	4.405	3.407	3.157	3.293	5.428	4.872	2.916

Table 7.1.2 Whole-of-home efficiency factors E_E (kW/100m²) – climate zone 7 – gas heating – Victoria

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas – ducted < 3 Stars	Evaporative	4.669	4.389	3.057	3.002	2.952	3.884	3.604	2.556
Gas – ducted < 3 Stars	Heat pump - Ducted < 2.25 stars (< 3)	4.981	4.701	3.384	3.328	3.275	4.201	3.924	2.887
Gas – ducted < 3 Stars	Heat pump - Ducted < 3 stars (< 4.5)	4.943	4.663	3.346	3.290	3.237	4.163	3.886	2.849
Gas – ducted < 3 Stars	Heat pump - Ducted < 3.75 stars (< 6)	4.885	4.605	3.288	3.232	3.179	4.105	3.828	2.792
Gas – ducted < 3 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	4.828	4.548	3.231	3.175	3.122	4.048	3.771	2.734
Gas – ducted < 3 Stars	HP - Non-ducted < 2.25 stars (< 3)	4.918	4.639	3.318	3.262	3.210	4.137	3.859	2.821
Gas – ducted < 3 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	4.886	4.607	3.286	3.230	3.177	4.105	3.827	2.788
Gas – ducted < 3 Stars	Heat pump - Non-ducted < 3.75 stars (< 6)	4.838	4.559	3.238	3.181	3.129	4.057	3.779	2.740
Gas – ducted < 3 Stars	Heat pump - Non-Ducted ≥ 3.75 stars (≥ 6)	4.789	4.510	3.189	3.133	3.081	4.009	3.730	2.692
Gas – ducted < 3 Stars	Other or none specified	4.981	4.701	3.384	3.328	3.275	4.201	3.924	2.887

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas – ducted < 4.5 Stars	Evaporative	4.447	4.167	2.835	2.780	2.730	3.662	3.382	2.334
Gas – ducted < 4.5 Stars	Heat pump - Ducted < 2.25 stars (< 3)	4.759	4.479	3.162	3.106	3.053	3.979	3.702	2.665
Gas – ducted < 4.5 Stars	Heat pump - Ducted < 3 stars (< 4.5)	4.720	4.441	3.123	3.068	3.015	3.941	3.664	2.627
Gas – ducted < 4.5 Stars	Heat pump - Ducted < 3.75 stars (< 6)	4.663	4.383	3.066	3.010	2.957	3.883	3.606	2.569
Gas – ducted < 4.5 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	4.605	4.326	3.008	2.953	2.900	3.826	3.549	2.512
Gas – ducted < 4.5 Stars	Heat pump - Non-ducted < 2.25 stars (< 3)	4.696	4.417	3.096	3.040	2.987	3.915	3.637	2.598
Gas – ducted < 4.5 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	4.664	4.385	3.064	3.007	2.955	3.883	3.605	2.566
Gas – ducted < 4.5 Stars	Heat pump - Non-ducted < 3.75 stars (< 6)	4.615	4.336	3.015	2.959	2.907	3.835	3.556	2.518
Gas – ducted < 4.5 Stars	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	4.567	4.288	2.967	2.911	2.858	3.786	3.508	2.469
Gas – ducted < 4.5 Stars	Other or none specified	4.759	4.479	3.162	3.106	3.053	3.979	3.702	2.665

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas – ducted < 6 Stars	Evaporative	4.113	3.834	2.502	2.446	2.397	3.328	3.048	2.000
Gas – ducted < 6 Stars	Heat pump - Ducted < 2.25 stars (< 3)	4.425	4.146	2.828	2.773	2.720	3.645	3.368	2.332
Gas – ducted < 6 Stars	Heat pump - Ducted < 3 stars (< 4.5)	4.387	4.107	2.790	2.734	2.681	3.607	3.330	2.294
Gas – ducted < 6 Stars	Heat pump - Ducted < 3.75 stars (< 6)	4.329	4.050	2.733	2.677	2.624	3.550	3.273	2.236
Gas – ducted < 6 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	4.272	3.992	2.675	2.619	2.566	3.492	3.215	2.179
Gas – ducted < 6 Stars	Heat pump - Non-ducted < 2.25 stars (< 3)	4.362	4.083	2.762	2.706	2.654	3.582	3.304	2.265
Gas – ducted < 6 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	4.330	4.051	2.730	2.674	2.622	3.550	3.271	2.233
Gas – ducted < 6 Stars	Heat pump - Non-ducted < 3.75 stars (< 6)	4.282	4.003	2.682	2.626	2.573	3.501	3.223	2.184
Gas – ducted < 6 Stars	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	4.234	3.955	2.634	2.577	2.525	3.453	3.175	2.136
Gas – ducted < 6 Stars	Other or none specified	4.425	4.146	2.828	2.773	2.720	3.645	3.368	2.332

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas – ducted ≥ 6 Stars	Evaporative	3.780	3.500	2.168	2.113	2.063	2.995	2.715	1.667
Gas – ducted ≥ 6 Stars	Heat pump - Ducted < 2.25 stars (< 3)	4.092	3.812	2.495	2.439	2.386	3.312	3.035	1.998
Gas – ducted ≥ 6 Stars	Heat pump - Ducted < 3 stars (< 4.5)	4.053	3.774	2.457	2.401	2.348	3.274	2.997	1.960
Gas – ducted ≥ 6 Stars	Heat pump - Ducted < 3.75 stars (< 6)	3.996	3.716	2.399	2.343	2.290	3.216	2.939	1.903
Gas – ducted ≥ 6 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	3.939	3.659	2.342	2.286	2.233	3.159	2.882	1.845
Gas – ducted ≥ 6 Stars	Heat pump - Non-ducted < 2.25 stars (< 3)	4.029	3.750	2.429	2.373	2.321	3.248	2.970	1.931
Gas – ducted ≥ 6 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	3.997	3.718	2.397	2.341	2.288	3.216	2.938	1.899
Gas – ducted ≥ 6 Stars	Heat pump - Non-ducted < 3.75 stars (< 6)	3.949	3.670	2.349	2.292	2.240	3.168	2.890	1.851
Gas – ducted ≥ 6 Stars	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	3.900	3.621	2.300	2.244	2.192	3.120	2.841	1.803
Gas – ducted ≥ 6 Stars	Other or none specified	4.092	3.812	2.495	2.439	2.386	3.312	3.035	1.998

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas - non ducted < 3 Stars	Evaporative	4.089	3.795	2.478	2.413	2.370	3.288	3.009	1.972
Gas - non ducted < 3 Stars	Heat pump - Ducted < 2.25 stars (< 3)	4.405	4.110	2.807	2.746	2.698	3.610	3.336	2.310
Gas - non ducted < 3 Stars	Heat pump - Ducted < 3 stars (< 4.5)	4.366	4.072	2.769	2.708	2.660	3.571	3.298	2.272
Gas - non ducted < 3 Stars	Heat pump - Ducted < 3.75 stars (< 6)	4.309	4.015	2.712	2.650	2.602	3.514	3.240	2.214
Gas - non ducted < 3 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	4.252	3.957	2.654	2.593	2.545	3.457	3.183	2.157
Gas - non ducted < 3 Stars	Heat pump - Non-ducted < 2.25 stars (< 3)	4.341	4.047	2.741	2.679	2.632	3.544	3.270	2.240
Gas - non ducted < 3 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	4.308	4.015	2.709	2.647	2.600	3.512	3.237	2.208
Gas - non ducted < 3 Stars	Heat pump - Non-ducted < 3.75 stars (< 6)	4.260	3.967	2.661	2.598	2.551	3.464	3.189	2.160
Gas - non ducted < 3 Stars	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	4.212	3.918	2.612	2.550	2.503	3.415	3.141	2.111
Gas - non ducted < 3 Stars	Other or none specified	4.405	4.110	2.807	2.746	2.698	3.610	3.336	2.310

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas - non ducted < 4.5 Stars	Evaporative	3.975	3.681	2.363	2.299	2.256	3.174	2.895	1.858
Gas - non ducted < 4.5 Stars	Heat pump - Ducted < 2.25 stars (< 3)	4.291	3.996	2.693	2.632	2.584	3.496	3.222	2.196
Gas - non ducted < 4.5 Stars	Heat pump - Ducted < 3 stars (< 4.5)	4.252	3.958	2.655	2.594	2.546	3.457	3.183	2.158
Gas - non ducted < 4.5 Stars	Heat pump - Ducted < 3.75 stars (< 6)	4.195	3.901	2.598	2.536	2.488	3.400	3.126	2.100
Gas - non ducted < 4.5 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	4.138	3.843	2.540	2.479	2.431	3.343	3.069	2.043
Gas - non ducted < 4.5 Stars	Heat pump - Non-ducted < 2.25 stars (< 3)	4.227	3.933	2.627	2.565	2.518	3.430	3.155	2.126
Gas - non ducted < 4.5 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	4.194	3.901	2.595	2.533	2.486	3.398	3.123	2.094
Gas - non ducted < 4.5 Stars	Heat pump - Non-ducted < 3.75 stars (< 6)	4.146	3.853	2.547	2.484	2.437	3.350	3.075	2.046

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas - non ducted < 4.5 Stars	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	4.098	3.804	2.498	2.436	2.389	3.301	3.027	1.997
Gas - non ducted < 4.5 Stars	Other or none specified	4.291	3.996	2.693	2.632	2.584	3.496	3.222	2.196
Gas - non ducted < 6 Stars	Evaporative	3.804	3.510	2.192	2.128	2.085	3.003	2.724	1.687
Gas - non ducted < 6 Stars	Heat pump - Ducted < 2.25 stars (< 3)	4.120	3.825	2.522	2.461	2.413	3.325	3.051	2.025
Gas - non ducted < 6 Stars	Heat pump - Ducted < 3 stars (< 4.5)	4.081	3.787	2.484	2.423	2.374	3.286	3.012	1.987
Gas - non ducted < 6 Stars	Heat pump - Ducted < 3.75 stars (< 6)	4.024	3.730	2.426	2.365	2.317	3.229	2.955	1.929
Gas - non ducted < 6 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	3.967	3.672	2.369	2.308	2.260	3.172	2.898	1.872
Gas - non ducted < 6 Stars	Heat pump - Non-Ducted < 2.25 stars (< 3)	4.055	3.762	2.456	2.394	2.347	3.259	2.984	1.955
Gas - non ducted < 6 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	4.023	3.730	2.424	2.361	2.314	3.227	2.952	1.923

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas - non ducted < 6 Stars	Heat pump - Non-ducted < 3.75 stars (< 6)	3.975	3.682	2.376	2.313	2.266	3.179	2.904	1.875
Gas - non ducted < 6 Stars	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	3.927	3.633	2.327	2.265	2.218	3.130	2.856	1.826
Gas - non ducted < 6 Stars	Other or none specified	4.120	3.825	2.522	2.461	2.413	3.325	3.051	2.025
Gas - non ducted ≥ 6 Stars	Evaporative	3.633	3.339	2.021	1.957	1.914	2.832	2.553	1.515
Gas - non ducted ≥ 6 Stars	Heat pump - Ducted < 2.25 stars (< 3)	3.949	3.654	2.351	2.290	2.242	3.154	2.880	1.854
Gas - non ducted ≥ 6 Stars	Heat pump - Ducted < 3 stars (< 4.5)	3.910	3.616	2.313	2.251	2.203	3.115	2.841	1.816
Gas - non ducted ≥ 6 Stars	Heat pump - Ducted < 3.75 stars (< 6)	3.853	3.559	2.255	2.194	2.146	3.058	2.784	1.758
Gas - non ducted ≥ 6 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	3.795	3.501	2.198	2.137	2.089	3.000	2.726	1.701
Gas - non ducted ≥ 6 Stars	Heat pump - Non-ducted < 2.25 stars (< 3)	3.884	3.591	2.285	2.223	2.176	3.088	2.813	1.784
Gas - non ducted ≥ 6 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	3.852	3.559	2.253	2.190	2.143	3.056	2.781	1.752

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas - non ducted ≥ 6 Stars	Heat pump - Non-Ducted < 3.75 stars (< 6)	3.804	3.511	2.205	2.142	2.095	3.007	2.733	1.704
Gas - non ducted ≥ 6 Stars	Heat pump - Non-Ducted ≥ 3.75 stars (≥ 6)	3.756	3.462	2.156	2.094	2.047	2.959	2.685	1.655
Gas - non ducted ≥ 6 Stars	Other or none specified	3.949	3.654	2.351	2.290	2.242	3.154	2.880	1.854

Table 7.1.3 Whole-of-home efficiency factors E_E (kW/100m²) – climate zone 7 – gas heating – Tasmania

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas – ducted < 3 Stars	Evaporative	9.438	8.780	7.357	7.188	7.851	X	9.753	7.389
Gas – ducted < 3 Stars	Heat pump - Ducted < 2.25 stars (< 3)	9.455	8.797	7.376	7.207	7.869	X	9.770	7.408
Gas – ducted < 3 Stars	Heat pump - Ducted < 3 stars (< 4.5)	9.453	8.795	7.374	7.205	7.866	X	9.767	7.405
Gas – ducted < 3 Stars	Heat pump - Ducted < 3.75 stars (< 6)	9.449	8.791	7.370	7.201	7.862	X	9.764	7.401
Gas – ducted < 3 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	9.445	8.787	7.366	7.197	7.859	X	9.760	7.397
Gas – ducted < 3 Stars	HP - Non-ducted < 2.25 stars (< 3)	9.451	8.794	7.372	7.204	7.865	X	9.767	7.404
Gas – ducted < 3 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	9.449	8.792	7.370	7.201	7.863	X	9.765	7.402
Gas – ducted < 3 Stars	Heat pump - Non-ducted < 3.75 stars (< 6)	9.446	8.789	7.367	7.198	7.860	X	9.762	7.399
Gas – ducted < 3 Stars	Heat pump - Non-Ducted ≥ 3.75 stars (≥ 6)	9.443	8.786	7.364	7.195	7.857	X	9.759	7.395
Gas – ducted < 3 Stars	Other or none specified	9.455	8.797	7.376	7.207	7.869	X	9.770	7.408

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas – ducted < 4.5 Stars	Evaporative	8.990	8.332	6.909	6.741	7.403	X	9.305	6.941
Gas – ducted < 4.5 Stars	Heat pump - Ducted < 2.25 stars (< 3)	9.007	8.350	6.928	6.760	7.421	X	9.322	6.960
Gas – ducted < 4.5 Stars	Heat pump - Ducted < 3 stars (< 4.5)	9.005	8.347	6.926	6.757	7.418	X	9.320	6.957
Gas – ducted < 4.5 Stars	Heat pump - Ducted < 3.75 stars (< 6)	9.001	8.343	6.922	6.753	7.415	X	9.316	6.953
Gas – ducted < 4.5 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	8.997	8.339	6.918	6.749	7.411	X	9.312	6.950
Gas – ducted < 4.5 Stars	Heat pump - Non-ducted < 2.25 stars (< 3)	9.003	8.346	6.924	6.756	7.418	X	9.319	6.956
Gas – ducted < 4.5 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	9.001	8.344	6.922	6.754	7.415	X	9.317	6.954
Gas – ducted < 4.5 Stars	Heat pump - Non-ducted < 3.75 stars (< 6)	8.998	8.341	6.919	6.750	7.412	X	9.314	6.951
Gas – ducted < 4.5 Stars	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	8.995	8.338	6.916	6.747	7.409	X	9.311	6.948
Gas – ducted < 4.5 Stars	Other or none specified	9.007	8.350	6.928	6.760	7.421	X	9.322	6.960

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas – ducted < 6 Stars	Evaporative	8.318	7.660	6.237	6.069	6.731	9.420	8.633	6.269
Gas – ducted < 6 Stars	Heat pump - Ducted < 2.25 stars (< 3)	8.336	7.678	6.257	6.088	6.749	9.437	8.650	6.288
Gas – ducted < 6 Stars	Heat pump - Ducted < 3 stars (< 4.5)	8.333	7.675	6.254	6.085	6.747	9.434	8.648	6.286
Gas – ducted < 6 Stars	Heat pump - Ducted < 3.75 stars (< 6)	8.329	7.671	6.250	6.081	6.743	9.430	8.644	6.282
Gas – ducted < 6 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	8.325	7.667	6.246	6.077	6.739	9.426	8.640	6.278
Gas – ducted < 6 Stars	Heat pump - Non-ducted < 2.25 stars (< 3)	8.331	7.674	6.253	6.084	6.746	9.434	8.647	6.284
Gas – ducted < 6 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	8.329	7.672	6.250	6.082	6.744	9.432	8.645	6.282
Gas – ducted < 6 Stars	Heat pump - Non-ducted < 3.75 stars (< 6)	8.326	7.669	6.247	6.078	6.740	9.429	8.642	6.279
Gas – ducted < 6 Stars	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	8.323	7.666	6.244	6.075	6.737	9.425	8.639	6.276
Gas – ducted < 6 Stars	Other or none specified	8.336	7.678	6.257	6.088	6.749	9.437	8.650	6.288

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas – ducted ≥ 6 Stars	Evaporative	7.646	6.988	5.566	5.397	6.059	8.748	7.961	5.597
Gas – ducted ≥ 6 Stars	Heat pump - Ducted < 2.25 stars (< 3)	7.664	7.006	5.585	5.416	6.077	8.765	7.978	5.616
Gas – ducted ≥ 6 Stars	Heat pump - Ducted < 3 stars (< 4.5)	7.661	7.003	5.582	5.413	6.075	8.762	7.976	5.614
Gas – ducted ≥ 6 Stars	Heat pump - Ducted < 3.75 stars (< 6)	7.657	6.999	5.578	5.409	6.071	8.758	7.972	5.610
Gas – ducted ≥ 6 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	7.653	6.995	5.574	5.405	6.067	8.754	7.968	5.606
Gas – ducted ≥ 6 Stars	Heat pump - Non-ducted < 2.25 stars (< 3)	7.660	7.003	5.581	5.412	6.074	8.762	7.976	5.612
Gas – ducted ≥ 6 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	7.657	7.000	5.579	5.410	6.072	8.760	7.973	5.610
Gas – ducted ≥ 6 Stars	Heat pump - Non-ducted < 3.75 stars (< 6)	7.654	6.997	5.575	5.407	6.068	8.757	7.970	5.607
Gas – ducted ≥ 6 Stars	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	7.651	6.994	5.572	5.403	6.065	8.754	7.967	5.604
Gas – ducted ≥ 6 Stars	Other or none specified	7.664	7.006	5.585	5.416	6.077	8.765	7.978	5.616

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas - non ducted < 3 Stars	Evaporative	8.083	7.378	5.966	5.787	6.459	9.138	8.351	5.986
Gas - non ducted < 3 Stars	Heat pump - Ducted < 2.25 stars (< 3)	8.102	7.397	5.987	5.807	6.479	9.156	8.369	6.006
Gas - non ducted < 3 Stars	Heat pump - Ducted < 3 stars (< 4.5)	8.100	7.395	5.984	5.805	6.476	9.153	8.367	6.004
Gas - non ducted < 3 Stars	Heat pump - Ducted < 3.75 stars (< 6)	8.096	7.391	5.980	5.801	6.472	9.149	8.363	6.000
Gas - non ducted < 3 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	8.092	7.387	5.976	5.797	6.468	9.146	8.359	5.996
Gas - non ducted < 3 Stars	Heat pump - Non-ducted < 2.25 stars (< 3)	8.098	7.393	5.982	5.803	6.475	9.153	8.366	6.002
Gas - non ducted < 3 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	8.096	7.391	5.980	5.801	6.473	9.151	8.364	6.000
Gas - non ducted < 3 Stars	Heat pump - Non-ducted < 3.75 stars (< 6)	8.093	7.388	5.977	5.797	6.469	9.147	8.361	5.997
Gas - non ducted < 3 Stars	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	8.089	7.385	5.974	5.794	6.466	9.144	8.357	5.993
Gas - non ducted < 3 Stars	Other or none specified	8.102	7.397	5.987	5.807	6.479	9.156	8.369	6.006

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas - non ducted < 4.5 Stars	Evaporative	7.749	7.044	5.632	5.453	6.125	8.804	8.017	5.652
Gas - non ducted < 4.5 Stars	Heat pump - Ducted < 2.25 stars (< 3)	7.768	7.063	5.652	5.473	6.144	8.822	8.035	5.672
Gas - non ducted < 4.5 Stars	Heat pump - Ducted < 3 stars (< 4.5)	7.765	7.060	5.650	5.470	6.142	8.819	8.032	5.669
Gas - non ducted < 4.5 Stars	Heat pump - Ducted < 3.75 stars (< 6)	7.761	7.056	5.646	5.466	6.138	8.815	8.029	5.665
Gas - non ducted < 4.5 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	7.757	7.052	5.642	5.462	6.134	8.811	8.025	5.662
Gas - non ducted < 4.5 Stars	Heat pump - Non-ducted < 2.25 stars (< 3)	7.764	7.059	5.648	5.468	6.140	8.818	8.032	5.668
Gas - non ducted < 4.5 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	7.761	7.057	5.646	5.466	6.138	8.816	8.030	5.666
Gas - non ducted < 4.5 Stars	Heat pump - Non-ducted < 3.75 stars (< 6)	7.758	7.054	5.642	5.463	6.135	8.813	8.026	5.662

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas - non ducted < 4.5 Stars	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	7.755	7.050	5.639	5.460	6.132	8.810	8.023	5.659
Gas - non ducted < 4.5 Stars	Other or none specified	7.768	7.063	5.652	5.473	6.144	8.822	8.035	5.672
Gas - non ducted < 6 Stars	Evaporative	7.247	6.542	5.130	4.951	5.623	8.302	7.515	5.150
Gas - non ducted < 6 Stars	Heat pump - Ducted < 2.25 stars (< 3)	7.266	6.561	5.151	4.971	5.643	8.320	7.533	5.170
Gas - non ducted < 6 Stars	Heat pump - Ducted < 3 stars (< 4.5)	7.264	6.558	5.148	4.969	5.640	8.317	7.531	5.168
Gas - non ducted < 6 Stars	Heat pump - Ducted < 3.75 stars (< 6)	7.260	6.555	5.144	4.965	5.636	8.313	7.527	5.164
Gas - non ducted < 6 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	7.256	6.551	5.140	4.961	5.632	8.310	7.523	5.160
Gas - non ducted < 6 Stars	Heat pump - Non-Ducted < 2.25 stars (< 3)	7.262	6.557	5.146	4.967	5.639	8.317	7.530	5.166
Gas - non ducted < 6 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	7.260	6.555	5.144	4.965	5.637	8.315	7.528	5.164

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas - non ducted < 6 Stars	Heat pump - Non-ducted < 3.75 stars (< 6)	7.257	6.552	5.141	4.961	5.633	8.311	7.525	5.161
Gas - non ducted < 6 Stars	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	7.253	6.549	5.138	4.958	5.630	8.308	7.521	5.157
Gas - non ducted < 6 Stars	Other or none specified	7.266	6.561	5.151	4.971	5.643	8.320	7.533	5.170
Gas - non ducted ≥ 6 Stars	Evaporative	6.746	6.041	4.629	4.449	5.122	7.801	7.014	4.649
Gas - non ducted ≥ 6 Stars	Heat pump - Ducted < 2.25 stars (< 3)	6.765	6.059	4.649	4.470	5.141	7.818	7.032	4.669
Gas - non ducted ≥ 6 Stars	Heat pump - Ducted < 3 stars (< 4.5)	6.762	6.057	4.646	4.467	5.139	7.816	7.029	4.666
Gas - non ducted ≥ 6 Stars	Heat pump - Ducted < 3.75 stars (< 6)	6.758	6.053	4.642	4.463	5.135	7.812	7.025	4.662
Gas - non ducted ≥ 6 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	6.754	6.049	4.639	4.459	5.131	7.808	7.021	4.658
Gas - non ducted ≥ 6 Stars	Heat pump - Non-ducted < 2.25 stars (< 3)	6.760	6.056	4.645	4.465	5.137	7.815	7.029	4.664
Gas - non ducted ≥ 6 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	6.758	6.054	4.642	4.463	5.135	7.813	7.026	4.662

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas - non ducted ≥ 6 Stars	Heat pump - Non-Ducted < 3.75 stars (< 6)	6.755	6.050	4.639	4.460	5.132	7.810	7.023	4.659
Gas - non ducted ≥ 6 Stars	Heat pump - Non-Ducted ≥ 3.75 stars (≥ 6)	6.752	6.047	4.636	4.457	5.128	7.807	7.020	4.656
Gas - non ducted ≥ 6 Stars	Other or none specified	6.765	6.059	4.649	4.470	5.141	7.818	7.032	4.669

Table 7.1.4 Whole-of-home efficiency factors E_E (kW/100m²) – climate zone 7 – gas heating – Australian Capital Territory

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas – ducted < 3 Stars	Evaporative	7.498	7.008	5.665	5.558	5.559	8.243	7.581	5.272
Gas – ducted < 3 Stars	Heat pump - Ducted < 2.25 stars (< 3)	7.833	7.345	6.010	5.902	5.901	8.574	7.916	5.619
Gas – ducted < 3 Stars	Heat pump - Ducted < 3 stars (< 4.5)	7.790	7.302	5.967	5.860	5.859	8.532	7.873	5.576
Gas – ducted < 3 Stars	Heat pump - Ducted < 3.75 stars (< 6)	7.726	7.238	5.903	5.796	5.795	8.468	7.809	5.512
Gas – ducted < 3 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	7.662	7.174	5.839	5.732	5.730	8.403	7.745	5.448
Gas – ducted < 3 Stars	HP - Non-ducted < 2.25 stars (< 3)	7.766	7.276	5.941	5.833	5.833	8.506	7.848	5.549
Gas – ducted < 3 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	7.730	7.241	5.906	5.798	5.798	8.471	7.813	5.514
Gas – ducted < 3 Stars	Heat pump - Non-ducted < 3.75 stars (< 6)	7.678	7.189	5.853	5.745	5.745	8.418	7.760	5.461
Gas – ducted < 3 Stars	Heat pump - Non-Ducted ≥ 3.75 stars (≥ 6)	7.625	7.136	5.800	5.693	5.692	8.366	7.707	5.409
Gas – ducted < 3 Stars	Other or none specified	7.833	7.345	6.010	5.902	5.901	8.574	7.916	5.619

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas – ducted < 4.5 Stars	Evaporative	7.018	6.529	5.186	5.078	5.080	7.763	7.101	4.793
Gas – ducted < 4.5 Stars	Heat pump - Ducted < 2.25 stars (< 3)	7.353	6.865	5.531	5.423	5.422	8.095	7.437	5.139
Gas – ducted < 4.5 Stars	Heat pump - Ducted < 3 stars (< 4.5)	7.311	6.823	5.488	5.380	5.379	8.052	7.394	5.097
Gas – ducted < 4.5 Stars	Heat pump - Ducted < 3.75 stars (< 6)	7.247	6.759	5.424	5.316	5.315	7.988	7.330	5.033
Gas – ducted < 4.5 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	7.183	6.694	5.360	5.252	5.251	7.924	7.266	4.969
Gas – ducted < 4.5 Stars	Heat pump - Non-ducted < 2.25 stars (< 3)	7.286	6.797	5.462	5.354	5.353	8.027	7.368	5.070
Gas – ducted < 4.5 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	7.251	6.762	5.426	5.319	5.318	7.992	7.333	5.035
Gas – ducted < 4.5 Stars	Heat pump - Non-ducted < 3.75 stars (< 6)	7.198	6.709	5.374	5.266	5.265	7.939	7.281	4.982
Gas – ducted < 4.5 Stars	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	7.146	6.657	5.321	5.213	5.213	7.886	7.228	4.929
Gas – ducted < 4.5 Stars	Other or none specified	7.353	6.865	5.531	5.423	5.422	8.095	7.437	5.139

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas – ducted < 6 Stars	Evaporative	6.299	5.810	4.467	4.359	4.361	7.044	6.382	4.074
Gas – ducted < 6 Stars	Heat pump - Ducted < 2.25 stars (< 3)	6.634	6.146	4.812	4.704	4.703	7.376	6.718	4.420
Gas – ducted < 6 Stars	Heat pump - Ducted < 3 stars (< 4.5)	6.592	6.104	4.769	4.661	4.660	7.333	6.675	4.378
Gas – ducted < 6 Stars	Heat pump - Ducted < 3.75 stars (< 6)	6.528	6.039	4.705	4.597	4.596	7.269	6.611	4.313
Gas – ducted < 6 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	6.464	5.975	4.641	4.533	4.532	7.205	6.547	4.249
Gas – ducted < 6 Stars	Heat pump - Non-ducted < 2.25 stars (< 3)	6.567	6.078	4.743	4.635	4.634	7.308	6.649	4.351
Gas – ducted < 6 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	6.532	6.043	4.707	4.600	4.599	7.273	6.614	4.316
Gas – ducted < 6 Stars	Heat pump - Non-ducted < 3.75 stars (< 6)	6.479	5.990	4.655	4.547	4.546	7.220	6.562	4.263
Gas – ducted < 6 Stars	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	6.427	5.937	4.602	4.494	4.494	7.167	6.509	4.210
Gas – ducted < 6 Stars	Other or none specified	6.634	6.146	4.812	4.704	4.703	7.376	6.718	4.420

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas – ducted ≥ 6 Stars	Evaporative	5.580	5.091	3.748	3.640	3.642	6.325	5.663	3.354
Gas – ducted ≥ 6 Stars	Heat pump - Ducted < 2.25 stars (< 3)	5.915	5.427	4.092	3.985	3.984	6.657	5.999	3.701
Gas – ducted ≥ 6 Stars	Heat pump - Ducted < 3 stars (< 4.5)	5.873	5.384	4.050	3.942	3.941	6.614	5.956	3.658
Gas – ducted ≥ 6 Stars	Heat pump - Ducted < 3.75 stars (< 6)	5.809	5.320	3.986	3.878	3.877	6.550	5.892	3.594
Gas – ducted ≥ 6 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	5.745	5.256	3.922	3.814	3.813	6.486	5.828	3.530
Gas – ducted ≥ 6 Stars	Heat pump - Non-ducted < 2.25 stars (< 3)	5.848	5.359	4.023	3.916	3.915	6.589	5.930	3.632
Gas – ducted ≥ 6 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	5.813	5.324	3.988	3.881	3.880	6.554	5.895	3.597
Gas – ducted ≥ 6 Stars	Heat pump - Non-ducted < 3.75 stars (< 6)	5.760	5.271	3.936	3.828	3.827	6.501	5.842	3.544
Gas – ducted ≥ 6 Stars	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	5.708	5.218	3.883	3.775	3.775	6.448	5.790	3.491
Gas – ducted ≥ 6 Stars	Other or none specified	5.915	5.427	4.092	3.985	3.984	6.657	5.999	3.701

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas - non ducted < 3 Stars	Evaporative	6.324	5.812	4.478	4.363	4.370	7.042	6.380	4.079
Gas - non ducted < 3 Stars	Heat pump - Ducted < 2.25 stars (< 3)	6.665	6.154	4.829	4.714	4.717	7.380	6.721	4.431
Gas - non ducted < 3 Stars	Heat pump - Ducted < 3 stars (< 4.5)	6.622	6.111	4.786	4.671	4.674	7.337	6.678	4.388
Gas - non ducted < 3 Stars	Heat pump - Ducted < 3.75 stars (< 6)	6.558	6.047	4.722	4.607	4.610	7.273	6.614	4.324
Gas - non ducted < 3 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	6.494	5.983	4.658	4.543	4.546	7.209	6.550	4.260
Gas - non ducted < 3 Stars	Heat pump - Non-ducted < 2.25 stars (< 3)	6.597	6.085	4.758	4.643	4.647	7.311	6.652	4.359
Gas - non ducted < 3 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	6.562	6.050	4.723	4.608	4.612	7.276	6.617	4.324
Gas - non ducted < 3 Stars	Heat pump - Non-ducted < 3.75 stars (< 6)	6.509	5.997	4.670	4.555	4.559	7.223	6.564	4.271
Gas - non ducted < 3 Stars	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	6.456	5.944	4.617	4.502	4.506	7.171	6.512	4.219
Gas - non ducted < 3 Stars	Other or none specified	6.665	6.154	4.829	4.714	4.717	7.380	6.721	4.431

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas - non ducted < 4.5 Stars	Evaporative	6.074	5.562	4.228	4.113	4.119	6.792	6.130	3.828
Gas - non ducted < 4.5 Stars	Heat pump - Ducted < 2.25 stars (< 3)	6.414	5.903	4.578	4.463	4.467	7.129	6.471	4.180
Gas - non ducted < 4.5 Stars	Heat pump - Ducted < 3 stars (< 4.5)	6.372	5.860	4.536	4.421	4.424	7.086	6.428	4.138
Gas - non ducted < 4.5 Stars	Heat pump - Ducted < 3.75 stars (< 6)	6.307	5.796	4.472	4.357	4.360	7.022	6.364	4.074
Gas - non ducted < 4.5 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	6.243	5.732	4.408	4.293	4.296	6.958	6.300	4.010
Gas - non ducted < 4.5 Stars	Heat pump - Non-ducted < 2.25 stars (< 3)	6.346	5.834	4.507	4.392	4.396	7.061	6.402	4.109
Gas - non ducted < 4.5 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	6.311	5.799	4.472	4.357	4.361	7.025	6.367	4.074
Gas - non ducted < 4.5 Stars	Heat pump - Non-ducted < 3.75 stars (< 6)	6.258	5.747	4.420	4.305	4.308	6.973	6.314	4.021

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas - non ducted < 4.5 Stars	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	6.206	5.694	4.367	4.252	4.256	6.920	6.261	3.968
Gas - non ducted < 4.5 Stars	Other or none specified	6.414	5.903	4.578	4.463	4.467	7.129	6.471	4.180
Gas - non ducted < 6 Stars	Evaporative	5.698	5.186	3.852	3.737	3.743	6.416	5.754	3.453
Gas - non ducted < 6 Stars	Heat pump - Ducted < 2.25 stars (< 3)	6.039	5.527	4.203	4.088	4.091	6.753	6.095	3.805
Gas - non ducted < 6 Stars	Heat pump - Ducted < 3 stars (< 4.5)	5.996	5.485	4.160	4.045	4.048	6.711	6.052	3.762
Gas - non ducted < 6 Stars	Heat pump - Ducted < 3.75 stars (< 6)	5.932	5.421	4.096	3.981	3.984	6.647	5.988	3.698
Gas - non ducted < 6 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	5.868	5.357	4.032	3.917	3.920	6.583	5.924	3.634
Gas - non ducted < 6 Stars	Heat pump - Non-Ducted < 2.25 stars (< 3)	5.970	5.459	4.132	4.017	4.021	6.685	6.026	3.733
Gas - non ducted < 6 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	5.935	5.424	4.097	3.982	3.985	6.650	5.991	3.698

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas - non ducted < 6 Stars	Heat pump - Non-ducted < 3.75 stars (< 6)	5.883	5.371	4.044	3.929	3.933	6.597	5.938	3.645
Gas - non ducted < 6 Stars	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	5.830	5.318	3.991	3.876	3.880	6.544	5.886	3.592
Gas - non ducted < 6 Stars	Other or none specified	6.039	5.527	4.203	4.088	4.091	6.753	6.095	3.805
Gas - non ducted ≥ 6 Stars	Evaporative	5.323	4.810	3.477	3.361	3.368	6.041	5.378	3.077
Gas - non ducted ≥ 6 Stars	Heat pump - Ducted < 2.25 stars (< 3)	5.663	5.152	3.827	3.712	3.715	6.378	5.719	3.429
Gas - non ducted ≥ 6 Stars	Heat pump - Ducted < 3 stars (< 4.5)	5.620	5.109	3.784	3.669	3.673	6.335	5.676	3.386
Gas - non ducted ≥ 6 Stars	Heat pump - Ducted < 3.75 stars (< 6)	5.556	5.045	3.720	3.605	3.609	6.271	5.612	3.322
Gas - non ducted ≥ 6 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	5.492	4.981	3.656	3.541	3.545	6.207	5.548	3.258
Gas - non ducted ≥ 6 Stars	Heat pump - Non-ducted < 2.25 stars (< 3)	5.595	5.083	3.756	3.641	3.645	6.309	5.650	3.357
Gas - non ducted ≥ 6 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	5.560	5.048	3.721	3.606	3.610	6.274	5.615	3.322

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas - non ducted ≥ 6 Stars	Heat pump - Non-Ducted < 3.75 stars (< 6)	5.507	4.995	3.668	3.553	3.557	6.221	5.563	3.269
Gas - non ducted ≥ 6 Stars	Heat pump - Non-Ducted ≥ 3.75 stars (≥ 6)	5.454	4.943	3.616	3.501	3.504	6.169	5.510	3.217
Gas - non ducted ≥ 6 Stars	Other or none specified	5.663	5.152	3.827	3.712	3.715	6.378	5.719	3.429

Table 7.2.1 Whole-of-home efficiency factors E_E (kW/100m²) – climate zone 7 – heat pump heating – New South Wales

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Ducted < 2.25 Stars (< 3)	Evaporative	4.113	2.982	2.184	1.863	2.087	3.915	3.397	1.658
Heat pump - Ducted < 2.25 Stars (< 3)	Heat pump - Ducted < 2.25 stars (< 3)	4.458	3.342	2.553	2.226	2.446	4.266	3.753	2.033
Heat pump - Ducted < 2.25 Stars (< 3)	Heat pump - Ducted < 3 stars (< 4.5)	4.414	3.298	2.509	2.182	2.402	4.222	3.709	1.989
Heat pump - Ducted < 2.25 Stars (< 3)	Heat pump - Ducted < 3.75 stars (< 6)	4.348	3.232	2.443	2.116	2.337	4.156	3.643	1.924
Heat pump - Ducted < 2.25 Stars (< 3)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	4.282	3.166	2.377	2.050	2.271	4.090	3.577	1.858
Heat pump - Ducted < 2.25 Stars (< 3)	HP - Non-ducted < 2.25 stars (< 3)	4.387	3.268	2.478	2.153	2.371	4.195	3.679	1.957
Heat pump - Ducted < 2.25 Stars (< 3)	Heat pump - Non-ducted < 3 stars (< 4.5)	4.350	3.231	2.441	2.116	2.335	4.158	3.642	1.920

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Ducted < 2.25 Stars (< 3)	Heat pump - Non-ducted < 3.75 stars (< 6)	4.295	3.176	2.386	2.061	2.279	4.103	3.587	1.865
Heat pump - Ducted < 2.25 Stars (< 3)	Heat pump - Non-Ducted ≥ 3.75 stars (≥ 6)	4.240	3.121	2.331	2.006	2.224	4.048	3.532	1.810
Heat pump - Ducted < 2.25 Stars (< 3)	Other or none specified	4.458	3.342	2.553	2.226	2.446	4.266	3.753	2.033
Heat pump - Ducted < 3.0 Stars (< 4.5)	Evaporative	3.985	2.854	2.056	1.736	1.959	3.787	3.269	1.531
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted < 2.25 stars (< 3)	4.330	3.214	2.425	2.098	2.319	4.138	3.625	1.906
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted < 3 stars (< 4.5)	4.286	3.170	2.381	2.054	2.275	4.095	3.581	1.862
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted < 3.75 stars (< 6)	4.221	3.104	2.315	1.989	2.209	4.029	3.516	1.796
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	4.155	3.038	2.250	1.923	2.143	3.963	3.450	1.730

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted < 2.25 stars (< 3)	4.259	3.140	2.351	2.025	2.244	4.068	3.551	1.830
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted < 3 stars (< 4.5)	4.222	3.103	2.314	1.988	2.207	4.031	3.514	1.793
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted < 3.75 stars (< 6)	4.167	3.048	2.259	1.933	2.152	3.976	3.459	1.738
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	4.112	2.993	2.204	1.878	2.097	3.921	3.404	1.683
Heat pump - Ducted < 3.0 Stars (< 4.5)	Other or none specified	4.330	3.214	2.425	2.098	2.319	4.138	3.625	1.906
Heat pump - Ducted < 3.75 Stars (< 6)	Evaporative	3.794	2.663	1.865	1.544	1.768	3.596	3.078	1.339
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Ducted < 2.25 stars (< 3)	4.139	3.023	2.234	1.907	2.127	3.947	3.434	1.714
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Ducted < 3 stars (< 4.5)	4.095	2.979	2.190	1.863	2.084	3.903	3.390	1.670

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Ducted < 3.75 stars (< 6)	4.029	2.913	2.124	1.797	2.018	3.837	3.324	1.605
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	3.963	2.847	2.058	1.731	1.952	3.771	3.258	1.539
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Non-ducted < 2.25 stars (< 3)	4.068	2.949	2.159	1.834	2.052	3.876	3.360	1.638
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Non-ducted < 3 stars (< 4.5)	4.031	2.912	2.123	1.797	2.016	3.840	3.323	1.601
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Non-ducted < 3.75 stars (< 6)	3.976	2.857	2.067	1.742	1.961	3.784	3.268	1.546
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	3.921	2.802	2.012	1.687	1.905	3.729	3.213	1.491
Heat pump - Ducted < 3.75 Stars (< 6)	Other or none specified	4.139	3.023	2.234	1.907	2.127	3.947	3.434	1.714
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Evaporative	3.603	2.471	1.674	1.353	1.576	3.404	2.886	1.148

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted < 2.25 stars (< 3)	3.948	2.831	2.042	1.716	1.936	3.756	3.243	1.523
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted < 3 stars (< 4.5)	3.904	2.787	1.999	1.672	1.892	3.712	3.199	1.479
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted < 3.75 stars (< 6)	3.838	2.722	1.933	1.606	1.826	3.646	3.133	1.413
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	3.772	2.656	1.867	1.540	1.760	3.580	3.067	1.347
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-ducted < 2.25 stars (< 3)	3.876	2.757	1.968	1.642	1.861	3.685	3.168	1.447
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-ducted < 3 stars (< 4.5)	3.840	2.721	1.931	1.606	1.824	3.648	3.132	1.410
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-ducted < 3.75 stars (< 6)	3.784	2.666	1.876	1.551	1.769	3.593	3.076	1.355
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	3.729	2.610	1.821	1.496	1.714	3.538	3.021	1.300

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Ducted \geq 3.75 Stars (\geq 6)	Other or none specified	3.948	2.831	2.042	1.716	1.936	3.756	3.243	1.523
Heat pump - Non Ducted $<$ 2.25 Stars ($<$ 3)	Evaporative	3.892	2.752	1.976	1.642	1.873	3.683	3.166	1.441
Heat pump - Non Ducted $<$ 2.25 Stars ($<$ 3)	Heat pump - Ducted $<$ 2.25 stars ($<$ 3)	4.236	3.117	2.337	2.020	2.226	4.040	3.526	1.825
Heat pump - Non Ducted $<$ 2.25 Stars ($<$ 3)	Heat pump - Ducted $<$ 3 stars ($<$ 4.5)	4.192	3.073	2.293	1.976	2.182	3.996	3.482	1.781
Heat pump - Non Ducted $<$ 2.25 Stars ($<$ 3)	Heat pump - Ducted $<$ 3.75 stars ($<$ 6)	4.126	3.007	2.227	1.910	2.116	3.930	3.416	1.715
Heat pump - Non Ducted $<$ 2.25 Stars ($<$ 3)	Heat pump - Ducted \geq 3.75 stars (\geq 6)	4.060	2.941	2.161	1.844	2.050	3.864	3.350	1.649
Heat pump - Non Ducted $<$ 2.25 Stars ($<$ 3)	Heat pump - Non-ducted $<$ 2.25 stars ($<$ 3)	4.166	3.041	2.260	1.943	2.153	3.967	3.452	1.745
Heat pump - Non Ducted $<$ 2.25 Stars ($<$ 3)	Heat pump - Non-ducted $<$ 3 stars ($<$ 4.5)	4.130	3.004	2.223	1.906	2.116	3.931	3.415	1.708

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Non Ducted < 2.25 Stars (< 3)	Heat pump - Non-ducted < 3.75 stars (< 6)	4.075	2.949	2.168	1.851	2.061	3.876	3.360	1.653
Heat pump - Non Ducted < 2.25 Stars (< 3)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	4.020	2.894	2.113	1.796	2.006	3.821	3.305	1.598
Heat pump - Non Ducted < 2.25 Stars (< 3)	Other or none specified	4.236	3.117	2.337	2.020	2.226	4.040	3.526	1.825
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Evaporative	3.785	2.645	1.869	1.535	1.765	3.576	3.059	1.334
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted < 2.25 stars (< 3)	4.129	3.009	2.229	1.912	2.118	3.932	3.418	1.717
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted < 3 stars (< 4.5)	4.085	2.966	2.185	1.868	2.074	3.889	3.374	1.673
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted < 3.75 stars (< 6)	4.019	2.900	2.119	1.803	2.008	3.823	3.309	1.608
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	3.953	2.834	2.053	1.737	1.942	3.757	3.243	1.542

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted < 2.25 stars (< 3)	4.059	2.934	2.152	1.836	2.046	3.860	3.344	1.637
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted < 3 stars (< 4.5)	4.022	2.897	2.116	1.799	2.009	3.823	3.308	1.601
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted < 3.75 stars (< 6)	3.967	2.842	2.060	1.744	1.954	3.768	3.253	1.546
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	3.912	2.787	2.005	1.689	1.899	3.713	3.198	1.491
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Other or none specified	4.129	3.009	2.229	1.912	2.118	3.932	3.418	1.717
Heat pump - Non Ducted < 3.75 Stars (< 6)	Evaporative	3.623	2.484	1.708	1.373	1.604	3.415	2.897	1.173
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Ducted < 2.25 stars (< 3)	3.968	2.848	2.068	1.751	1.957	3.771	3.257	1.556
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Ducted < 3 stars (< 4.5)	3.924	2.804	2.024	1.707	1.913	3.727	3.213	1.512

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Ducted < 3.75 stars (< 6)	3.858	2.738	1.958	1.641	1.847	3.662	3.147	1.446
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	3.792	2.673	1.892	1.576	1.781	3.596	3.081	1.381
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Non-Ducted < 2.25 stars (< 3)	3.898	2.772	1.991	1.674	1.884	3.699	3.183	1.476
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Non-ducted < 3 stars (< 4.5)	3.861	2.736	1.954	1.638	1.848	3.662	3.146	1.440
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Non-ducted < 3.75 stars (< 6)	3.806	2.681	1.899	1.583	1.793	3.607	3.091	1.385
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	3.751	2.626	1.844	1.528	1.738	3.552	3.036	1.329
Heat pump - Non Ducted < 3.75 Stars (< 6)	Other or none specified	3.968	2.848	2.068	1.751	1.957	3.771	3.257	1.556
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Evaporative	3.462	2.322	1.547	1.212	1.443	3.253	2.736	1.012

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted < 2.25 stars (< 3)	3.806	2.687	1.907	1.590	1.796	3.610	3.096	1.395
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted < 3 stars (< 4.5)	3.762	2.643	1.863	1.546	1.752	3.566	3.052	1.351
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted < 3.75 stars (< 6)	3.697	2.577	1.797	1.480	1.686	3.500	2.986	1.285
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	3.631	2.511	1.731	1.414	1.620	3.435	2.920	1.219
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-ducted < 2.25 stars (< 3)	3.737	2.611	1.830	1.513	1.723	3.538	3.022	1.315
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-ducted < 3 stars (< 4.5)	3.700	2.574	1.793	1.477	1.687	3.501	2.985	1.278
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-Ducted < 3.75 stars (< 6)	3.645	2.519	1.738	1.422	1.632	3.446	2.930	1.223
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-Ducted ≥ 3.75 stars (≥ 6)	3.590	2.464	1.683	1.366	1.576	3.391	2.875	1.168

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Non Ducted \geq 3.75 Stars (\geq 6)	Other or none specified	3.806	2.687	1.907	1.590	1.796	3.610	3.096	1.395

Table 7.2.2 Whole-of-home efficiency factors E_E (kW/100m²) – climate zone 7 – heat pump heating – Victoria

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Ducted < 2.25 Stars (< 3)	Evaporative	3.497	3.097	1.906	1.795	1.804	2.601	2.342	1.395
Heat pump - Ducted < 2.25 Stars (< 3)	Heat pump - Ducted < 2.25 stars (< 3)	3.809	3.409	2.221	2.118	2.120	2.918	2.665	1.724
Heat pump - Ducted < 2.25 Stars (< 3)	Heat pump - Ducted < 3 stars (< 4.5)	3.771	3.371	2.182	2.079	2.082	2.880	2.627	1.686
Heat pump - Ducted < 2.25 Stars (< 3)	Heat pump - Ducted < 3.75 stars (< 6)	3.713	3.313	2.125	2.022	2.024	2.822	2.569	1.628
Heat pump - Ducted < 2.25 Stars (< 3)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	3.656	3.256	2.067	1.964	1.967	2.765	2.512	1.571
Heat pump - Ducted < 2.25 Stars (< 3)	HP - Non-ducted < 2.25 stars (< 3)	3.747	3.345	2.157	2.053	2.057	2.853	2.600	1.655
Heat pump - Ducted < 2.25 Stars (< 3)	Heat pump - Non-ducted < 3 stars (< 4.5)	3.714	3.313	2.124	2.021	2.025	2.821	2.568	1.623

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Ducted < 2.25 Stars (< 3)	Heat pump - Non-ducted < 3.75 stars (< 6)	3.666	3.265	2.076	1.972	1.976	2.773	2.519	1.575
Heat pump - Ducted < 2.25 Stars (< 3)	Heat pump - Non-Ducted ≥ 3.75 stars (≥ 6)	3.618	3.217	2.028	1.924	1.928	2.724	2.471	1.527
Heat pump - Ducted < 2.25 Stars (< 3)	Other or none specified	3.809	3.409	2.221	2.118	2.120	2.918	2.665	1.724
Heat pump - Ducted < 3.0 Stars (< 4.5)	Evaporative	3.396	2.995	1.804	1.694	1.703	2.499	2.241	1.293
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted < 2.25 stars (< 3)	3.708	3.307	2.119	2.016	2.019	2.817	2.564	1.623
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted < 3 stars (< 4.5)	3.669	3.269	2.081	1.978	1.980	2.778	2.525	1.584
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted < 3.75 stars (< 6)	3.612	3.212	2.023	1.920	1.923	2.721	2.468	1.527
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	3.555	3.154	1.966	1.863	1.865	2.664	2.410	1.469

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted < 2.25 stars (< 3)	3.645	3.244	2.055	1.951	1.955	2.752	2.498	1.554
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted < 3 stars (< 4.5)	3.613	3.212	2.023	1.919	1.923	2.719	2.466	1.522
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted < 3.75 stars (< 6)	3.565	3.163	1.975	1.871	1.875	2.671	2.418	1.473
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	3.516	3.115	1.926	1.823	1.826	2.623	2.370	1.425
Heat pump - Ducted < 3.0 Stars (< 4.5)	Other or none specified	3.708	3.307	2.119	2.016	2.019	2.817	2.564	1.623
Heat pump - Ducted < 3.75 Stars (< 6)	Evaporative	3.243	2.843	1.652	1.541	1.551	2.347	2.089	1.141
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Ducted < 2.25 stars (< 3)	3.556	3.155	1.967	1.864	1.866	2.664	2.411	1.470
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Ducted < 3 stars (< 4.5)	3.517	3.117	1.929	1.826	1.828	2.626	2.373	1.432

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Ducted < 3.75 stars (< 6)	3.460	3.059	1.871	1.768	1.771	2.569	2.316	1.375
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	3.402	3.002	1.814	1.711	1.713	2.511	2.258	1.317
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Non-ducted < 2.25 stars (< 3)	3.493	3.092	1.903	1.799	1.803	2.599	2.346	1.402
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Non-ducted < 3 stars (< 4.5)	3.461	3.060	1.871	1.767	1.771	2.567	2.314	1.369
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Non-ducted < 3.75 stars (< 6)	3.412	3.011	1.822	1.719	1.723	2.519	2.266	1.321
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	3.364	2.963	1.774	1.670	1.674	2.471	2.217	1.273
Heat pump - Ducted < 3.75 Stars (< 6)	Other or none specified	3.556	3.155	1.967	1.864	1.866	2.664	2.411	1.470
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Evaporative	3.091	2.691	1.500	1.389	1.398	2.195	1.936	0.989

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted < 2.25 stars (< 3)	3.403	3.003	1.815	1.712	1.714	2.512	2.259	1.318
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted < 3 stars (< 4.5)	3.365	2.965	1.776	1.673	1.676	2.474	2.221	1.280
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted < 3.75 stars (< 6)	3.308	2.907	1.719	1.616	1.618	2.417	2.163	1.222
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	3.250	2.850	1.662	1.559	1.561	2.359	2.106	1.165
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-ducted < 2.25 stars (< 3)	3.341	2.940	1.751	1.647	1.651	2.447	2.194	1.249
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-ducted < 3 stars (< 4.5)	3.309	2.907	1.718	1.615	1.619	2.415	2.162	1.217
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-ducted < 3.75 stars (< 6)	3.260	2.859	1.670	1.566	1.570	2.367	2.113	1.169
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	3.212	2.811	1.622	1.518	1.522	2.318	2.065	1.121

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Ducted \geq 3.75 Stars (\geq 6)	Other or none specified	3.403	3.003	1.815	1.712	1.714	2.512	2.259	1.318
Heat pump - Non Ducted $<$ 2.25 Stars ($<$ 3)	Evaporative	3.323	2.916	1.734	1.618	1.629	2.420	2.160	1.231
Heat pump - Non Ducted $<$ 2.25 Stars ($<$ 3)	Heat pump - Ducted $<$ 2.25 stars ($<$ 3)	3.633	3.232	2.054	1.948	1.952	2.742	2.489	1.551
Heat pump - Non Ducted $<$ 2.25 Stars ($<$ 3)	Heat pump - Ducted $<$ 3 stars ($<$ 4.5)	3.595	3.194	2.016	1.910	1.913	2.704	2.450	1.513
Heat pump - Non Ducted $<$ 2.25 Stars ($<$ 3)	Heat pump - Ducted $<$ 3.75 stars ($<$ 6)	3.538	3.137	1.958	1.852	1.856	2.646	2.393	1.456
Heat pump - Non Ducted $<$ 2.25 Stars ($<$ 3)	Heat pump - Ducted \geq 3.75 stars (\geq 6)	3.480	3.079	1.901	1.795	1.798	2.589	2.335	1.398
Heat pump - Non Ducted $<$ 2.25 Stars ($<$ 3)	Heat pump - Non-ducted $<$ 2.25 stars ($<$ 3)	3.570	3.168	1.990	1.881	1.887	2.677	2.422	1.482
Heat pump - Non Ducted $<$ 2.25 Stars ($<$ 3)	Heat pump - Non-ducted $<$ 3 stars ($<$ 4.5)	3.538	3.136	1.958	1.849	1.854	2.645	2.390	1.449

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Non Ducted < 2.25 Stars (< 3)	Heat pump - Non-ducted < 3.75 stars (< 6)	3.490	3.088	1.910	1.801	1.806	2.596	2.342	1.401
Heat pump - Non Ducted < 2.25 Stars (< 3)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	3.441	3.039	1.861	1.753	1.758	2.548	2.293	1.353
Heat pump - Non Ducted < 2.25 Stars (< 3)	Other or none specified	3.633	3.232	2.054	1.948	1.952	2.742	2.489	1.551
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Evaporative	3.238	2.831	1.649	1.533	1.544	2.335	2.075	1.146
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted < 2.25 stars (< 3)	3.548	3.147	1.969	1.863	1.867	2.657	2.404	1.466
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted < 3 stars (< 4.5)	3.510	3.109	1.931	1.825	1.828	2.619	2.365	1.428
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted < 3.75 stars (< 6)	3.453	3.052	1.873	1.767	1.771	2.561	2.308	1.371
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	3.395	2.994	1.816	1.710	1.714	2.504	2.251	1.313

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted < 2.25 stars (< 3)	3.485	3.083	1.905	1.797	1.802	2.592	2.337	1.397
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted < 3 stars (< 4.5)	3.453	3.051	1.873	1.764	1.770	2.560	2.305	1.364
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted < 3.75 stars (< 6)	3.405	3.003	1.825	1.716	1.721	2.511	2.257	1.316
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	3.356	2.954	1.776	1.668	1.673	2.463	2.209	1.268
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Other or none specified	3.548	3.147	1.969	1.863	1.867	2.657	2.404	1.466
Heat pump - Non Ducted < 3.75 Stars (< 6)	Evaporative	3.111	2.703	1.522	1.405	1.417	2.208	1.948	1.018
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Ducted < 2.25 stars (< 3)	3.421	3.020	1.842	1.736	1.739	2.530	2.276	1.339
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Ducted < 3 stars (< 4.5)	3.383	2.982	1.803	1.698	1.701	2.491	2.238	1.301

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Ducted < 3.75 stars (< 6)	3.325	2.924	1.746	1.640	1.644	2.434	2.181	1.243
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	3.268	2.867	1.689	1.583	1.586	2.376	2.123	1.186
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Non-Ducted < 2.25 stars (< 3)	3.358	2.956	1.778	1.669	1.674	2.465	2.210	1.269
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Non-ducted < 3 stars (< 4.5)	3.326	2.924	1.746	1.637	1.642	2.432	2.178	1.237
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Non-ducted < 3.75 stars (< 6)	3.277	2.875	1.697	1.589	1.594	2.384	2.130	1.189
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	3.229	2.827	1.649	1.540	1.546	2.336	2.081	1.140
Heat pump - Non Ducted < 3.75 Stars (< 6)	Other or none specified	3.421	3.020	1.842	1.736	1.739	2.530	2.276	1.339
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Evaporative	2.984	2.576	1.394	1.278	1.289	2.080	1.820	0.891

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted < 2.25 stars (< 3)	3.294	2.893	1.714	1.608	1.612	2.402	2.149	1.212
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted < 3 stars (< 4.5)	3.255	2.855	1.676	1.570	1.574	2.364	2.111	1.173
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted < 3.75 stars (< 6)	3.198	2.797	1.619	1.513	1.516	2.307	2.053	1.116
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	3.141	2.740	1.561	1.455	1.459	2.249	1.996	1.059
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-ducted < 2.25 stars (< 3)	3.230	2.828	1.650	1.542	1.547	2.337	2.083	1.142
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-ducted < 3 stars (< 4.5)	3.198	2.796	1.618	1.510	1.515	2.305	2.051	1.110
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-Ducted < 3.75 stars (< 6)	3.150	2.748	1.570	1.461	1.467	2.257	2.002	1.061
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-Ducted ≥ 3.75 stars (≥ 6)	3.102	2.700	1.522	1.413	1.418	2.208	1.954	1.013

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Non Ducted \geq 3.75 Stars (\geq 6)	Other or none specified	3.294	2.893	1.714	1.608	1.612	2.402	2.149	1.212

Table 7.2.3 Whole-of-home efficiency factors E_E (kW/100m²) – climate zone 7 – heat pump heating – Tasmania

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Ducted < 2.25 Stars (< 3)	Evaporative	4.750	3.850	2.624	2.358	3.075	5.543	4.779	2.538
Heat pump - Ducted < 2.25 Stars (< 3)	Heat pump - Ducted < 2.25 stars (< 3)	4.770	3.871	2.645	2.380	3.096	5.563	4.799	2.560
Heat pump - Ducted < 2.25 Stars (< 3)	Heat pump - Ducted < 3 stars (< 4.5)	4.768	3.868	2.642	2.377	3.093	5.560	4.797	2.557
Heat pump - Ducted < 2.25 Stars (< 3)	Heat pump - Ducted < 3.75 stars (< 6)	4.764	3.864	2.638	2.373	3.089	5.556	4.793	2.553
Heat pump - Ducted < 2.25 Stars (< 3)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	4.760	3.860	2.634	2.369	3.085	5.552	4.789	2.549
Heat pump - Ducted < 3 Stars (< 2.25)	HP - Non-ducted < 2.25 stars (< 3)	4.766	3.867	2.641	2.375	3.091	5.559	4.795	2.556
Heat pump - Ducted < 2.25 Stars (< 3)	Heat pump - Non-ducted < 3 stars (< 4.5)	4.764	3.864	2.638	2.373	3.089	5.556	4.793	2.553

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Ducted < 2.25 Stars (< 3)	Heat pump - Non-ducted < 3.75 stars (< 6)	4.761	3.861	2.635	2.370	3.086	5.553	4.789	2.550
Heat pump - Ducted < 2.25 Stars (< 3)	Heat pump - Non-Ducted ≥ 3.75 stars (≥ 6)	4.758	3.858	2.632	2.367	3.083	5.550	4.786	2.547
Heat pump - Ducted < 2.25 Stars (< 3)	Other or none specified	4.770	3.871	2.645	2.380	3.096	5.563	4.799	2.560
Heat pump - Ducted < 3.0 Stars (< 4.5)	Evaporative	4.595	3.695	2.469	2.203	2.920	5.388	4.624	2.384
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted < 2.25 stars (< 3)	4.616	3.716	2.490	2.225	2.941	5.408	4.645	2.405
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted < 3 stars (< 4.5)	4.613	3.714	2.488	2.222	2.938	5.406	4.642	2.403
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted < 3.75 stars (< 6)	4.609	3.710	2.484	2.218	2.934	5.402	4.638	2.399
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	4.605	3.706	2.480	2.215	2.931	5.398	4.634	2.395

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted < 2.25 stars (< 3)	4.612	3.712	2.486	2.221	2.937	5.404	4.640	2.401
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted < 3 stars (< 4.5)	4.610	3.710	2.484	2.218	2.935	5.402	4.638	2.399
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted < 3.75 stars (< 6)	4.606	3.706	2.481	2.215	2.931	5.399	4.635	2.396
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	4.603	3.703	2.477	2.212	2.928	5.395	4.632	2.392
Heat pump - Ducted < 3.0 Stars (< 4.5)	Other or none specified	4.616	3.716	2.490	2.225	2.941	5.408	4.645	2.405
Heat pump - Ducted < 3.75 Stars (< 6)	Evaporative	4.363	3.463	2.238	1.971	2.688	5.156	4.392	2.152
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Ducted < 2.25 stars (< 3)	4.384	3.484	2.258	1.993	2.709	5.176	4.413	2.173
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Ducted < 3 stars (< 4.5)	4.381	3.482	2.256	1.990	2.706	5.174	4.410	2.171

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Ducted < 3.75 stars (< 6)	4.377	3.478	2.252	1.987	2.703	5.170	4.406	2.167
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	4.374	3.474	2.248	1.983	2.699	5.166	4.402	2.163
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Non-ducted < 2.25 stars (< 3)	4.380	3.480	2.254	1.989	2.705	5.172	4.408	2.169
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Non-ducted < 3 stars (< 4.5)	4.378	3.478	2.252	1.986	2.703	5.170	4.406	2.167
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Non-ducted < 3.75 stars (< 6)	4.374	3.475	2.249	1.983	2.699	5.167	4.403	2.164
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	4.371	3.471	2.245	1.980	2.696	5.163	4.400	2.160
Heat pump - Ducted < 3.75 Stars (< 6)	Other or none specified	4.384	3.484	2.258	1.993	2.709	5.176	4.413	2.173
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Evaporative	4.132	3.231	2.006	1.739	2.456	4.925	4.160	1.920

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted < 2.25 stars (< 3)	4.152	3.252	2.026	1.761	2.477	4.944	4.181	1.941
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted < 3 stars (< 4.5)	4.149	3.250	2.024	1.759	2.475	4.942	4.178	1.939
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted < 3.75 stars (< 6)	4.145	3.246	2.020	1.755	2.471	4.938	4.174	1.935
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	4.142	3.242	2.016	1.751	2.467	4.934	4.170	1.931
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-ducted < 2.25 stars (< 3)	4.148	3.248	2.022	1.757	2.473	4.940	4.176	1.937
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-ducted < 3 stars (< 4.5)	4.146	3.246	2.020	1.755	2.471	4.938	4.174	1.935
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-ducted < 3.75 stars (< 6)	4.142	3.243	2.017	1.751	2.467	4.935	4.171	1.932
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	4.139	3.239	2.014	1.748	2.464	4.931	4.168	1.928

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Ducted \geq 3.75 Stars (\geq 6)	Other or none specified	4.152	3.252	2.026	1.761	2.477	4.944	4.181	1.941
Heat pump - Non Ducted $<$ 2.25 Stars ($<$ 3)	Evaporative	4.486	3.572	2.365	2.092	2.808	5.265	4.501	2.268
Heat pump - Non Ducted $<$ 2.25 Stars ($<$ 3)	Heat pump - Ducted $<$ 2.25 stars ($<$ 3)	4.506	3.594	2.386	2.113	2.828	5.285	4.522	2.290
Heat pump - Non Ducted $<$ 2.25 Stars ($<$ 3)	Heat pump - Ducted $<$ 3 stars ($<$ 4.5)	4.504	3.591	2.383	2.111	2.826	5.283	4.519	2.288
Heat pump - Non Ducted $<$ 2.25 Stars ($<$ 3)	Heat pump - Ducted $<$ 3.75 stars ($<$ 6)	4.500	3.587	2.379	2.107	2.822	5.279	4.515	2.284
Heat pump - Non Ducted $<$ 2.25 Stars ($<$ 3)	Heat pump - Ducted \geq 3.75 stars (\geq 6)	4.496	3.583	2.376	2.103	2.818	5.275	4.511	2.280
Heat pump - Non Ducted $<$ 2.25 Stars ($<$ 3)	Heat pump - Non-ducted $<$ 2.25 stars ($<$ 3)	4.502	3.589	2.382	2.109	2.824	5.281	4.517	2.286
Heat pump - Non Ducted $<$ 2.25 Stars ($<$ 3)	Heat pump - Non-ducted $<$ 3 stars ($<$ 4.5)	4.500	3.587	2.379	2.107	2.822	5.279	4.515	2.284

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Non Ducted < 2.25 Stars (< 3)	Heat pump - Non-ducted < 3.75 stars (< 6)	4.497	3.584	2.376	2.104	2.819	5.276	4.512	2.280
Heat pump - Non Ducted < 2.25 Stars (< 3)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	4.494	3.581	2.373	2.101	2.816	5.272	4.509	2.277
Heat pump - Non Ducted < 2.25 Stars (< 3)	Other or none specified	4.506	3.594	2.386	2.113	2.828	5.285	4.522	2.290
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Evaporative	4.356	3.442	2.235	1.963	2.678	5.135	4.371	2.139
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted < 2.25 stars (< 3)	4.377	3.464	2.256	1.984	2.699	5.156	4.392	2.160
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted < 3 stars (< 4.5)	4.374	3.461	2.254	1.981	2.696	5.153	4.389	2.158
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted < 3.75 stars (< 6)	4.370	3.458	2.250	1.977	2.692	5.149	4.386	2.154
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	4.366	3.454	2.246	1.973	2.688	5.145	4.382	2.150

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted < 2.25 stars (< 3)	4.372	3.460	2.252	1.979	2.694	5.151	4.388	2.156
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted < 3 stars (< 4.5)	4.370	3.458	2.250	1.977	2.692	5.149	4.385	2.154
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted < 3.75 stars (< 6)	4.367	3.454	2.246	1.974	2.689	5.146	4.382	2.151
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	4.364	3.451	2.243	1.971	2.686	5.143	4.379	2.147
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Other or none specified	4.377	3.464	2.256	1.984	2.699	5.156	4.392	2.160
Heat pump - Non Ducted < 3.75 Stars (< 6)	Evaporative	4.161	3.248	2.040	1.768	2.483	4.941	4.176	1.944
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Ducted < 2.25 stars (< 3)	4.182	3.269	2.061	1.789	2.504	4.961	4.197	1.966
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Ducted < 3 stars (< 4.5)	4.179	3.267	2.059	1.786	2.501	4.958	4.195	1.963

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Ducted < 3.75 stars (< 6)	4.175	3.263	2.055	1.783	2.497	4.954	4.191	1.959
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	4.172	3.259	2.051	1.779	2.494	4.951	4.187	1.955
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Non-Ducted < 2.25 stars (< 3)	4.178	3.265	2.057	1.785	2.500	4.957	4.193	1.961
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Non-ducted < 3 stars (< 4.5)	4.176	3.263	2.055	1.783	2.498	4.954	4.191	1.959
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Non-ducted < 3.75 stars (< 6)	4.172	3.260	2.052	1.779	2.494	4.951	4.188	1.956
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	4.169	3.256	2.049	1.776	2.491	4.948	4.184	1.953
Heat pump - Non Ducted < 3.75 Stars (< 6)	Other or none specified	4.182	3.269	2.061	1.789	2.504	4.961	4.197	1.966
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Evaporative	3.967	3.053	1.846	1.573	2.289	4.746	3.982	1.749

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted < 2.25 stars (< 3)	3.987	3.075	1.867	1.594	2.309	4.766	4.003	1.771
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted < 3 stars (< 4.5)	3.985	3.072	1.864	1.592	2.307	4.764	4.000	1.769
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted < 3.75 stars (< 6)	3.981	3.068	1.860	1.588	2.303	4.760	3.996	1.765
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	3.977	3.064	1.856	1.584	2.299	4.756	3.992	1.761
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-ducted < 2.25 stars (< 3)	3.983	3.070	1.863	1.590	2.305	4.762	3.998	1.767
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-ducted < 3 stars (< 4.5)	3.981	3.068	1.860	1.588	2.303	4.760	3.996	1.765
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-Ducted < 3.75 stars (< 6)	3.978	3.065	1.857	1.585	2.300	4.756	3.993	1.761
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-Ducted ≥ 3.75 stars (≥ 6)	3.974	3.062	1.854	1.581	2.296	4.753	3.990	1.758

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Non Ducted \geq 3.75 Stars (\geq 6)	Other or none specified	3.987	3.075	1.867	1.594	2.309	4.766	4.003	1.771

Table 7.2.4 Whole-of-home efficiency factors E_E (kW/100m²) – climate zone 7 – heat pump heating – Australian Capital Territory

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Ducted < 2.25 Stars (< 3)	Evaporative	3.950	3.219	2.113	1.906	2.014	4.345	3.722	1.661
Heat pump - Ducted < 2.25 Stars (< 3)	Heat pump - Ducted < 2.25 stars (< 3)	4.284	3.562	2.468	2.259	2.362	4.686	4.066	2.025
Heat pump - Ducted < 2.25 Stars (< 3)	Heat pump - Ducted < 3 stars (< 4.5)	4.241	3.519	2.425	2.216	2.319	4.643	4.023	1.982
Heat pump - Ducted < 2.25 Stars (< 3)	Heat pump - Ducted < 3.75 stars (< 6)	4.177	3.455	2.361	2.152	2.255	4.579	3.959	1.918
Heat pump - Ducted < 2.25 Stars (< 3)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	4.113	3.391	2.297	2.088	2.191	4.515	3.895	1.854
Heat pump - Ducted < 2.25 Stars (< 3)	HP - Non-ducted < 2.25 stars (< 3)	4.215	3.491	2.394	2.185	2.288	4.617	3.995	1.950
Heat pump - Ducted < 2.25 Stars (< 3)	Heat pump - Non-ducted < 3 stars (< 4.5)	4.180	3.456	2.359	2.150	2.252	4.582	3.960	1.915

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Ducted < 2.25 Stars (< 3)	Heat pump - Non-ducted < 3.75 stars (< 6)	4.128	3.403	2.307	2.097	2.200	4.529	3.907	1.862
Heat pump - Ducted < 2.25 Stars (< 3)	Heat pump - Non-Ducted ≥ 3.75 stars (≥ 6)	4.075	3.351	2.254	2.044	2.147	4.477	3.855	1.810
Heat pump - Ducted < 2.25 Stars (< 3)	Other or none specified	4.284	3.562	2.468	2.259	2.362	4.686	4.066	2.025
Heat pump - Ducted < 3.0 Stars (< 4.5)	Evaporative	3.829	3.099	1.992	1.785	1.893	4.224	3.601	1.540
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted < 2.25 stars (< 3)	4.163	3.441	2.347	2.138	2.241	4.565	3.945	1.904
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted < 3 stars (< 4.5)	4.120	3.398	2.304	2.096	2.198	4.522	3.902	1.861
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted < 3.75 stars (< 6)	4.056	3.334	2.240	2.031	2.134	4.458	3.838	1.797
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	3.992	3.270	2.176	1.967	2.070	4.394	3.774	1.733

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted < 2.25 stars (< 3)	4.095	3.370	2.274	2.064	2.167	4.496	3.874	1.829
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted < 3 stars (< 4.5)	4.059	3.335	2.238	2.029	2.132	4.461	3.839	1.794
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted < 3.75 stars (< 6)	4.007	3.282	2.186	1.976	2.079	4.409	3.787	1.741
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	3.954	3.230	2.133	1.923	2.026	4.356	3.734	1.689
Heat pump - Ducted < 3.0 Stars (< 4.5)	Other or none specified	4.163	3.441	2.347	2.138	2.241	4.565	3.945	1.904
Heat pump - Ducted < 3.75 Stars (< 6)	Evaporative	3.648	2.917	1.811	1.603	1.712	4.043	3.419	1.358
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Ducted < 2.25 stars (< 3)	3.981	3.260	2.166	1.957	2.059	4.384	3.764	1.722
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Ducted < 3 stars (< 4.5)	3.939	3.217	2.123	1.914	2.017	4.341	3.721	1.680

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Ducted < 3.75 stars (< 6)	3.875	3.153	2.059	1.850	1.953	4.277	3.657	1.616
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	3.811	3.089	1.995	1.786	1.888	4.213	3.593	1.552
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Non-ducted < 2.25 stars (< 3)	3.913	3.189	2.092	1.883	1.985	4.315	3.693	1.648
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Non-ducted < 3 stars (< 4.5)	3.878	3.154	2.057	1.847	1.950	4.280	3.658	1.613
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Non-ducted < 3.75 stars (< 6)	3.825	3.101	2.004	1.795	1.898	4.227	3.605	1.560
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	3.773	3.048	1.952	1.742	1.845	4.174	3.553	1.507
Heat pump - Ducted < 3.75 Stars (< 6)	Other or none specified	3.981	3.260	2.166	1.957	2.059	4.384	3.764	1.722
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Evaporative	3.467	2.736	1.629	1.422	1.531	3.862	3.238	1.177

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted < 2.25 stars (< 3)	3.800	3.078	1.984	1.775	1.878	4.202	3.582	1.541
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted < 3 stars (< 4.5)	3.757	3.036	1.942	1.733	1.835	4.160	3.539	1.498
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted < 3.75 stars (< 6)	3.693	2.971	1.878	1.669	1.771	4.096	3.475	1.434
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	3.629	2.907	1.814	1.605	1.707	4.032	3.411	1.370
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-ducted < 2.25 stars (< 3)	3.732	3.007	1.911	1.701	1.804	4.134	3.512	1.467
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-ducted < 3 stars (< 4.5)	3.697	2.972	1.876	1.666	1.769	4.098	3.477	1.431
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-ducted < 3.75 stars (< 6)	3.644	2.920	1.823	1.613	1.716	4.046	3.424	1.379
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	3.591	2.867	1.770	1.561	1.663	3.993	3.371	1.326

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Ducted \geq 3.75 Stars (\geq 6)	Other or none specified	3.800	3.078	1.984	1.775	1.878	4.202	3.582	1.541
Heat pump - Non Ducted $<$ 2.25 Stars ($<$ 3)	Evaporative	3.740	3.002	1.914	1.697	1.810	4.129	3.503	1.452
Heat pump - Non Ducted $<$ 2.25 Stars ($<$ 3)	Heat pump - Ducted $<$ 2.25 stars ($<$ 3)	4.079	3.352	2.262	2.060	2.156	4.471	3.852	1.826
Heat pump - Non Ducted $<$ 2.25 Stars ($<$ 3)	Heat pump - Ducted $<$ 3 stars ($<$ 4.5)	4.036	3.310	2.219	2.017	2.113	4.428	3.809	1.783
Heat pump - Non Ducted $<$ 2.25 Stars ($<$ 3)	Heat pump - Ducted $<$ 3.75 stars ($<$ 6)	3.972	3.246	2.155	1.953	2.049	4.364	3.745	1.719
Heat pump - Non Ducted $<$ 2.25 Stars ($<$ 3)	Heat pump - Ducted \geq 3.75 stars (\geq 6)	3.908	3.182	2.091	1.889	1.985	4.300	3.681	1.655
Heat pump - Non Ducted $<$ 2.25 Stars ($<$ 3)	Heat pump - Non-ducted $<$ 2.25 stars ($<$ 3)	4.010	3.280	2.187	1.986	2.086	4.401	3.780	1.748
Heat pump - Non Ducted $<$ 2.25 Stars ($<$ 3)	Heat pump - Non-ducted $<$ 3 stars ($<$ 4.5)	3.975	3.245	2.152	1.951	2.050	4.366	3.745	1.713

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Non Ducted < 2.25 Stars (< 3)	Heat pump - Non-ducted < 3.75 stars (< 6)	3.922	3.192	2.099	1.898	1.998	4.314	3.692	1.660
Heat pump - Non Ducted < 2.25 Stars (< 3)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	3.870	3.139	2.047	1.845	1.945	4.261	3.639	1.608
Heat pump - Non Ducted < 2.25 Stars (< 3)	Other or none specified	4.079	3.352	2.262	2.060	2.156	4.471	3.852	1.826
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Evaporative	3.638	2.901	1.813	1.595	1.709	4.027	3.402	1.351
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted < 2.25 stars (< 3)	3.978	3.251	2.161	1.958	2.054	4.370	3.751	1.724
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted < 3 stars (< 4.5)	3.935	3.208	2.118	1.916	2.012	4.327	3.708	1.682
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted < 3.75 stars (< 6)	3.871	3.144	2.054	1.852	1.948	4.263	3.644	1.618
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	3.807	3.080	1.990	1.788	1.884	4.199	3.580	1.554

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted < 2.25 stars (< 3)	3.909	3.179	2.086	1.884	1.984	4.300	3.679	1.647
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted < 3 stars (< 4.5)	3.873	3.143	2.051	1.849	1.949	4.265	3.643	1.612
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted < 3.75 stars (< 6)	3.821	3.091	1.998	1.797	1.896	4.212	3.591	1.559
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	3.768	3.038	1.945	1.744	1.844	4.160	3.538	1.506
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Other or none specified	3.978	3.251	2.161	1.958	2.054	4.370	3.751	1.724
Heat pump - Non Ducted < 3.75 Stars (< 6)	Evaporative	3.486	2.749	1.661	1.443	1.557	3.875	3.250	1.198
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Ducted < 2.25 stars (< 3)	3.826	3.099	2.008	1.806	1.902	4.218	3.599	1.572
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Ducted < 3 stars (< 4.5)	3.783	3.056	1.966	1.764	1.860	4.175	3.556	1.530

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Ducted < 3.75 stars (< 6)	3.719	2.992	1.902	1.700	1.796	4.111	3.492	1.465
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	3.655	2.928	1.838	1.636	1.732	4.047	3.428	1.401
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Non-Ducted < 2.25 stars (< 3)	3.757	3.027	1.934	1.732	1.832	4.148	3.527	1.495
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Non-ducted < 3 stars (< 4.5)	3.721	2.991	1.898	1.697	1.797	4.113	3.491	1.460
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Non-ducted < 3.75 stars (< 6)	3.669	2.939	1.846	1.644	1.744	4.060	3.439	1.407
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	3.616	2.886	1.793	1.592	1.692	4.008	3.386	1.354
Heat pump - Non Ducted < 3.75 Stars (< 6)	Other or none specified	3.826	3.099	2.008	1.806	1.902	4.218	3.599	1.572
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Evaporative	3.334	2.597	1.509	1.291	1.404	3.723	3.098	1.046

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted < 2.25 stars (< 3)	3.674	2.947	1.856	1.654	1.750	4.066	3.446	1.420
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted < 3 stars (< 4.5)	3.631	2.904	1.814	1.612	1.708	4.023	3.404	1.377
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted < 3.75 stars (< 6)	3.567	2.840	1.750	1.548	1.644	3.959	3.340	1.313
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	3.503	2.776	1.686	1.484	1.580	3.895	3.276	1.249
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-ducted < 2.25 stars (< 3)	3.604	2.874	1.781	1.580	1.680	3.996	3.374	1.343
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-ducted < 3 stars (< 4.5)	3.569	2.839	1.746	1.545	1.645	3.961	3.339	1.307
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-Ducted < 3.75 stars (< 6)	3.517	2.787	1.694	1.492	1.592	3.908	3.287	1.255
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-Ducted ≥ 3.75 stars (≥ 6)	3.464	2.734	1.641	1.440	1.540	3.855	3.234	1.202

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Non Ducted \geq 3.75 Stars (\geq 6)	Other or none specified	3.674	2.947	1.856	1.654	1.750	4.066	3.446	1.420

Table 7.3.1 Whole-of-home efficiency factors E_E (kW/100m²) – climate zone 7 – other heating – New South Wales

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Electric - Resistance (Panel)	Evaporative	7.028	5.968	5.100	4.801	5.019	6.913	6.399	4.584
Electric - Resistance (Panel)	Heat pump - Ducted < 2.25 stars (< 3)	7.444	6.394	5.525	5.231	5.441	7.335	6.825	5.012
Electric - Resistance (Panel)	Heat pump - Ducted < 3 stars (< 4.5)	7.400	6.350	5.481	5.187	5.397	7.292	6.781	4.968
Electric - Resistance (Panel)	Heat pump - Ducted < 3.75 stars (< 6)	7.334	6.284	5.415	5.121	5.331	7.226	6.715	4.902
Electric - Resistance (Panel)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	7.268	6.218	5.349	5.055	5.265	7.160	6.649	4.836
Electric - Resistance (Panel)	Heat pump - Non-Ducted < 2.25 stars (< 3)	7.367	6.312	5.444	5.149	5.361	7.255	6.744	4.929
Electric - Resistance (Panel)	Heat pump - Non-Ducted < 3 stars (< 4.5)	7.330	6.275	5.407	5.112	5.324	7.218	6.707	4.892

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Electric - Resistance (Panel)	Heat pump - Non-ducted < 3.75 stars (< 6)	7.275	6.220	5.352	5.057	5.269	7.163	6.652	4.837
Electric - Resistance (Panel)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	7.220	6.165	5.297	5.002	5.214	7.108	6.597	4.782
Electric - Resistance (Panel)	Other or none specified	7.444	6.394	5.525	5.231	5.441	7.335	6.825	5.012
Wood Heater	Evaporative	4.597	3.588	2.634	2.351	2.523	4.595	4.041	2.111
Wood Heater	Heat pump - Ducted < 2.25 stars (< 3)	5.062	4.069	3.134	2.859	3.015	5.065	4.519	2.632
Wood Heater	Heat pump - Ducted < 3 stars (< 4.5)	5.018	4.025	3.090	2.816	2.972	5.021	4.475	2.588
Wood Heater	Heat pump - Ducted < 3.75 stars (< 6)	4.953	3.959	3.024	2.750	2.906	4.955	4.410	2.522
Wood Heater	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	4.887	3.893	2.958	2.684	2.840	4.889	4.344	2.456
Wood Heater	Heat pump - Non-ducted < 2.25 stars (< 3)	4.971	3.974	3.036	2.759	2.917	4.975	4.426	2.531
Wood Heater	Heat pump - Non-ducted < 3 stars (< 4.5)	4.934	3.938	2.999	2.722	2.881	4.938	4.389	2.495

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Wood Heater	Heat pump - Non-ducted < 3.75 stars (< 6)	4.879	3.883	2.944	2.667	2.826	4.883	4.334	2.440
Wood Heater	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	4.824	3.828	2.889	2.612	2.771	4.828	4.279	2.385
Wood Heater	Other or none specified	5.062	4.069	3.134	2.859	3.015	5.065	4.519	2.632
Electric - Resistance (Slab)	Evaporative	6.014	5.091	4.069	3.827	3.958	6.121	5.561	3.580
Electric - Resistance (Slab)	Heat pump - Ducted < 2.25 stars (< 3)	6.471	5.553	4.548	4.307	4.430	6.580	6.023	4.065
Electric - Resistance (Slab)	Heat pump - Ducted < 3 stars (< 4.5)	6.427	5.509	4.504	4.263	4.386	6.536	5.979	4.021
Electric - Resistance (Slab)	Heat pump - Ducted < 3.75 stars (< 6)	6.361	5.443	4.438	4.197	4.320	6.470	5.914	3.956
Electric - Resistance (Slab)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	6.295	5.378	4.372	4.131	4.254	6.404	5.848	3.890

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Electric - Resistance (Slab)	Heat pump - Non-ducted < 2.25 stars (< 3)	6.384	5.466	4.454	4.212	4.337	6.493	5.936	3.970
Electric - Resistance (Slab)	Heat pump - Non-ducted < 3 stars (< 4.5)	6.347	5.429	4.417	4.175	4.301	6.456	5.899	3.934
Electric - Resistance (Slab)	Heat pump - Non-ducted < 3.75 stars (< 6)	6.292	5.374	4.362	4.120	4.245	6.401	5.844	3.879
Electric - Resistance (Slab)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	6.237	5.319	4.307	4.065	4.190	6.346	5.789	3.824
Electric - Resistance (Slab)	Other or none specified	6.471	5.553	4.548	4.307	4.430	6.580	6.023	4.065
Other or none specified	Evaporative	4.113	2.982	2.184	1.863	2.087	3.915	3.397	1.658
Other or none specified	Heat pump - Ducted < 2.25 stars (< 3)	4.458	3.342	2.553	2.226	2.446	4.266	3.753	2.033
Other or none specified	Heat pump - Ducted < 3 stars (< 4.5)	4.414	3.298	2.509	2.182	2.402	4.222	3.709	1.989
Other or none specified	Heat pump - Ducted < 3.75 stars (< 6)	4.348	3.232	2.443	2.116	2.337	4.156	3.643	1.924

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Other or none specified	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	4.282	3.166	2.377	2.050	2.271	4.090	3.577	1.858
Other or none specified	Heat pump - Non-ducted < 2.25 stars (< 3)	4.387	3.268	2.478	2.153	2.371	4.195	3.679	1.957
Other or none specified	Heat pump - Non-ducted < 3 stars (< 4.5)	4.350	3.231	2.441	2.116	2.335	4.158	3.642	1.920
Other or none specified	Heat pump - Non-ducted < 3.75 stars (< 6)	4.295	3.176	2.386	2.061	2.279	4.103	3.587	1.865
Other or none specified	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	4.240	3.121	2.331	2.006	2.224	4.048	3.532	1.810
Other or none specified	Other or none specified	4.458	3.342	2.553	2.226	2.446	4.266	3.753	2.033

Table 7.3.2 Whole-of-home efficiency factors E_E (kW/100m²) – climate zone 7 – other heating – Victoria

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Electric - Resistance (Panel)	Evaporative	5.774	5.413	4.177	4.095	4.090	4.930	4.667	3.674
Electric - Resistance (Panel)	Heat pump - Ducted < 2.25 stars (< 3)	6.155	5.795	4.565	4.482	4.474	5.314	5.052	4.062
Electric - Resistance (Panel)	Heat pump - Ducted < 3 stars (< 4.5)	6.117	5.756	4.526	4.443	4.436	5.275	5.014	4.024
Electric - Resistance (Panel)	Heat pump - Ducted < 3.75 stars (< 6)	6.059	5.699	4.469	4.386	4.379	5.218	4.956	3.967
Electric - Resistance (Panel)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	6.002	5.642	4.412	4.328	4.321	5.161	4.899	3.909
Electric - Resistance (Panel)	Heat pump - Non-Ducted < 2.25 stars (< 3)	6.083	5.723	4.490	4.407	4.401	5.241	4.979	3.987
Electric - Resistance (Panel)	Heat pump - Non-Ducted < 3 stars (< 4.5)	6.051	5.691	4.458	4.375	4.368	5.209	4.946	3.955

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Electric - Resistance (Panel)	Heat pump - Non-ducted < 3.75 stars (< 6)	6.002	5.642	4.409	4.327	4.320	5.161	4.898	3.907
Electric - Resistance (Panel)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	5.954	5.594	4.361	4.278	4.272	5.112	4.850	3.859
Electric - Resistance (Panel)	Other or none specified	6.155	5.795	4.565	4.482	4.474	5.314	5.052	4.062
Wood Heater	Evaporative	3.860	3.557	2.246	2.178	2.139	3.050	2.771	1.740
Wood Heater	Heat pump - Ducted < 2.25 stars (< 3)	4.273	3.972	2.681	2.618	2.571	3.474	3.203	2.186
Wood Heater	Heat pump - Ducted < 3 stars (< 4.5)	4.234	3.934	2.643	2.580	2.533	3.436	3.164	2.148
Wood Heater	Heat pump - Ducted < 3.75 stars (< 6)	4.177	3.877	2.585	2.522	2.476	3.379	3.107	2.091
Wood Heater	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	4.120	3.819	2.528	2.465	2.418	3.321	3.050	2.033
Wood Heater	Heat pump - Non-ducted < 2.25 stars (< 3)	4.193	3.892	2.598	2.533	2.488	3.392	3.119	2.098
Wood Heater	Heat pump - Non-ducted < 3 stars (< 4.5)	4.160	3.860	2.566	2.501	2.456	3.360	3.087	2.066

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Wood Heater	Heat pump - Non-ducted < 3.75 stars (< 6)	4.112	3.812	2.518	2.453	2.408	3.312	3.039	2.018
Wood Heater	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	4.064	3.763	2.469	2.405	2.360	3.263	2.991	1.970
Wood Heater	Other or none specified	4.273	3.972	2.681	2.618	2.571	3.474	3.203	2.186
Electric - Resistance (Slab)	Evaporative	6.215	6.012	4.633	4.612	4.527	5.514	5.229	4.155
Electric - Resistance (Slab)	Heat pump - Ducted < 2.25 stars (< 3)	6.616	6.410	5.042	5.019	4.931	5.916	5.632	4.566
Electric - Resistance (Slab)	Heat pump - Ducted < 3 stars (< 4.5)	6.577	6.371	5.003	4.981	4.893	5.877	5.594	4.528
Electric - Resistance (Slab)	Heat pump - Ducted < 3.75 stars (< 6)	6.520	6.314	4.946	4.923	4.836	5.820	5.536	4.470
Electric - Resistance (Slab)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	6.463	6.257	4.889	4.866	4.778	5.763	5.479	4.413

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Electric - Resistance (Slab)	Heat pump - Non-ducted < 2.25 stars (< 3)	6.540	6.335	4.963	4.942	4.854	5.840	5.556	4.487
Electric - Resistance (Slab)	Heat pump - Non-ducted < 3 stars (< 4.5)	6.508	6.302	4.931	4.909	4.822	5.808	5.524	4.455
Electric - Resistance (Slab)	Heat pump - Non-ducted < 3.75 stars (< 6)	6.460	6.254	4.883	4.861	4.773	5.760	5.475	4.407
Electric - Resistance (Slab)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	6.412	6.206	4.834	4.813	4.725	5.711	5.427	4.358
Electric - Resistance (Slab)	Other or none specified	6.616	6.410	5.042	5.019	4.931	5.916	5.632	4.566
Other or none specified	Evaporative	3.497	3.097	1.906	1.795	1.804	2.601	2.342	1.395
Other or none specified	Heat pump - Ducted < 2.25 stars (< 3)	3.809	3.409	2.221	2.118	2.120	2.918	2.665	1.724
Other or none specified	Heat pump - Ducted < 3 stars (< 4.5)	3.771	3.371	2.182	2.079	2.082	2.880	2.627	1.686
Other or none specified	Heat pump - Ducted < 3.75 stars (< 6)	3.713	3.313	2.125	2.022	2.024	2.822	2.569	1.628

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Other or none specified	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	3.656	3.256	2.067	1.964	1.967	2.765	2.512	1.571
Other or none specified	Heat pump - Non-ducted < 2.25 stars (< 3)	3.747	3.345	2.157	2.053	2.057	2.853	2.600	1.655
Other or none specified	Heat pump - Non-ducted < 3 stars (< 4.5)	3.714	3.313	2.124	2.021	2.025	2.821	2.568	1.623
Other or none specified	Heat pump - Non-ducted < 3.75 stars (< 6)	3.666	3.265	2.076	1.972	1.976	2.773	2.519	1.575
Other or none specified	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	3.618	3.217	2.028	1.924	1.928	2.724	2.471	1.527
Other or none specified	Other or none specified	3.809	3.409	2.221	2.118	2.120	2.918	2.665	1.724

Table 7.3.3 Whole-of-home efficiency factors E_E (kW/100m²) – climate zone 7 – other heating – Tasmania

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Electric - Resistance (Panel)	Evaporative	8.192	7.406	6.081	5.868	6.572	9.090	8.336	6.058
Electric - Resistance (Panel)	Heat pump - Ducted < 2.25 stars (< 3)	8.216	7.429	6.107	5.893	6.596	9.112	8.359	6.083
Electric - Resistance (Panel)	Heat pump - Ducted < 3 stars (< 4.5)	8.213	7.427	6.104	5.890	6.594	9.109	8.356	6.081
Electric - Resistance (Panel)	Heat pump - Ducted < 3.75 stars (< 6)	8.209	7.423	6.100	5.886	6.590	9.105	8.352	6.077
Electric - Resistance (Panel)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	8.205	7.419	6.096	5.883	6.586	9.101	8.348	6.073
Electric - Resistance (Panel)	Heat pump - Non-Ducted < 2.25 stars (< 3)	8.211	7.424	6.101	5.888	6.591	9.107	8.354	6.078
Electric - Resistance (Panel)	Heat pump - Non-Ducted < 3 stars (< 4.5)	8.209	7.422	6.099	5.886	6.589	9.105	8.352	6.076

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Electric - Resistance (Panel)	Heat pump - Non-ducted < 3.75 stars (< 6)	8.206	7.419	6.096	5.882	6.586	9.102	8.348	6.073
Electric - Resistance (Panel)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	8.202	7.416	6.093	5.879	6.583	9.098	8.345	6.069
Electric - Resistance (Panel)	Other or none specified	8.216	7.429	6.107	5.893	6.596	9.112	8.359	6.083
Wood Heater	Evaporative	5.853	5.070	3.707	3.497	4.188	6.819	6.034	3.691
Wood Heater	Heat pump - Ducted < 2.25 stars (< 3)	5.880	5.097	3.735	3.525	4.215	6.844	6.060	3.719
Wood Heater	Heat pump - Ducted < 3 stars (< 4.5)	5.877	5.094	3.732	3.523	4.213	6.841	6.057	3.717
Wood Heater	Heat pump - Ducted < 3.75 stars (< 6)	5.873	5.090	3.729	3.519	4.209	6.837	6.053	3.713
Wood Heater	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	5.870	5.086	3.725	3.515	4.205	6.834	6.050	3.709
Wood Heater	Heat pump - Non-ducted < 2.25 stars (< 3)	5.875	5.091	3.730	3.520	4.210	6.839	6.055	3.714
Wood Heater	Heat pump - Non-ducted < 3 stars (< 4.5)	5.873	5.089	3.727	3.518	4.208	6.837	6.052	3.712

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Wood Heater	Heat pump - Non-ducted < 3.75 stars (< 6)	5.869	5.086	3.724	3.514	4.204	6.833	6.049	3.708
Wood Heater	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	5.866	5.083	3.721	3.511	4.201	6.830	6.046	3.705
Wood Heater	Other or none specified	5.880	5.097	3.735	3.525	4.215	6.844	6.060	3.719
Electric - Resistance (Slab)	Evaporative	7.709	7.004	5.592	5.413	6.084	8.765	7.978	5.612
Electric - Resistance (Slab)	Heat pump - Ducted < 2.25 stars (< 3)	7.734	7.029	5.619	5.439	6.110	8.788	8.002	5.639
Electric - Resistance (Slab)	Heat pump - Ducted < 3 stars (< 4.5)	7.731	7.027	5.616	5.437	6.107	8.785	7.999	5.636
Electric - Resistance (Slab)	Heat pump - Ducted < 3.75 stars (< 6)	7.727	7.023	5.612	5.433	6.104	8.781	7.995	5.632
Electric - Resistance (Slab)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	7.723	7.019	5.608	5.429	6.100	8.777	7.991	5.628

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Electric - Resistance (Slab)	Heat pump - Non-ducted < 2.25 stars (< 3)	7.729	7.024	5.613	5.434	6.105	8.783	7.997	5.633
Electric - Resistance (Slab)	Heat pump - Non-ducted < 3 stars (< 4.5)	7.727	7.022	5.611	5.432	6.103	8.781	7.994	5.631
Electric - Resistance (Slab)	Heat pump - Non-ducted < 3.75 stars (< 6)	7.723	7.019	5.608	5.429	6.099	8.777	7.991	5.628
Electric - Resistance (Slab)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	7.720	7.015	5.605	5.425	6.096	8.774	7.988	5.624
Electric - Resistance (Slab)	Other or none specified	7.734	7.029	5.619	5.439	6.110	8.788	8.002	5.639
Other or none specified	Evaporative	4.750	3.850	2.624	2.358	3.075	5.543	4.779	2.538
Other or none specified	Heat pump - Ducted < 2.25 stars (< 3)	4.770	3.871	2.645	2.380	3.096	5.563	4.799	2.560
Other or none specified	Heat pump - Ducted < 3 stars (< 4.5)	4.768	3.868	2.642	2.377	3.093	5.560	4.797	2.557
Other or none specified	Heat pump - Ducted < 3.75 stars (< 6)	4.764	3.864	2.638	2.373	3.089	5.556	4.793	2.553

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Other or none specified	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	4.760	3.860	2.634	2.369	3.085	5.552	4.789	2.549
Other or none specified	Heat pump - Non-ducted < 2.25 stars (< 3)	4.766	3.867	2.641	2.375	3.091	5.559	4.795	2.556
Other or none specified	Heat pump - Non-ducted < 3 stars (< 4.5)	4.764	3.864	2.638	2.373	3.089	5.556	4.793	2.553
Other or none specified	Heat pump - Non-ducted < 3.75 stars (< 6)	4.761	3.861	2.635	2.370	3.086	5.553	4.789	2.550
Other or none specified	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	4.758	3.858	2.632	2.367	3.083	5.550	4.786	2.547
Other or none specified	Other or none specified	4.770	3.871	2.645	2.380	3.096	5.563	4.799	2.560

Table 7.3.4 Whole-of-home efficiency factors E_E (kW/100m²) – climate zone 7 – other heating – Australian Capital Territory

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Electric - Resistance (Panel)	Evaporative	6.687	6.016	4.846	4.671	4.764	7.148	6.535	4.414
Electric - Resistance (Panel)	Heat pump - Ducted < 2.25 stars (< 3)	7.097	6.430	5.265	5.089	5.179	7.559	6.950	4.830
Electric - Resistance (Panel)	Heat pump - Ducted < 3 stars (< 4.5)	7.054	6.388	5.222	5.046	5.136	7.516	6.907	4.788
Electric - Resistance (Panel)	Heat pump - Ducted < 3.75 stars (< 6)	6.990	6.324	5.158	4.982	5.072	7.452	6.843	4.724
Electric - Resistance (Panel)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	6.926	6.260	5.094	4.918	5.008	7.388	6.779	4.659
Electric - Resistance (Panel)	Heat pump - Non-Ducted < 2.25 stars (< 3)	7.020	6.351	5.184	5.008	5.099	7.480	6.871	4.750
Electric - Resistance (Panel)	Heat pump - Non-Ducted < 3 stars (< 4.5)	6.985	6.316	5.149	4.972	5.064	7.445	6.835	4.714

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Electric - Resistance (Panel)	Heat pump - Non-ducted < 3.75 stars (< 6)	6.932	6.263	5.096	4.920	5.011	7.392	6.783	4.662
Electric - Resistance (Panel)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	6.879	6.210	5.043	4.867	4.958	7.339	6.730	4.609
Electric - Resistance (Panel)	Other or none specified	7.097	6.430	5.265	5.089	5.179	7.559	6.950	4.830
Wood Heater	Evaporative	4.719	4.140	2.853	2.705	2.742	5.348	4.690	2.427
Wood Heater	Heat pump - Ducted < 2.25 stars (< 3)	5.171	4.596	3.333	3.190	3.218	5.796	5.144	2.918
Wood Heater	Heat pump - Ducted < 3 stars (< 4.5)	5.129	4.553	3.290	3.148	3.176	5.754	5.101	2.875
Wood Heater	Heat pump - Ducted < 3.75 stars (< 6)	5.065	4.489	3.226	3.084	3.112	5.689	5.037	2.811
Wood Heater	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	5.001	4.425	3.162	3.020	3.047	5.625	4.973	2.747
Wood Heater	Heat pump - Non-ducted < 2.25 stars (< 3)	5.083	4.507	3.239	3.095	3.125	5.711	5.056	2.820
Wood Heater	Heat pump - Non-ducted < 3 stars (< 4.5)	5.048	4.471	3.204	3.060	3.090	5.676	5.021	2.785

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Wood Heater	Heat pump - Non-ducted < 3.75 stars (< 6)	4.995	4.419	3.152	3.007	3.037	5.623	4.969	2.732
Wood Heater	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	4.942	4.366	3.099	2.954	2.984	5.570	4.916	2.679
Wood Heater	Other or none specified	5.171	4.596	3.333	3.190	3.218	5.796	5.144	2.918
Electric - Resistance (Slab)	Evaporative	6.516	6.025	4.678	4.573	4.569	7.256	6.594	4.286
Electric - Resistance (Slab)	Heat pump - Ducted < 2.25 stars (< 3)	6.956	6.466	5.134	5.027	5.019	7.692	7.034	4.744
Electric - Resistance (Slab)	Heat pump - Ducted < 3 stars (< 4.5)	6.913	6.423	5.091	4.984	4.976	7.649	6.992	4.701
Electric - Resistance (Slab)	Heat pump - Ducted < 3.75 stars (< 6)	6.849	6.359	5.027	4.920	4.912	7.585	6.928	4.637
Electric - Resistance (Slab)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	6.785	6.295	4.963	4.856	4.848	7.521	6.864	4.573

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Electric - Resistance (Slab)	Heat pump - Non-ducted < 2.25 stars (< 3)	6.872	6.382	5.045	4.939	4.931	7.609	6.950	4.655
Electric - Resistance (Slab)	Heat pump - Non-ducted < 3 stars (< 4.5)	6.837	6.347	5.010	4.904	4.896	7.573	6.915	4.620
Electric - Resistance (Slab)	Heat pump - Non-ducted < 3.75 stars (< 6)	6.785	6.294	4.957	4.851	4.844	7.521	6.862	4.567
Electric - Resistance (Slab)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	6.732	6.241	4.905	4.798	4.791	7.468	6.810	4.515
Electric - Resistance (Slab)	Other or none specified	6.956	6.466	5.134	5.027	5.019	7.692	7.034	4.744
Other or none specified	Evaporative	3.950	3.219	2.113	1.906	2.014	4.345	3.722	1.661
Other or none specified	Heat pump - Ducted < 2.25 stars (< 3)	4.284	3.562	2.468	2.259	2.362	4.686	4.066	2.025
Other or none specified	Heat pump - Ducted < 3 stars (< 4.5)	4.241	3.519	2.425	2.216	2.319	4.643	4.023	1.982
Other or none specified	Heat pump - Ducted < 3.75 stars (< 6)	4.177	3.455	2.361	2.152	2.255	4.579	3.959	1.918

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Other or none specified	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	4.113	3.391	2.297	2.088	2.191	4.515	3.895	1.854
Other or none specified	Heat pump - Non-ducted < 2.25 stars (< 3)	4.215	3.491	2.394	2.185	2.288	4.617	3.995	1.950
Other or none specified	Heat pump - Non-ducted < 3 stars (< 4.5)	4.180	3.456	2.359	2.150	2.252	4.582	3.960	1.915
Other or none specified	Heat pump - Non-ducted < 3.75 stars (< 6)	4.128	3.403	2.307	2.097	2.200	4.529	3.907	1.862
Other or none specified	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	4.075	3.351	2.254	2.044	2.147	4.477	3.855	1.810
Other or none specified	Other or none specified	4.284	3.562	2.468	2.259	2.362	4.686	4.066	2.025

2.4.8 Climate zone 8

Table 8.1.1 Whole-of-home efficiency factors E_E (kW/100m²) – climate zone 8 – gas heating – New South Wales

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas – ducted < 3 Stars	Evaporative	X	X	X	X	X	X	X	X
Gas – ducted < 3 Stars	Heat pump - Ducted < 2.25 stars (< 3)	X	X	X	X	X	X	X	X
Gas – ducted < 3 Stars	Heat pump - Ducted < 3 stars (< 4.5)	X	X	X	X	X	X	X	X
Gas – ducted < 3 Stars	Heat pump - Ducted < 3.75 stars (< 6)	X	X	X	X	X	X	X	X
Gas – ducted < 3 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	X	X	X	X	X	X	X	X
Gas – ducted < 3 Stars	HP - Non-ducted < 2.25 stars (< 3)	X	X	X	X	X	X	X	X
Gas – ducted < 3 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	X	X	X	X	X	X	X	X
Gas – ducted < 3 Stars	Heat pump - Non-ducted < 3.75 stars (< 6)	X	X	X	X	X	X	X	X
Gas – ducted < 3 Stars	Heat pump - Non-Ducted ≥ 3.75 stars (≥ 6)	X	X	X	X	X	X	X	X

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas – ducted < 3 Stars	Other or none specified	X	X	X	X	X	X	X	X
Gas – ducted < 4.5 Stars	Evaporative	X	X	X	X	X	X	X	X
Gas – ducted < 4.5 Stars	Heat pump - Ducted < 2.25 stars (< 3)	X	X	X	X	X	X	X	X
Gas – ducted < 4.5 Stars	Heat pump - Ducted < 3 stars (< 4.5)	X	X	X	X	X	X	X	X
Gas – ducted < 4.5 Stars	Heat pump - Ducted < 3.75 stars (< 6)	X	X	X	X	X	X	X	X
Gas – ducted < 4.5 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	X	X	X	X	X	X	X	X
Gas – ducted < 4.5 Stars	Heat pump - Non-ducted < 2.25 stars (< 3)	X	X	X	X	X	X	X	X
Gas – ducted < 4.5 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	X	X	X	X	X	X	X	X
Gas – ducted < 4.5 Stars	Heat pump - Non-ducted < 3.75 stars (< 6)	X	X	X	X	X	X	X	X
Gas – ducted < 4.5 Stars	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	X	X	X	X	X	X	X	X

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas – ducted < 4.5 Stars	Other or none specified	X	X	X	X	X	X	X	X
Gas – ducted < 6 Stars	Evaporative	X	X	X	X	X	X	X	X
Gas – ducted < 6 Stars	Heat pump - Ducted < 2.25 stars (< 3)	X	X	X	X	X	X	X	X
Gas – ducted < 6 Stars	Heat pump - Ducted < 3 stars (< 4.5)	X	X	X	X	X	X	X	X
Gas – ducted < 6 Stars	Heat pump - Ducted < 3.75 stars (< 6)	X	X	X	X	X	X	X	X
Gas – ducted < 6 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	X	X	X	X	X	X	X	X
Gas – ducted < 6 Stars	Heat pump - Non-ducted < 2.25 stars (< 3)	X	X	X	X	X	X	X	X
Gas – ducted < 6 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	X	X	X	X	X	X	X	X
Gas – ducted < 6 Stars	Heat pump - Non-ducted < 3.75 stars (< 6)	X	X	X	X	X	X	X	X
Gas – ducted < 6 Stars	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	X	X	X	X	X	X	X	X

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas – ducted < 6 Stars	Other or none specified	X	X	X	X	X	X	X	X
Gas – ducted ≥ 6 Stars	Evaporative	X	9.750	8.539	8.315	8.987	X	X	8.414
Gas – ducted ≥ 6 Stars	Heat pump - Ducted < 2.25 stars (< 3)	X	9.757	8.545	8.322	8.994	X	X	8.421
Gas – ducted ≥ 6 Stars	Heat pump - Ducted < 3 stars (< 4.5)	X	9.755	8.544	8.321	8.992	X	X	8.420
Gas – ducted ≥ 6 Stars	Heat pump - Ducted < 3.75 stars (< 6)	X	9.753	8.542	8.319	8.990	X	X	8.417
Gas – ducted ≥ 6 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	X	9.751	8.540	8.316	8.988	X	X	8.415
Gas – ducted ≥ 6 Stars	Heat pump - Non-ducted < 2.25 stars (< 3)	X	9.756	8.545	8.321	8.993	X	X	8.420
Gas – ducted ≥ 6 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	X	9.755	8.543	8.320	8.992	X	X	8.419
Gas – ducted ≥ 6 Stars	Heat pump - Non-ducted < 3.75 stars (< 6)	X	9.753	8.542	8.318	8.990	X	X	8.417
Gas – ducted ≥ 6 Stars	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	X	9.752	8.540	8.317	8.989	X	X	8.415

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas – ducted ≥ 6 Stars	Other or none specified	X	9.757	8.545	8.322	8.994	X	X	8.421
Gas - non ducted < 3 Stars	Evaporative	X	X	X	9.972	X	X	X	X
Gas - non ducted < 3 Stars	Heat pump - Ducted < 2.25 stars (< 3)	X	X	X	9.980	X	X	X	X
Gas - non ducted < 3 Stars	Heat pump - Ducted < 3 stars (< 4.5)	X	X	X	9.979	X	X	X	X
Gas - non ducted < 3 Stars	Heat pump - Ducted < 3.75 stars (< 6)	X	X	X	9.977	X	X	X	X
Gas - non ducted < 3 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	X	X	X	9.974	X	X	X	X
Gas - non ducted < 3 Stars	Heat pump - Non-ducted < 2.25 stars (< 3)	X	X	X	9.979	X	X	X	X
Gas - non ducted < 3 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	X	X	X	9.978	X	X	X	X
Gas - non ducted < 3 Stars	Heat pump - Non-ducted < 3.75 stars (< 6)	X	X	X	9.976	X	X	X	X
Gas - non ducted < 3 Stars	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	X	X	X	9.974	X	X	X	X

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas - non ducted < 3 Stars	Other or none specified	X	X	X	9.980	X	X	X	X
Gas - non ducted < 4.5 Stars	Evaporative	X	X	9.617	9.368	X	X	X	9.466
Gas - non ducted < 4.5 Stars	Heat pump - Ducted < 2.25 stars (< 3)	X	X	9.625	9.376	X	X	X	9.475
Gas - non ducted < 4.5 Stars	Heat pump - Ducted < 3 stars (< 4.5)	X	X	9.623	9.375	X	X	X	9.473
Gas - non ducted < 4.5 Stars	Heat pump - Ducted < 3.75 stars (< 6)	X	X	9.621	9.373	X	X	X	9.471
Gas - non ducted < 4.5 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	X	X	9.619	9.371	X	X	X	9.469
Gas - non ducted < 4.5 Stars	Heat pump - Non-ducted < 2.25 stars (< 3)	X	X	9.623	9.375	X	X	X	9.473
Gas - non ducted < 4.5 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	X	X	9.622	9.374	X	X	X	9.472

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas - non ducted < 4.5 Stars	Heat pump - Non-ducted < 3.75 stars (< 6)	X	X	9.620	9.372	X	X	X	9.470
Gas - non ducted < 4.5 Stars	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	X	X	9.618	9.370	X	X	X	9.468
Gas - non ducted < 4.5 Stars	Other or none specified	X	X	9.625	9.376	X	X	X	9.475
Gas - non ducted < 6 Stars	Evaporative	X	9.909	8.711	8.462	9.176	X	X	8.560
Gas - non ducted < 6 Stars	Heat pump - Ducted < 2.25 stars (< 3)	X	9.917	8.719	8.470	9.184	X	X	8.569
Gas - non ducted < 6 Stars	Heat pump - Ducted < 3 stars (< 4.5)	X	9.916	8.717	8.469	9.183	X	X	8.567
Gas - non ducted < 6 Stars	Heat pump - Ducted < 3.75 stars (< 6)	X	9.914	8.715	8.467	9.181	X	X	8.565
Gas - non ducted < 6 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	X	9.912	8.713	8.465	9.178	X	X	8.563
Gas - non ducted < 6 Stars	Heat pump - Non-Ducted < 2.25 stars (< 3)	X	9.916	8.717	8.469	9.183	X	X	8.567

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas - non ducted < 6 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	X	9.915	8.716	8.468	9.182	X	X	8.566
Gas - non ducted < 6 Stars	Heat pump - Non-ducted < 3.75 stars (< 6)	X	9.913	8.714	8.466	9.180	X	X	8.564
Gas - non ducted < 6 Stars	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	X	9.912	8.713	8.464	9.178	X	X	8.563
Gas - non ducted < 6 Stars	Other or none specified	X	9.917	8.719	8.470	9.184	X	X	8.569
Gas - non ducted ≥ 6 Stars	Evaporative	9.866	9.004	7.805	7.556	8.270	X	9.533	7.654
Gas - non ducted ≥ 6 Stars	Heat pump - Ducted < 2.25 stars (< 3)	9.872	9.011	7.813	7.565	8.278	X	9.541	7.663
Gas - non ducted ≥ 6 Stars	Heat pump - Ducted < 3 stars (< 4.5)	9.871	9.010	7.811	7.563	8.277	X	9.540	7.661
Gas - non ducted ≥ 6 Stars	Heat pump - Ducted < 3.75 stars (< 6)	9.869	9.008	7.809	7.561	8.275	X	9.537	7.659
Gas - non ducted ≥ 6 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	9.866	9.006	7.807	7.559	8.273	X	9.535	7.657
Gas - non ducted ≥ 6 Stars	Heat pump - Non-ducted < 2.25 stars (< 3)	9.870	9.010	7.811	7.563	8.277	X	9.540	7.661

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas - non ducted ≥ 6 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	9.869	9.009	7.810	7.562	8.276	X	9.539	7.660
Gas - non ducted ≥ 6 Stars	Heat pump - Non-Ducted < 3.75 stars (< 6)	9.867	9.007	7.809	7.560	8.274	X	9.537	7.659
Gas - non ducted ≥ 6 Stars	Heat pump - Non-Ducted ≥ 3.75 stars (≥ 6)	9.865	9.006	7.807	7.558	8.272	X	9.535	7.657
Gas - non ducted ≥ 6 Stars	Other or none specified	9.872	9.011	7.813	7.565	8.278	X	9.541	7.663

Table 8.1.2 Whole-of-home efficiency factors E_E (kW/100m²) – climate zone 8 – gas heating – Victoria

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas – ducted < 3 Stars	Evaporative	9.194	8.962	7.393	7.360	7.766	8.403	8.038	7.025
Gas – ducted < 3 Stars	Heat pump - Ducted < 2.25 stars (< 3)	9.202	8.970	7.403	7.369	7.775	8.412	8.047	7.034
Gas – ducted < 3 Stars	Heat pump - Ducted < 3 stars (< 4.5)	9.201	8.969	7.401	7.367	7.773	8.411	8.046	7.032
Gas – ducted < 3 Stars	Heat pump - Ducted < 3.75 stars (< 6)	9.199	8.967	7.399	7.365	7.771	8.409	8.044	7.031
Gas – ducted < 3 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	9.197	8.965	7.397	7.363	7.769	8.407	8.042	7.029
Gas – ducted < 3 Stars	HP - Non-ducted < 2.25 stars (< 3)	9.200	8.968	7.401	7.367	7.773	8.410	8.045	7.032
Gas – ducted < 3 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	9.199	8.967	7.400	7.366	7.772	8.409	8.044	7.031
Gas – ducted < 3 Stars	Heat pump - Non-ducted < 3.75 stars (< 6)	9.197	8.966	7.398	7.364	7.770	8.407	8.043	7.029
Gas – ducted < 3 Stars	Heat pump - Non-Ducted ≥ 3.75 stars (≥ 6)	9.196	8.964	7.396	7.362	7.769	8.406	8.041	7.028
Gas – ducted < 3 Stars	Other or none specified	9.202	8.970	7.403	7.369	7.775	8.412	8.047	7.034

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas – ducted < 4.5 Stars	Evaporative	8.749	8.517	6.949	6.915	7.322	7.959	7.594	6.580
Gas – ducted < 4.5 Stars	Heat pump - Ducted < 2.25 stars (< 3)	8.758	8.526	6.958	6.924	7.330	7.967	7.603	6.589
Gas – ducted < 4.5 Stars	Heat pump - Ducted < 3 stars (< 4.5)	8.756	8.524	6.957	6.923	7.329	7.966	7.601	6.588
Gas – ducted < 4.5 Stars	Heat pump - Ducted < 3.75 stars (< 6)	8.754	8.522	6.955	6.921	7.327	7.964	7.599	6.586
Gas – ducted < 4.5 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	8.752	8.520	6.953	6.919	7.325	7.962	7.597	6.584
Gas – ducted < 4.5 Stars	Heat pump - Non-ducted < 2.25 stars (< 3)	8.756	8.524	6.956	6.922	7.329	7.966	7.601	6.588
Gas – ducted < 4.5 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	8.755	8.523	6.955	6.921	7.328	7.965	7.600	6.586
Gas – ducted < 4.5 Stars	Heat pump - Non-ducted < 3.75 stars (< 6)	8.753	8.521	6.954	6.920	7.326	7.963	7.598	6.585
Gas – ducted < 4.5 Stars	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	8.751	8.520	6.952	6.918	7.324	7.961	7.597	6.583
Gas – ducted < 4.5 Stars	Other or none specified	8.758	8.526	6.958	6.924	7.330	7.967	7.603	6.589

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas – ducted < 6 Stars	Evaporative	8.083	7.851	6.282	6.249	6.655	7.292	6.927	5.914
Gas – ducted < 6 Stars	Heat pump - Ducted < 2.25 stars (< 3)	8.091	7.859	6.292	6.258	6.664	7.301	6.936	5.923
Gas – ducted < 6 Stars	Heat pump - Ducted < 3 stars (< 4.5)	8.090	7.858	6.290	6.256	6.662	7.300	6.935	5.921
Gas – ducted < 6 Stars	Heat pump - Ducted < 3.75 stars (< 6)	8.088	7.856	6.288	6.254	6.660	7.298	6.933	5.920
Gas – ducted < 6 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	8.086	7.854	6.286	6.252	6.659	7.296	6.931	5.918
Gas – ducted < 6 Stars	Heat pump - Non-ducted < 2.25 stars (< 3)	8.089	7.857	6.290	6.256	6.662	7.299	6.934	5.921
Gas – ducted < 6 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	8.088	7.856	6.289	6.255	6.661	7.298	6.933	5.920
Gas – ducted < 6 Stars	Heat pump - Non-ducted < 3.75 stars (< 6)	8.086	7.855	6.287	6.253	6.659	7.296	6.932	5.918
Gas – ducted < 6 Stars	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	8.085	7.853	6.285	6.251	6.658	7.295	6.930	5.917
Gas – ducted < 6 Stars	Other or none specified	8.091	7.859	6.292	6.258	6.664	7.301	6.936	5.923

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas – ducted ≥ 6 Stars	Evaporative	7.416	7.184	5.616	5.582	5.988	6.626	6.261	5.247
Gas – ducted ≥ 6 Stars	Heat pump - Ducted < 2.25 stars (< 3)	7.424	7.192	5.625	5.591	5.997	6.634	6.269	5.256
Gas – ducted ≥ 6 Stars	Heat pump - Ducted < 3 stars (< 4.5)	7.423	7.191	5.624	5.590	5.996	6.633	6.268	5.255
Gas – ducted ≥ 6 Stars	Heat pump - Ducted < 3.75 stars (< 6)	7.421	7.189	5.622	5.588	5.994	6.631	6.266	5.253
Gas – ducted ≥ 6 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	7.419	7.187	5.620	5.586	5.992	6.629	6.264	5.251
Gas – ducted ≥ 6 Stars	Heat pump - Non-ducted < 2.25 stars (< 3)	7.423	7.191	5.623	5.589	5.995	6.633	6.268	5.254
Gas – ducted ≥ 6 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	7.421	7.190	5.622	5.588	5.994	6.632	6.267	5.253
Gas – ducted ≥ 6 Stars	Heat pump - Non-ducted < 3.75 stars (< 6)	7.420	7.188	5.620	5.586	5.993	6.630	6.265	5.252
Gas – ducted ≥ 6 Stars	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	7.418	7.187	5.619	5.585	5.991	6.628	6.263	5.250
Gas – ducted ≥ 6 Stars	Other or none specified	7.424	7.192	5.625	5.591	5.997	6.634	6.269	5.256

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas - non ducted < 3 Stars	Evaporative	7.731	7.471	5.901	5.863	6.278	6.907	6.542	5.528
Gas - non ducted < 3 Stars	Heat pump - Ducted < 2.25 stars (< 3)	7.740	7.479	5.911	5.873	6.287	6.916	6.551	5.537
Gas - non ducted < 3 Stars	Heat pump - Ducted < 3 stars (< 4.5)	7.739	7.478	5.910	5.871	6.286	6.915	6.550	5.536
Gas - non ducted < 3 Stars	Heat pump - Ducted < 3.75 stars (< 6)	7.737	7.476	5.908	5.869	6.284	6.913	6.548	5.534
Gas - non ducted < 3 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	7.735	7.474	5.906	5.867	6.282	6.911	6.546	5.532
Gas - non ducted < 3 Stars	Heat pump - Non-ducted < 2.25 stars (< 3)	7.738	7.478	5.909	5.871	6.285	6.914	6.549	5.535
Gas - non ducted < 3 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	7.737	7.477	5.908	5.870	6.284	6.913	6.548	5.534
Gas - non ducted < 3 Stars	Heat pump - Non-ducted < 3.75 stars (< 6)	7.736	7.475	5.906	5.868	6.282	6.912	6.546	5.533
Gas - non ducted < 3 Stars	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	7.734	7.473	5.905	5.866	6.281	6.910	6.545	5.531
Gas - non ducted < 3 Stars	Other or none specified	7.740	7.479	5.911	5.873	6.287	6.916	6.551	5.537

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas - non ducted < 4.5 Stars	Evaporative	7.401	7.141	5.571	5.533	5.948	6.577	6.212	5.198
Gas - non ducted < 4.5 Stars	Heat pump - Ducted < 2.25 stars (< 3)	7.410	7.149	5.581	5.543	5.957	6.586	6.221	5.207
Gas - non ducted < 4.5 Stars	Heat pump - Ducted < 3 stars (< 4.5)	7.409	7.148	5.580	5.541	5.956	6.585	6.220	5.206
Gas - non ducted < 4.5 Stars	Heat pump - Ducted < 3.75 stars (< 6)	7.407	7.146	5.578	5.539	5.954	6.583	6.218	5.204
Gas - non ducted < 4.5 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	7.405	7.144	5.576	5.537	5.952	6.581	6.216	5.202
Gas - non ducted < 4.5 Stars	Heat pump - Non-ducted < 2.25 stars (< 3)	7.408	7.148	5.579	5.541	5.955	6.584	6.219	5.205
Gas - non ducted < 4.5 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	7.407	7.147	5.578	5.539	5.954	6.583	6.218	5.204
Gas - non ducted < 4.5 Stars	Heat pump - Non-ducted < 3.75 stars (< 6)	7.406	7.145	5.576	5.538	5.952	6.582	6.216	5.203

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas - non ducted < 4.5 Stars	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	7.404	7.143	5.575	5.536	5.951	6.580	6.215	5.201
Gas - non ducted < 4.5 Stars	Other or none specified	7.410	7.149	5.581	5.543	5.957	6.586	6.221	5.207
Gas - non ducted < 6 Stars	Evaporative	6.906	6.646	5.076	5.038	5.453	6.082	5.717	4.703
Gas - non ducted < 6 Stars	Heat pump - Ducted < 2.25 stars (< 3)	6.915	6.654	5.086	5.048	5.462	6.091	5.726	4.712
Gas - non ducted < 6 Stars	Heat pump - Ducted < 3 stars (< 4.5)	6.914	6.653	5.085	5.046	5.461	6.090	5.725	4.711
Gas - non ducted < 6 Stars	Heat pump - Ducted < 3.75 stars (< 6)	6.912	6.651	5.083	5.044	5.459	6.088	5.723	4.709
Gas - non ducted < 6 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	6.910	6.649	5.081	5.042	5.457	6.086	5.721	4.707
Gas - non ducted < 6 Stars	Heat pump - Non-Ducted < 2.25 stars (< 3)	6.913	6.653	5.084	5.046	5.460	6.089	5.724	4.710
Gas - non ducted < 6 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	6.912	6.652	5.083	5.044	5.459	6.088	5.723	4.709

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas - non ducted < 6 Stars	Heat pump - Non-ducted < 3.75 stars (< 6)	6.911	6.650	5.081	5.043	5.457	6.087	5.721	4.708
Gas - non ducted < 6 Stars	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	6.909	6.648	5.080	5.041	5.456	6.085	5.720	4.706
Gas - non ducted < 6 Stars	Other or none specified	6.915	6.654	5.086	5.048	5.462	6.091	5.726	4.712
Gas - non ducted ≥ 6 Stars	Evaporative	6.411	6.151	4.581	4.543	4.958	5.587	5.222	4.208
Gas - non ducted ≥ 6 Stars	Heat pump - Ducted < 2.25 stars (< 3)	6.420	6.159	4.591	4.553	4.967	5.596	5.231	4.217
Gas - non ducted ≥ 6 Stars	Heat pump - Ducted < 3 stars (< 4.5)	6.419	6.158	4.590	4.551	4.966	5.595	5.230	4.216
Gas - non ducted ≥ 6 Stars	Heat pump - Ducted < 3.75 stars (< 6)	6.417	6.156	4.588	4.549	4.964	5.593	5.228	4.214
Gas - non ducted ≥ 6 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	6.415	6.154	4.586	4.547	4.962	5.591	5.226	4.212
Gas - non ducted ≥ 6 Stars	Heat pump - Non-ducted < 2.25 stars (< 3)	6.418	6.158	4.589	4.551	4.965	5.594	5.229	4.215
Gas - non ducted ≥ 6 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	6.417	6.157	4.588	4.549	4.964	5.593	5.228	4.214

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas - non ducted ≥ 6 Stars	Heat pump - Non-Ducted < 3.75 stars (< 6)	6.416	6.155	4.586	4.548	4.962	5.592	5.226	4.213
Gas - non ducted ≥ 6 Stars	Heat pump - Non-Ducted ≥ 3.75 stars (≥ 6)	6.414	6.153	4.585	4.546	4.961	5.590	5.225	4.211
Gas - non ducted ≥ 6 Stars	Other or none specified	6.420	6.159	4.591	4.553	4.967	5.596	5.231	4.217

Table 8.1.3 Whole-of-home efficiency factors E_E (kW/100m²) – climate zone 8 – gas heating – Tasmania

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas – ducted < 3 Stars	Evaporative	X	X	X	X	X	X	X	X
Gas – ducted < 3 Stars	Heat pump - Ducted < 2.25 stars (< 3)	X	X	X	X	X	X	X	X
Gas – ducted < 3 Stars	Heat pump - Ducted < 3 stars (< 4.5)	X	X	X	X	X	X	X	X
Gas – ducted < 3 Stars	Heat pump - Ducted < 3.75 stars (< 6)	X	X	X	X	X	X	X	X
Gas – ducted < 3 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	X	X	X	X	X	X	X	X
Gas – ducted < 3 Stars	HP - Non-ducted < 2.25 stars (< 3)	X	X	X	X	X	X	X	X
Gas – ducted < 3 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	X	X	X	X	X	X	X	X
Gas – ducted < 3 Stars	Heat pump - Non-ducted < 3.75 stars (< 6)	X	X	X	X	X	X	X	X
Gas – ducted < 3 Stars	Heat pump - Non-Ducted ≥ 3.75 stars (≥ 6)	X	X	X	X	X	X	X	X
Gas – ducted < 3 Stars	Other or none specified	X	X	X	X	X	X	X	X

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas – ducted < 4.5 Stars	Evaporative	X	X	X	X	X	X	X	X
Gas – ducted < 4.5 Stars	Heat pump - Ducted < 2.25 stars (< 3)	X	X	X	X	X	X	X	X
Gas – ducted < 4.5 Stars	Heat pump - Ducted < 3 stars (< 4.5)	X	X	X	X	X	X	X	X
Gas – ducted < 4.5 Stars	Heat pump - Ducted < 3.75 stars (< 6)	X	X	X	X	X	X	X	X
Gas – ducted < 4.5 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	X	X	X	X	X	X	X	X
Gas – ducted < 4.5 Stars	Heat pump - Non-ducted < 2.25 stars (< 3)	X	X	X	X	X	X	X	X
Gas – ducted < 4.5 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	X	X	X	X	X	X	X	X
Gas – ducted < 4.5 Stars	Heat pump - Non-ducted < 3.75 stars (< 6)	X	X	X	X	X	X	X	X
Gas – ducted < 4.5 Stars	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	X	X	X	X	X	X	X	X
Gas – ducted < 4.5 Stars	Other or none specified	X	X	X	X	X	X	X	X

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas – ducted < 6 Stars	Evaporative	X	X	X	X	X	X	X	X
Gas – ducted < 6 Stars	Heat pump - Ducted < 2.25 stars (< 3)	X	X	X	X	X	X	X	X
Gas – ducted < 6 Stars	Heat pump - Ducted < 3 stars (< 4.5)	X	X	X	X	X	X	X	X
Gas – ducted < 6 Stars	Heat pump - Ducted < 3.75 stars (< 6)	X	X	X	X	X	X	X	X
Gas – ducted < 6 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	X	X	X	X	X	X	X	X
Gas – ducted < 6 Stars	Heat pump - Non-ducted < 2.25 stars (< 3)	X	X	X	X	X	X	X	X
Gas – ducted < 6 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	X	X	X	X	X	X	X	X
Gas – ducted < 6 Stars	Heat pump - Non-ducted < 3.75 stars (< 6)	X	X	X	X	X	X	X	X
Gas – ducted < 6 Stars	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	X	X	X	X	X	X	X	X
Gas – ducted < 6 Stars	Other or none specified	X	X	X	X	X	X	X	X

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas – ducted ≥ 6 Stars	Evaporative	X	X	9.627	9.546	9.971	X	X	9.739
Gas – ducted ≥ 6 Stars	Heat pump - Ducted < 2.25 stars (< 3)	X	X	9.633	9.553	9.977	X	X	9.745
Gas – ducted ≥ 6 Stars	Heat pump - Ducted < 3 stars (< 4.5)	X	X	9.631	9.552	9.976	X	X	9.744
Gas – ducted ≥ 6 Stars	Heat pump - Ducted < 3.75 stars (< 6)	X	X	9.629	9.550	9.974	X	X	9.742
Gas – ducted ≥ 6 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	X	X	9.627	9.548	9.972	X	X	9.740
Gas – ducted ≥ 6 Stars	Heat pump - Non-ducted < 2.25 stars (< 3)	X	X	9.632	9.552	9.977	X	X	9.745
Gas – ducted ≥ 6 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	X	X	9.631	9.551	9.976	X	X	9.744
Gas – ducted ≥ 6 Stars	Heat pump - Non-ducted < 3.75 stars (< 6)	X	X	9.629	9.549	9.974	X	X	9.742
Gas – ducted ≥ 6 Stars	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	X	X	9.628	9.548	9.972	X	X	9.740
Gas – ducted ≥ 6 Stars	Other or none specified	X	X	9.633	9.553	9.977	X	X	9.745

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas - non ducted < 3 Stars	Evaporative	X	X	X	X	X	X	X	X
Gas - non ducted < 3 Stars	Heat pump - Ducted < 2.25 stars (< 3)	X	X	X	X	X	X	X	X
Gas - non ducted < 3 Stars	Heat pump - Ducted < 3 stars (< 4.5)	X	X	X	X	X	X	X	X
Gas - non ducted < 3 Stars	Heat pump - Ducted < 3.75 stars (< 6)	X	X	X	X	X	X	X	X
Gas - non ducted < 3 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	X	X	X	X	X	X	X	X
Gas - non ducted < 3 Stars	Heat pump - Non-ducted < 2.25 stars (< 3)	X	X	X	X	X	X	X	X
Gas - non ducted < 3 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	X	X	X	X	X	X	X	X
Gas - non ducted < 3 Stars	Heat pump - Non-ducted < 3.75 stars (< 6)	X	X	X	X	X	X	X	X
Gas - non ducted < 3 Stars	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	X	X	X	X	X	X	X	X
Gas - non ducted < 3 Stars	Other or none specified	X	X	X	X	X	X	X	X

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas - non ducted < 4.5 Stars	Evaporative	X	X	X	X	X	X	X	X
Gas - non ducted < 4.5 Stars	Heat pump - Ducted < 2.25 stars (< 3)	X	X	X	X	X	X	X	X
Gas - non ducted < 4.5 Stars	Heat pump - Ducted < 3 stars (< 4.5)	X	X	X	X	X	X	X	X
Gas - non ducted < 4.5 Stars	Heat pump - Ducted < 3.75 stars (< 6)	X	X	X	X	X	X	X	X
Gas - non ducted < 4.5 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	X	X	X	X	X	X	X	X
Gas - non ducted < 4.5 Stars	Heat pump - Non-ducted < 2.25 stars (< 3)	X	X	X	X	X	X	X	X
Gas - non ducted < 4.5 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	X	X	X	X	X	X	X	X
Gas - non ducted < 4.5 Stars	Heat pump - Non-ducted < 3.75 stars (< 6)	X	X	X	X	X	X	X	X

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas - non ducted < 4.5 Stars	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	X	X	X	X	X	X	X	X
Gas - non ducted < 4.5 Stars	Other or none specified	X	X	X	X	X	X	X	X
Gas - non ducted < 6 Stars	Evaporative	X	X	9.891	9.792	X	X	X	9.984
Gas - non ducted < 6 Stars	Heat pump - Ducted < 2.25 stars (< 3)	X	X	9.899	9.799	X	X	X	9.991
Gas - non ducted < 6 Stars	Heat pump - Ducted < 3 stars (< 4.5)	X	X	9.897	9.798	X	X	X	9.990
Gas - non ducted < 6 Stars	Heat pump - Ducted < 3.75 stars (< 6)	X	X	9.895	9.796	X	X	X	9.988
Gas - non ducted < 6 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	X	X	9.893	9.794	X	X	X	9.986
Gas - non ducted < 6 Stars	Heat pump - Non-Ducted < 2.25 stars (< 3)	X	X	9.898	9.798	X	X	X	9.990
Gas - non ducted < 6 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	X	X	9.896	9.797	X	X	X	9.989

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas - non ducted < 6 Stars	Heat pump - Non-ducted < 3.75 stars (< 6)	X	X	9.895	9.795	X	X	X	9.988
Gas - non ducted < 6 Stars	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	X	X	9.893	9.794	X	X	X	9.986
Gas - non ducted < 6 Stars	Other or none specified	X	X	9.899	9.799	X	X	X	9.991
Gas - non ducted ≥ 6 Stars	Evaporative	X	X	8.867	8.767	9.223	X	X	8.959
Gas - non ducted ≥ 6 Stars	Heat pump - Ducted < 2.25 stars (< 3)	X	X	8.874	8.774	9.231	X	X	8.966
Gas - non ducted ≥ 6 Stars	Heat pump - Ducted < 3 stars (< 4.5)	X	X	8.873	8.773	9.229	X	X	8.965
Gas - non ducted ≥ 6 Stars	Heat pump - Ducted < 3.75 stars (< 6)	X	X	8.871	8.771	9.227	X	X	8.963
Gas - non ducted ≥ 6 Stars	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	X	X	8.869	8.769	9.225	X	X	8.961
Gas - non ducted ≥ 6 Stars	Heat pump - Non-ducted < 2.25 stars (< 3)	X	X	8.873	8.773	9.230	X	X	8.965
Gas - non ducted ≥ 6 Stars	Heat pump - Non-ducted < 3 stars (< 4.5)	X	X	8.872	8.772	9.229	X	X	8.964

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Gas - non ducted ≥ 6 Stars	Heat pump - Non-Ducted < 3.75 stars (< 6)	X	X	8.870	8.771	9.227	X	X	8.963
Gas - non ducted ≥ 6 Stars	Heat pump - Non-Ducted ≥ 3.75 stars (≥ 6)	X	X	8.868	8.769	9.225	X	X	8.961
Gas - non ducted ≥ 6 Stars	Other or none specified	X	X	8.874	8.774	9.231	X	X	8.966

Table 8.2.1 Whole-of-home efficiency factors E_E (kW/100m²) – climate zone 8 – heat pump heating – New South Wales

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Ducted < 2.25 Stars (< 3)	Evaporative	7.484	6.225	5.231	4.866	5.751	7.345	6.683	4.948
Heat pump - Ducted < 2.25 Stars (< 3)	Heat pump - Ducted < 2.25 stars (< 3)	7.494	6.235	5.242	4.876	5.761	7.355	6.692	4.958
Heat pump - Ducted < 2.25 Stars (< 3)	Heat pump - Ducted < 3 stars (< 4.5)	7.492	6.233	5.241	4.875	5.760	7.353	6.691	4.957
Heat pump - Ducted < 2.25 Stars (< 3)	Heat pump - Ducted < 3.75 stars (< 6)	7.490	6.231	5.238	4.872	5.757	7.351	6.689	4.955
Heat pump - Ducted < 2.25 Stars (< 3)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	7.488	6.229	5.236	4.870	5.755	7.349	6.687	4.953
Heat pump - Ducted < 2.25 Stars (< 3)	HP - Non-ducted < 2.25 stars (< 3)	7.491	6.232	5.240	4.874	5.759	7.353	6.690	4.956
Heat pump - Ducted < 2.25 Stars (< 3)	Heat pump - Non-ducted < 3 stars (< 4.5)	7.490	6.231	5.239	4.873	5.758	7.351	6.689	4.955

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Ducted < 2.25 Stars (< 3)	Heat pump - Non-ducted < 3.75 stars (< 6)	7.489	6.230	5.237	4.871	5.756	7.350	6.687	4.953
Heat pump - Ducted < 2.25 Stars (< 3)	Heat pump - Non-Ducted ≥ 3.75 stars (≥ 6)	7.487	6.228	5.235	4.869	5.754	7.348	6.686	4.952
Heat pump - Ducted < 2.25 Stars (< 3)	Other or none specified	7.494	6.235	5.242	4.876	5.761	7.355	6.692	4.958
Heat pump - Ducted < 3.0 Stars (< 4.5)	Evaporative	7.090	5.831	4.838	4.472	5.357	6.952	6.289	4.554
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted < 2.25 stars (< 3)	7.100	5.841	4.848	4.482	5.367	6.961	6.298	4.565
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted < 3 stars (< 4.5)	7.098	5.839	4.847	4.481	5.366	6.959	6.297	4.563
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted < 3.75 stars (< 6)	7.096	5.837	4.845	4.479	5.364	6.957	6.295	4.561
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	7.094	5.835	4.842	4.476	5.361	6.955	6.293	4.559

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted < 2.25 stars (< 3)	7.098	5.839	4.846	4.480	5.365	6.959	6.296	4.562
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted < 3 stars (< 4.5)	7.096	5.837	4.845	4.479	5.364	6.958	6.295	4.561
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted < 3.75 stars (< 6)	7.095	5.836	4.843	4.477	5.362	6.956	6.293	4.559
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	7.093	5.834	4.841	4.475	5.360	6.954	6.292	4.558
Heat pump - Ducted < 3.0 Stars (< 4.5)	Other or none specified	7.100	5.841	4.848	4.482	5.367	6.961	6.298	4.565
Heat pump - Ducted < 3.75 Stars (< 6)	Evaporative	6.499	5.240	4.247	3.881	4.767	6.361	5.698	3.963
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Ducted < 2.25 stars (< 3)	6.509	5.250	4.257	3.891	4.776	6.370	5.707	3.974
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Ducted < 3 stars (< 4.5)	6.507	5.248	4.256	3.890	4.775	6.368	5.706	3.972

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Ducted < 3.75 stars (< 6)	6.505	5.246	4.254	3.888	4.773	6.366	5.704	3.970
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	6.503	5.244	4.252	3.885	4.771	6.364	5.702	3.968
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Non-ducted < 2.25 stars (< 3)	6.507	5.248	4.255	3.889	4.774	6.368	5.705	3.971
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Non-ducted < 3 stars (< 4.5)	6.506	5.247	4.254	3.888	4.773	6.367	5.704	3.970
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Non-ducted < 3.75 stars (< 6)	6.504	5.245	4.252	3.886	4.771	6.365	5.702	3.969
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	6.502	5.243	4.250	3.884	4.769	6.363	5.701	3.967
Heat pump - Ducted < 3.75 Stars (< 6)	Other or none specified	6.509	5.250	4.257	3.891	4.776	6.370	5.707	3.974
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Evaporative	5.908	4.649	3.656	3.290	4.176	5.770	5.107	3.372

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted < 2.25 stars (< 3)	5.918	4.659	3.666	3.300	4.185	5.779	5.117	3.383
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted < 3 stars (< 4.5)	5.917	4.658	3.665	3.299	4.184	5.777	5.115	3.381
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted < 3.75 stars (< 6)	5.914	4.655	3.663	3.297	4.182	5.775	5.113	3.379
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	5.912	4.653	3.661	3.295	4.180	5.773	5.111	3.377
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-ducted < 2.25 stars (< 3)	5.916	4.657	3.664	3.298	4.183	5.777	5.115	3.381
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-ducted < 3 stars (< 4.5)	5.915	4.656	3.663	3.297	4.182	5.776	5.113	3.379
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-ducted < 3.75 stars (< 6)	5.913	4.654	3.661	3.295	4.180	5.774	5.112	3.378
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	5.911	4.652	3.659	3.293	4.178	5.772	5.110	3.376

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Ducted \geq 3.75 Stars (\geq 6)	Other or none specified	5.918	4.659	3.666	3.300	4.185	5.779	5.117	3.383
Heat pump - Non Ducted $<$ 2.25 Stars ($<$ 3)	Evaporative	6.813	5.539	4.555	4.184	5.073	6.657	5.995	4.265
Heat pump - Non Ducted $<$ 2.25 Stars ($<$ 3)	Heat pump - Ducted $<$ 2.25 stars ($<$ 3)	6.823	5.549	4.566	4.195	5.083	6.667	6.004	4.276
Heat pump - Non Ducted $<$ 2.25 Stars ($<$ 3)	Heat pump - Ducted $<$ 3 stars ($<$ 4.5)	6.822	5.547	4.565	4.193	5.081	6.665	6.003	4.274
Heat pump - Non Ducted $<$ 2.25 Stars ($<$ 3)	Heat pump - Ducted $<$ 3.75 stars ($<$ 6)	6.819	5.545	4.563	4.191	5.079	6.663	6.001	4.272
Heat pump - Non Ducted $<$ 2.25 Stars ($<$ 3)	Heat pump - Ducted \geq 3.75 stars (\geq 6)	6.817	5.543	4.561	4.189	5.077	6.661	5.999	4.270
Heat pump - Non Ducted $<$ 2.25 Stars ($<$ 3)	Heat pump - Non-ducted $<$ 2.25 stars ($<$ 3)	6.821	5.546	4.564	4.192	5.080	6.665	6.002	4.274
Heat pump - Non Ducted $<$ 2.25 Stars ($<$ 3)	Heat pump - Non-ducted $<$ 3 stars ($<$ 4.5)	6.820	5.545	4.563	4.191	5.079	6.664	6.001	4.272

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Non Ducted < 2.25 Stars (< 3)	Heat pump - Non-ducted < 3.75 stars (< 6)	6.818	5.543	4.561	4.189	5.078	6.662	5.999	4.271
Heat pump - Non Ducted < 2.25 Stars (< 3)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	6.816	5.542	4.559	4.188	5.076	6.660	5.997	4.269
Heat pump - Non Ducted < 2.25 Stars (< 3)	Other or none specified	6.823	5.549	4.566	4.195	5.083	6.667	6.004	4.276
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Evaporative	6.479	5.205	4.222	3.850	4.739	6.324	5.661	3.932
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted < 2.25 stars (< 3)	6.489	5.215	4.233	3.861	4.749	6.333	5.671	3.942
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted < 3 stars (< 4.5)	6.488	5.214	4.231	3.860	4.748	6.332	5.669	3.941
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted < 3.75 stars (< 6)	6.486	5.211	4.229	3.857	4.746	6.330	5.667	3.939
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	6.484	5.209	4.227	3.855	4.743	6.328	5.665	3.937

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted < 2.25 stars (< 3)	6.487	5.213	4.231	3.859	4.747	6.331	5.669	3.940
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted < 3 stars (< 4.5)	6.486	5.212	4.229	3.858	4.746	6.330	5.667	3.939
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted < 3.75 stars (< 6)	6.484	5.210	4.228	3.856	4.744	6.328	5.666	3.937
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	6.483	5.208	4.226	3.854	4.742	6.327	5.664	3.935
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Other or none specified	6.489	5.215	4.233	3.861	4.749	6.333	5.671	3.942
Heat pump - Non Ducted < 3.75 Stars (< 6)	Evaporative	5.979	4.705	3.722	3.350	4.239	5.824	5.161	3.431
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Ducted < 2.25 stars (< 3)	5.989	4.715	3.733	3.361	4.249	5.833	5.171	3.442
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Ducted < 3 stars (< 4.5)	5.988	4.713	3.731	3.359	4.247	5.832	5.169	3.441

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Ducted < 3.75 stars (< 6)	5.986	4.711	3.729	3.357	4.245	5.830	5.167	3.438
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	5.983	4.709	3.727	3.355	4.243	5.827	5.165	3.436
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Non-Ducted < 2.25 stars (< 3)	5.987	4.713	3.730	3.359	4.247	5.831	5.168	3.440
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Non-ducted < 3 stars (< 4.5)	5.986	4.711	3.729	3.357	4.246	5.830	5.167	3.439
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Non-ducted < 3.75 stars (< 6)	5.984	4.710	3.727	3.356	4.244	5.828	5.165	3.437
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	5.982	4.708	3.726	3.354	4.242	5.826	5.164	3.435
Heat pump - Non Ducted < 3.75 Stars (< 6)	Other or none specified	5.989	4.715	3.733	3.361	4.249	5.833	5.171	3.442
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Evaporative	5.479	4.204	3.221	2.850	3.738	5.323	4.660	2.931

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted < 2.25 stars (< 3)	5.489	4.215	3.232	2.860	3.749	5.333	4.670	2.942
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted < 3 stars (< 4.5)	5.487	4.213	3.231	2.859	3.747	5.331	4.669	2.940
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted < 3.75 stars (< 6)	5.485	4.211	3.229	2.857	3.745	5.329	4.667	2.938
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	5.483	4.209	3.227	2.855	3.743	5.327	4.665	2.936
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-ducted < 2.25 stars (< 3)	5.487	4.212	3.230	2.858	3.746	5.331	4.668	2.940
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-ducted < 3 stars (< 4.5)	5.486	4.211	3.229	2.857	3.745	5.330	4.667	2.938
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-Ducted < 3.75 stars (< 6)	5.484	4.209	3.227	2.855	3.743	5.328	4.665	2.937
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-Ducted ≥ 3.75 stars (≥ 6)	5.482	4.208	3.225	2.854	3.742	5.326	4.663	2.935

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Non Ducted \geq 3.75 Stars (\geq 6)	Other or none specified	5.489	4.215	3.232	2.860	3.749	5.333	4.670	2.942

Table 8.2.2 Whole-of-home efficiency factors E_E (kW/100m²) – climate zone 8 – heat pump heating – Victoria

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Ducted < 2.25 Stars (< 3)	Evaporative	6.106	5.681	4.251	4.147	4.638	5.116	4.776	3.829
Heat pump - Ducted < 2.25 Stars (< 3)	Heat pump - Ducted < 2.25 stars (< 3)	6.116	5.690	4.260	4.157	4.648	5.125	4.786	3.839
Heat pump - Ducted < 2.25 Stars (< 3)	Heat pump - Ducted < 3 stars (< 4.5)	6.114	5.689	4.259	4.155	4.646	5.124	4.785	3.838
Heat pump - Ducted < 2.25 Stars (< 3)	Heat pump - Ducted < 3.75 stars (< 6)	6.112	5.687	4.257	4.153	4.644	5.122	4.783	3.836
Heat pump - Ducted < 2.25 Stars (< 3)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	6.110	5.685	4.255	4.151	4.642	5.120	4.781	3.834
Heat pump - Ducted < 2.25 Stars (< 3)	HP - Non-ducted < 2.25 stars (< 3)	6.114	5.688	4.259	4.155	4.646	5.123	4.784	3.837
Heat pump - Ducted < 2.25 Stars (< 3)	Heat pump - Non-ducted < 3 stars (< 4.5)	6.113	5.687	4.257	4.154	4.645	5.122	4.783	3.836

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Ducted < 2.25 Stars (< 3)	Heat pump - Non-ducted < 3.75 stars (< 6)	6.111	5.685	4.256	4.152	4.643	5.120	4.781	3.834
Heat pump - Ducted < 2.25 Stars (< 3)	Heat pump - Non-Ducted ≥ 3.75 stars (≥ 6)	6.109	5.684	4.254	4.150	4.641	5.119	4.780	3.833
Heat pump - Ducted < 2.25 Stars (< 3)	Other or none specified	6.116	5.690	4.260	4.157	4.648	5.125	4.786	3.839
Heat pump - Ducted < 3.0 Stars (< 4.5)	Evaporative	5.801	5.377	3.946	3.842	4.334	4.811	4.472	3.525
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted < 2.25 stars (< 3)	5.811	5.386	3.956	3.852	4.343	4.821	4.481	3.535
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted < 3 stars (< 4.5)	5.810	5.384	3.955	3.851	4.342	4.819	4.480	3.533
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted < 3.75 stars (< 6)	5.808	5.382	3.953	3.849	4.340	4.817	4.478	3.531
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	5.806	5.380	3.951	3.847	4.338	4.815	4.476	3.529

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted < 2.25 stars (< 3)	5.809	5.384	3.954	3.850	4.341	4.819	4.479	3.533
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted < 3 stars (< 4.5)	5.808	5.383	3.953	3.849	4.340	4.818	4.478	3.532
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted < 3.75 stars (< 6)	5.806	5.381	3.951	3.847	4.339	4.816	4.477	3.530
Heat pump - Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	5.805	5.379	3.950	3.846	4.337	4.814	4.475	3.528
Heat pump - Ducted < 3.0 Stars (< 4.5)	Other or none specified	5.811	5.386	3.956	3.852	4.343	4.821	4.481	3.535
Heat pump - Ducted < 3.75 Stars (< 6)	Evaporative	5.345	4.920	3.490	3.386	3.877	4.355	4.015	3.068
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Ducted < 2.25 stars (< 3)	5.354	4.929	3.499	3.395	3.887	4.364	4.025	3.078
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Ducted < 3 stars (< 4.5)	5.353	4.928	3.498	3.394	3.885	4.363	4.023	3.077

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Ducted < 3.75 stars (< 6)	5.351	4.926	3.496	3.392	3.883	4.361	4.021	3.075
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	5.349	4.924	3.494	3.390	3.881	4.359	4.020	3.073
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Non-ducted < 2.25 stars (< 3)	5.353	4.927	3.497	3.394	3.885	4.362	4.023	3.076
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Non-ducted < 3 stars (< 4.5)	5.351	4.926	3.496	3.392	3.884	4.361	4.022	3.075
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Non-ducted < 3.75 stars (< 6)	5.350	4.924	3.495	3.391	3.882	4.359	4.020	3.073
Heat pump - Ducted < 3.75 Stars (< 6)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	5.348	4.923	3.493	3.389	3.880	4.358	4.018	3.072
Heat pump - Ducted < 3.75 Stars (< 6)	Other or none specified	5.354	4.929	3.499	3.395	3.887	4.364	4.025	3.078
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Evaporative	4.888	4.463	3.033	2.929	3.420	3.898	3.559	2.612

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted < 2.25 stars (< 3)	4.898	4.472	3.043	2.939	3.430	3.907	3.568	2.621
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted < 3 stars (< 4.5)	4.896	4.471	3.041	2.938	3.429	3.906	3.567	2.620
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted < 3.75 stars (< 6)	4.895	4.469	3.039	2.936	3.427	3.904	3.565	2.618
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	4.893	4.467	3.037	2.934	3.425	3.902	3.563	2.616
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-ducted < 2.25 stars (< 3)	4.896	4.470	3.041	2.937	3.428	3.905	3.566	2.619
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-ducted < 3 stars (< 4.5)	4.895	4.469	3.040	2.936	3.427	3.904	3.565	2.618
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-ducted < 3.75 stars (< 6)	4.893	4.468	3.038	2.934	3.425	3.903	3.563	2.617
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	4.892	4.466	3.036	2.933	3.424	3.901	3.562	2.615

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Ducted \geq 3.75 Stars (\geq 6)	Other or none specified	4.898	4.472	3.043	2.939	3.430	3.907	3.568	2.621
Heat pump - Non Ducted $<$ 2.25 Stars ($<$ 3)	Evaporative	5.583	5.152	3.727	3.618	4.114	4.586	4.246	3.303
Heat pump - Non Ducted $<$ 2.25 Stars ($<$ 3)	Heat pump - Ducted $<$ 2.25 stars ($<$ 3)	5.593	5.161	3.737	3.628	4.123	4.595	4.255	3.313
Heat pump - Non Ducted $<$ 2.25 Stars ($<$ 3)	Heat pump - Ducted $<$ 3 stars ($<$ 4.5)	5.591	5.160	3.735	3.627	4.122	4.594	4.254	3.312
Heat pump - Non Ducted $<$ 2.25 Stars ($<$ 3)	Heat pump - Ducted $<$ 3.75 stars ($<$ 6)	5.590	5.158	3.733	3.625	4.120	4.592	4.252	3.310
Heat pump - Non Ducted $<$ 2.25 Stars ($<$ 3)	Heat pump - Ducted \geq 3.75 stars (\geq 6)	5.588	5.156	3.731	3.623	4.118	4.590	4.250	3.308
Heat pump - Non Ducted $<$ 2.25 Stars ($<$ 3)	Heat pump - Non-ducted $<$ 2.25 stars ($<$ 3)	5.591	5.159	3.735	3.626	4.121	4.593	4.253	3.311
Heat pump - Non Ducted $<$ 2.25 Stars ($<$ 3)	Heat pump - Non-ducted $<$ 3 stars ($<$ 4.5)	5.590	5.158	3.733	3.625	4.120	4.592	4.252	3.310

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Non Ducted < 2.25 Stars (< 3)	Heat pump - Non-ducted < 3.75 stars (< 6)	5.588	5.156	3.732	3.623	4.119	4.590	4.251	3.308
Heat pump - Non Ducted < 2.25 Stars (< 3)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	5.587	5.155	3.730	3.622	4.117	4.589	4.249	3.307
Heat pump - Non Ducted < 2.25 Stars (< 3)	Other or none specified	5.593	5.161	3.737	3.628	4.123	4.595	4.255	3.313
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Evaporative	5.325	4.894	3.469	3.360	3.856	4.328	3.988	3.045
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted < 2.25 stars (< 3)	5.335	4.903	3.479	3.370	3.865	4.337	3.998	3.055
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted < 3 stars (< 4.5)	5.334	4.902	3.478	3.369	3.864	4.336	3.996	3.054
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted < 3.75 stars (< 6)	5.332	4.900	3.476	3.367	3.862	4.334	3.994	3.052
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	5.330	4.898	3.474	3.365	3.860	4.332	3.992	3.050

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted < 2.25 stars (< 3)	5.333	4.902	3.477	3.368	3.864	4.335	3.996	3.053
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted < 3 stars (< 4.5)	5.332	4.900	3.476	3.367	3.862	4.334	3.995	3.052
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted < 3.75 stars (< 6)	5.330	4.899	3.474	3.366	3.861	4.333	3.993	3.051
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	5.329	4.897	3.472	3.364	3.859	4.331	3.991	3.049
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Other or none specified	5.335	4.903	3.479	3.370	3.865	4.337	3.998	3.055
Heat pump - Non Ducted < 3.75 Stars (< 6)	Evaporative	4.939	4.508	3.082	2.974	3.469	3.941	3.601	2.659
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Ducted < 2.25 stars (< 3)	4.949	4.517	3.092	2.984	3.479	3.951	3.611	2.669
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Ducted < 3 stars (< 4.5)	4.947	4.516	3.091	2.982	3.478	3.950	3.610	2.668

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Ducted < 3.75 stars (< 6)	4.945	4.514	3.089	2.980	3.476	3.948	3.608	2.666
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	4.943	4.512	3.087	2.978	3.474	3.946	3.606	2.664
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Non-Ducted < 2.25 stars (< 3)	4.947	4.515	3.090	2.982	3.477	3.949	3.609	2.667
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Non-ducted < 3 stars (< 4.5)	4.946	4.514	3.089	2.981	3.476	3.948	3.608	2.666
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Non-ducted < 3.75 stars (< 6)	4.944	4.512	3.088	2.979	3.474	3.946	3.606	2.664
Heat pump - Non Ducted < 3.75 Stars (< 6)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	4.942	4.511	3.086	2.977	3.473	3.945	3.605	2.662
Heat pump - Non Ducted < 3.75 Stars (< 6)	Other or none specified	4.949	4.517	3.092	2.984	3.479	3.951	3.611	2.669
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Evaporative	4.552	4.121	2.696	2.587	3.083	3.555	3.215	2.272

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted < 2.25 stars (< 3)	4.562	4.130	2.706	2.597	3.092	3.564	3.224	2.282
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted < 3 stars (< 4.5)	4.561	4.129	2.704	2.596	3.091	3.563	3.223	2.281
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted < 3.75 stars (< 6)	4.559	4.127	2.703	2.594	3.089	3.561	3.221	2.279
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	4.557	4.125	2.701	2.592	3.087	3.559	3.219	2.277
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-ducted < 2.25 stars (< 3)	4.560	4.128	2.704	2.595	3.090	3.562	3.223	2.280
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-ducted < 3 stars (< 4.5)	4.559	4.127	2.703	2.594	3.089	3.561	3.221	2.279
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-Ducted < 3.75 stars (< 6)	4.557	4.126	2.701	2.592	3.088	3.560	3.220	2.278
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Heat pump - Non-Ducted ≥ 3.75 stars (≥ 6)	4.556	4.124	2.699	2.591	3.086	3.558	3.218	2.276

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Non Ducted \geq 3.75 Stars (\geq 6)	Other or none specified	4.562	4.130	2.706	2.597	3.092	3.564	3.224	2.282

Table 8.2.3 Whole-of-home efficiency factors E_E (kW/100m²) – climate zone 8 – heat pump heating – Tasmania

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Ducted < 2.25 Stars (< 3)	Evaporative	6.346	5.592	4.422	4.213	4.833	7.176	6.390	4.383
Heat pump - Ducted < 2.25 Stars (< 3)	HP - Ducted < 2.25 stars (< 3)	6.356	5.601	4.432	4.223	4.842	7.184	6.399	4.393
Heat pump - Ducted < 2.25 Stars (< 3)	HP - Ducted < 3 stars (< 4.5)	6.355	5.600	4.430	4.222	4.841	7.183	6.398	4.391
Heat pump - Ducted < 2.25 Stars (< 3)	HP - Ducted < 3.75 stars (< 6)	6.353	5.598	4.428	4.220	4.839	7.181	6.396	4.389
Heat pump - Ducted < 2.25 Stars (< 3)	HP - Ducted ≥ 3.75 stars (≥ 6)	6.351	5.596	4.426	4.218	4.837	7.179	6.394	4.387
Heat pump - Ducted < 2.25 Stars (< 3)	HP - Non-Ducted < 2.25 stars (< 3)	6.354	5.599	4.430	4.221	4.840	7.182	6.397	4.391
Heat pump - Ducted < 2.25 Stars (< 3)	HP - Non-Ducted < 3 stars (< 4.5)	6.353	5.598	4.429	4.220	4.839	7.181	6.396	4.390

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Ducted < 2.25 Stars (< 3)	HP - Non-Ducted < 3.75 stars (< 6)	6.351	5.597	4.427	4.218	4.838	7.180	6.395	4.388
Heat pump - Ducted < 2.25 Stars (< 3)	HP - Non-Ducted ≥ 3.75 stars (≥ 6)	6.350	5.595	4.425	4.217	4.836	7.178	6.393	4.386
Heat pump - Ducted < 2.25 Stars (< 3)	Other or none specified	6.356	5.601	4.432	4.223	4.842	7.184	6.399	4.393
Heat pump - Ducted < 3.0 Stars (< 4.5)	Evaporative	6.026	5.272	4.102	3.894	4.513	6.856	6.071	4.063
Heat pump - Ducted < 3.0 Stars (< 4.5)	HP - Ducted < 2.25 stars (< 3)	6.036	5.282	4.112	3.903	4.522	6.864	6.080	4.073
Heat pump - Ducted < 3.0 Stars (< 4.5)	HP - Ducted < 3 stars (< 4.5)	6.035	5.280	4.111	3.902	4.521	6.863	6.078	4.071
Heat pump - Ducted < 3.0 Stars (< 4.5)	HP - Ducted < 3.75 stars (< 6)	6.033	5.278	4.109	3.900	4.519	6.861	6.076	4.069
Heat pump - Ducted < 3.0 Stars (< 4.5)	HP - Ducted ≥ 3.75 stars (≥ 6)	6.031	5.276	4.107	3.898	4.517	6.859	6.074	4.067

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Ducted < 3.0 Stars (< 4.5)	HP - Non-Ducted < 2.25 stars (< 3)	6.034	5.280	4.110	3.901	4.521	6.863	6.078	4.071
Heat pump - Ducted < 3.0 Stars (< 4.5)	HP - Non-Ducted < 3 stars (< 4.5)	6.033	5.278	4.109	3.900	4.519	6.862	6.076	4.070
Heat pump - Ducted < 3.0 Stars (< 4.5)	HP - Non-Ducted < 3.75 stars (< 6)	6.031	5.277	4.107	3.899	4.518	6.860	6.075	4.068
Heat pump - Ducted < 3.0 Stars (< 4.5)	HP - Non-Ducted ≥ 3.75 stars (≥ 6)	6.030	5.275	4.106	3.897	4.516	6.858	6.073	4.066
Heat pump - Ducted < 3.0 Stars (< 4.5)	Other or none specified	6.036	5.282	4.112	3.903	4.522	6.864	6.080	4.073
Heat pump - Ducted < 3.75 Stars (< 6)	Evaporative	5.547	4.793	3.622	3.414	4.033	6.376	5.591	3.583
Heat pump - Ducted < 3.75 Stars (< 6)	HP - Ducted < 2.25 stars (< 3)	5.556	4.802	3.632	3.424	4.043	6.385	5.600	3.593
Heat pump - Ducted < 3.75 Stars (< 6)	HP - Ducted < 3 stars (< 4.5)	5.555	4.800	3.631	3.422	4.041	6.383	5.598	3.592

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Ducted < 3.75 Stars (< 6)	HP - Ducted < 3.75 stars (< 6)	5.553	4.798	3.629	3.420	4.039	6.381	5.596	3.590
Heat pump - Ducted < 3.75 Stars (< 6)	HP - Ducted ≥ 3.75 stars (≥ 6)	5.551	4.797	3.627	3.418	4.037	6.379	5.594	3.588
Heat pump - Ducted < 3.75 Stars (< 6)	HP - Non-Ducted < 2.25 stars (< 3)	5.554	4.800	3.630	3.422	4.041	6.383	5.598	3.591
Heat pump - Ducted < 3.75 Stars (< 6)	HP - Non-Ducted < 3 stars (< 4.5)	5.553	4.799	3.629	3.421	4.040	6.382	5.597	3.590
Heat pump - Ducted < 3.75 Stars (< 6)	HP - Non-Ducted < 3.75 stars (< 6)	5.552	4.797	3.627	3.419	4.038	6.380	5.595	3.588
Heat pump - Ducted < 3.75 Stars (< 6)	HP - Non-Ducted ≥ 3.75 stars (≥ 6)	5.550	4.795	3.626	3.417	4.036	6.378	5.593	3.587
Heat pump - Ducted < 3.75 Stars (< 6)	Other or none specified	5.556	4.802	3.632	3.424	4.043	6.385	5.600	3.593
Heat pump - Ducted ≥ 3.75 Stars (≥ 6)	Evaporative	5.067	4.313	3.142	2.934	3.553	5.896	5.111	3.103

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Ducted \geq 3.75 Stars (\geq 6)	HP - Ducted < 2.25 stars (< 3)	5.077	4.322	3.152	2.944	3.563	5.905	5.120	3.113
Heat pump - Ducted \geq 3.75 Stars (\geq 6)	HP - Ducted < 3 stars (< 4.5)	5.075	4.321	3.151	2.943	3.562	5.904	5.119	3.112
Heat pump - Ducted \geq 3.75 Stars (\geq 6)	HP - Ducted < 3.75 stars (< 6)	5.073	4.319	3.149	2.941	3.560	5.902	5.117	3.110
Heat pump - Ducted \geq 3.75 Stars (\geq 6)	HP - Ducted \geq 3.75 stars (\geq 6)	5.071	4.317	3.147	2.939	3.558	5.900	5.115	3.108
Heat pump - Ducted \geq 3.75 Stars (\geq 6)	HP - Non-Ducted < 2.25 stars (< 3)	5.075	4.320	3.150	2.942	3.561	5.903	5.118	3.111
Heat pump - Ducted \geq 3.75 Stars (\geq 6)	HP - Non-Ducted < 3 stars (< 4.5)	5.074	4.319	3.149	2.941	3.560	5.902	5.117	3.110
Heat pump - Ducted \geq 3.75 Stars (\geq 6)	HP - Non-Ducted < 3.75 stars (< 6)	5.072	4.317	3.148	2.939	3.558	5.900	5.115	3.109
Heat pump - Ducted \geq 3.75 Stars (\geq 6)	HP - Non-Ducted \geq 3.75 stars (\geq 6)	5.070	4.316	3.146	2.937	3.557	5.899	5.114	3.107

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Ducted \geq 3.75 Stars (\geq 6)	Other or none specified	5.077	4.322	3.152	2.944	3.563	5.905	5.120	3.113
Heat pump - Non Ducted $<$ 2.25 Stars ($<$ 3)	Evaporative	5.797	5.035	3.873	3.658	4.281	6.619	5.832	3.828
Heat pump - Non Ducted $<$ 2.25 Stars ($<$ 3)	HP - Ducted $<$ 2.25 stars ($<$ 3)	5.807	5.045	3.883	3.668	4.291	6.628	5.842	3.838
Heat pump - Non Ducted $<$ 2.25 Stars ($<$ 3)	HP - Ducted $<$ 3 stars ($<$ 4.5)	5.806	5.044	3.882	3.667	4.290	6.626	5.840	3.837
Heat pump - Non Ducted $<$ 2.25 Stars ($<$ 3)	HP - Ducted $<$ 3.75 stars ($<$ 6)	5.804	5.042	3.880	3.665	4.288	6.624	5.838	3.835
Heat pump - Non Ducted $<$ 2.25 Stars ($<$ 3)	HP - Ducted \geq 3.75 stars (\geq 6)	5.802	5.040	3.878	3.663	4.286	6.622	5.836	3.833
Heat pump - Non Ducted $<$ 2.25 Stars ($<$ 3)	HP - Non-Ducted $<$ 2.25 stars ($<$ 3)	5.805	5.043	3.881	3.666	4.289	6.626	5.840	3.836
Heat pump - Non Ducted $<$ 2.25 Stars ($<$ 3)	HP - Non-Ducted $<$ 3 stars ($<$ 4.5)	5.804	5.042	3.880	3.665	4.288	6.625	5.839	3.835

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Non Ducted < 2.25 Stars (< 3)	HP - Non-Ducted < 3.75 stars (< 6)	5.803	5.040	3.878	3.664	4.286	6.623	5.837	3.834
Heat pump - Non Ducted < 2.25 Stars (< 3)	HP - Non-Ducted ≥ 3.75 stars (≥ 6)	5.801	5.038	3.876	3.662	4.285	6.621	5.835	3.832
Heat pump - Non Ducted < 2.25 Stars (< 3)	Other or none specified	5.807	5.045	3.883	3.668	4.291	6.628	5.842	3.838
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Evaporative	5.526	4.764	3.602	3.387	4.010	6.348	5.561	3.557
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	HP - Ducted < 2.25 stars (< 3)	5.536	4.774	3.612	3.397	4.020	6.357	5.571	3.567
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	HP - Ducted < 3 stars (< 4.5)	5.535	4.773	3.611	3.396	4.019	6.355	5.569	3.566
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	HP - Ducted < 3.75 stars (< 6)	5.533	4.771	3.609	3.394	4.017	6.353	5.567	3.564
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	HP - Ducted ≥ 3.75 stars (≥ 6)	5.531	4.769	3.607	3.392	4.015	6.351	5.566	3.562

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	HP - Non-Ducted < 2.25 stars (< 3)	5.534	4.772	3.610	3.395	4.018	6.355	5.569	3.565
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	HP - Non-Ducted < 3 stars (< 4.5)	5.533	4.771	3.609	3.394	4.017	6.354	5.568	3.564
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	HP - Non-Ducted < 3.75 stars (< 6)	5.532	4.769	3.607	3.393	4.015	6.352	5.566	3.563
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	HP - Non-Ducted ≥ 3.75 stars (≥ 6)	5.530	4.768	3.606	3.391	4.014	6.350	5.564	3.561
Heat pump - Non Ducted < 3.0 Stars (< 4.5)	Other or none specified	5.536	4.774	3.612	3.397	4.020	6.357	5.571	3.567
Heat pump - Non Ducted < 3.75 Stars (< 6)	Evaporative	5.120	4.358	3.195	2.981	3.604	5.941	5.155	3.151
Heat pump - Non Ducted < 3.75 Stars (< 6)	HP - Ducted < 2.25 stars (< 3)	5.130	4.367	3.206	2.991	3.613	5.950	5.164	3.161
Heat pump - Non Ducted < 3.75 Stars (< 6)	HP - Ducted < 3 stars (< 4.5)	5.129	4.366	3.204	2.990	3.612	5.949	5.163	3.160

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Non Ducted < 3.75 Stars (< 6)	HP - Ducted < 3.75 stars (< 6)	5.127	4.364	3.202	2.988	3.610	5.947	5.161	3.158
Heat pump - Non Ducted < 3.75 Stars (< 6)	HP - Ducted ≥ 3.75 stars (≥ 6)	5.125	4.362	3.200	2.986	3.608	5.945	5.159	3.156
Heat pump - Non Ducted < 3.75 Stars (< 6)	HP - Non-Ducted < 2.25 stars (< 3)	5.128	4.365	3.203	2.989	3.612	5.948	5.162	3.159
Heat pump - Non Ducted < 3.75 Stars (< 6)	HP - Non-Ducted < 3 stars (< 4.5)	5.127	4.364	3.202	2.988	3.610	5.947	5.161	3.158
Heat pump - Non Ducted < 3.75 Stars (< 6)	HP - Non-Ducted < 3.75 stars (< 6)	5.125	4.363	3.201	2.986	3.609	5.946	5.160	3.156
Heat pump - Non Ducted < 3.75 Stars (< 6)	HP - Non-Ducted ≥ 3.75 stars (≥ 6)	5.124	4.361	3.199	2.985	3.607	5.944	5.158	3.155
Heat pump - Non Ducted < 3.75 Stars (< 6)	Other or none specified	5.130	4.367	3.206	2.991	3.613	5.950	5.164	3.161
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	Evaporative	4.714	3.952	2.789	2.575	3.197	5.535	4.749	2.745

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	HP - Ducted < 2.25 stars (< 3)	4.723	3.961	2.799	2.585	3.207	5.544	4.758	2.755
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	HP - Ducted < 3 stars (< 4.5)	4.722	3.960	2.798	2.583	3.206	5.543	4.757	2.753
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	HP - Ducted < 3.75 stars (< 6)	4.720	3.958	2.796	2.581	3.204	5.541	4.755	2.751
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	HP - Ducted ≥ 3.75 stars (≥ 6)	4.718	3.956	2.794	2.579	3.202	5.539	4.753	2.749
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	HP - Non-Ducted < 2.25 stars (< 3)	4.721	3.959	2.797	2.583	3.205	5.542	4.756	2.753
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	HP - Non-Ducted < 3 stars (< 4.5)	4.720	3.958	2.796	2.581	3.204	5.541	4.755	2.751
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	HP - Non-Ducted < 3.75 stars (< 6)	4.719	3.956	2.794	2.580	3.202	5.539	4.753	2.750
Heat pump - Non Ducted ≥ 3.75 Stars (≥ 6)	HP - Non-Ducted ≥ 3.75 stars (≥ 6)	4.717	3.955	2.793	2.578	3.201	5.538	4.752	2.748

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Heat pump - Non Ducted \geq 3.75 Stars (\geq 6)	Other or none specified	4.723	3.961	2.799	2.585	3.207	5.544	4.758	2.755

Table 8.3.1 Whole-of-home efficiency factors E_E (kW/100m²) – climate zone 8 – other heating – New South Wales

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Electric - Resistance (Panel)	Evaporative	X	X	X	X	X	X	X	X
Electric - Resistance (Panel)	Heat pump - Ducted < 2.25 stars (< 3)	X	X	X	X	X	X	X	X
Electric - Resistance (Panel)	Heat pump - Ducted < 3 stars (< 4.5)	X	X	X	X	X	X	X	X
Electric - Resistance (Panel)	Heat pump - Ducted < 3.75 stars (< 6)	X	X	X	X	X	X	X	X
Electric - Resistance (Panel)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	X	X	X	X	X	X	X	X
Electric - Resistance (Panel)	Heat pump - Non-Ducted < 2.25 stars (< 3)	X	X	X	X	X	X	X	X
Electric - Resistance (Panel)	Heat pump - Non-Ducted < 3 stars (< 4.5)	X	X	X	X	X	X	X	X

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Electric - Resistance (Panel)	Heat pump - Non-ducted < 3.75 stars (< 6)	X	X	X	X	X	X	X	X
Electric - Resistance (Panel)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	X	X	X	X	X	X	X	X
Electric - Resistance (Panel)	Other or none specified	X	X	X	X	X	X	X	X
Wood Heater	Evaporative	8.749	7.722	6.552	6.266	7.054	8.951	8.239	6.361
Wood Heater	Heat pump - Ducted < 2.25 stars (< 3)	8.761	7.735	6.566	6.280	7.067	8.963	8.251	6.374
Wood Heater	Heat pump - Ducted < 3 stars (< 4.5)	8.760	7.733	6.564	6.278	7.065	8.961	8.250	6.373
Wood Heater	Heat pump - Ducted < 3.75 stars (< 6)	8.758	7.731	6.562	6.276	7.063	8.959	8.248	6.371
Wood Heater	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	8.756	7.729	6.560	6.274	7.061	8.957	8.245	6.369
Wood Heater	Heat pump - Non-ducted < 2.25 stars (< 3)	8.759	7.732	6.563	6.277	7.064	8.960	8.249	6.372
Wood Heater	Heat pump - Non-ducted < 3 stars (< 4.5)	8.757	7.731	6.562	6.276	7.063	8.959	8.248	6.370

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Wood Heater	Heat pump - Non-ducted < 3.75 stars (< 6)	8.756	7.729	6.560	6.274	7.061	8.957	8.246	6.369
Wood Heater	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	8.754	7.727	6.558	6.272	7.059	8.956	8.244	6.367
Wood Heater	Other or none specified	8.761	7.735	6.566	6.280	7.067	8.963	8.251	6.374
Electric - Resistance (Slab)	Evaporative	X	X	X	X	X	X	X	X
Electric - Resistance (Slab)	Heat pump - Ducted < 2.25 stars (< 3)	X	X	X	X	X	X	X	X
Electric - Resistance (Slab)	Heat pump - Ducted < 3 stars (< 4.5)	X	X	X	X	X	X	X	X
Electric - Resistance (Slab)	Heat pump - Ducted < 3.75 stars (< 6)	X	X	X	X	X	X	X	X
Electric - Resistance (Slab)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	X	X	X	X	X	X	X	X

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Electric - Resistance (Slab)	Heat pump - Non-ducted < 2.25 stars (< 3)	X	X	X	X	X	X	X	X
Electric - Resistance (Slab)	Heat pump - Non-ducted < 3 stars (< 4.5)	X	X	X	X	X	X	X	X
Electric - Resistance (Slab)	Heat pump - Non-ducted < 3.75 stars (< 6)	X	X	X	X	X	X	X	X
Electric - Resistance (Slab)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	X	X	X	X	X	X	X	X
Electric - Resistance (Slab)	Other or none specified	X	X	X	X	X	X	X	X
Other or none specified	Evaporative	7.484	6.225	5.231	4.866	5.751	7.345	6.683	4.948
Other or none specified	Heat pump - Ducted < 2.25 stars (< 3)	7.494	6.235	5.242	4.876	5.761	7.355	6.692	4.958
Other or none specified	Heat pump - Ducted < 3 stars (< 4.5)	7.492	6.233	5.241	4.875	5.760	7.353	6.691	4.957
Other or none specified	Heat pump - Ducted < 3.75 stars (< 6)	7.490	6.231	5.238	4.872	5.757	7.351	6.689	4.955

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas instantaneous	Solar gas
Other or none specified	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	7.488	6.229	5.236	4.870	5.755	7.349	6.687	4.953
Other or none specified	Heat pump - Non-ducted < 2.25 stars (< 3)	7.491	6.232	5.240	4.874	5.759	7.353	6.690	4.956
Other or none specified	Heat pump - Non-ducted < 3 stars (< 4.5)	7.490	6.231	5.239	4.873	5.758	7.351	6.689	4.955
Other or none specified	Heat pump - Non-ducted < 3.75 stars (< 6)	7.489	6.230	5.237	4.871	5.756	7.350	6.687	4.953
Other or none specified	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	7.487	6.228	5.235	4.869	5.754	7.348	6.686	4.952
Other or none specified	Other or none specified	7.494	6.235	5.242	4.876	5.761	7.355	6.692	4.958

Table 8.3.2 Whole-of-home efficiency factors E_E (kW/100m²) – climate zone 8 – other heating – Victoria

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas Instantaneous	Solar gas
Electric - Resistance (Panel)	Evaporative	X	X	X	X	X	X	X	X
Electric - Resistance (Panel)	Heat pump - Ducted < 2.25 stars (< 3)	X	X	X	X	X	X	X	X
Electric - Resistance (Panel)	Heat pump - Ducted < 3 stars (< 4.5)	X	X	X	X	X	X	X	X
Electric - Resistance (Panel)	Heat pump - Ducted < 3.75 stars (< 6)	X	X	X	X	X	X	X	X
Electric - Resistance (Panel)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	X	X	X	X	X	X	X	X
Electric - Resistance (Panel)	Heat pump - Non-Ducted < 2.25 stars (< 3)	X	X	X	X	X	X	X	X
Electric - Resistance (Panel)	Heat pump - Non-Ducted < 3 stars (< 4.5)	X	X	X	X	X	X	X	X

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas Instantaneous	Solar gas
Electric - Resistance (Panel)	Heat pump - Non-ducted < 3.75 stars (< 6)	X	X	X	X	X	X	X	X
Electric - Resistance (Panel)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	X	X	X	X	X	X	X	X
Electric - Resistance (Panel)	Other or none specified	X	X	X	X	X	X	X	X
Wood Heater	Evaporative	7.067	6.794	5.229	5.187	5.608	6.229	5.864	4.852
Wood Heater	Heat pump - Ducted < 2.25 stars (< 3)	7.079	6.806	5.242	5.199	5.621	6.241	5.876	4.865
Wood Heater	Heat pump - Ducted < 3 stars (< 4.5)	7.078	6.805	5.240	5.198	5.619	6.240	5.875	4.863
Wood Heater	Heat pump - Ducted < 3.75 stars (< 6)	7.076	6.803	5.238	5.196	5.617	6.238	5.873	4.861
Wood Heater	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	7.074	6.801	5.236	5.194	5.615	6.236	5.871	4.859

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas Instantaneous	Solar gas
Wood Heater	Heat pump - Non-ducted < 2.25 stars (< 3)	7.077	6.804	5.239	5.197	5.618	6.239	5.874	4.862
Wood Heater	Heat pump - Non-ducted < 3 stars (< 4.5)	7.076	6.802	5.238	5.196	5.617	6.237	5.872	4.861
Wood Heater	Heat pump - Non-ducted < 3.75 stars (< 6)	7.074	6.801	5.237	5.194	5.616	6.236	5.871	4.859
Wood Heater	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	7.072	6.799	5.235	5.192	5.614	6.234	5.869	4.858
Wood Heater	Other or none specified	7.079	6.806	5.242	5.199	5.621	6.241	5.876	4.865
Electric - Resistance (Slab)	Evaporative	X	X	X	X	X	X	X	X
Electric - Resistance (Slab)	Heat pump - Ducted < 2.25 stars (< 3)	X	X	X	X	X	X	X	X
Electric - Resistance (Slab)	Heat pump - Ducted < 3 stars (< 4.5)	X	X	X	X	X	X	X	X

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas Instantaneous	Solar gas
Electric - Resistance (Slab)	Heat pump - Ducted < 3.75 stars (< 6)	X	X	X	X	X	X	X	X
Electric - Resistance (Slab)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	X	X	X	X	X	X	X	X
Electric - Resistance (Slab)	Heat pump - Non-ducted < 2.25 stars (< 3)	X	X	X	X	X	X	X	X
Electric - Resistance (Slab)	Heat pump - Non-ducted < 3 stars (< 4.5)	X	X	X	X	X	X	X	X
Electric - Resistance (Slab)	Heat pump - Non-ducted < 3.75 stars (< 6)	X	X	X	X	X	X	X	X
Electric - Resistance (Slab)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	X	X	X	X	X	X	X	X
Electric - Resistance (Slab)	Other or none specified	X	X	X	X	X	X	X	X
Other or none specified	Evaporative	6.106	5.681	4.251	4.147	4.638	5.116	4.776	3.829

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas Instantaneous	Solar gas
Other or none specified	Heat pump - Ducted < 2.25 stars (< 3)	6.116	5.690	4.260	4.157	4.648	5.125	4.786	3.839
Other or none specified	Heat pump - Ducted < 3 stars (< 4.5)	6.114	5.689	4.259	4.155	4.646	5.124	4.785	3.838
Other or none specified	Heat pump - Ducted < 3.75 stars (< 6)	6.112	5.687	4.257	4.153	4.644	5.122	4.783	3.836
Other or none specified	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	6.110	5.685	4.255	4.151	4.642	5.120	4.781	3.834
Other or none specified	Heat pump - Non-ducted < 2.25 stars (< 3)	6.114	5.688	4.259	4.155	4.646	5.123	4.784	3.837
Other or none specified	Heat pump - Non-ducted < 3 stars (< 4.5)	6.113	5.687	4.257	4.154	4.645	5.122	4.783	3.836
Other or none specified	Heat pump - Non-ducted < 3.75 stars (< 6)	6.111	5.685	4.256	4.152	4.643	5.120	4.781	3.834
Other or none specified	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	6.109	5.684	4.254	4.150	4.641	5.119	4.780	3.833

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas Instantaneous	Solar gas
Other or none specified	Other or none specified	6.116	5.690	4.260	4.157	4.648	5.125	4.786	3.839

Table 8.3.3 Whole-of-home efficiency factors E_E (kW/100m²) – climate zone 8 – other heating – Tasmania

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas Instantaneous	Solar gas
Electric - Resistance (Panel)	Evaporative	X	X	X	X	X	X	X	X
Electric - Resistance (Panel)	Heat pump - Ducted < 2.25 stars (< 3)	X	X	X	X	X	X	X	X
Electric - Resistance (Panel)	Heat pump - Ducted < 3 stars (< 4.5)	X	X	X	X	X	X	X	X
Electric - Resistance (Panel)	Heat pump - Ducted < 3.75 stars (< 6)	X	X	X	X	X	X	X	X
Electric - Resistance (Panel)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	X	X	X	X	X	X	X	X
Electric - Resistance (Panel)	Heat pump - Non-Ducted < 2.25 stars (< 3)	X	X	X	X	X	X	X	X
Electric - Resistance (Panel)	Heat pump - Non-Ducted < 3 stars (< 4.5)	X	X	X	X	X	X	X	X

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas Instantaneous	Solar gas
Electric - Resistance (Panel)	Heat pump - Non-ducted < 3.75 stars (< 6)	X	X	X	X	X	X	X	X
Electric - Resistance (Panel)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	X	X	X	X	X	X	X	X
Electric - Resistance (Panel)	Other or none specified	X	X	X	X	X	X	X	X
Wood Heater	Evaporative	8.748	8.206	6.885	6.753	7.276	9.894	9.069	6.941
Wood Heater	Heat pump - Ducted < 2.25 stars (< 3)	8.760	8.217	6.897	6.765	7.288	9.904	9.080	6.953
Wood Heater	Heat pump - Ducted < 3 stars (< 4.5)	8.759	8.216	6.896	6.764	7.286	9.903	9.079	6.952
Wood Heater	Heat pump - Ducted < 3.75 stars (< 6)	8.757	8.214	6.894	6.762	7.284	9.901	9.077	6.950
Wood Heater	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	8.755	8.212	6.892	6.760	7.282	9.899	9.075	6.948

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas Instantaneous	Solar gas
Wood Heater	Heat pump - Non-ducted < 2.25 stars (< 3)	8.757	8.215	6.895	6.762	7.285	9.902	9.078	6.951
Wood Heater	Heat pump - Non-ducted < 3 stars (< 4.5)	8.756	8.214	6.894	6.761	7.284	9.901	9.077	6.950
Wood Heater	Heat pump - Non-ducted < 3.75 stars (< 6)	8.755	8.212	6.892	6.760	7.283	9.899	9.075	6.948
Wood Heater	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	8.753	8.211	6.891	6.758	7.281	9.898	9.074	6.947
Wood Heater	Other or none specified	8.760	8.217	6.897	6.765	7.288	9.904	9.080	6.953
Electric - Resistance (Slab)	Evaporative	X	X	X	X	X	X	X	X
Electric - Resistance (Slab)	Heat pump - Ducted < 2.25 stars (< 3)	X	X	X	X	X	X	X	X
Electric - Resistance (Slab)	Heat pump - Ducted < 3 stars (< 4.5)	X	X	X	X	X	X	X	X

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas Instantaneous	Solar gas
Electric - Resistance (Slab)	Heat pump - Ducted < 3.75 stars (< 6)	X	X	X	X	X	X	X	X
Electric - Resistance (Slab)	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	X	X	X	X	X	X	X	X
Electric - Resistance (Slab)	Heat pump - Non-ducted < 2.25 stars (< 3)	X	X	X	X	X	X	X	X
Electric - Resistance (Slab)	Heat pump - Non-ducted < 3 stars (< 4.5)	X	X	X	X	X	X	X	X
Electric - Resistance (Slab)	Heat pump - Non-ducted < 3.75 stars (< 6)	X	X	X	X	X	X	X	X
Electric - Resistance (Slab)	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	X	X	X	X	X	X	X	X
Electric - Resistance (Slab)	Other or none specified	X	X	X	X	X	X	X	X
Other or none specified	Evaporative	6.346	5.592	4.422	4.213	4.833	7.176	6.390	4.383

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas Instantaneous	Solar gas
Other or none specified	Heat pump - Ducted < 2.25 stars (< 3)	6.356	5.601	4.432	4.223	4.842	7.184	6.399	4.393
Other or none specified	Heat pump - Ducted < 3 stars (< 4.5)	6.355	5.600	4.430	4.222	4.841	7.183	6.398	4.391
Other or none specified	Heat pump - Ducted < 3.75 stars (< 6)	6.353	5.598	4.428	4.220	4.839	7.181	6.396	4.389
Other or none specified	Heat pump - Ducted ≥ 3.75 stars (≥ 6)	6.351	5.596	4.426	4.218	4.837	7.179	6.394	4.387
Other or none specified	Heat pump - Non-ducted < 2.25 stars (< 3)	6.354	5.599	4.430	4.221	4.840	7.182	6.397	4.391
Other or none specified	Heat pump - Non-ducted < 3 stars (< 4.5)	6.353	5.598	4.429	4.220	4.839	7.181	6.396	4.390
Other or none specified	Heat pump - Non-ducted < 3.75 stars (< 6)	6.351	5.597	4.427	4.218	4.838	7.180	6.395	4.388
Other or none specified	Heat pump - Non-ducted ≥ 3.75 stars (≥ 6)	6.350	5.595	4.425	4.217	4.836	7.178	6.393	4.386

Main type of heater	Main type of cooler	Electric storage (standard)	Electric storage (off peak)	Heat pump (standard)	Heat pump (off-peak)	Solar electric (standard)	Gas storage	Gas Instantaneous	Solar gas
Other or none specified	Other or none specified	6.356	5.601	4.432	4.223	4.842	7.184	6.399	4.393

Part 3 **References**

Energy Efficiency Strategies, 2022, NCC 2022 Update Whole-of-Home Component, abcb.gov.au.



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