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# Notice of Approval of Peak Demand Reduction Scheme (Amendment No. 2) Rule 2024

under the

Electricity Supply Act 1995

I, PENELOPE SHARPE, Minister for Energy and Minister for Climate Change, pursuant to clause 137(4) of Schedule 4A of the *Electricity Supply Act 1995*, approve the *Peak Demand Reduction Scheme (Amendment No. 2) Rule 2024* (Amendment Rule) attached to this notice.

The Amendment Rule commences on 13 September 2024 and it amends the *Peak Demand Reduction Scheme Rule of 2022*.

This notice of approval of the Amendment Rule is provided pursuant to clause 137(5) of Schedule 4A of the *Electricity Supply Act 1995*.

A copy of the *Peak Demand Reduction Scheme Rule of 2022* may also be obtained through the website administered by the NSW Department of Climate Change, Energy, the Environment and Water at [www.energy.nsw.gov.au/government-and-regulation/energy-security-safeguard/peak-demand-reduction-scheme](http://www.energy.nsw.gov.au/government-and-regulation/energy-security-safeguard/peak-demand-reduction-scheme).

Dated this 2 day of September 2024.



The Hon PENELOPE SHARPE MLC  
Minister for Energy and Minister for Climate Change

# Peak Demand Reduction Scheme (Amendment No. 2) Rule 2024

under the

## ELECTRICITY SUPPLY ACT 1995

### 1. Name of Rule

This Rule is the *Peak Demand Reduction Scheme (Amendment No.2) Rule 2024*.

### 2. Operation of Rule

This Rule amends the *Peak Demand Reduction Scheme Rule of 2022* in the manner set out in Schedule 1.

### 3. Commencement

This Rule commences on 13 September 2024 with the exception of clause 6.1(d)(v) of this Rule, which commences on 1 November 2024.

## SCHEDULE 1

### Peak Demand Reduction Scheme Rule of 2022

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The Hon Penelope Sharpe, MLC  
Minister for Energy and Minister for Climate Change

#### Simplified outline

The following is a simplified outline of this Rule:

- clauses 1-3 set out the commencement of the Rule, the objects of the Rule and status and operation of the Rule.
- clause 4 sets out the definition of Capacity Holder
- clause 5 sets out the definition of a Recognised Peak Activity
- clause 6 sets out
  - the conditions for the creation of Peak Reduction Certificates
  - general provisions for Equipment Requirements
  - how Peak Demand Reduction Capacity is apportioned over time
- clause 7 sets out Peak Demand Savings Method calculations
- clause 8 sets out Peak Demand Shifting Method calculations
- clause 9 sets out Peak Demand Response Method calculations
- clause 10 sets out the Definitions
- clause 11 sets out any transitional arrangements between different rule versions
- Schedule A sets out classifications and calculation factor tables
- Schedule B has the following Reducing Demand Using Efficiency Activity Definitions
  - HVAC1, HVAC2, WH1, RF2, SYS2
- Schedule C has the following Store and Shift Capacity Activity Definition
  - BESS1
- Schedule D has the following Household Annual Demand Response Activity Definition
  - BESS2

## **1 Name and commencement**

This Rule is the *Peak Demand Reduction Scheme (Amendment No.2) Rule 2024* and commences on 13 September 2024 with the exception of clause 6.1(d)(v), which commences on 1 November 2024.

## **2 Objects of the Rule**

The object of this Rule is to specify provisions for the calculation and creation of Peak Reduction Certificates in respect of any activity, or class of activities, prescribed by the Rule.

## **3 Status and Operation of the Rule**

- 3.1 This Rule is a Peak Demand Reduction Scheme Rule made under Part 2 of Schedule 4A to the Act.
- 3.2 The terms used in this Rule have the meaning set out in clause 10, otherwise terms have the same meanings as in Part 2 of Schedule 4A to the Act.

## **4 Capacity Holder**

- 4.1 The Capacity Holder of Peak Demand Reduction Capacity resulting from a Recognised Peak Activity is:
- (a) the person specified to be the Capacity Holder in clause 7, 8 or 9 in relation to the relevant activity, unless the Capacity Holder has nominated another person, or
  - (b) the person nominated as the Capacity Holder by the person referred to in clause 4.1(a) but only if:
    - (i) the nominee consented to the nomination, and did not withdraw consent before the Implementation Date; and
    - (ii) the nomination and consent were in the form and manner approved by the Scheme Administrator.
- 4.2 Despite 4.1, a person is the Capacity Holder of Peak Demand Reduction Capacity resulting from a Recognised Peak Activity if:
- (a) the activity constituted an Implementation under the Energy Savings Scheme;
  - (b) the Implementation Date of the Implementation as those terms are defined under the scheme rules for the Energy Savings Scheme is:
    - (i) on or after 1 April 2022; and
    - (ii) on or before 29 September 2023.
  - (c) the person was the Energy Saver, as that term is defined under the scheme rules for the Energy Savings Scheme, as at the Implementation Date under the Energy Savings Scheme; and
  - (d) the person is accredited in respect of the Recognised Peak Activity on or before the first anniversary of the commencement of this Rule.

## 5 Recognised Peak Activity

5.1 A Recognised Peak Activity is an activity that:

- (a) provides capacity to reduce peak demand during the Peak Demand Reduction Period;
- (b) occurs in a Site or Sites located within New South Wales and connected to the Electricity Network within New South Wales;
- (c) is not unlawful in New South Wales on the Implementation Date; and
- (d) has an Implementation Date on or after 1 April 2022.

5.2 Without limiting clause 5.1, a Recognised Peak Activity may:

- (a) include 2 or more Activity Definitions or items of End-User Equipment;
- (b) occur at a single Site or across multiple Sites, where each Implementation has its own Implementation Date; and
- (c) be delivered by Implementations with the same or different Implementation Dates.

5.3 The replacement or removal of End-User Equipment only constitutes a Recognised Peak Activity if the End-User Equipment:

- (a) is not refurbished, re-used or resold; and
- (b) is disposed of in accordance with legal requirements imposed through a statutory or regulatory instrument of the Commonwealth or a State or Territory of the Commonwealth, including by obtaining evidence for any refrigerants being disposed of or recycled.

5.4 An activity is not a Recognised Peak Activity:

- (a) if it results in the creation of Peak Demand Reduction Capacity by reducing safety levels or permanently reducing production or service levels;
- (b) if it contributes to a net increase in greenhouse gas emissions;
- (c) if it is undertaken to comply with any mandatory legal requirement imposed through a statutory or regulatory instrument of the Commonwealth or a State or Territory of the Commonwealth, including but not limited to National Construction Code and BASIX affected development requirements, except for alterations, enlargements or extensions of a BASIX affected development as defined in clause 3(1)(c) of the *Environmental Planning and Assessment Regulation 2021*;
- (d) if it is a Standard Control Service or Prescribed Transmission Service undertaken by a Network Service Provider in accordance with the National Electricity Rules under the *National Electricity (NSW) Law*, except if the activity is a Non-Network Option; or
- (e) if it is eligible to create tradeable certificates under the *Renewable Energy (Electricity) Act 2000 (Cth)*.

## 6 Creation of Peak Reduction Certificates

6.1 An Accredited Certificate Provider may only create Peak Reduction Certificates for a Recognised Peak Activity if:

- (a) the Accredited Certificate Provider:
  - (i) is accredited in respect of the activity on or before the Implementation Date for the activity; or

- (ii) was accredited under the Energy Savings Scheme on or before the Implementation Date for the activity, in respect of a Recognised Energy Savings Activity, an implementation of which:
  - (A) was constituted by the same activity which constitutes the Implementation of the Recognised Peak Activity; and
  - (B) had an Implementation Date under the Energy Savings Scheme on or after 1 April 2022 and on or before 29 September 2023;
- (b) the Accredited Certificate Provider is the Capacity Holder as at:
  - (i) the Implementation Date under the Energy Savings Scheme, as that term is defined under the scheme rules for the Energy Savings Scheme; or
  - (ii) in any other case, the Implementation Date;
- (c) Peak Reduction Certificates have not already been created for that Peak Demand Reduction Capacity for the relevant Compliance Period;
- (d) for the purpose of applying to register the creation of Peak Reduction Certificates for the Implementation, the Accredited Certificate Provider has provided the Scheme Administrator with the following required data and evidence:
  - (i) the Accredited Certificate Provider identifier;
  - (ii) the Recognised Peak Activity identifier;
  - (iii) the Address of the Site or Sites where the Implementation(s) took place;
  - (iv) any other identifiers required to identify the Site or Sites where the Implementation(s) took place;
  - (v) the National Metering Identifier(s) of the Site connection point(s) to the Electricity Network;
  - (vi) the Implementation Date of the Implementation(s);
  - (vii) the Network Loss Factor applied for each Implementation;
  - (viii) the Australian Business Number (if any) of the entity utilising the End-Use Service;
  - (ix) the cost to the person who pays for the goods or services that comprise the Implementation, excluding GST;
  - (x) the type of the End-Use Service for which Peak Demand Reduction Capacity was created in accordance with Table A1 of Schedule A to this Rule;
  - (xi) the Business Classification of the entity utilising the End-Use Service in accordance with Table A2 of Schedule A to this Rule;
  - (xii) the Method or sub-method and Activity Definition, where relevant, used to calculate the Peak Demand Reduction Capacity;
  - (xiii) the Peak Demand Reduction Capacity calculated under each Activity Definition that is used for the Implementation; and
  - (xiv) any other data providing evidence of Peak Demand Reduction Capacity from the Implementation as Published, from time to time, by the Scheme Administrator.
- (e) for the purpose of section 106(7) of Schedule 4A to the Act, the Number of Certificates arising from a Recognised Peak Activity is determined in accordance with Equation 1.

6.2 Peak Reduction Certificates are calculated in Equation 1.

**Equation 1**

$Number\ of\ Certificates = Peak\ Demand\ Reduction\ Capacity \times Network\ Loss\ Factor \times 10$

Where:

- *Number of Certificates* is based on 1 Certificate = 0.1 kW of Peak Demand Reduction Capacity averaged over 1 hour
- *Peak Demand Reduction Capacity*, in kW, is calculated using Equation 2a, Equation 2b or Equation 2c
- *Network Loss Factor* is the value from Table A3 in Schedule A corresponding to the distribution network
- *10* is to convert from kW to 0.1 kW

6.3 In making an application to register the creation of Peak Reduction Certificates, an Accredited Certificate Provider may add together the Peak Demand Reduction Capacity arising from more than one Implementation, provided that:

- each Implementation used the same Activity Definition; and
- all Peak Demand Reduction Capacity added together in this way is taken to have been created and made available at the same time, for the purposes of clause 106(6)(b) of Schedule 4A of the Act.

**Note:** Clauses 6.8.1 and 6.8.2 of this Rule provides for when Peak Demand Reduction Capacity arising from an Implementation is taken to have been created and made available.

6.4 Where an application to register the creation of Peak Reduction Certificates is made for an amount of Peak Demand Reduction Capacity (in kW) that is not divisible by 0.1 without leaving a remainder, the amount of Peak Demand Reduction Capacity is to be rounded down to the nearest 0.1kW.

6.5 For the purposes of clause 118(7) of Schedule 4A of the Act, Peak Reduction Certificates become active on the day that their creation is registered by the Scheme Administrator.

6.6 An Accredited Certificate Provider must not create Peak Reduction Certificates for an Implementation which involves the installation of Banned End-User Equipment (including the replacement of End-User Equipment with Banned End-User Equipment).

**6.7 Equipment Requirements for acceptable End-User Equipment**

6.7.1 Equipment Requirements applying to End-User Equipment are specified in this Rule. The Scheme Administrator may Publish additional Equipment Requirements that apply to calculation methods of this Rule.

6.7.2 The Scheme Administrator may, on its own motion or on an application made under clause 6.7.3, accept Products as meeting the Equipment Requirements referred to in this clause by:

- Publishing a detailed list identifying each Product;
- Publishing a reference to a list from a certifying body, along with any restrictions on that list; and/or



- (c) Publishing a requirement for labelling in accordance with a labelling scheme, along with any restrictions on that labelling; and/or
- (d) Publishing a reference to a product register, as in force from time to time, published by a specified body, along with any restrictions on that product register - so long as the Scheme Administrator is satisfied that the requirements for listing a product on the product register are substantially the same as the relevant Equipment Requirements in this rule, other than any additional Equipment Requirements published by the Scheme Administrator in accordance with clause 6.7.1.

**Note:** For example, the Scheme Administrator publishes a reference to the energy upgrades register of products published by the Victorian Essential Services Commission along with the restriction that only those products on the register that are heat pump water heaters are accepted as meeting the Equipment Requirements for the purposes of clause 6.7.2.

6.7.3 Subject to clause 6.7.4, any Accredited Certificate Provider (or other persons as may be specified in a notice Published by the Scheme Administrator), may apply to the Scheme Administrator to have a Product accepted as meeting the Equipment Requirements, if they:

- (a) apply in a form and manner required by the Scheme Administrator;
- (b) pay any fee required by the Scheme Administrator in respect of the investigation and determination of the application on a cost recovery basis and including an allowance for:
  - (i) the recovery by the Scheme Administrator of its costs in establishing, operating and maintaining the systems and databases required in connection with the assessment, acceptance and rejection of applications made under this clause 6.7.3;
  - (ii) the exercise of the Scheme Administrator's powers under clauses 6.7.2 and 6.7.5; and
  - (iii) the payment and collection of fees under this clause 6.7.3(b);
- (c) identify the Product; and
- (d) provide evidence that the Product meets all the Equipment Requirements.

6.7.4 The Scheme Administrator may limit the number of applications that may be made during a period under clause 6.7.3, either in aggregate or by particular persons or classes of persons, by Publishing a notice that sets out that period and limit.

6.7.5 The Scheme Administrator may accept or reject an application made under clause 6.7.3.

6.7.6 Without limiting clause 6.7.5, the Scheme Administrator may reject an application made under clause 6.7.3 where the applicant has not provided additional information requested by the Scheme Administrator in support of that application within a timeframe Published by the Scheme Administrator.

6.7.7 The Scheme Administrator may, at any time, cease to accept a Product as meeting the Equipment Requirements.

## **6.8 Apportioning Peak Demand Reduction Capacity**

6.8.1 For the purposes of clause 106(6)(b) of Schedule 4A of the Act, where the Lifetime an Implementation is more than one year some of the Peak Demand Reduction Capacity arising

from the Implementation is taken to have been created and made available in each Compliance Period which begins during the Lifetime of that Implementation.

- 6.8.2 Where Peak Demand Reduction Capacity arising from an Implementation is taken to have been created and made available in a Compliance Period under this clause 6.8, it is taken to have been created and made available on the first day of that Compliance Period.

**Note:**

**HVAC2 Example**

For example, an Implementation which uses Activity Definition HVAC2 has a Lifetime of 10 years. Ten different compliance periods will begin during that Lifetime. The effect of clauses 6.8.1 and 6.8.2 is that some of the Peak Demand Reduction Capacity arising from the Implementation is taken to have been created and made available on the first day of each of those 10 Compliance Periods.

**BESS1 Example**

For example, an Implementation which uses Activity Definition BESS1 has a Lifetime of 15 years. Fifteen different compliance periods will begin during that Lifetime. The effect of clauses 6.8.1 and 6.8.2 is that some of the Peak Demand Reduction Capacity arising from the Implementation is taken to have been created and made available on the first day of each of those 15 Compliance Periods.

- 6.8.3 Peak Demand Reduction Capacity is to be apportioned as equally as possible between all Compliance Periods which begin during the Lifetime of an Implementation, subject to clause 6.8.4.

- 6.8.4 Peak Demand Reduction Capacity is to be allocated such that:

- (a) Each Compliance Period which begins during the Lifetime of an Implementation is allocated a whole number of Peak Reduction Certificates;
- (b) Each Compliance Period which begins during the Lifetime of an Implementation is allocated a number of Peak Reduction Certificates that is within one certificate of the annual average number of certificates created over the Lifetime of the Implementation; and
- (c) In the event that the whole number of Peak Reduction Certificates cannot be apportioned equally across all Compliance Periods which begin during the Lifetime of an Implementation, earlier Compliance Periods are allocated higher numbers of Peak Reduction Certificates than later Compliance Periods.

**Note:**

For example, an Implementation with a Lifetime of 10 years results in the creation and making available of 20.6kW of Peak Demand Reduction Capacity (equivalent to 206 Peak Reduction Certificates). The Peak Reduction Certificates are to be allocated such that 21 Certificates are allocated to the first six Compliance Periods of the Implementation and 20 Certificates are allocated to the last four Compliance Periods.

- 6.8.5 Where an Accredited Certificate Provider applies, under clause 6.3 of this Rule, to register the creation of Peak Reduction Certificates for more than one Implementation, references to “an Implementation” in clauses 6.8.3 and 6.8.4 of this Rule are to be read as references to all of the Implementations covered under that application.

## 7 Peak Demand Savings Method

### 7.1 Reducing Demand Using Efficiency

#### Equation 2a

*Peak Demand Reduction Capacity = Peak Demand Savings Capacity × Summer Peak Demand Reduction Duration × Lifetime*

Where:

- *Peak Demand Savings Capacity*, in kW, is calculated using the relevant equations in Schedule B
- *Summer Peak Demand Reduction Duration* is 6 hours based on the Peak Demand Reduction Period of 2.30pm to 8.30pm AEST
- *Lifetime*, in years, is the default lifetime of the End-User Equipment as defined for the relevant Activity Definition in Schedule B

#### For Activity Definition HVAC1, SYS2:

7.1.1 The Peak Demand Reduction Capacity for an Implementation is to be calculated using Equation 2a provided that:

- (a) the Site is a Residential Building or a Small Business Site, as evidenced to the satisfaction of the Scheme Administrator;
- (b) the Eligibility Requirements for the relevant Activity Definition are met immediately prior to the Implementation Date;
- (c) the completed Implementation satisfies all of the relevant Implementation Requirements;
- (d) each item of installed End-User Equipment meets all the relevant Equipment Requirements; and
- (e) each item of End-User Equipment is installed at an Address that is connected to the Electricity Network in New South Wales.

7.1.2 The Implementation Date is the date that the End-User Equipment is installed.

7.1.3 The Capacity Holder is the Purchaser.

#### For Activity Definitions HVAC2, WH1, RF2:

7.1.4 The Peak Demand Reduction Capacity for an Implementation is to be calculated using Equation 2a, provided that:

- (a) the Site is not a Residential Building Site, except where specified in the relevant Activity Definition in Schedule B;
- (b) the Eligibility Requirements for the relevant Activity Definition are met immediately prior to the Implementation Date;
- (c) the completed Implementation satisfies all the relevant Implementation Requirements;
- (d) each item of installed End-User Equipment meets all the Equipment Requirements; and
- (e) each item of End-User Equipment is installed at an Address that is connected to the Electricity Network in New South Wales.

7.1.5 The Implementation Date is the date that the End-User Equipment is installed.

7.1.6 The Capacity Holder is the Purchaser.

## 7.2 Measured Peak Demand Savings

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## 8 Peak Demand Shifting Method

### 8.1 Store and Shift Capacity

#### Equation 2b

*Peak Demand Reduction Capacity = Peak Demand Shifting Capacity × Summer Peak Demand Reduction Duration × Lifetime*

Where:

- *Peak Demand Shifting Capacity*, in kW, is calculated using the relevant equations in Schedule C
- *Summer Peak Demand Reduction Duration* is 6 hours based on the Peak Demand Reduction Period of 2.30pm to 8.30pm AEST
- *Lifetime*, in years, is the default lifetime of the End-User Equipment as defined for the relevant Activity Definition in Schedule C

#### For Activity Definition BESS1:

8.1.1 The Peak Demand Reduction Capacity for an Implementation is to be calculated using Equation 2b provided that:

- (a) the Site is a Residential Building or Small Business Site, as evidenced to the satisfaction of the Scheme Administrator;
- (b) the Eligibility Requirements for the relevant Activity Definition are met immediately prior to the Implementation Date;
- (c) the completed Implementation satisfies all of the relevant Implementation Requirements;
- (d) each item of installed End-User Equipment meets all the Equipment Requirements;
- (e) each item of End-User Equipment is installed at an Address that is connected to the Electricity Network in New South Wales;
- (f) the Accredited Certificate Provider has evidence satisfactory to the Scheme Administrator that the Purchaser has paid for the Implementation, assessment and other associated works carried out at the Site a Net Amount of at least \$200 (excluding GST) for each item of End-User Equipment installed as part of an Implementation using Activity Definition BESS1; and
- (g) the Implementation Date for the Implementation is on or after 1 November 2024.

8.1.2 An Accredited Certificate Provider must ensure that a payment made by a Purchaser which the Accredited Certificate Provider relies upon under clause 8.1.1(f) is not reimbursed.

8.1.3 Clause 8.1.1(f) does not apply to an Implementation delivered through a Low-income Energy Program or Exempt Energy Program.

#### Note:

Non-Cash Inducements and in-kind payments are not an acceptable form of payment for the purposes of clause 8.1.1(f). They do not contribute to the Net Amount paid. For example, the purchaser cannot provide goods and services in exchange for goods and services that make up the Implementation for the purposes of clause 8.1.1(f).

- 8.1.4 The Implementation Date is the date that the installation of all End-User Equipment is completed.
- 8.1.5 The Capacity Holder is the Purchaser.
- 8.1.6 In addition to the data required under Clause 6.1(d), an Accredited Certificate Provider may only create Peak Reduction Certificates for an Implementation under Activity Definition BESS1 if for the purpose of applying to register the creation of Peak Reduction Certificates for the Implementation, the Accredited Certificate Provider has provided the Scheme Administrator with details of the installer, including the installer name and accreditation number.

## 9 Peak Demand Response Method

### 9.1 Household Annual Demand Response

#### Equation 2c

$Peak\ Demand\ Reduction\ Capacity = Peak\ Demand\ Response\ Capacity \times Summer\ Peak\ Demand\ Reduction\ Duration \times Lifetime$

Where:

- *Peak Demand Response Capacity*, in kW, is calculated using the relevant equations in Schedule D
- *Summer Peak Demand Reduction Duration* is 6 hours for BESS2.
- *Lifetime*, in years, is the default lifetime of the demand response contract as defined for the relevant Activity Definition in Schedule D

#### For Activity Definition BESS2:

- 9.1.1 The Peak Demand Reduction Capacity for an Implementation is to be calculated using Equation 2c provided that:
- (a) the Site is a Residential Building, as evidenced to the satisfaction of the Scheme Administrator;
  - (b) the Eligibility Requirements for the relevant Activity Definition are met immediately prior to the Implementation Date;
  - (c) the completed Implementation satisfies all of the relevant Implementation Requirements;
  - (d) each item of End-User Equipment meets all the Equipment Requirements;
  - (e) each item of End-User Equipment is installed at an Address that is connected to the Electricity Network in New South Wales;
  - (f) a contract between the Capacity Holder, who is the account holder of the electricity account for the National Metering Identifier(s), and the Demand Response Aggregator to provide demand response capacity for at least three years is signed by the account holder of the electricity account at the Site; and
  - (g) the Implementation Date for the Implementation is on or after 1 November 2024.
- 9.1.2 The Implementation Date is the date that the contract between the Capacity Holder and the Demand Response Aggregator is signed by the account holder of the electricity account for the National Metering Identifier(s).

- 9.1.3 The Capacity Holder is the account holder of the electricity account for the National Metering Identifier(s) and the person who has signed the contract with the Demand Response Aggregator to provide demand response capacity for at least three years.
- 9.1.4 Where Peak Reduction Certificates have been created for an Implementation at the National Metering Identifier(s) of an Activity Definition in Schedule D, no Peak Reduction Certificates can be created for the same activity in any subsequent Compliance Periods at that National Metering Identifier(s) until 3 years from the previous Implementation Date.

## 10 Definitions and Interpretation

### 10.1 In this Rule:

“**Accredited Certificate Provider**” has the same meaning it has in the Act.

“**Act**” means the *Electricity Supply Act 1995*.

“**Activity Definition**” means an activity as specified in a Schedule to this Rule.

“**Address**” means a street address within New South Wales, in a format approved by the Scheme Administrator.

“**AS**” means an Australian Standard as published by SAI Global.

“**AS/NZS**” means an Australian/New Zealand Standard as published by SAI Global.

“**Banned End-User Equipment**” means End-User Equipment which is the subject of a Banned End-User Equipment Notice.

“**Banned End-User Equipment Notice**” means a notice Published by the Scheme Administrator specifying End-User Equipment to be banned for the purposes of this Rule. Such a notice may be limited by reference to:

- (a) a specified period of time;
- (b) specified calculation methods or Activity Definitions; and/or
- (c) other matters as the Scheme Administrator sees fit.

“**BASIX**” means the NSW Building Sustainability Index established under the *Environmental Planning and Assessment Regulation 2021*.

“**Battery Energy Storage System**” means one or more batteries, and other related equipment, which are installed on the same day behind a single National Metering Identifier and which, collectively, constitute a system. For the avoidance of doubt, a pre-assembled battery system and a pre-assembled integrated battery energy storage system are both individually considered batteries and may be combined to form a Battery Energy Storage System.

“**Capacity Holder**” means the person as defined in clause 4.1 of this Rule.

“**Demand Response Aggregator**” means:

- (a) a person that aggregates demand response capacity and is either:
  - (i) a Market Participant (as defined under clause 2.4 of the National Electricity Rules), or

(ii) a Network Service Provider (as defined under clause 2.5 of the National Electricity Rules), or

(b) a person who has been engaged in a contract with a Market Participant or Network Service Provider to aggregate demand response capacity (and related activities) on their behalf.

**“DER Register”** means the Distributed Energy Resource Register published by the Australian Energy Market Operator in accordance with National Electricity Rules.

**“Electricity Network”** means all electricity Transmission Systems and Distribution Systems.

**“Eligibility Requirements”** means the eligibility requirements specified in an Activity Definition in the Schedules to this Rule.

**“End-Use Service”** means the primary service provided by End-User Equipment, such services being as detailed in Table A1 of Schedule A to this Rule.

**“End-User Equipment”** means electricity consuming equipment, processes, or systems, including the equipment directly consuming electricity, and other equipment that causes, controls or influences the consumption of electricity.

**“Energy Star Rating”** means an Energy Star Rating as defined in the relevant AS/NZS standard.

**“Equipment Requirements”** means the equipment requirements as specified in a Schedule in this Rule or as Published from time to time by the Scheme Administrator in accordance with clause 6.7.1 of this Rule.

**“ESS Rule”** means the *Energy Savings Scheme Rule of 2009*.

**“Exempt Energy Program”** means a NSW Government energy initiative which has been notified to the Scheme Administrator, and approved by the Minister for the Energy, as an Exempt Energy Program for the purposes of this Rule.

**“GEMS Registry”** means a published registry of products registered under either Greenhouse and Energy Minimum Standards or published Minimum Energy Performance Standards (MEPS).

**“GST”** means the tax imposed by the *A New Tax System (Goods and Services Tax) Act 1999* (Cth) and the related impositions by Acts of the Commonwealth.

**“Implementation”** means the delivery of a Recognised Peak Activity at a Site.

**“Implementation Date”** is defined for each Recognised Peak Activity in clauses 7, 8 and 9 of this Rule.

**“Implementation Requirements”** means the implementation requirements specified in an Activity Definition in the Schedules to this Rule.

**“kW”** means a kilowatt of electrical power.

**“kWh”** means a kilowatt-hour of energy.

**“Large Customer”** has the same meaning as it has in the *National Energy Retail Law (NSW)*.

**“Licensed”** means a person that holds a current licence that covers activities in New South Wales for the duration of the Implementation.

“**Lifetime**” means the time period over which Peak Demand Reduction Capacity arising from an Implementation is deemed to be created and made available, as specified in the relevant Activity Definition in Schedule B.

“**Life Support Equipment**” has the same meaning as it has in the National Energy Retail Rules.

“**Low-income Energy Program**” means a New South Wales Government low-income household energy initiative which has been notified to the Scheme Administrator by the New South Wales Government, and approved by the Minister for Energy, as a Low-income Energy Program for the purposes of this Rule.

“**National Metering Identifier**” is the connection point defined in the *National Electricity Rules*.

“**Net Amount**” means the amount of money paid by a Purchaser, minus any money paid to the Purchaser and the value of any Non-Cash Inducements given to the Purchaser in connection with an Implementation.

“**Network Service Provider**” has the same meaning as it has in the *National Electricity (NSW) Law*.

“**New End-User Equipment**” means End-User Equipment where no End-User Equipment of the same type, function, output or service was previously in its place (but does not include additional components installed in the course of modifying existing End-User Equipment).

“**Non-Cash Inducement**” includes a gift card, gift voucher, credit note or other like inducement, and also includes goods or services that are not reasonably necessary for or incidental to an Implementation.

**Note:**

For example, where an Implementation consists of installing a new water heater:

- providing the water heater itself would not be a Non-Cash Inducement (because it is reasonably necessary for the Implementation), but
- providing a television would be a Non-Cash Inducement.

“**Non-Habitable Building**” means a Class 10a or Class 10b building under the *Building Code of Australia* (within the meaning of the *Environmental Planning and Assessment Act 1979*).

“**Non-Network Option**” has the same meaning as it has in the National Electricity Rules under the *National Electricity (NSW) Law*.

“**Number of Certificates**” means the number of Peak Reduction Certificates permitted to be created by an Accredited Certificate Provider for Peak Demand Reduction Capacity calculated in accordance with the clauses and methods in this Rule.

“**Peak Demand Reduction Capacity**” means how much a Recognised Peak Activity can reduce electricity demand during the peak demand reduction period, measured in average kilowatts per hour, calculated using the relevant equations in this Rule.

“**Peak Reduction Certificate**” means a certificate created under clause 106 of the Schedule 4A of the Act



**“Prescribed Transmission Services”** has the same meaning as it has in the National Electricity Rules under the *National Electricity (NSW) Law*.

**“Product”** means a class of End-User Equipment identified uniquely by its manufacturer identifier and manufacturer’s model identifier and, in some cases, model year or year of manufacture.

**“Publish”** means to make publicly available in writing, for example on a website or online system maintained by the Scheme Administrator or another NSW Government agency.

**“Purchaser”** means the person who purchases or leases the goods or services that enable the relevant Peak Demand Reduction Capacity to be made; except where:

- (a) the person is an Accredited Certificate Provider and is not the owner, occupier or operator of the Site; or
- (b) the person purchases or leases the goods or services for the purpose of reselling the End-User Equipment, unless the resale will be an inclusion in a contract for the sale of land, or in a strata scheme, the sale of a lot.

**“Recognised Peak Activity”** is defined in clause 5 of this Rule.

**“Regulations”** means regulations made under Part 2 of Schedule 4A to the Act.

**“Residential Building”** means a building or part of a building classified as Class 1, 2 or 4 under the *Building Code of Australia* (within the meaning of the *Environmental Planning and Assessment Act 1979*, and include any Non-Habitable Building on the same site.

**“Scheme Administrator”** has the same meaning as in the Act.

**“Site”** means the location of the End-User Equipment included in a Recognised Peak Activity, as defined by:

- (a) an Address; or
- (b) a unique identifier, as specified for the relevant Implementation that identifies the affected End-User Equipment.

**“Small Business Site”** means a Site:

- (a) that is entirely occupied by one business, with ABN recorded to meet the requirements of clause 6.1(d)(viii); and
- (b) where the business, as a consumer of electricity at the Site:
  - (i) is a Small Customer (and, for the avoidance of doubt, has not aggregated its load at the Site with consumption at other Sites for the purposes of being treated as a Large Customer under its electricity purchase arrangements); or
  - (ii) is a customer of an Exempt Seller, and has an annual electricity consumption below the Upper Consumption Threshold for electricity, specified in the *National Energy Retail Law (NSW)*.

**“Small Customer”** has the same meaning as it has in the *National Energy Retail Law (NSW)*.

**“Standard Control Service”** has the same meaning as it has in the National Electricity Rules under the *National Electricity (NSW) Law*.

**“Upper Consumption Threshold”** has the same meaning as it has in the National Energy Retail Law (NSW).

**“Usable Battery Capacity”**, in respect of a Battery Energy Storage System, means:

(a) for a **Battery Energy Storage System** with only one battery, the usable battery capacity for that battery, as recorded on the approved product list specified by the Scheme Administrator; and

(b) for a **Battery Energy Storage System** with more than one battery, the sum of the usable battery capacity for each battery, as recorded on the approved product list specified by the Scheme Administrator.

## **11 Transitional arrangements**

### **Saving of Implementations using Activity Definition WH1 which occurred before the commencement of the *Peak Demand Reduction Scheme Rule of 2022***

11.1 Deleted

11.2 Deleted

### **General transitional arrangement arising from the *Peak Demand Reduction Scheme (Amendment No. 1) Rule 2024***

11.3 An Accredited Certificate Provider must calculate Peak Demand Reduction Capacity from an Implementation in accordance with the Rule as in force immediately before the commencement of the *Peak Demand Reduction Scheme (Amendment No. 1) Rule 2024* where the Implementation Date of the relevant Implementation is before 1 August 2024.

### **General transitional arrangement arising from the *Peak Demand Reduction Scheme (Amendment No. 2) Rule 2024***

11.4 An Accredited Certificate Provider must calculate Peak Demand Reduction Capacity from an Implementation in accordance with the Rule as in force immediately before the commencement of the *Peak Demand Reduction Scheme (Amendment No. 2) Rule 2024* where the Implementation Date of the relevant Implementation is on or after 1 August 2024 and before 13 September 2024.

### **General transitional arrangement arising from the commencement of clause 6.1(d)(v) of the *Peak Demand Reduction Scheme (Amendment No.2) Rule 2024*.**

11.5 Clause 6.1(d)(v) does not apply in respect of any Implementation with an Implementation Date before the commencement of clause 6.1(d)(v).

## Schedule A Classifications and calculation factor tables

**Table A1: End-Use Services**

<b>End-Use Services</b>
Air heating and cooling
Air handling, fans, ventilation
Water heating
Water/liquid pumping
Refrigeration and freezing
Lighting
Cooking
Home entertainment
Computers, office equipment
Communications
Cleaning, washing
Process heat
Air compression
Process drives
Milling, mixing, grinding
Transport
People movement, lifts, escalators
Materials handling, conveying
Other machines
Electricity supply
Unknown
Other End-Use Services as Published by the Scheme Administrator

**Table A2: Business Classifications**

<b>Business Classification</b>
A Agriculture, Forestry and Fishing
B Mining
C Manufacturing
D Electricity, Gas, Water and Waste Services
E Construction
F Wholesale Trade
G Retail Trade
H Accommodation and Food Services
I Transport, Postal and Warehousing
J Information Media and Telecommunications
K Financial and Insurance Services
L Rental, Hiring and Real Estate Services
M Professional, Scientific and Technical Services
N Administrative and Support Services
O Public Administration and Safety
P Education and Training
Q Health Care and Social Assistance

<b>Business Classification</b>
R Arts and Recreation Services
S Other Services
Residential
Unknown

**Table A3: Network Loss Factors**

Distribution Network Area	Network Loss Factor
Ausgrid	1.04
Endeavour	1.05
Essential	1.05

**Table A4: Baseline Peak Adjustment and Peak Adjustment Factors for Demand Savings activities**

Activity Definition	Peak Adjustment Factor	Baseline Peak Adjustment Factor
WH1	0.77	1
SYS2	0.41	0.41

**Table A5: Temperature Factor based on BCA Climate Zone**

BCA Climate Zone	Temperature Factor
2	0.48
4	1.03
5	0.55
6	1.04
7	0.92
8	0.55

**Table A6: Firmness Factor**

Activity	Firmness Factor
BESS1	1
BESS2	1
HVAC1	1
HVAC2	1
WH1	1
RF2	1
SYS2	1

## Schedule B Reducing Demand Using Efficiency

### Activity Definition HVAC1

<b>Name of Activity</b> Install a New High Efficiency Air Conditioner or Replace an Existing Air Conditioner with a High Efficiency Air Conditioner
<b>Eligibility Requirements</b> <ol style="list-style-type: none"><li>1. This activity must be an installation of a new high efficiency air conditioner or a replacement of an existing air conditioner (whether operational or not) with a high efficiency air conditioner.</li></ol>
<b>Equipment Requirements</b> <ol style="list-style-type: none"><li>1. The New End-User Equipment or replacement End-User Equipment must be a registered product in the GEMS Registry as complying with the Greenhouse and Energy Minimum Standards (Air Conditioners up to 65kW) Determination 2019.</li><li>2. If the New End-User Equipment or replacement End-User Equipment has a Cooling Capacity recorded in the GEMS Registry:<ol style="list-style-type: none"><li>a. It must have a Residential TCSPF_mixed value, as recorded in the GEMS Registry, equal to or greater than the Minimum Residential TCSPF_mixed value for the corresponding Product Type and Cooling Capacity in Table HVAC1.3; or</li><li>b. If the New End-User Equipment or replacement End-User Equipment does not have a Residential TCSPF_mixed value recorded in the GEMS Registry, then it must have an AEER in the GEMS Registry equal to or greater than the Minimum AEER for the Product Type and Cooling Capacity in Table HVAC1.4.</li></ol></li></ol>
<b>Implementation Requirements</b> <ol style="list-style-type: none"><li>1. Any existing End-User Equipment must be removed.</li><li>2. The New End-User Equipment or replacement End-User Equipment must be installed.</li><li>3. The activity, including the removal of any existing End-User Equipment, must be performed or supervised by a suitably Licensed person in compliance with the relevant standards and legislation.</li></ol>
<b>Activity Peak Demand Savings Capacity</b> <p><i>Peak Demand Savings Capacity = (Baseline Input Power × Baseline Peak Adjustment Factor – Input Power × Peak Adjustment Factor) × Firmness Factor</i></p> <p>Where:</p> <ul style="list-style-type: none"><li>• <i>Baseline Input Power, in kW</i>, is calculated using Equation HVAC1.1</li><li>• <i>Baseline Peak Adjustment Factor</i> is calculated using Equation HVAC1.2</li><li>• <i>Input Power, in kW</i>, is the rated cooling input power at 35°C as recorded in the GEMS Registry</li><li>• <i>Peak Adjustment Factor</i> is equal to the Baseline Peak Adjustment Factor</li><li>• <i>Firmness Factor</i>, as a fraction, is the likelihood that the capacity holder will reduce demand from the End-User Equipment during a system peak event as defined in Table A6.</li></ul> <p><b>Equation HVAC1.1</b> <i>Baseline Input Power = Rated Cooling Capacity / Baseline AEER</i></p> <p>Where:</p> <ul style="list-style-type: none"><li>• <i>Rated Cooling Capacity</i> is the rated cooling capacity at 35°C as recorded in the GEMS Registry</li><li>• <i>Baseline AEER</i> is specified in Table HVAC1.1 (for new) and Table HVAC1.2 (for replacement), according to the Product Type and Rated Cooling Capacity.</li></ul> <p><b>Equation HVAC1.2</b> <i>Baseline Peak Adjustment Factor = Temperature Factor × Usage Factor</i></p> <p>Where:</p> <ul style="list-style-type: none"><li>• <i>Temperature Factor</i> is defined in Table A5 based on the BCA Climate Zone of the Implementation</li><li>• <i>Usage Factor</i> is 0.72</li></ul>

**Table HVAC1.1 – Baseline AEER for a new air conditioner**

Product Type	Rated Cooling Capacity, R (kW)	Baseline Cooling AEER
Air-air, Non-Ducted	$R < 4$	3.66
Air-air, Non-Ducted	$4 \leq R < 10$	3.22
Air-air, Ducted	$R < 10$	3.1
Air-air, Ducted or Non-Ducted	$10 \leq R < 39$	3.1
Air-air, Ducted or Non-Ducted	$39 \leq R \leq 65$	2.9

**Table HVAC1.2 – Baseline AEER for a replacement air conditioner**

Product Type	Rated Cooling Capacity, R (kW)	Baseline Cooling AEER
Air-air, Non-Ducted	$R < 4$	3.33
Air-air, Non-Ducted	$4 \leq R < 10$	2.93
Air-air, Ducted	$R < 10$	2.8
Air-air, Ducted or Non-Ducted	$10 \leq R < 39$	2.8
Air-air, Ducted or Non-Ducted	$39 \leq R \leq 65$	2.75

**Table HVAC1.3 – Residential Minimum TCSPF Requirement**

Product Type		Rated Cooling Capacity, R (kW)	Minimum Residential TCSPF mixed
Air-air, Split Systems	Non-Ducted	$R < 4$	5.5
	Non-Ducted	$4 \leq R < 6$	5.0
	Non-Ducted	$6 \leq R < 10$	4.5
	Ducted	$R < 10$	4.0
	Ducted or Non-Ducted	$10 \leq R < 13$	4.0
	Ducted or Non-Ducted	$13 \leq R < 25$	4.0
	Ducted or Non-Ducted	$25 \leq R \leq 65$	4.0
Air-air, Unitary	Ducted or Non-Ducted	$R \leq 65$	3.0

**Table HVAC1.4 – Minimum AEER Requirement\***

Product Type		Rated Cooling Capacity, R (kW)	Minimum AEER
Air-air, Split Systems	Non-Ducted	$R < 4$	4.3
	Non-Ducted	$4 \leq R < 6$	3.6
	Non-Ducted	$6 \leq R < 10$	3.5
	Ducted	$R < 10$	3.5
	Ducted or Non-Ducted	$10 \leq R < 13$	3.5
	Ducted or Non-Ducted	$13 \leq R < 25$	3.3
	Ducted or Non-Ducted	$25 \leq R \leq 65$	3.2
Air-air, Unitary	Ducted or Non-Ducted	$R \leq 65$	3.3

\*Only to be used if there is no TCSPF\_mixed data recorded in the GEMS Registry.

**Lifetime**

Lifetime = 10 years

## Activity Definition HVAC2

### Name of Activity

Install a New High Efficiency Air Conditioner or Replace an Existing Air Conditioner with a High Efficiency Air Conditioner

### Eligibility Requirements

1. This activity must be an installation of a new high efficiency air conditioner or a replacement of an existing air conditioner (whether operational or not) with a high efficiency air conditioner.
2. The New End-User Equipment or replacement End-User Equipment must not be installed in a Residential Building unless the activity is the replacement of an existing air conditioner in a centralised system or in the common areas of a Class 2 building.

### Equipment Requirements

1. The New End-User Equipment or replacement End-User Equipment must be a registered product in the GEMS Registry as complying with the Greenhouse and Energy Minimum Standards (Air Conditioners up to 65kW) Determination 2019.
2. If the New End-User Equipment or replacement End-User Equipment has a Cooling Capacity recorded in the GEMS Registry:
  - a. The New End-User Equipment or replacement End-User Equipment must have a Commercial TCSPF<sub>mixed</sub> value, as recorded in the GEMS Registry, equal to or greater than the Minimum Commercial TCSPF<sub>mixed</sub> value for the corresponding Product Type and Cooling Capacity in Table HVAC2.3; or
  - b. If the New End-User Equipment or replacement End-User Equipment does not have a Commercial TCSPF<sub>mixed</sub> value recorded in the GEMS Registry, then it must have an AEER in the GEMS Registry equal to or greater than the Minimum AEER for the Product Type and Cooling Capacity in Table HVAC2.4.

### Implementation Requirements

1. Any existing End-User Equipment must be removed.
2. The New End-User Equipment or replacement End-User Equipment must be installed.
3. The activity, including the removal of any existing End-User Equipment, must be performed or supervised by a suitably Licensed person in compliance with the relevant standards and legislation.

### Activity Peak Demand Savings Capacity

$Peak\ Demand\ Savings\ Capacity = (Baseline\ Input\ Power \times Baseline\ Peak\ Adjustment\ Factor - Input\ Power \times Peak\ Adjustment\ Factor) \times Firmness\ Factor$

Where:

- *Baseline Input Power*, in kW, is calculated using Equation HVAC2.1
- *Baseline Peak Adjustment Factor* is calculated using Equation HVAC2.2
- *Input Power*, in kW, is the rated cooling input power at 35°C as recorded in the GEMS Registry
- *Peak Adjustment Factor* is equal to the Baseline Peak Adjustment Factor
- *Firmness Factor*, as a fraction, is the likelihood that capacity will be available during a system peak event as defined in Table A6.

#### Equation HVAC2.1

$Baseline\ Input\ Power = Rated\ Cooling\ Capacity / Baseline\ AEER$

Where:

- *Rated Cooling Capacity* is the rated cooling capacity at 35°C as recorded in the GEMS Registry
- *Baseline AEER* is specified in Table HVAC2.1 (for new) and Table HVAC2.2 (for replacement), according to the Product Type and Rated Cooling Capacity.

#### Equation HVAC2.2

$Baseline\ Peak\ Adjustment\ Factor = Temperature\ Factor \times Usage\ Factor$

Where:

- *Temperature Factor* is defined in Table A5 based on the BCA Climate Zone of the Implementation
- *Usage Factor* is 0.6

**Table HVAC2.1 – Baseline AEER for a new air conditioner**

Product Type	Rated Cooling Capacity, R (kW)	Baseline Cooling AEER
Air-air, Non-Ducted	$R < 4$	3.66
Air-air, Non-Ducted	$4 \leq R < 10$	3.22
Air-air, Ducted	$R < 10$	3.1
Air-air, Ducted or Non-Ducted	$10 \leq R < 39$	3.1
Air-air, Ducted or Non-Ducted	$39 \leq R \leq 65$	2.9

**Table HVAC2.2 – Baseline AEER for a replacement air conditioner**

Product Type	Rated Cooling Capacity, R (kW)	Baseline Cooling AEER
Air-air, Non-Ducted	$R < 4$	3.33
Air-air, Non-Ducted	$4 \leq R < 10$	2.93
Air-air, Ducted	$R < 10$	2.8
Air-air, Ducted or Non-Ducted	$10 \leq R < 39$	2.8
Air-air, Ducted or Non-Ducted	$39 \leq R \leq 65$	2.75

**Table HVAC2.3 – Minimum TCSPF Requirement**

Product Type		Rated Cooling Capacity, R (kW)	Minimum Commercial TCSPF <sub>mixed</sub>
Air-air, Split Systems	Non-Ducted	$R < 4$	7.0
	Non-Ducted	$4 \leq R < 6$	6.0
	Non-Ducted	$6 \leq R < 10$	6.0
	Ducted	$R < 10$	5.0
	Ducted or Non-Ducted	$10 \leq R < 13$	5.0
	Ducted or Non-Ducted	$13 \leq R < 25$	5.0
	Ducted or Non-Ducted	$25 \leq R \leq 65$	5.0
Air-air, Unitary	Ducted or Non-Ducted	$R \leq 65$	3.5

**Table HVAC2.4 – Minimum AEER Requirement\***

Product Type		Rated Cooling Capacity, R (kW)	Minimum AEER
Air-air, Split Systems	Non-Ducted	$R < 4$	4.3
	Non-Ducted	$4 \leq R < 6$	3.6
	Non-Ducted	$6 \leq R < 10$	3.5
	Ducted	$R < 10$	3.5
	Ducted or Non-Ducted	$10 \leq R < 13$	3.5
	Ducted or Non-Ducted	$13 \leq R < 25$	3.3
	Ducted or Non-Ducted	$25 \leq R \leq 65$	3.2
Air-air, Unitary	Ducted or Non-Ducted	$R \leq 65$	3.3

\*Only to be used if there is no TCSPF<sub>mixed</sub> data recorded in the GEMS Registry.

**Lifetime**

Lifetime = 10 years



## Activity Definition WH1

### Name of Activity

Replace One or More Existing Hot Water Boilers or Water Heaters with One or More Air Source Heat Pump Water Heater Systems

### Eligibility Requirements

1. The existing End-User Equipment must be an electric resistance hot water boiler(s) or water heater(s).
2. The existing electric resistance hot water boiler(s) or water heater(s) do(es) not have to be in working order at the time of replacement.
3. The End-User Equipment must not be installed in a BCA Class 1 or 4 building.

### Equipment Requirements

1. The installed End-User Equipment must be an air source heat pump water heater as defined by AS/NZS 4234.
2. The installed End-User Equipment must achieve minimum annual energy savings, when determined in accordance with the modelling procedure published by the Scheme Administrator, of:
  - a. 60% when modelled in AS/NZS 4234 climate zone HP3-AU if the Site is in BCA Climate Zone 2, 3, 4, 5 or 6;
  - b. 60% when modelled in AS/NZS 4234 climate zone HP5-AU if the Site is in BCA Climate Zone 7 or 8;
3. The installed End-User Equipment must be certified to comply with AS/NZS 2712 if it has a storage volume less than or equal to 700L.
4. Each replacement heat pump as defined by AS/NZS 4234 must have a volumetric capacity of greater than 425 litres, where volumetric capacity means the total volume of water in litres that can be held in the storage tank, as defined in clause 1.5.24 of AS/NZS 2712.
5. The installed End-User Equipment must be accepted in a manner determined by the Scheme Administrator.

### Implementation Requirements

1. The existing End-User Equipment must be removed.
2. The replacement End-User Equipment must be installed.
3. The activity, including the removal of any existing End-User Equipment, must be performed or supervised by a suitably Licensed person in compliance with the relevant standards and legislation.

### Activity Peak Demand Savings Capacity

$Peak\ Demand\ Savings\ Capacity = (Baseline\ Input\ Power \times Baseline\ Peak\ Adjustment\ Factor - Input\ Power \times Peak\ Adjustment\ Factor) \times Capacity\ Factor \times Firmness\ Factor$

Where:

- *Baseline Input Power*, in kW, is calculated using Equation WH1.1
- *Baseline Peak Adjustment Factor* is found in Table A4
- *Input Power*, in kW, is calculated using Equation WH1.2
- *Peak Adjustment Factor* is found in Table A4
- *Capacity Factor* is:
  - 1, if  $HPCap \leq WHCap$ ; or
  - $WHCap / HPCap$ , if  $HPCap > WHCap$

Where HPCap is the total rated capacity (kW) of the heat pump water heater(s) being installed, as defined in a manner determined by the Scheme Administrator, and WHCap is the total rated capacity (kW) of the End-User Equipment being replaced.

- *Firmness Factor*, as a fraction, is the likelihood that capacity will be available during a system peak event as defined in Table A6.

### Equation WH1.1

$Baseline\ Input\ Power = 0.01 \times ComPkLoad$

Where:

- *ComPkLoad* is the peak daily (winter) load in MJ/d as recorded in the Product Registry for either HP3-AU or HP5-AU based on the address of the site where the End-User Equipment is installed.

**Equation WH1.2**

$$\text{Input Power} = (100 - \text{Annual Energy Savings \%}) \times \text{Baseline Input Power} \div 100$$

Where:

- *Annual Energy Savings*, as a percentage, is published on the Product Registry
- *Baseline Input Power*, in kW, is calculated using Equation WH1.1

**Lifetime**

**Table WH1.1**

End-User Equipment type	Years
All	12

## Activity Definition RF2

<b>Name of Activity</b> Replace an Existing Refrigerated Cabinet with a New High Efficiency Refrigerated Cabinet
<b>Eligibility Requirements</b> <ol style="list-style-type: none"><li>This activity must be a replacement of an existing Refrigerated Cabinet (whether operational or not) with a high efficiency Refrigerated Cabinet.</li></ol>
<b>Equipment Requirements</b> <ol style="list-style-type: none"><li>The End-User Equipment must be a Refrigerated Cabinet (RC) as defined within the terms of the Greenhouse and Energy Minimum Standards (Refrigerated Cabinets) Determination 2020.</li><li>The refrigerated cabinet must have an Energy Efficiency Index (EEI) below 81, as recorded in the GEMS Registry, with the exception of Integral Ice Cream Freezer Cabinets (class 5) which must have an EEI below 51, as recorded in the GEMS Registry.</li><li>The End-User Equipment must be a registered product based on Greenhouse and Energy Minimum Standards (Refrigerated Cabinets) Determination 2020 or the New Zealand Energy Efficiency (Energy Using Products) Amendment Regulations 2020, as updated from time to time.</li><li>The replacement End-User Equipment must not have 4 or more display sides.</li><li>The existing End-User Equipment (that is, the End-User Equipment that is replaced as part of the Implementation) must meet at least one of (a), (b) and (c) below.<ol style="list-style-type: none"><li>The existing End-User Equipment is recorded in the GEMS Registry as being the same Refrigerated Cabinet Product Class as the replacement End-User Equipment, as set out in the second column of Table RF2.1.</li><li>The existing End-User Equipment is recorded in the GEMS Registry as being of an AS 1731.14 Product Type, as set out in the third column of Table RF2.1, that is in the same row of Table RF2.1 as the Refrigerated Cabinet Product Class of the replacement End-User-Equipment, as set out in the second column of Table RF2.1.</li><li>The ACP provides evidence satisfactory to the Scheme Administrator that the existing End-User Equipment is of an AS 1731.14 Product Type, as set out in the third column of Table RF2.1, that is in the same row of Table RF2.1 as the Refrigerated Cabinet Product Class of the replacement End-User-Equipment, as set out in the second column of Table RF2.1.</li></ol></li></ol>
<b>Implementation Requirements</b> <ol style="list-style-type: none"><li>The existing End-User Equipment must be removed and disposed of in accordance with legislation.</li><li>The replacement End-User Equipment must be installed in its intended place of use and operating.</li><li>The activity, including the removal of the existing End-User Equipment, must be performed or supervised by a suitably Licensed person in compliance with the relevant standards and legislation.</li></ol>
<b>Activity Peak Demand Savings Capacity</b> <p><math>Peak\ Demand\ Savings\ Capacity = (Baseline\ Input\ Power \times Baseline\ Peak\ Adjustment\ Factor) - (Input\ Power \times Peak\ Adjustment\ Factor) \times Firmness\ Factor</math></p> <p>Where:</p> <ul style="list-style-type: none"><li><i>Baseline Input Power</i>, in kW, is calculated using Equation RF2.1</li><li><i>Baseline Peak Adjustment Factor</i> is calculated using Equation RF2.3</li><li><i>Input Power</i>, in kW, is calculated using Equation RF2.2</li><li><i>Peak Adjustment Factor</i> is equal to the Baseline Peak Adjustment Factor</li><li><i>Firmness Factor</i>, as a fraction, is the likelihood that capacity will be available during a system peak event as defined in Table A6.</li></ul> <p><b>Equation RF2.1</b> <math>Baseline\ Input\ Power = TEC \times af \times [Baseline\ EEI \div Product\ EEI] \div 24</math></p> <p>Where:</p> <ul style="list-style-type: none"><li><i>TEC</i> is the <i>Total Energy Consumption</i> in kWh/day of the replacement refrigerated cabinet model as recorded in the GEMS Registry</li><li><i>Product EEI</i> is the Energy Efficiency Index of the replacement refrigerated cabinet model as recorded in the GEMS Registry</li><li><i>Baseline EEI</i> is defined in Table RF2.1</li><li><i>af</i> is defined in Table RF2.1</li></ul>

**Equation RF2.2**

$$\text{Input Power} = \text{TEC} \times \text{af} \div 24$$

Where:

- *TEC* is the *Total Energy Consumption* in kWh/day of the replacement refrigerated cabinet model as recorded in the GEMS Registry
- *af* is defined in Table RF2.1

**Equation RF2.3**

$$\text{Baseline Peak Adjustment Factor} = \text{Temperature Factor} \times \text{Usage Factor}$$

Where:

- *Temperature Factor* is defined in Table RF2.2 based on the Product Type
- *Usage Factor* is 1

**Table RF2.1**

Product Type	Refrigerated Cabinet Product Class (Product Characteristics Code)	AS 1731.14 Product Types	af	Baseline EEI		
				Heavy Duty	Normal and Light Duty	
1. Integral Refrigerated Display Cabinet	Class 1 (IRH)	HC1, HC2, HC3, HC4, HC5, HC6	1.0	-	100	
	Class 2 (IFH)	IHF1, IHF3, IHF4, IHF5, IHF6 (>500l)	1.0	-	77	
	Class 7 (IRV)	IVC1, IVC2, IVC3, IVC4 Glass door (M1)	1.0	-	60	
	Class 8 (IFV)	IVF1, IVF2, IVF4 Glass door	1.0	-	100	
	Class 11 (IRV-4)	IVC4 Glass door (M2)	1.0	-	100	
2. Integral Ice Cream Freezer Cabinet	Class 5 (IFH-5)	IHF5, IHF6 (<500 litres)	1.0	-	100	
3. Remote Refrigerated Display Cabinet	Class 12 (RRH)	RS6, RS7, RS8, RS9	1.0	-	100	
	Class 13 (RRH)	RS13, RS14,	1.0	-	77	
	Class 14 (RRV or RRV-2)	RS1, RS2, RS3, RS4, RS5, RS10	1.0	-	77	
	Class 15 (RFV)	RS11, RS12, RS15, RS16, RS17, RS18, RS19, RS20	1.0	-	100	
4. Gelato or Ice Cream Scooping Cabinet	Class 6 (GSC or ISC)		1.0	-	60	
5. Refrigerated Storage Cabinet	Class 3 (SRH)		LD:	1.2	77	77
			ND or HD:	1.0		
	Class 4 (SFH)		LD:	1.1	77	77
			ND or HD:	1.0		
	Class 9 (SRV)		LD:	1.2	100	100
			ND or HD:	1.0		
Class 10 (SFV)		LD:	1.1	100	100	
		ND or HD:	1.0			

**Table RF2.2: Refrigerated Cabinet Temperature Factor by Product Type**

Product Type	Temperature Factor
Integral Refrigerated Display Cabinet (RDC), or light duty Refrigerated Storage Cabinet (RSC).	1.14
Normal or heavy duty Refrigerated Storage Cabinet (RSC), Ice-Cream Freezer, or Gelato Scooping Cabinet.	0.84
Remote Refrigerated Display Cabinet (RDC).	1.81

**Lifetime**

**Table RF2.3**

<b>Refrigerated Cabinet Class</b>	<b>Temperature class</b>	<b>Lifetime (years)</b>
Classes 1 - 6, 9, 10	All	8
Classes 7, 8 and 11	All	8
Classes 12 - 15	All	12

## Activity Definition SYS2

### Name of Activity

Install a New High Efficiency Pool Pump or Replace an Existing Pool Pump with a High Efficiency Pool Pump

### Eligibility Requirements

1. This activity must be an installation of a new high efficiency pool pump or a replacement of an existing pool pump (whether operational or not) with a high efficiency pool pump.

### Equipment Requirements

1. The new or replacement End-User Equipment must be registered in the GEMS Registry as complying with the Greenhouse and Energy Minimum Standards (Swimming Pool Pump-units) Determination 2021.
2. The new or replacement End-User Equipment must have a star rating, as recorded in the GEMS Registry, equal to or greater than 4.
3. The new or replacement End-User Equipment must have a warranty of at least 3 years.

### Implementation Requirements

1. Any existing End-User Equipment must be removed.
2. The new or replacement End-User Equipment must be installed.
3. The activity, including the removal of any existing End-User Equipment, must be performed or supervised by a suitably qualified licence holder in compliance with the relevant standards and legislation.

### Activity Peak Demand Savings Capacity

$Peak\ Demand\ Savings\ Capacity = ((Baseline\ Input\ Power \times Baseline\ Peak\ Adjustment\ Factor) - (Input\ Power \times Peak\ Adjustment\ Factor)) \times Firmness\ Factor$

Where:

- *Baseline Input Power*, in kW, is the value of Baseline Input Power from Table SYS2.1 corresponding to the pool pump's Nameplate Input Power as recorded in the GEMS Registry
- *Baseline Peak Adjustment Factor* is specified in Table A4
- *Input Power*, in kW, is calculated using Equation SYS2.1
- *Peak Adjustment Factor* is specified in Table A4
- *Firmness Factor*, as a fraction, is the likelihood that capacity will be available during a system peak event as defined in Table A6.

### Equation SYS2.1

$Input\ Power = PAEC \div (365 \times DRT)$

Where:

- *PAEC*, in kWh/year, is the new or replacement End-User equipment's Projected Annual Energy Consumption as recorded in the GEMS Registry
- 365, in days/year, is the number of days per year
- *DRT*, in hours/day, is the new or replacement End-User equipment's Daily Run Time as recorded in the GEMS Registry.

**Table SYS2.1 Baseline Input Power (kW)**

Nameplate Input Power (W)	Baseline Input Power (kW)
<=1000	0.8
>1000 and <=1500	1.2
>1500 and <=2000	1.2
>2000	1.2

### Lifetime

Lifetime = 10 years.

## Schedule C Store and Shift Capacity

### Activity Definition BESS1

#### Name of Activity

Install a New Behind the Meter Battery Energy Storage System

#### Eligibility Requirements

1. There must not be an existing Battery Energy Storage System installed at the same National Metering Identifier(s).
2. A behind the meter solar photovoltaic system must be installed at the same National Metering Identifier(s) that the End-User Equipment is being installed.

#### Equipment Requirements

1. The End-User Equipment must be listed on an approved product list specified by the Scheme Administrator.
2. The End-User Equipment must have a Usable Battery Capacity greater than 2 kWh and less than 28 kWh as recorded on the approved product list specified by the Scheme Administrator.
3. The End-User Equipment must be internet connectable and controllable by a Demand Response Aggregator.
4. Each item of End-User Equipment must have a warranty of at least 10 years and guarantee that at least seventy percent (70%) of Usable Battery Capacity is retained 10 years from the date the End-User Equipment is installed at the site.
5. Each End-User Equipment warranty must define the normal use conditions during the operation of the End-User Equipment as not being less than:
  - a. A minimum ambient temperature range of -10 °C to 50 °C
  - b. A minimum warranted cumulative energy throughput equivalent to 2.8 MWh per kWh of Usable Battery Capacity where the Implementation Date is before 1 April 2026
  - c. A minimum warranted cumulative energy throughput equivalent to 3.65 MWh per kWh of Usable Battery Capacity where the Implementation Date is on or after 1 April 2026

#### Implementation Requirements

1. The End-User Equipment must be installed in accordance with AS/NZS 5139.
2. The End-User Equipment must be installed by an installer on an approved installer list specified by the Scheme Administrator.
3. The activity must be performed by a suitably Licensed person in compliance with the relevant standards and legislation.
4. The installation of this End-User Equipment must be registered on the DER Register.
5. Where the Battery Energy Storage System is installed indoors, a working smoke alarm that meets AS 3786 must be installed in the immediate vicinity.

#### Activity Peak Demand Shifting Capacity

##### Equation BESS1.1

$Peak\ Demand\ Shifting\ Capacity = Demand\ Shifting\ Component \times Firmness\ Factor$

Where:

- *Demand Shifting Component*, in kW, is calculated using Equation BESS1.2
- *Firmness Factor*, as a fraction, is the likelihood that capacity will be available during a system peak event as defined in Table A6.

##### Equation BESS1.2

$Demand\ Shifting\ Component = Battery\ Capacity \times 0.0853\ kW/kWh$

Where:

- *Battery Capacity*, in kWh, is the Usable Battery Capacity as recorded on the approved product list specified by the Scheme Administrator.

#### Lifetime

Lifetime = 15 years

## Schedule D Household Annual Demand Response

### Activity Definition BESS2

#### Name of Activity

Sign a Behind the Meter Battery Energy Storage System Up to a Demand Response Contract

#### Eligibility Requirements

1. There must be an existing Battery Energy Storage System installed at the National Metering Identifier(s).
2. A behind the meter solar photovoltaic system must be installed at the same National Metering Identifier(s) as the existing Battery Energy Storage System.
3. There must not be any Life Support Equipment used at the Site.

#### Equipment Requirements

1. The End-User Equipment must be listed on an approved product list specified by the Scheme Administrator.
2. The End-User Equipment must have a Usable Battery Capacity greater than 2 kWh and less than 28 kWh as recorded on the approved product list specified by the Scheme Administrator.
3. Each item of End-User Equipment must have a minimum 6 years remaining on the warranty.
4. Each End-User Equipment warranty must define the normal use conditions during the operation of the End-User Equipment as not being less than:
  - a. A minimum ambient temperature range of -10 °C to 50 °C
  - b. A minimum warranted cumulative energy throughput equivalent to 2.8 MWh per kWh of Usable Battery Capacity where the Implementation Date is before 1 April 2026
  - c. A minimum warranted cumulative energy throughput equivalent to 3.65 MWh per kWh of Usable Battery Capacity where the Implementation Date is on or after 1 April 2026
5. Participation in the activity must not void or diminish the End-User Equipment warranty below the conditions listed in the Equipment Requirements above.

#### Implementation Requirements

1. The internet connection and Demand Response Aggregator control of the End-User Equipment must be demonstrated to be operational to the satisfaction of the Scheme Administrator.

#### Activity Peak Demand Shifting Capacity

##### Equation BESS2.1

$Peak\ Demand\ Response\ Capacity = Demand\ Response\ Component \times Firmness\ Factor$

Where:

- *Demand Response Component*, in kW, is calculated using Equation BESS2.2
- *Firmness Factor*, as a fraction, is the likelihood that capacity will be available during a system peak event as defined in Table A6.

##### Equation BESS2.2

$Demand\ Response\ Component = Battery\ Capacity \times 0.0647\ kW/kWh$

Where:

*Battery Capacity*, in kWh, is the Usable Battery Capacity as recorded on the approved product list specified by the Scheme Administrator.

#### Lifetime

Lifetime = 3 years