

Install an Efficient New Reverse Cycle Air Conditioner (Non-Ducted); (Residential and Small Energy Consuming Customers Only)	Activity No.
	HC2A

1. ACTIVITY SPECIFIC DEFINITIONS

Reverse cycle air conditioner (non-ducted) means a single phase non-ducted air conditioner with both heating and cooling functions that is registered for energy labelling and MEPS under AS/NZS 3823.2 (2013) or GEMS Air Conditioners up to 65kW Determination 2019 as applicable.

Note that there is currently a transition period between the older AS/NZS 3823.2 (2013) standard and the newer GEMS Air Conditioners up to 65kW Determination 2019. Available product may be registered to either standard until April 2025 after which only product registered to the GEMS determination will be legal to purchase.

ACOP means the annual coefficient of performance as defined in GEMS Air Conditioners up to 65kW Determination 2019

AEER means the annual energy efficiency ratio as defined in GEMS Air Conditioners up to 65kW Determination 2019

HSPF means Heating Seasonal Performance Factor as defined in GEMS Air Conditioners up to 65kW Determination 2019

TCSPF means Total Cooling Seasonal Performance Factor as defined in GEMS Air Conditioners up to 65kW Determination 2019

Fixed Resistance Electric Heater means an electric heater that utilizes a resistance electric heating element (ACOP = 1) that is permanently fixed within the building. Portable electric heaters such as fan convectors radiant or oil column heaters that are not permanently fixed do not qualify as a “fixed resistance electric heater”.

SRI means Star Rating Index (AS/NZS 3823.2 (2013) i.e. based on ACOP or AEER)

Seasonal SRI means Seasonal Star Rating Index (2019 GEMS Determination i.e. based on HSPF or TCSPF)

2. ACTIVITY DESCRIPTION (SUMMARY)

Install an efficient new reverse cycle air conditioner (non-ducted). This can take one of three forms:

HC2A(i) - Replacement (early retirement) of a pre-existing room air-conditioner in working order (Priority group households only)

HC2A(ii) - Replacement of a pre-existing fixed resistance electric heater in working order

HC2A(iii) - Installation of a new reverse cycle air-conditioner (non-ducted) without any pre-condition in relation to type of existing heating equipment (if any). Includes installation of a new air conditioner in a new dwelling.

3. ACTIVITY ELIGIBILITY REQUIREMENTS

Any Residential building or Small Energy Consuming Customers in South Australia where the installed product requirements and minimum installation requirements can be met, notwithstanding that:

Activity HC2A(i) - Replacement (early retirement) of a pre-existing air-conditioner is limited in application to priority group households only.

In relation to activities HC2A(i) and HC2A(ii), all the pre-existing heater/s within the conditioned spaces of the premises must be fully decommissioned, removed from the property and disposed of.

4. INSTALLED PRODUCT REQUIREMENTS

- (1) The reverse cycle air conditioner (non-ducted) must achieve the following minimum performance standards under AS/NZS 3823.2 (2013) or GEMS Air Conditioners up to 65kW Determination 2019 as applicable:
 - Heating Performance
 - a. AS/NZS 3823.2 (2013), minimum 3.5 stars or minimum ACOP of 4.0
 - b. GEMS Air Conditioners up to 65kW Determination 2019, minimum 2.5 stars or minimum HSPF of 4.0
 - Cooling Performance
 - a. AS/NZS 3823.2 (2013), minimum 3.5 stars or minimum AEER of 4.0
 - b. GEMS Air Conditioners up to 65kW Determination 2019, minimum 2.5 stars or minimum TCSPF of 4.0
- (2) The reverse cycle air conditioner (non-ducted) shall be single phase and have a rated cooling output not exceeding 15kW.
- (3) Multi-split systems are not eligible.
- (4) The installed product must have a warranty of at least 2 years.
- (5) Water loop heat pump products must be registered for sale under the *Greenhouse and Energy Minimum Standards (GEMS) Act 2012* and comply with MEPS levels specified in AS/NZS3823.2 or GEMS Air Conditioners up to 65kW Determination 2019 as applicable.
- (6) The installed product must include demand response capability, in accordance with AS/NZS 4755.3.1:2014, or AS/NZS 4755.2 (when published), or the equivalent of the superseded AS/NZS 4755.3.1:2012. In either heating or cooling mode, the device must be capable of operating in DR modes 1, plus mode 2 and/or 3 as defined in the above noted standards.

5. MINIMUM INSTALLATION REQUIREMENTS

- (1) Any reverse cycle air conditioner (non-ducted) installed must comply with AS/NZS 60335.2.40.
- (2) Removed pre-existing heaters/coolers shall have refrigerants and any other scheduled substances disposed of in accordance with the Australian and New Zealand refrigerant handling code of practice as established under the Ozone Protection and Synthetic Greenhouse Gas Management Act 1989 (Cth).

6. NORMALISED REPS GIGAJOULES

The normalised REPS gigajoules achieved from undertaking this activity is equal to:

Normalised REPS Gigajoules = REPS Gigajoules (as per the first six tables below) x **REPS Transition Factor** (as per the final table below).

Separate REPS Gigajoules tables are provided for “NCC climate zone 6” and “other places in SA” and;

(NCC climate 6) – HC2A (iii) - Installation of a new reverse cycle air-conditioner (non-ducted) without pre-condition

NCC 6	HC2A(iii)	Cooling Stars	3.5 to < 4	4 to < 4.5	4.5 to < 5	5 to < 5.5	5.5 to < 6	6 to < 6.5	6.5 to < 7	7 to < 7.5	7.5 to < 8	8 to < 8.5	8.5 to < 9	9 to < 9.5	9.5 to < 10	≥ 10		
		Old>	3.5 to < 4	4 to < 4.5	4.5 to < 5	5 to < 5.5	5.5 to < 6	6 to < 6.5	6.5 to < 7	7 to < 7.5	7.5 to < 8	8 to < 8.5	8.5 to < 9	9 to < 9.5	9.5 to < 10	≥ 10		
		Cooling Stars New >	2.5 to < 3		3 to < 3.5	4 to < 4.5	4.5 to < 5	5 to < 5.5	5.5 to < 6	6 to < 6.5	6.5 to < 7	7 to < 7.5	7.5 to < 8	8 to < 8.5	8.5 to < 9	9 to < 9.5	9.5 to < 10	≥ 10
		A/EER or TCSPF>	4 to < 4.25	4.25 to < 4.5	4.75	5	5.25	5.5	5.75	6	6.25	6.5	6.75	7	7 to < 7.25	7.25 or more		
Heating Stars Old	Heating Stars New	ACOP or HSPF	REPS Credit (GJ)															
3.5 to < 4	2.5 to < 3	4 to < 4.25	6.7	7.3	7.8	8.2	8.6	9.0	9.3	9.6	9.9	10.1	10.4	10.6	10.8	11.0		
4 to < 4.5		4.25 to < 4.5	9.3	9.8	10.3	10.7	11.1	11.5	11.8	12.1	12.4	12.6	12.9	13.1	13.3	13.5		
4.5 to < 5	3 to < 3.5	4.5 to < 4.75	11.5	12.0	12.5	13.0	13.4	13.7	14.0	14.3	14.6	14.9	15.1	15.3	15.5	15.7		
5 to < 5.5		4.75 to < 5	13.5	14.0	14.5	15.0	15.4	15.7	16.1	16.4	16.6	16.9	17.1	17.3	17.5	17.7		
5.5 to < 6	3.5 to < 4	5 to < 5.25	15.3	15.8	16.3	16.8	17.2	17.5	17.9	18.2	18.4	18.7	18.9	19.1	19.3	19.5		
6 to < 6.5		5.25 to < 5.5	16.9	17.5	18.0	18.4	18.8	19.2	19.5	19.8	20.1	20.3	20.6	20.8	21.0	21.2		
6.5 to < 7	4 to < 4.5	5.5 to < 5.75	18.4	19.0	19.5	19.9	20.3	20.7	21.0	21.3	21.6	21.8	22.1	22.3	22.5	22.7		
7 to < 7.5		5.75 to < 6	19.8	20.3	20.8	21.3	21.7	22.0	22.4	22.7	22.9	23.2	23.4	23.6	23.8	24.0		
7.5 to < 8	4.5 to < 5	6 to < 6.25	21.1	21.6	22.1	22.5	22.9	23.3	23.6	23.9	24.2	24.4	24.7	24.9	25.1	25.3		
8 to < 8.5		6.25 to < 6.5	22.2	22.8	23.2	23.7	24.1	24.4	24.8	25.1	25.3	25.6	25.8	26.1	26.3	26.4		
8.5 to < 9	5 to < 5.5	6.5 to < 6.75	23.3	23.8	24.3	24.8	25.2	25.5	25.8	26.1	26.4	26.7	26.9	27.1	27.3	27.5		
9 to < 9.5		6.75 to < 7	24.3	24.8	25.3	25.7	26.1	26.5	26.8	27.1	27.4	27.7	27.9	28.1	28.3	28.5		
9.5 to < 10	5.5 or More	7 to < 7.25	25.2	25.7	26.2	26.7	27.1	27.4	27.8	28.1	28.3	28.6	28.8	29.0	29.2	29.4		
> 10		7.25 or more	26.1	26.6	27.1	27.5	27.9	28.3	28.6	28.9	29.2	29.4	29.7	29.9	30.1	30.3		

(Other Places in SA) – HC2A (i) - Replacement (early retirement) of a pre-existing air-conditioner

NCC 5	HC2A(i)	Cooling Stars	3.5 to < 4	4 to < 4.5	4.5 to < 5	5 to < 5.5	5.5 to < 6	6 to < 6.5	6.5 to < 7	7 to < 7.5	7.5 to < 8	8 to < 8.5	8.5 to < 9	9 to < 9.5	9.5 to < 10	≥ 10		
		Old>	3.5 to < 4	4 to < 4.5	4.5 to < 5	5 to < 5.5	5.5 to < 6	6 to < 6.5	6.5 to < 7	7 to < 7.5	7.5 to < 8	8 to < 8.5	8.5 to < 9	9 to < 9.5	9.5 to < 10	≥ 10		
		Cooling Stars New >	2.5 to < 3		3 to < 3.5	4 to < 4.5	4.5 to < 5	5 to < 5.5	5.5 to < 6	6 to < 6.5	6.5 to < 7	7 to < 7.5	7.5 to < 8	8 to < 8.5	8.5 to < 9	9 to < 9.5	9.5 to < 10	≥ 10
		A/EER or TCSPF>	4 to < 4.25	4.25 to < 4.5	4.75	5	5.25	5.5	5.75	6	6.25	6.5	6.75	7	7 to < 7.25	7.25 or more		
Heating Stars Old	Heating Stars New	ACOP or HSPF	REPS Credit (GJ)															
3.5 to < 4	2.5 to < 3	4 to < 4.25	10.0	11.9	13.5	15.0	16.3	17.5	18.6	19.6	20.5	21.4	22.2	22.9	23.6	24.2		
4 to < 4.5		4.25 to < 4.5	11.2	13.1	14.7	16.2	17.5	18.7	19.8	20.8	21.8	22.6	23.4	24.1	24.8	25.4		
4.5 to < 5	3 to < 3.5	4.5 to < 4.75	12.3	14.2	15.8	17.3	18.6	19.8	20.9	21.9	22.9	23.7	24.5	25.2	25.9	26.5		
5 to < 5.5		4.75 to < 5	13.3	15.2	16.8	18.3	19.6	20.8	21.9	22.9	23.9	24.7	25.5	26.2	26.9	27.5		
5.5 to < 6	3.5 to < 4	5 to < 5.25	14.2	16.1	17.7	19.2	20.5	21.7	22.8	23.8	24.7	25.6	26.4	27.1	27.8	28.4		
6 to < 6.5		5.25 to < 5.5	15.0	16.9	18.5	20.0	21.3	22.5	23.6	24.6	25.5	26.4	27.2	27.9	28.6	29.2		
6.5 to < 7	4 to < 4.5	5.5 to < 5.75	15.8	17.6	19.2	20.7	22.1	23.3	24.4	25.4	26.3	27.1	27.9	28.7	29.3	30.0		
7 to < 7.5		5.75 to < 6	16.4	18.3	19.9	21.4	22.7	23.9	25.0	26.0	27.0	27.8	28.6	29.3	30.0	30.6		
7.5 to < 8	4.5 to < 5	6 to < 6.25	17.1	18.9	20.5	22.0	23.3	24.5	25.6	26.7	27.6	28.4	29.2	29.9	30.6	31.3		
8 to < 8.5		6.25 to < 6.5	17.6	19.5	21.1	22.6	23.9	25.1	26.2	27.2	28.1	29.0	29.8	30.5	31.2	31.8		
8.5 to < 9	5 to < 5.5	6.5 to < 6.75	18.2	20.0	21.6	23.1	24.4	25.6	26.7	27.8	28.7	29.5	30.3	31.0	31.7	32.3		
9 to < 9.5		6.75 to < 7	18.6	20.5	22.1	23.6	24.9	26.1	27.2	28.2	29.2	30.0	30.8	31.5	32.2	32.8		
9.5 to < 10	5.5 or More	7 to < 7.25	19.1	20.9	22.6	24.1	25.4	26.6	27.7	28.7	29.6	30.5	31.3	32.0	32.7	33.3		
> 10		7.25 or more	19.5	21.4	23.0	24.5	25.8	27.0	28.1	29.1	30.0	30.9	31.7	32.4	33.1	33.7		

(Other Places in SA) – HC2A (ii) - Replacement of a pre-existing fixed resistance electric heater

NCC 5	HC2A(ii)	Cooling Stars	3.5 to < 4	4 to < 4.5	4.5 to < 5	5 to < 5.5	5.5 to < 6	6 to < 6.5	6.5 to < 7	7 to < 7.5	7.5 to < 8	8 to < 8.5	8.5 to < 9	9 to < 9.5	9.5 to < 10	≥ 10		
		Old>	3.5 to < 4	4 to < 4.5	4.5 to < 5	5 to < 5.5	5.5 to < 6	6 to < 6.5	6.5 to < 7	7 to < 7.5	7.5 to < 8	8 to < 8.5	8.5 to < 9	9 to < 9.5	9.5 to < 10	≥ 10		
		Cooling Stars New >	2.5 to < 3		3 to < 3.5	4 to < 4.5	4.5 to < 5	5 to < 5.5	5.5 to < 6	6 to < 6.5	6.5 to < 7	7 to < 7.5	7.5 to < 8	8 to < 8.5	8.5 to < 9	9 to < 9.5	9.5 to < 10	≥ 10
		A/EER or TCSPF>	4 to < 4.25	4.25 to < 4.5	4.75	5	5.25	5.5	5.75	6	6.25	6.5	6.75	7	7 to < 7.25	7.25 or more		
Heating Stars Old	Heating Stars New	ACOP or HSPF	REPS Credit (GJ)															
3.5 to < 4	2.5 to < 3	4 to < 4.25	35.2	37.1	38.7	40.2	41.5	42.7	43.8	44.8	45.7	46.6	47.4	48.1	48.8	49.4		
4 to < 4.5		4.25 to < 4.5	36.4	38.3	39.9	41.4	42.7	43.9	45.0	46.0	47.0	47.8	48.6	49.3	50.0	50.6		
4.5 to < 5	3 to < 3.5	4.5 to < 4.75	37.5	39.4	41.0	42.5	43.8	45.0	46.1	47.1	48.1	48.9	49.7	50.4	51.1	51.7		
5 to < 5.5		4.75 to < 5	38.5	40.4	42.0	43.5	44.8	46.0	47.1	48.1	49.1	49.9	50.7	51.4	52.1	52.7		
5.5 to < 6	3.5 to < 4	5 to < 5.25	39.4	41.3	42.9	44.4	45.7	46.9	48.0	49.0	49.9	50.8	51.6	52.3	53.0	53.6		
6 to < 6.5		5.25 to < 5.5	40.2	42.1	43.7	45.2	46.5	47.7	48.8	49.8	50.7	51.6	52.4	53.1	53.8	54.4		
6.5 to < 7	4 to < 4.5	5.5 to < 5.75	41.0	42.8	44.4	45.9	47.3	48.5	49.6	50.6	51.5	52.3	53.1	53.9	54.5	55.2		
7 to < 7.5		5.75 to < 6	41.6	43.5	45.1	46.6	47.9	49.1	50.2	51.2	52.2	53.0	53.8	54.5	55.2	55.8		
7.5 to < 8	4.5 to < 5	6 to < 6.25	42.3	44.1	45.7	47.2	48.5	49.7	50.8	51.9	52.8	53.6	54.4	55.1	55.8	56.5		
8 to < 8.5		6.25 to < 6.5	42.8	44.7	46.3	47.8	49.1	50.3	51.4	52.4	53.3	54.2	55.0	55.7	56.4	57.0		
8.5 to < 9	5 to < 5.5	6.5 to < 6.75	43.4	45.2	46.8	48.3	49.6	50.8	51.9	52.9	53.9	54.7	55.5	56.2	56.9	57.5		
9 to < 9.5		6.75 to < 7	43.8	45.7	47.3	48.8	50.1	51.3	52.4	53.4	54.4	55.2	56.0	56.7	57.4	58.0		
9.5 to < 10	5.5 or More	7 to < 7.25	44.3	46.1	47.8	49.3	50.6	51.8	52.9	53.9	54.8	55.7	56.5	57.2	57.9	58.5		
> 10		7.25 or more	44.7	46.6	48.2	49.7	51.0	52.2	53.3	54.3	55.2	56.1	56.9	57.6	58.3	58.9		

(Other Places in SA) – HC2A (iii) - Installation of a new reverse cycle air-conditioner (non-ducted) without pre-condition

NCC 5	HC2A(iii)	Cooling Stars Old>	3.5 to < 4	4 to < 4.5	4.5 to < 5	5 to < 5.5	5.5 to < 6	6 to < 6.5	6.5 to < 7	7 to < 7.5	7.5 to < 8	8 to < 8.5	8.5 to < 9	9 to < 9.5	9.5 to < 10	≥ 10	
		Cooling Stars New >	2.5 to < 3		3 to < 3.5	4.5 to < 5	5 to < 5.5	5.5 to < 6	6 to < 6.5	6.5 to < 7	7 to < 7.5	7.5 to < 8	8 to < 8.5	8.5 to < 9	9 to < 9.5	9.5 to < 10	≥ 10
		AER or TCSPF>	4 to < 4.25	4.25 to < 4.5	4.75	5	5.25	5.5	5.75	6	6.25	6.5	6.75	7	7 to < 7.25	7.25 or more	
Heating Stars Old	Heating Stars New	ACOP or HSPF	REPS Credit (GJ)														
3.5 to < 4	2.5 to < 3	4 to < 4.25	8.2	10.1	11.7	13.2	14.5	15.7	16.8	17.8	18.7	19.6	20.4	21.1	21.8	22.4	
4 to < 4.5		4.25 to < 4.5	9.5	11.3	12.9	14.4	15.7	17.0	18.1	19.1	20.0	20.8	21.6	22.3	23.0	23.7	
4.5 to < 5	3 to < 3.5	4.5 to < 4.75	10.6	12.4	14.0	15.5	16.8	18.1	19.2	20.2	21.1	21.9	22.7	23.4	24.1	24.8	
5 to < 5.5		4.75 to < 5	11.5	13.4	15.0	16.5	17.8	19.0	20.1	21.1	22.1	22.9	23.7	24.4	25.1	25.7	
5.5 to < 6	3.5 to < 4	5 to < 5.25	12.4	14.3	15.9	17.4	18.7	19.9	21.0	22.0	23.0	23.8	24.6	25.3	26.0	26.6	
6 to < 6.5		5.25 to < 5.5	13.2	15.1	16.7	18.2	19.5	20.7	21.8	22.8	23.8	24.6	25.4	26.1	26.8	27.4	
6.5 to < 7	4 to < 4.5	5.5 to < 5.75	14.0	15.8	17.5	18.9	20.3	21.5	22.6	23.6	24.5	25.4	26.1	26.9	27.5	28.2	
7 to < 7.5		5.75 to < 6	14.7	16.5	18.1	19.6	20.9	22.1	23.2	24.3	25.2	26.0	26.8	27.5	28.2	28.9	
7.5 to < 8	4.5 to < 5	6 to < 6.25	15.3	17.1	18.8	20.2	21.6	22.8	23.9	24.9	25.8	26.6	27.4	28.2	28.8	29.5	
8 to < 8.5		6.25 to < 6.5	15.8	17.7	19.3	20.8	22.1	23.3	24.4	25.4	26.4	27.2	28.0	28.7	29.4	30.0	
8.5 to < 9	5 to < 5.5	6.5 to < 6.75	16.4	18.2	19.9	21.3	22.7	23.9	25.0	26.0	26.9	27.7	28.5	29.3	29.9	30.6	
9 to < 9.5		6.75 to < 7	16.9	18.7	20.3	21.8	23.1	24.4	25.4	26.5	27.4	28.2	29.0	29.7	30.4	31.1	
9.5 to < 10	5.5 or More	7 to < 7.25	17.3	19.2	20.8	22.3	23.6	24.8	25.9	27.8	28.7	29.5	30.2	30.9	31.5		
> 10		7.25 or more	17.7	19.6	21.2	22.7	24.0	25.2	26.3	27.3	28.3	29.1	29.9	30.6	31.3	31.9	

ACTIVITY HC2A – REPS TRANSITION FACTORS

Year of Installation	REPS Transition Factors		
	HC2A(i)	HC2A(ii)	HC2A(iii)
2021	5	1	5
2022	4	1	4
2023	3	1	3
2024	2	1	2
2025 onwards	1	1	1

7. GUIDANCE NOTES (INFORMATIVE ONLY – NOT MANDATORY)

Persons installing heating/cooling systems should have regard to the “Air Conditioning Residential Best Practice Guideline” (2003) published by the Australian Institute of Refrigeration, Air Conditioning and Heating (AIRAH). All reasonable endeavours should be used to recycle removed systems.

Refrigerants and any other scheduled substances must be disposed of in accordance with the Australian and New Zealand refrigerant handling code of practice as established under the *Ozone Protection and Synthetic Greenhouse Gas Management Act 1989* (Cth).

Transition factors have been applied to certain REPS activities to provide a pathway to transition the REPS toward delivery of a preferred mix of activities over the first five-year stage. Application of these factors provides a phased trajectory for retailers that addresses both the challenge of managing the downgrading of deemed gigajoules for lighting activities due to reducing additionality, as well as the pivot toward business models to deliver deeper retrofit activities and demand response activities