IPART Independent Pricing and Regulatory Tribunal | NSW

# Draft for Consultation

## Peak Demand Savings Capacity Method: Reducing Demand Using Efficiency

# Method Guide

July 2022

PDRS »

## The Independent Pricing and Regulatory Tribunal (IPART)

The Independent Pricing and Regulatory Tribunal is the Scheme Administrator of the Peak Demand Reduction Scheme under clause 125 of Schedule 4A to the *Electricity Supply Act 1995*. In this Method Guide, a reference to the Scheme Administrator is a reference to IPART.

Further information on IPART can be obtained from IPART's website.

## Acknowledgment of Country

IPART acknowledges the Traditional Custodians of the lands where we work and live. We pay respect to Elders, past, present and emerging.

We recognise the unique cultural and spiritual relationship and celebrate the contributions of First Nations peoples.

# Contents

# About this document

## We are seeking feedback

We are inviting submissions on our *draft* Method Guide for the Reducing Demand Using Efficiency (**RDUE**) sub-method of the Peak Demand Saving Method under the Peak Demand Reduction Scheme (**PDRS**).

The Method Guide provides guidance about meeting the requirements to create a Peak Reduction Certificate (**PRC**) from an activity under the PDRS.

We are seeking feedback on whether the broad format and content of the Method Guide is helpful and easy to understand as well as the proposed approach to record collection. We are not seeking feedback on the appropriateness or adequacy of the requirements underpinning the PDRS.

## Context

Accredited Certificate Providers (**ACPs**) operating under the PDRS will need to understand and comply with the requirements of the applicable legislation and the conditions of accreditation in their Accreditation Notice.

The Method Guide provides guidance about the general requirements for the PDRS and specific requirements of the RDUE sub-method. It also sets out key requirements for the conditions of accreditation.

It should be used by:

- applicants seeking accreditation as a certificate provider to assist them to:
  - understand what is involved in creating a PRC from an activity under the PDRS
  - complete their application for accreditation
- PDRS ACPs to assist them to understand and comply with their legislative requirements as well as their conditions of accreditation when creating a PRC
- Auditors to assist them check an ACP's compliance with PDRS requirements

The draft Method Guide is based on the version of the *Peak Demand Reduction Scheme Rule of 2022* that was released for public consultation in early 2022 (**Draft Rule**). The final version of the Method Guide will be updated to reflect any subsequent changes made to the Rule. We have chosen to seek feedback at this stage so we can publish the Method Guide to coincide with the commencement of the Rule.

### Refrigerated cabinets

The NSW Office of Energy and Climate Change (**OECC**) is considering stakeholder feedback on the installation of refrigerated cabinets under activity F1 in the Energy Savings Scheme (**ESS**). The results of this feedback and any subsequent policy changes made in respect of this activity under the ESS will have flow on effects to the corresponding activity (RF2) in the PDRS. The guidance provided in draft Method Guide is based on the Draft Rule and will need to be updated to reflect any policy changes made by OECC.

## Our approach to the Method Guide

### Format and content

We want to make it easier for ACPs to understand and comply with their obligations under the PDRS. We have made some changes to the PDRS Method Guide compared to the Method Guides for the ESS, which we hope will make it easier to read and understand. In particular:

- **Guidance is aligned with the project design and implementation steps**: from becoming accredited as an ACP through to the registration of Peak Reduction Certificates in the Registry of Certificates. We want to make it easier for ACPs to find the information they need at a given stage in the project cycle and to understand why they need to keep the specified records.
- **All requirements are in one guide:** we have incorporated the equivalent information from the ESS General Requirements Guide, ESS Record Keeping Guide, Minimum Requirements of Conduct for representatives acting on behalf of an ESS ACP into the Method Guide.
- **Worked examples have been included:** to explain key or complex PDRS concepts and for each Activity Definition to show how PRCs are calculated.

### Record keeping

The Method Guide outlines the records that a PDRS ACP must keep to demonstrate compliance with each requirement.

We propose to adopt a flexible approach to the types of documents that need to be kept by ACPs. This draft Method Guide sets out the characteristics that the documents must meet (and includes example documents) rather than providing a prescriptive list of records like we do in the ESS Method Guides.

## Consultation questions

We are seeking feedback on the questions in Table 1. Please provide evidence and/or relevant examples where possible.

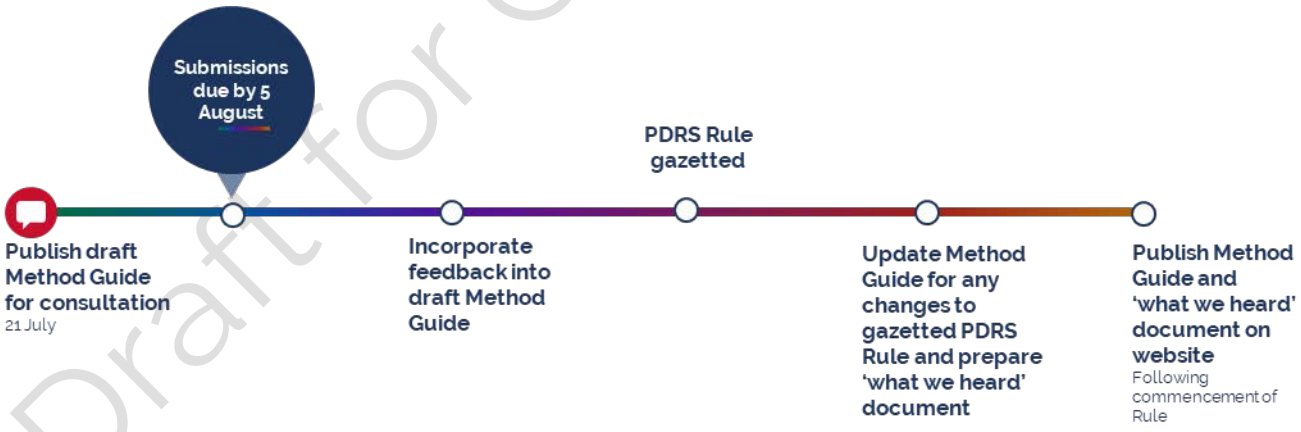
## Table 1 Stakeholder consultation questions

| Question | Description |
|---|---|
| Do you have any comments on the *format* of the Method Guide? | • We want to make it easy for you to find the information you need to know how to comply with your obligations:<br>– Is combining all the requirements in one Guide easier than having multiple documents?<br>– Does structuring the document around key phases of the project cycle (e.g., becoming an ACP, registering PRCs) make it easier to follow? |
| Do you have any comments on the *content* of the Method Guide? | • Are the requirements clear and easy to understand?<br>• Is there any other information you would like included in the Method Guide? |
| Do you have any comments on the *approach* we have taken in the Method Guide to the record keeping requirements? | • For example, we have taken a less prescriptive approach to the record keeping requirements. |
| Do you have any other feedback? | Do you have any other comments about any aspect of the Method Guide? |

## Submitting your feedback

Please submit your written feedback to ess@ipart.nsw.gov.au by 5 August 2022. We will consider your feedback and publish a "what we heard" document on our website following commencement of the PDRS Rule.

If you have any questions about submitting your feedback, please contact us.



Section 1.

# General Information

This section provides an overview of the PDRS and introduces key concepts of the Peak Demand Saving Method

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# 1 About the PDRS

This chapter introduces the Peak Demand Reduction Scheme **(PDRS**), its policy and legislative context and sets out the roles and responsibilities of key stakeholders in the scheme.

**Key points**

- The PDRS is one of the schemes under the Energy Security Safeguard
- The PDRS aims to increase peak demand reduction capacity during hours of peak demand
- ACPs can design and implement a Recognised Peak Activity under the PDRS and create Peak Reduction Certificates
- IPART is appointed as the administrator and regulator of the PDRS. We monitor an ACP's compliance with its requirements and have regard to the outcome of reasonable assurance audits that are conducted independent of ACPs

## 1.1 Overview

The PDRS was established to reduce peak electricity demand and pressure on the electricity system in NSW. This is important because reducing peak demand minimises the risk of blackouts or price spikes during hot summer days when electricity usage can suddenly increase, and demand is at its highest.

The PDRS works by providing financial incentives for households and businesses to implement activities that create "peak demand reduction capacity" (i.e., reduce demand for electricity during the period between 2.30pm to 8.30pm AEST from 1 November to 31 March). These incentives are passed on to households and businesses by Accredited Certificate Providers (**ACPs**) that can create tradeable certificates, called Peak Reduction Certificates (**PRCs**), from the activity.

Liable electricity retailers and other Scheme Participants have a legislative obligation to buy and surrender PRCs every year to meet their obligations under the PDRS.

## 1.2 Policy context

The PDRS is one of the schemes under the Energy Security Safeguard (**Safeguard**)[a]. The object of the Safeguard is to improve the affordability, reliability and sustainability of energy through the creation of financial incentives encouraging "energy activities" and in the case of the PDRS, increase "peak demand reduction capacity".[1]

[a] The other schemes under the Safeguard include the Energy Savings Scheme and the Renewable Fuel Scheme (**RFS**) (under development).

The Safeguard is part of the NSW Government's Electricity Strategy and is one of the ways the NSW Government intends to deliver on its Net Zero Plan[b]. The PDRS also contributes to having a safe and reliable electricity system and helps households and businesses in NSW save money on their electricity bills.

The Office of Energy and Climate Change (**OECC**) is responsible for developing the policy and legislation underpinning the Safeguard schemes.

## 1.3 Legislative context

The PDRS has been established under Schedule 4A, Part 2 of the *Electricity Supply Act 1995* (**ES Act**). The ES Act sets out the legal framework of the PDRS.

Regulations made under the ES Act[2] set out in greater detail IPART's responsibilities as the Scheme Administrator and Scheme Regulator of the scheme.

The *Peak Demand Reduction Scheme Rule of 2022* (**PDRS Rule**), also made under the ES Act, sets out the requirements for creating PRCs from activities under the PDRS.

You should make sure you are familiar with the requirements of the lAct, regulations and rule as well as the information contained in this method guide.

## 1.4 Methods under the PDRS

The PDRS sets out calculation methods for determining the number of PRCs that can be created from eligible activities. Currently, one calculation sub method has been developed under the Peak Demand Saving Method – the Reducing Demand Using Efficiency sub method (**RDUE Method**).

The PDRS will be expanded to include two additional methods:

- the Peak Demand Shifting Method to incentivise shifting electricity use from peak times
- the Peak Demand Response Method to incentivise the active control of appliances during peak times

The Office of Energy and Climate Change (**OECC**) will develop these methods in the future.

## 1.5 Activities under the PDRS

An activity under the PDRS is called a Recognised Peak Activity (**RPA**).

Under the RDUE Method, a RPA is an activity that provides capacity to reduce electricity use during the time of peak electricity demand.[3] This time is between 2.30pm and 8.30pm Australia Eastern Standard Time (**AEST**) (this is equivalent to 3.30pm – 9.30pm Australian Eastern Daylight Time) between 1 November and 31 March.[4]

[b] The Net Zero Plan Stage 1: 2020-2030 is the foundation for NSW's action on climate change and goal to reach net zero emissions by 2050.

The concept of a RPA is like the concept of a Recognised Energy Savings Activity (**RESA**) under the Energy Savings Scheme (**ESS**) and the activities in the RDUE Method correspond to seven activities already in the ESS (see Table 3.1).

Successful implementations of the corresponding activity under the ESS could be used to create:

- Energy Savings Certificates (ESCs) for the energy savings that occur throughout the year, and
- PRCs from the peak demand reduction capacity made available during the summer months.

### 1.5.1 Eligible activities

Under the PDRS, you can design and implement an RPA that:

- involves one or more of the activities that you're accredited for (these are called Activity Definitions) [5]
- involves one or more items of End-User Equipment (**EUE**) covered by the RDUE Method Activity Definitions [6]
- is comprised of multiple implementations with the same or different Implementation Dates [7]

### 1.5.2 Ineligible activities

There are certain circumstances where an activity is not an RPA, even if you meet all the requirements of an Activity Definition under the PDRS [8]. These circumstances include where the activity:

- reduces safety levels
- permanently reduces production or service levels
- leads to a net increase in greenhouse gas emissions
- is done to comply with any mandatory legal requirements (except for alterations, enlargements or extensions of a BASIX affected development [c])
- is part of standard control services and prescribed transmission service by a network service provider, except if the activity is a non-network option [d]
- is eligible to create tradeable certificates under the *Renewable Energy (Electricity) Act 2000* (Cth) (except if the activity includes the installation of a replacement heat pump water heater such as Activity Definition WH1).

### 1.5.3 RPA design and implementation steps

Steps involved in the design and implementation of an RPA, include:

- Becoming an ACP

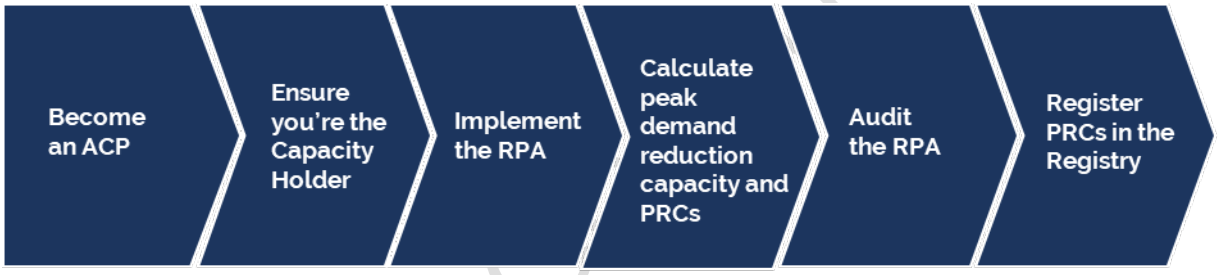
[c] As defined in Clause 3(1)(c) of the *Environmental Planning and Assessment Regulation 2000*.
[d] A standard control services, prescribed transmission service and non-network option are defined in the National Electricity Rules under the National Electricity (NSW) law, which govern the operation of the National Electricity Market.

- Ensuring you're the Capacity Holder
- Implementing the RPA in accordance with:
  - legislative requirements,
  - the specific requirements of the Activity Definition and
  - your conditions of accreditation
- Calculating peak demand reduction capacity and PRCs in accordance with the methodology in the PDRS Rule
- Auditing PRCs
- Registering PRCs

(Figure 1.1)

These steps, and the requirements of ACPs under the PDRS and RDUE Method, are detailed in Section 2 of the Method Guide.

### Figure 1.1 Project steps




## 1.6 Key stakeholders in the PDRS

The key stakeholders in the PDRS are summarised in Table 1.1.

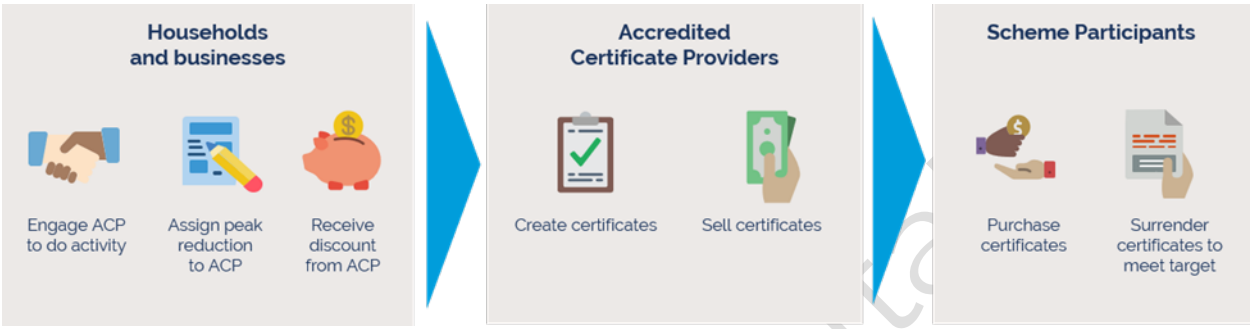
### Table 1.1 Key stakeholders

| Stakeholder | Role |
|---|---|
| Office of Energy and Climate Change | OECC is part of the NSW Treasury Cluster and is responsible for developing the policy and legislation underpinning the Safeguard schemes. We work closely with OECC to implement the legislation to achieve the policy objectives. |
| IPART | Our role is to administer the Safeguard schemes and regulate ACPs and Scheme Participants. We accredit you to participate in the PDRS and monitor compliance with your obligations to help ensure each PRC reflects genuine peak demand reduction capacity. We have established and manage the Registry of Certificates where PRC creation, transfer and surrender are tracked. We do not regulate how you buy and sell PRCs in the market. |
| Auditors | We use auditors (that you must engage from our Audit Services Panel[e]), to conduct reasonable assurance audits to check you have complied with all requirements of designing and implementing an RPA and creating PRCs. |
| ACPs | ACPs are participants in the PDRS who can implement RPAs and create PRCs. |

[e] See https://www.energysustainabilityschemes.nsw.gov.au/Auditors-and-MV-Professionals/Audit-Panel

| Stakeholder | Role |
|---|---|
| Scheme Participants | Scheme Participants are mainly energy retailers and distributors that have a legislative obligation to buy PRCs to meet their individual certificate target. |
| Households and businesses | Customers are households and businesses that participate in the PDRS by undertaking activities that lead to increases in peak demand reduction capacity. The activities must be an Activity Definition under the PDRS Rule. A household or business can't create PRCs unless it is an ACP. |

Figure 1.2 PDRS stakeholders



# 2 About Peak Reduction Certificates

This chapter explains what Peak Reduction Certificates (**PRCs**) are, including concepts related to their lifecycle and vintage.

**Key points**

- PRCs are tradeable instruments and are the "currency" of the PDRS
- One PRC equals 0.1kW of peak demand reduction capacity over one hour
- PRCs have a lifecycle that includes three status types: active, surrendered or expired
- Each PRC is allocated a vintage year related to the compliance period in which the capacity to reduce peak demand was first made available
- PRCs expire after three years from the beginning of the compliance period during which the capacity is first made available

## 2.1 What is a PRC?

PRCs are the "currency" of the Peak Demand Reduction Scheme (**PDRS**) and can be bought and sold in the market[f]. The market for the trade of PRCs is created by the obligation of Scheme Participants (typically electricity retailers) to surrender PRCs to us.

PRCs are created from eligible activities that make peak demand reduction capacity available during a compliance period between 1 November and 31 March. Peak demand reduction capacity is measured in kilowatts (kW).

One PRC is equivalent to 0.1 kW of peak demand reduction capacity averaged over one hour between 2.30pm and 8.30pm AEST[g] on one day in the compliance period (1 November – 31 March)[9].

The number of certificates that can be calculated from an implementation is based on the:

- reduction capacity averaged over **one** hour
- in each of the **6 hours** between 2.30pm and 8.30pm AEST
- on **one** day within the compliance period

**Example**

On 1 September 2022, an ACP implemented an activity under the PDRS.

[f] IPART, as the Scheme Administrator and Scheme Regulator, does not regulate how ACPs buy or sell PRCs once created. The commercial arrangements of buying and selling PRCs is a matter for the ACP in its discretion.

[g] Australia Eastern Standard Time (AEST). This is equivalent to 3.30pm – 9.30pm Australian Eastern Daylight Time.

The activity created the capacity to reduce demand for electricity by an average of **0.2kW** for each of the **6 hours** of peak demand reduction between 2.30pm and 8.30pm AEST.

The activity is eligible to create **12 PRCs** (i.e. 0.2kW x 6 hours) for the 2022-2023 compliance period and for each subsequent year for the lifetime of the implementation.

See paragraph 7.2 and Appendix B for an explanation about how PRCs are calculated for each Activity Definition.

## 2.2 The lifecycle of PRCs

PRCs have a lifecycle which includes three status types recorded in the Registry of Certificates:

- **Active** - PRCs are tradeable and can be surrendered to meet an obligation
- **Surrendered** - PRCs are no longer tradeable
- **Expired –** PRCs are not tradeable and cannot be surrendered against an obligation

### 2.2.1 Active PRCs

Under the PDRS, a PRC is active from the Implementation Date until it is surrendered or expires.

### 2.2.2 Surrendered PRCs

PRCs are primarily surrendered by Scheme Participants to meet their individual certificate target for a compliance period. However, ACPs can be required to surrender PRCs if IPART is satisfied that they have improperly created certificates or contravened an accreditation condition.[10] PRCs can also be surrendered voluntarily (for reasons such as carbon offsetting).

Once the Scheme Regulator has accepted the surrender of a PRC, the PRC is cancelled.

### 2.2.3 Expired PRCs

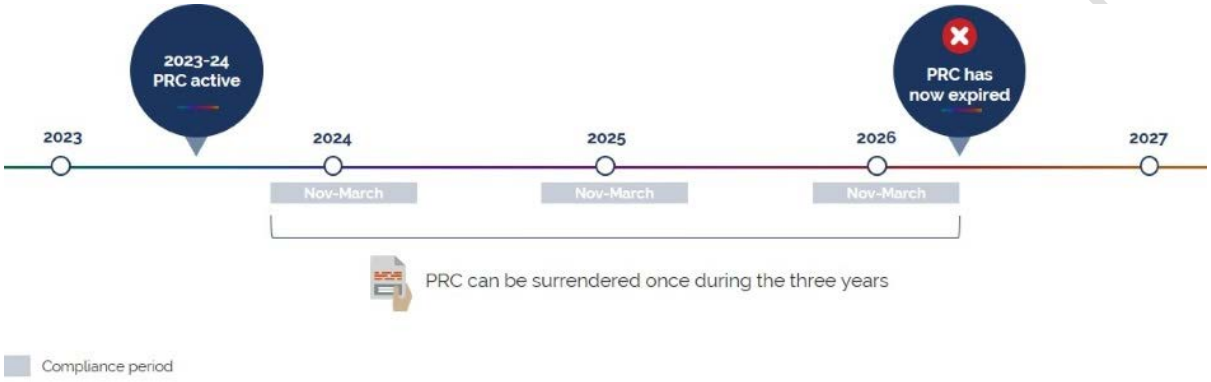
PRCs have a life of up to three compliance periods. They are in force from the Implementation Date until the end of the third compliance period, unless sooner cancelled. This is different from the Energy Savings Scheme (**ESS**), where Energy Savings Certificates (**ESCs**) remain in force until the end of the scheme or until they are surrendered.

An example of where PRCs may be cancelled by the Scheme Administrator includes where they are surrendered by a Scheme Participant.

### Example

Using the example above, the twelve 2023 vintage PRCs are in force until 31 March 2025.

Figure 2.1 PRC lifecycle




## 2.3 Vintage

Each PRC is allocated a vintage year related to the compliance period in which the capacity to reduce peak demand was first made available. ACPs can only create one PRC for every quantity of peak demand reduction capacity per compliance period.[11]

Any implementation occurring between 1 April one year and 31 March of the following year will have the same vintage because capacity will be made available from these implementations for the first time in the same compliance period, that is between 1 November – 31 March.

### Example

The 12 PRCs created from PDRS activity above had an implementation date of 1 September 2022. Peak demand reduction capacity from the installation was first made available in the 2022-2023 compliance period (1 November 2022 – 31 March 2023). These PRCs will be 2023 vintage PRCs.

## 2.4 Forward creation and vintage

Under the PDRS, PRCs can be created for the life of an implementation. This means that PRCs can be created upfront for the life of the implementation. Unlike the ESS, the PRCs created upfront do not have the same vintage.

Vintage under the PDRS is linked to when the capacity is made available in each compliance period. This means that where an activity has a life of 10 years it will result in PRCs being generated in each of the 10 years. The PRCs will have 10 different vintages.

All PRCs created upfront including those with future vintages will be active from registration and can be both traded and surrendered to meet an obligation under the PDRS.

### Example

The example above has a life of 10 years. Each year the activity creates peak reduction capacity equivalent to **12 PRCs** starting in the 2022-23 compliance period and ending in the 2031-32 compliance period.

This results in the generation of a total of **120 PRCs** over the 10-year life of the activity that is 12 PRCs in each of 10 vintages starting with **2023 vintage** and ending in **2032 vintage**.

**120 PRCs** can be registered upfront for the implementation. All PRCs are active and can be traded and surrendered.

## 2.5 Forward creation and PRC expiry

Creating PRCs upfront and making them all active has consequences for PRC expiry.

PRCs expire at the end of the third compliance period after the beginning of the compliance period during which the capacity is first made available, unless sooner cancelled.

Future vintage PRC capacity is first made available in their vintage year, for example. a 2027 vintage PRC has capacity made available from 1 November 2026 – 31 March 2027. However, if that PRC is registered in 2023, it can be traded and surrendered from its registration date in 2023. This effectively increases the life of that PRC from 3 compliance periods to 7 compliance periods because it can be surrendered in any one of the years between 2023 (year of registration) and 2029 (year of expiry - 3 years after the beginning of the 2026 compliance period).

The example below sets out how upfront or forward creation impacts on PRC expiry.

### Example

The example above creates 120 PRCs with vintages from **2023 vintage** and ending in **2032 vintage**. All PRCs are active from registration in the 2023 compliance period.

| Vintage | Year PRC expires (31 March) | Number of PRCs | Number of compliance periods active |
|---|---|---|---|
| 2023 | 2025 | 12 | 3 |
| 2024 | 2026 | 12 | 4 |
| 2025 | 2027 | 12 | 5 |
| 2026 | 2028 | 12 | 6 |
| 2027 | 2029 | 12 | 7 |

| | | | |
|---|---|---|---|
| 2028 | 2030 | 12 | 8 |
| 2029 | 2031 | 12 | 9 |
| 2030 | 2032 | 12 | 10 |
| 2031 | 2033 | 12 | 11 |
| 2032 | 2034 | 12 | 12 |

# 3 About the Peak Demand Saving Method

This chapter introduces the Peak Demand Saving Method, which is currently the only method available under the Peak Demand Reduction Scheme (**PDRS**). The Reducing Demand Using Efficiency method (**RDUE Method**) is a sub-method under the Peak Demand Saving Method.

> ⓘ Key points
>
> - The RDUE Method under the Peak Demand Saving Method is currently the only method made under the PDRS
> - Under the RDUE Method there are seven eligible activities, which correspond to existing activities in the ESS

## 3.1 Overview

The Peak Demand Saving Method is one of three methods that will operate under the PDRS.

The Peak Demand Saving Method is comprised of two sub methods:

- RDUE Method[12]
- Measured Peak Demand Savings sub method (under development)

## 3.2 Purpose

The purpose of the RDUE Method is to incentivise activities that reduce electricity demand during peak times by using energy more efficiently.

## 3.3 Eligible activities

There are seven types of activity, called "Activity Definitions", that you can carry out under the RDUE Method (see Table 3.1).

These seven activities:

- Correspond with activities in the Energy Savings Scheme (ESS), and
- Address electricity loads that are likely to be present on the National Electricity Market[h] during peak times

[h] The National Electricity Market is an interconnected power system connecting regional market jurisdictions for the wholesale supply and purchase or electricity.

## Table 3.1 ESS and PDRS activity references

| End-Use Equipment | ESS Activity Definition | ESS Method | PDRS Activity Definition | Name of Activity |
|---|---|---|---|---|
| Residential air conditioners | D16 | Home Energy Efficiency Retrofits | HVAC1 | Install a new high efficiency air conditioner or replace an existing air conditioner with a high efficiency air conditioner |
| Commercial air conditioners | F4 | Installation of High Efficiency Appliances for Business | HVAC2 | Install a new high efficiency air conditioner or replace an existing air conditioner with a high efficiency air conditioner |
| Commercial heat pump water heaters | F16 | Installation of High Efficiency Appliances for Business | WH1 | Replace one or more existing hot water boilers or water heaters with one or more air source heat pump water heater systems |
| Non-primary refrigerators and freezers | C1 | Return of Appliances | RFI | Remove a spare refrigerator or freezer |
| Refrigerated cabinets | F1 | Installation of High Efficiency Appliances for Business | RF2 | Install a new high efficiency refrigerated cabinet or replace an existing refrigerated cabinet |
| Motors (refrigeration and ventilation) | F7 | Installation of High Efficiency Appliances for Business | SYS1 | Install a new high efficiency ventilation or refrigeration motor |
| Residential pool pumps | D5 | Home Energy Efficiency Retrofits | SYS2 | Replace an existing pool pump with a high efficiency pool pump |

Section 2.

# What you need to know to create PRCs under the PDRS

Following a typical RPA project cycle, this section sets out the things you must do to create PRCs under the RDUE Method

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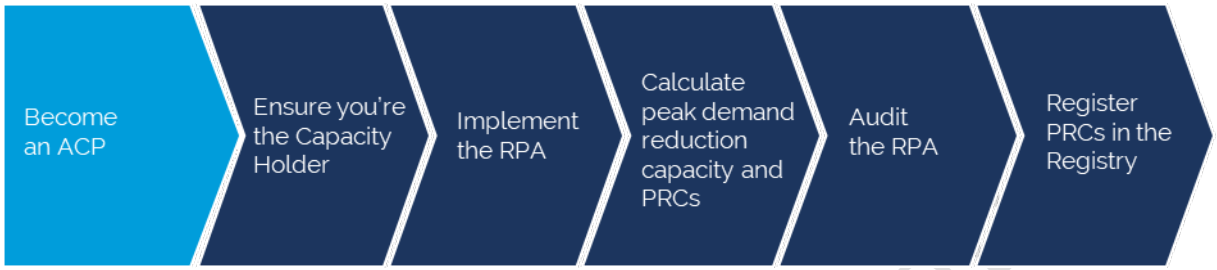
# 4 Become an ACP

IPART is responsible for accrediting Accredited Certificate Providers (**ACPs**). This chapter explains when you may wish to consider becoming an ACP under the Peak Demand Reduction Scheme (**PDRS**) and what you'll need to include in your application.




### Key points

- IPART is responsible for accrediting ACPs
- Anyone can undertake an RPA, but you must be an ACP if you want to create PRCs
- Consider becoming an ACP if you want to create PRCs from projects involving applicable equipment
- If you're already accredited in the ESS you must also be accredited in the PDRS if you want to create PRCs
- You'll need to include in your application information about how you collect and keep records, manage your customer engagement and third-party representatives, and prove that you have the right insurance in place

## 4.1 Reasons to become an ACP

While anyone can design and implement a Recognised Peak Activity (**RPA**), you can only create Peak Reduction Certificates (**PRCs**) if you're an ACP [xiii].

You may wish to consider accreditation under the PDRS if you're:

- already accredited under the Energy Savings Scheme (**ESS**) for the corresponding Activity Definition (Table 3.1)
- in the business of regularly installing or replacing End-User Equipment (**EUE**) covered by one or more of the Activity Definitions
- a project developer that wants to work with businesses that install or replace EUE covered by one or more of the Activity Definitions

If you are implementing a small or one-off project or if your business doesn't have the capacity to meet PDRS requirements, you could consider working with an existing ACP who could create PRCs on your behalf.

## 4.1 How to become an ACP

Applicants can apply to become an ACP under the PDRS in three ways:

- By using the full PDRS application pathway
- By first applying for ESS accreditation for the corresponding methods and activity definitions, then accessing the streamlined PDRS application pathway once you are ESS accredited
- By using a streamlined accreditation application process to become an ACP under the PDRS if you're already accredited under the ESS for the corresponding Activity Definition

You can find more information about the different pathways to become accredited as well as our Application for Accreditation Guide[9] on our web site.

## 4.2 What you'll need to include in your application

In your application, you will need to demonstrate that you:

- Have appropriate processes and procedures in place for:
  - record keeping, quality assurance and a document register
  - customer engagement and complaints handling
  - engagement, management and training of third-party representatives
- and/or your representatives (as appropriate) hold public liability insurance of at least $5 million covering the replacement and/or rectification of a customers' property damaged as a result of work performed by the person
- and/or your representatives (as appropriate) hold product liability insurance of at least $5 million covering all products used in the RPA

Compliance with these requirements will be audited in accordance with the audit requirements in your Accreditation Notice (see paragraph 8.1). If your processes and procedure are not effective, we may require them to be changed.



[9] The Application for Accreditation Guide provides guidance on how to apply for accreditation as an ACP, how we communicate during the application process and the types of accreditation conditions that may be set.

### 4.2.1 Record keeping procedure, quality assurance procedure and a document register

When you apply to become accredited as an ACP, you'll need to show us that you have a documented record keeping procedure, quality assurance procedure and a document register. The information that must be contained in these documents is contained in Table 4.1.

Effective record keeping is important because incorrect or inadequate collection of documents (i.e., to prove you have met a requirement) may lead to non-compliance with the applicable legislation or your conditions of accreditation and may result in you improperly creating PRCs.

The record keeping requirements for ACPs in the PDRS are the same as in the ESS.

## Table 4.1 Method Guide Record Keeping Requirements

| Document | Requirement |
|---|---|
| Record Keeping Procedure | • Details of the step-by-step process of how each document will be obtained, processed, maintained and controlled<br>• The position(s) of the person(s) responsible for each of these steps<br>• A description of where the document will be sourced and how it's identified and recorded (within the relevant information system(s))<br>• How each document you're responsible for generating will be created, approved and updated<br>• Details of any information systems, databases, and/or spreadsheets used to collate, manage or store documents<br>• Types of documents that will be listed in the document register<br>• How each document in the document register will be identified (via record identification / naming protocols) and where each record is located<br>• The position of the person responsible for each type of record in the document register<br>• Processes for archiving and retrieving documents<br>• A description of how long documents will be retained for (you must keep appropriate records of each RPA for at least 6 years[xiv]) |
| Quality Assurance Procedure | • The version control procedures in place for each record<br>• Details of any internal audit and reconciliation procedures you have developed to support your record keeping<br>• The procedure for checking peak demand reduction capacity calculations prior to creation and registration of PRCs<br>• The position of the person(s) who is responsible for performing these actions |
| Document Register | You must keep a register of the documents that you need to collect and retain to prove you have met all the requirements to create a PRC. However, at a minimum they should include documents to prove:<br>• the person undertaking the RPA holds the correct insurance (see Table 4.4)<br>• you're the Capacity Holder for the RPA (see Table 5.2)<br>• the location of the RPA is in New South Wales (see Table 6.1)<br>• if applicable, that the RPA is conducted at a residential or small business site (see Table 6.2)<br>• if applicable, that you have disposed of the replaced/removed EUE (see Table 6.3)<br>• that you have met the eligibility, equipment, and implementation requirements of the applicable Activity Definition (see Table 6.4, Table 6.5 and Table 6.6)<br>• you have met the conditions of your accreditation, including the Method Guide Record Keeping Requirements, Method Guide Customer Engagement Requirements and Method Guide Third Party Requirements<br>• the Implementation Date of each RPA (see Table 7.1)<br>• the methodology, data and assumptions that you used to calculate peak demand reduction capacity and PRCs (see Chapter 7) |

### 4.2.2 Customer engagement and complaints handling

Customer engagement is important because if you become an ACP, you and your representatives will be the public face of the PDRS and interact with customers in a range of ways, including:

- Marketing PDRS activities
- Conducting initial designs and assessment for an activity
- Providing quotes
- Installing, replacing, or removing EUE
- Obtaining required documentation (e.g. nomination)
- Providing appropriate after sales customer service

You must have a documented customer engagement and complaints handling procedure that shows how you will meet the Method Guide Customer Engagement Requirements contained in Table 4.2.

## Table 4.2 Method Guide Customer Engagement Requirements

| Topic | Requirements |
|---|---|
| Customer engagement | • You must identify yourself as the ACP (or in the case of the representative, identify that they are representing you as the ACP) in all forms of communication<br>• You must provide the customer with your contact details as the ACP<br>• ***You must not*** identify yourself as a representative of the ESS, PDRS, IPART or the NSW Government<br>• Before commencing any work, you or your representative must ensure that the customer understands the PDRS, including<br>– how the PDRS works and providing relevant fact sheets[10]<br>– the contents and function of the Nomination Form and providing a copy to the customer<br>– any mandatory requirements that must be met (e.g., removal of old equipment)<br>– that IPART auditors may request information about the activity<br>• Before or during installation of the EUE, your or your representative must ensure that the customer understands the EUE, including:<br>– Providing details of the make, model and electrical characteristics of the EUE<br>– Explaining and demonstrating the features, installation work and process of installation |
| Complaints handling | You must tell the customer about the after sales assistance and support you will provide, including:<br>• Providing a contact number and complaints resolution process to the customer<br>• Managing and resolving complaints<br>• Ensuring that the customer is satisfied with the product(s) as installed<br>• Providing a mechanism for replacement of faulty EUE |

[10] Some Activity Definitions (HVAC1 and SYS2) may require a fact sheet to be provided to the customer (i.e. for the corresponding ESS activity).

### 4.2.3 Engagement, management and training of third-party representatives

If you become an ACP under the PDRS you'll be responsible for the conduct of your representatives. You must ensure they represent you in a way that maintains compliance with the requirements of the PDRS, protects the interests of customers as well as the integrity and reputation of the PDRS.

You must have a documented third-party representative procedure that shows how you will meet the Method Guide Third-party Representative Requirements contained in Table 4.3.

#### Table 4.3 Method Guide Third-party Representative Requirements

| Requirement | Description |
|---|---|
| That you have effective control over your representatives that are acting on your behalf | You will have the most effective control over your representatives if you have a legal contract with them before they conduct any activities on your behalf. We will hold you accountable for non-compliance with PDRS requirements regardless of any contract in place. |
| That you and your representatives comply with the law | Ensure you and your representatives understand all your requirements by reading and understanding the applicable legislation, Accreditation Notice and this Method Guide. |
| That you maintain a record of each person that works on an RPA | You must maintain a register of all representatives conducting activities for each RPA. The register must contain the following information:<br>• Name<br>• Contact details<br>• Relationship to you (e.g. employee, contractor or business partner)<br>• Training completed for the PDRS, including date<br>• Other relevant training completed (e.g. WHS), including date<br>• Formal qualifications. Licenses and certifications (e.g. electrician), including registration/licence numbers<br>• Date of employment / commencement<br>• Details of any delegated responsibility for processes and tasks involved in designing and implementing the RPA<br>• Sites where the representative will act on your behalf |
| That you provide appropriate training and support to your representatives to enable them to effectively represent you | Ensure that you regularly train your representatives to understand:<br>• How the PDRS works, including its legislative framework<br>• The RPAs you're undertaking<br>• Your internal procedures, especially those regarding collecting documentation to evidence that requirements have been met<br>• The Method Guide Record Keeping Requirements and the Method Guide Customer Engagement Requirements.<br>• Other obligations they must comply with in addition to the PDRS (e.g. Australian consumer laws and/or occupational work, health and safety laws). |

### 4.2.4 Insurance and accreditation

When you apply to become accredited as an ACP, you'll need to show us evidence that the person undertaking the RPA (i.e. yourself and/or your representative) holds:

- Public liability insurance of at least $5 million, covering the replacement and/or rectification of a customers' property damaged because of work performed by the person
- Product liability insurance of at least $5 million, covering all products used in the RPA

You will need to maintain these insurance policies for the life of the RPA. Compliance with this requirement will be audited in accordance with the audit requirements in your Accreditation Notice (see paragraph 8.1).

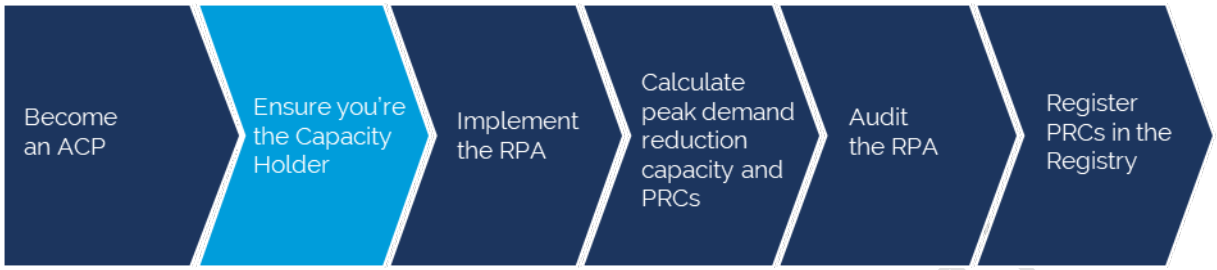
Examples of the types of documents you can collect to prove you have met this requirement is contained in Table 4.4.

### Table 4.4 Examples of evidence that may prove you and your representatives hold insurance

| Requirement | Source of requirement | Examples of evidence that may prove requirement is met |
|---|---|---|
| Public liability insurance of at least $5 million | Accreditation notice | Policy document<br>Certificate of currency |
| Product liability insurance of at least $5 million | Accreditation notice | Policy document<br>Certificate of currency |

# 5 Ensure you're the Capacity Holder

This chapter explains the concept of a Capacity Holder under the Peak Demand Reduction Scheme (**PDRS**) and what you must do to become the Capacity Holder for an RPA.




### Key points

- A Capacity Holder is the person that has the right to the capacity to reduce demand
- A Capacity Holder can nominate their rights to an ACP using the Nomination Form
- In some circumstances where you're the Energy Saver for an activity under the ESS, you can be deemed to be the Capacity Holder for the corresponding activity under the PDRS
- You must collect and keep evidence to prove you're the Capacity Holder for each RPA

## 5.1 Determine whether you have the right to the capacity to reduce peak demand

To create PRCs you must be the person with the right to the capacity to reduce peak demand. Under the PDRS, this person is called the "Capacity Holder". The concept of Capacity Holder is like the concept of "Energy Saver" under the Energy Savings Scheme (**ESS**).

The person that is the Capacity Holder for each Activity Definition is defined under the PDRS Rule. The Capacity Holder is determined as at the Implementation Date[xv].

For all Activity Definitions except RF1, the Capacity Holder is the "Purchaser". Generally, you're the Purchaser if you buy or lease the goods or services that lead to the reduction in electricity demand during the peak period[xvi].

In most cases, you can't be the Purchaser if:

- You are an ACP and aren't the owner, occupier or operator of the site; or
- You purchase or lease the goods or services for the purpose of reselling the equipment[11].

For Activity Definition RF1 *Remove a spare refrigerator or freezer,* the Capacity Holder is the person that is contracted to remove the spare refrigerator or freezer.

### Example

For activities under HVAC1, *Install a new high efficiency air conditioner or replace an existing air conditioner with a high efficiency air conditioner*, the Purchaser is typically the owner or occupier of the residence or small business that is installing the new high efficiency air conditioner.

The Purchaser cannot be a person that paid for the installation of the new high efficiency air conditioner if that person does not own, occupy or operate the site. Similarly, the Purchaser cannot be a small business that intends to resell the high efficiency air conditioner to a third-party.

## 5.2 How to become the Capacity Holder

### 5.2.1 Nomination as the Capacity Holder

If you're not the Capacity Holder for an RPA, you'll need to be nominated on or before the Implementation Date of the project[12]. This nomination process can occur more than once provided the previous nomination has been revoked before the Implementation Date.

The content of the nomination should contain the same information as the Nomination Template we have published on our website[13].

Your Accreditation Notice will set out our minimum requirements for how you engage customers, including seeking their nomination as the Capacity Holder (see Table 4.2).

### 5.2.2 Deemed as the Capacity Holder

To facilitate the early uptake of RPAs, if you're the Energy Saver for the corresponding activity under the ESS you're deemed to be the only Capacity Holder, where:



[11] Unless the resale of the equipment is included as part of a property sale. See Cl 10 of the *Peak Demand Reduction Scheme Rule of 2022*

[12] The nominee must not have withdrawn its consent before the Implementation Date. Clause 4.1(b) of the *Peak Demand Reduction Scheme Rule of 2022*

[13] Clause 4.1(b)(ii). If changes are made to the nomination form without the written consent of the signatories, IPART and/or IPART's auditors may consider the nomination form invalid. This may result in PRCs being deemed to have been improperly created.

- The Implementation Date of the activity under the ESS is between 1 April 2022 and on or before the date that is 12 months after the commencement of the Rule; and
- You become accredited for the RPA on or before the date that is 12 months after the commencement of the Rule.

This means that you can create PRCs from PDRS activities that also constitute Recognised Energy Savings Activities (**RESAs**) under the ESS.

The corresponding PDRS and ESS Activity Definitions are set out in Table 5.1.

### Table 5.1 Corresponding PDRS and ESS activities

| Capacity Holder | Energy Saver |
|---|---|
| HVAC1 | D16 |
| SYS2 | D5 |
| HVAC2 | F4 |
| WH1 | F16 |
| RF2 | F1 |
| SYS1 | F7 |
| RF1 | C1 |

The ability to be deemed as a Capacity Holder is a transitional arrangement and will end on the date that is 12 months after the commencement of the Rule. After this time, you'll need to follow the process to become nominated as the Capacity Holder in paragraph 5.2.1. Examples of the types of documents you can collect to prove you are deemed as the Capacity Holder are contained in Table 5.2.



#### Example

An ACP is accredited for activity definition *F7 Install a new high efficiency motor* under the ESS Rule.

On 1 April 2022, the ACP implemented a RESA by installing a new high efficiency ventilation motor at a business (this is the Implementation Date under clause 9.9.2 of the ESS Rule).

The ACP became accredited for the corresponding activity (i.e. SYS2) under the PDRS Rule on 1 November 2022.

The ACP is deemed to be the only Capacity Holder and can create PRCs in respect of the RESA.

## 5.3 Proving you're the Capacity Holder

You must collect and keep appropriate documents to prove you're the Capacity Holder for each RPA.

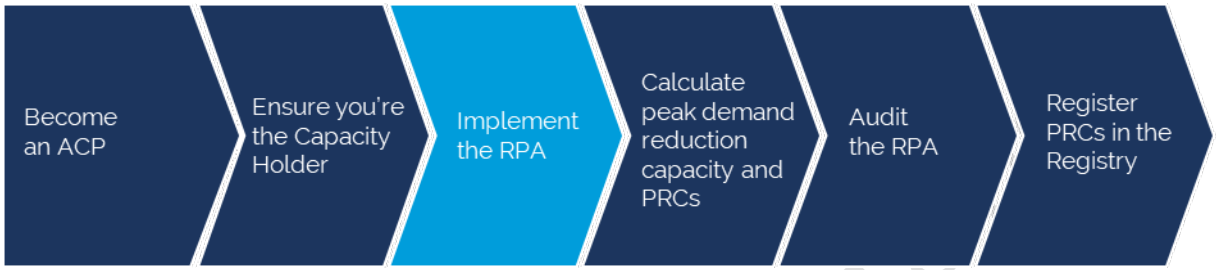
Examples of the types of documents you can collect is contained in Table 5.2.

## Table 5.2 Examples of evidence that may prove you're the Capacity Holder

| Requirement | PDRS Rule Reference | Examples of evidence that may prove requirement is met |
|---|---|---|
| You must be the Capacity Holder to create a PRC | Cl 4.1(a), 7.2.5, 7.2.8 and 7.2.15 | Purchasing receipt<br>Lease agreement |
| If you're not the Capacity Holder, you must be correctly nominated | Cl 4.1(b) | Signed Nomination Form |
| In some cases, you can be deemed as the Capacity Holder | Cl 4.2 | ESS Accreditation Notice<br>PDRS Accreditation Notice<br>Evidence to show you are the Energy saver under the ESS.<br>Evidence of the Implementation Date of the project (see Table 7.1) |

# 6 Implement the RPA in accordance with all requirements

This chapter sets out the requirements that must be met to successfully implement a Recognised Peak Activity (**RPA**) under the Reducing Demand Using Efficiency sub method (**RDUE Method**) including the records you must collect to prove you have met the requirements.




**Key points**

- You must comply with legislative requirements, the specific requirements of the activity you're accredited for, as well as the conditions of your accreditation
- You must collect and keep appropriate documents to prove that you have met all the requirements

## 6.1 Overview

You should read and familiarise yourself with the requirements for implementing an RPA. The requirements are contained in:

- Schedule 4A, Part 2 of the *Electricity Supply Act 1995* (**ES Act**), the *Electricity Supply (General) Regulation 2014* (**ES Regulation**) and the *Peak Demand Reduction Scheme Rule of 2022* (**PDRS Rule**) (**Relevant Legislation**)
- The specific Activity Definition you are accredited for contained in Schedule B of the PDRS Rule
- Your Accreditation Notice

You should also understand and comply with any other legislative requirements that may be applicable to the activities you're accredited for (for example, the requirements of consumer law and electrical safety legislation).

Significant penalties may apply if you do not comply with legislative requirements. For more information about our approach to compliance see our Compliance and Enforcement Approach.

## 6.2 You must comply with the requirements of the Relevant Legislation

### 6.2.1 RPAs must be conducted in New South Wales

You can only design and implement a Recognised Peak Activity (**RPA**) at a site connected to the electricity transmission or distribution network in New South Wales[xvii].

An RPA may occur at a single site or across multiple sites.

When undertaking RPAs, you must define a site by:

- a street address within New South Wales; or
- another unique identifier, as specified for the relevant implementation that identifies the affected End-User Equipment (**EUE**) (for example, a reference to a registered plan identifier).

You must collect and keep appropriate documents to prove that the site of your RPA meets the requirements.

Examples of the types of documents you can collect is contained in Table 6.1.

#### Table 6.1 Examples of evidence that may prove the site is in NSW

| Requirement | PDRS Rule Reference | Examples of evidence that may prove requirement is met |
|---|---|---|
| An RPA must occur at a site connected to the electricity transmission or distribution network within NSW | Cl 5.1(b)<br>Cl 10 (Definition of Site and Address) | • A recent electricity bill showing the address of the site and electricity provider information.<br>• A Certificate of Compliance of Electrical Work (**CCEW**) showing the date the work was conducted and the address connected to the electricity network where the work took place. |

### 6.2.2 Certain RPAs must be conducted at Residential and Small Business sites only

If you're accredited for one of the following Activity Definitions, you can only conduct the RPA at residential buildings and small business sites[xviii]:

- HVAC1 – Install a new High Efficiency Air Conditioner or Replace an Existing Air Conditioner with a High Efficiency Air Conditioner
- SYS2 – Replace an Existing Pool Pump with a High Efficiency Pool Pump
- RF1 – Remove a Spare Refrigerator or Freezer

#### Residential buildings

The PDRS Rule defines a residential building as a building or part of a building classified as a Building Code of Australia (BCA) Class 1, 2 or 4 building, and may include any non-habitable building (BCA class 10a or 10b) on the same site.

## Small business sites

A small business site is defined in the PDRS Rule as meaning a site that is entirely occupied by one business *and* is either:

- classed as a "Small Customer", or
- is a customer of an "Exempt Seller" and has an annual electricity consumption below the "Upper Consumption Threshold" for electricity[xix].

Small Customer, Exempt Seller and Upper Consumption Threshold have the same meaning as in the *National Energy Retail Law* (NSW). Applying these meanings, a site will generally be a small business site if it's entirely occupied by a business that is an electricity customer, and that business consumes less than 100MWh of electricity per year (from any source, including on-site generation) at the site. A business will generally be an electricity customer if it's sold electricity by a seller (including an Exempt Seller)[14].

## Proving the site is a residential building or small business site

If you're accredited for HVAC1, SYS2 and RF1, you must collect and keep appropriate documents to prove that each RPA you're implementing is at a residential or small business site.

Examples of the types of documents you can collect is contained in Table 6.2.

### Table 6.2 Examples of evidence that may prove the site is a residential or small business site

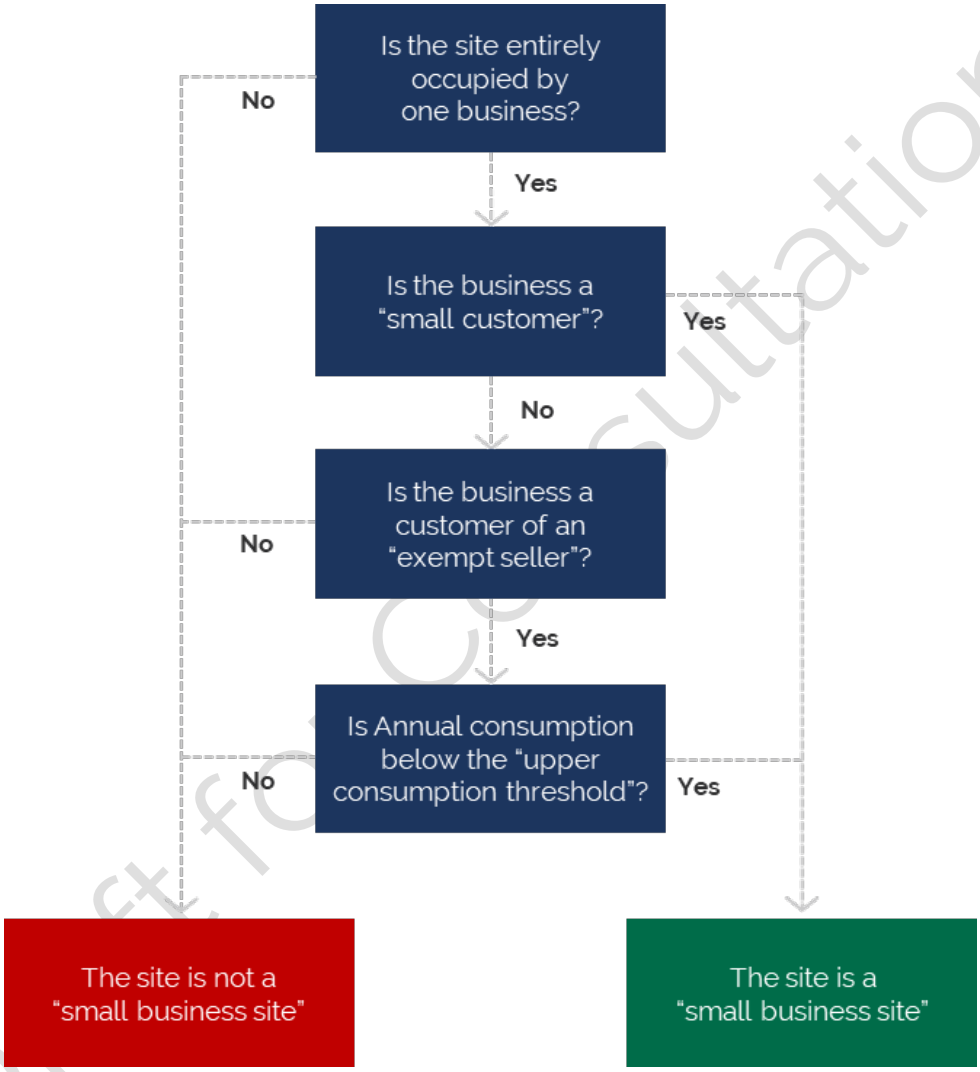
| Requirement | PDRS Rule Reference | Examples of evidence that may prove requirement is met |
|---|---|---|
| HVAC1, SYS2 and RF1 to be conducted at Residential buildings and small business sites only | Cl 7.2.2(a) and Cl 7.2.7(a) | Electricity bills showing:<br>• The name of the business where the work took place<br>• The Australian Business Number (**ABN**) or Australian Company Number (**ACN**) of the business, and<br>• That the annual electricity consumption/usage is under 100MWh per year (or an equivalent figure, such as average daily usage, that allows for annual consumption to be calculated for the business site where the work took place[15].<br>Or for a customer of an exempt seller:<br>• Information on electricity consumption/usage that shows consumption under the upper consumption threshold per year (currently 100MWh) for the business site where the work took place, and<br>• If the seller holds a registered exemption, an extract from the public register of retail exemptions showing the exempt seller's name.<br>Or for evidence of a business:<br>If the electricity bill does not provide evidence of the site being occupied by a business, an additional piece of evidence must be provided for the site at which the work took place, such as:<br>• The ABN or ACN certificate confirming the business name<br>• An ASIC extract confirming the business name, or |

[14] The Australian Energy Regulator provides guidance on the type of activities that are likely to constitute the sale of electricity, and those activities that are not considered a sale of electricity in its *Retail Exempt Selling Guideline*.

[15] If the annual electricity consumption is calculated and results in a consumption close to the 100MWh per year threshold you must contact IPART to confirm the validity of the calculation before calculating energy savings from this activity.

| Requirement | PDRS Rule Reference | Examples of evidence that may prove requirement is met |
|---|---|---|
| | | • Receipts produced by the business showing the business name and ABN or ACN |

Figure 6.1 How to assess whether a site is a small business site






### 6.2.3 Old EUE must be correctly disposed of or recycled

The RDUE Method covers activities that involve the replacement or removal of EUE, including:

- Air conditioning equipment (HVAC1 and HVAC 2)
- Hot water boilers and water heaters (WH1)
- Refrigerators (RF1, RF2) and freezers (RF1)
- Pool pumps (SYS2)

For an activity to be considered an RPA, you must not refurbish, re-use or re-sell the EUE that is replaced or removed[xx]. This is so the inefficient equipment is not installed elsewhere.

You're responsible for disposing of the EUE in accordance with applicable NSW and Commonwealth law. If the EUE contains refrigerants (e.g. air conditioners, refrigerators and freezers), you must obtain evidence that refrigerants have been disposed of or recycled[xxi].

If you're undertaking an activity that involves the replacement or removal of EUE, you must collect and keep appropriate documents to prove that the old EUE is disposed of appropriately. Examples of the types of documents you can collect is contained in Table 6.3.

### Table 6.3 Examples of evidence that may prove EUE has been disposed of

| Requirement | PDRS Rule Reference | Examples of evidence that may prove requirement is met |
|---|---|---|
| EUE is not refurbished, re-used or resold | Cl 5.3(b) | Tax invoice or tax receipt from the disposal or recycling company showing the old EUE |
| EUE is correctly disposed of | Cl 5.3(b) | Tax invoice or tax receipt from the disposal or recycling company showing the old EUE |

## 6.3 You must comply with the requirements of the Activity Definition you're accredited for

Each of the seven Activity Definitions of the Reducing Demand Using Efficiency sub method (**RDUE Method**) contains activity specific eligibility, equipment and implementation requirements.

You must ensure:

- the eligibility requirements for the relevant Activity Definition are met immediately *prior* to the Implementation Date of the project[16]
- each item of installed EUE meets all the equipment requirements[xxii]
- the completed implementation satisfies all the relevant implementation requirements[17]

Generally, the eligibility, equipment and implementation requirements are aligned with the requirements for the corresponding activities in the ESS[18]. Like the ESS, you'll need to collect and keep appropriate documents to evidence that you have met each requirement for the activity you're accredited for. These documents may be the same for the PDRS and the corresponding ESS activity.

Examples of the types of documents you can collect to prove you have met the relevant eligibility, equipment and implementation requirements are contained in Table 6.4, Table 6.5 and Table 6.6.



16 Cl 7.2.2(b)
17 Cl 7.2.2(c) and Cl 7.2.12(c).
18 Note that there are some exceptions and ACPs should ensure that are familiar with the requirements of the activity they are accredited for.

## Table 6.4 Examples of evidence that may prove that the eligibility requirements have been met

| Requirements | Activity Definition | Examples of evidence that may prove requirement is met |
|---|---|---|
| The existing EUE is an electric resistance hot water boiler or water heater | WH1 | • A geo-tagged photo showing the existing EUE before it has been removed. |
| The new EUE must be installed for use in ventilation or refrigeration applications | SYS1 | • A geo-tagged photo of the motor installed at the site showing its use in ventilation or refrigeration applications. |
| There must be an existing pool pump installed at the Site at the time of replacement | SYS2 | • A site assessment report stating the eligibility requirements have been met.<br>• A geo-tagged photo showing the existing pool pump installed at the site. |

## Table 6.5 Examples of evidence that may prove that the equipment requirements have been met

| Requirements | Activity Definitions | Examples of evidence that may prove requirement is met |
|---|---|---|
| New EUE must be a registered GEMS product and comply with the Greenhouse and Energy Minimum Standards Determination | HVAC 1, HVAC2, RF2, SYS1 | • An extract or screenshot of GEMS Registry<br>• Another document showing GEMS registration and/or variables |
| New EUE must meet Australian Determinations or standards or international standards | HVAC1. HVAC2, WH1, RF2, SYS1 | • Equipment specifications |
| New EUE must meet certain criteria (for example: product acceptance for EUE under WH1; capacity of the EUE for RFI; and warranty of EUE for SYS2) | WH1, RF1, SYS2 | • A tax invoice showing the relevant characteristics of the EUE.<br>• Acceptance by the Scheme Administrator on an applicable product register.<br>• Certificate of warranty |
| Existing EUE must be in working order | RF1 | • An Installer declaration<br>• A commissioning report from the person responsible for the commissioning / completion of the installation |
| Existing EUE must be in a residential building | RF1 | • A geo-tagged photo |

## Table 6.6 Examples of evidence that may prove that the implementation requirements have been met

| Requirements | Activity Definitions | Examples of evidence that may prove requirement is met |
|---|---|---|
| Existing EUE must be removed | HVAC1, HVAC2, WH1, RF2, SYS2 | • An installer declaration / post implementation declaration<br>• A geo-tagged and time stamped photograph showing the existing EUE before and after removal |
| New EUE must be installed | HVAC1, HVAC2, WH1, RF2, SYS1 | • An installer declaration / post implementation declaration<br>• A geo-tagged and time stamped photograph showing the new EUE in place at the site |
| Activities must be carried out by suitably licensed people | HVAC 1. HVAC2, WH1, RF2, SYS2 | • An installer declaration / Post implementation declaration<br>• Installation receipt showing registered licence information |

| Requirements | Activity Definitions | Examples of evidence that may prove requirement is met |
|---|---|---|
| | | • A certificate of compliance (e.g. CCEW) |
| New EUE must not be installed in certain classes of building | HVAC2, WH1 | • An installer declaration |
| New EUE must have certain characteristics (e.g. rated output) | SYS1 | • Manufacturer's data<br>• A photo of the nameplate |

## 6.4 You must comply with the requirements of your Accreditation Notice

When you're accredited as an ACP, you're issued an Accreditation Notice that sets out the activities you're accredited for and the conditions imposed on your accreditation[xxiii]. Under the PDRS, your Accreditation Notice will state:

- your requirements for auditing PRCs (see paragraph 8.1)
- your Method Guide Record Keeping Requirements (see Table 4.1)
- your Method Guide Customer Engagement Requirements (see Table 4.2)
- your Method Guide Third-party Representative Requirements (see Table 4.3)
- The type and amount of insurance you must hold (see paragraph 4.2.4)
- Any additional conditions applicable to your accreditation.

You should carefully review your Accreditation Notice as it contains mandatory requirements with which you must comply.

## 6.5 Compliance Checklist

Before implementing an RPA, check you're meeting the requirements of the Relevant Legislation, the Activity Definition you're accredited for and your Accreditation Notice and that you have records to prove this compliance (See Table 6.7).

### Table 6.7 Checklist

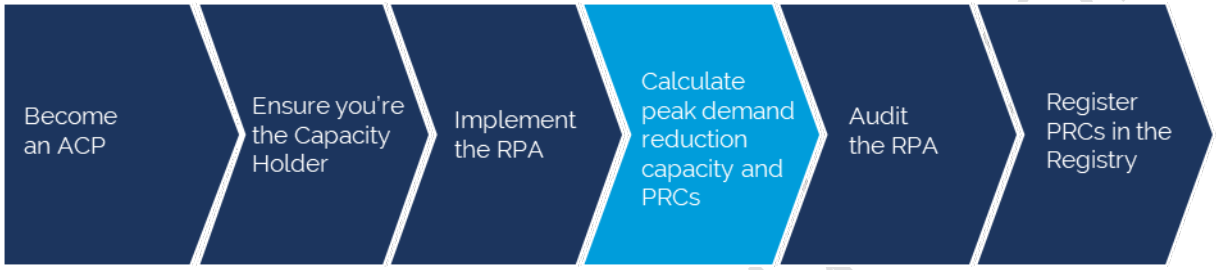
| RPA stage | Checklist | Source of requirement | Method Guide paragraph reference |
|---|---|---|---|
| Developing RPA business opportunities (marketing) | Do I know who is representing me at each site? Is this person in my representative register? | Accreditation Notice | 4.2.3 |
| | Has the person acting on my behalf received appropriate training? | Accreditation Notice | 4.2.3 |
| | Is my representative telling the customer the right things? | Accreditation Notice | 4.2.2 |
| Initial feasibility assessment | Is the site in NSW? | PDRS Rule | 6.2.1 |
| | Is the site connected to the electricity network in NSW? Do I have records to prove this? | PDRS Rule | 6.2.1 |

| RPA stage | Checklist | Source of requirement | Method Guide paragraph reference |
|---|---|---|---|
| | For HVAC1 and SYS2, is the site a residential building or small business? Do I have records to prove this? | PDRS Rule | 6.2.2 |
| | Does the site meet the eligibility requirements of the Activity Definition? Do I have records to prove this? | PDRS Rule | 6.3 |
| | Am I the Capacity Holder and if not, do I know how I will become the Capacity Holder (i.e. through nomination or deeming)? Do I have records to prove this? | PDRS Rule | 5.1 |
| Before I get to site | Does the person doing the work hold appropriate qualifications? Do I have records to prove this? | PDRS Rule | 6.3 |
| | Does the person doing the work hold the requisite insurance? Do I have records to prove this? | Accreditation Notice | 4.2.4 |
| When I'm on site | Does the customer know who the ACP is and that my representative is acting on my behalf? | Accreditation Notice | 4.2.2 |
| | Does the customer have my contact details? | Accreditation Notice | 4.2.2 |
| Before I commence any work | Have I or my representative explained how the PDRS works and provided any relevant fact sheets? | Accreditation Notice | 4.2.2 |
| | Have I or my representative explained the contents and function of the Nomination Form, received a signed version and provided a copy to the customer? | Accreditation Notice | 4.2.2 and 5.2.1 |
| | Where applicable, have I or my representative explained to the customer that old EUE will need to be removed? | Accreditation Notice | 6.2.3 |
| | Does the customer know that IPART auditors may request information about the project in the future? | Accreditation Notice | 4.2.2 |
| When I start work | Does the new EUE comply with the equipment and implementation requirements of the Activity Definition? Do I have records to prove this? | PDRS Rule | 6.3 |
| When I have finished the work | Is the customer happy with the new EUE? | Accreditation Notice | 4.2.2 |
| | Does the customer have my contact details for after sales service and complaints? | Accreditation Notice | 4.2.2 |
| | Do I have evidence to show what date the project was finished (i.e. to prove the Implementation Date?) | PDRS Rule | 7.1.1 |
| | Where applicable, has old EUE been correctly disposed of or recycled? | PDRS Rule | 6.2.3 |

# 7 Calculate peak demand reduction capacity and PRCs

If you have complied with all requirements for designing and implementing a Recognised Peak Activity (**RPA**), you can calculate peak demand reduction capacity and the amount of Peak Reduction Certificates (**PRCs**) from each project.

This chapter explains what a PRC is and how it's calculated for RPAs under the Reducing Demand Using Efficiency sub method (**RDUE Method**).




### Key points

- PRCs can be created up to 6 months from the Implementation Date and are active for 3 compliance periods
- PRCs are calculated using equations in the PDRS Rule

## 7.1 Timing of PRC creation and registration

### 7.1.1 You can create PRCs from the Implementation Date

For all Activity Definitions except RF1, the Implementation Date is the date the EUE is installed[xxiv]. For RF1, the Implementation Date is the date the EUE is removed from the site[xxv]. In both cases the Implementation Date is the date that all work is done for the installation or removal.

The Implementation Date for RPAs under the PDRS is the same as the Implementation Date for RESAs under the ESS[xxvi].

The Implementation Date of an RPA is important as it's the date from which Peak Reduction Certificates can be created.

### Example

An ACP is accredited for Activity Definitions HVAC1 (residential air conditioning) and SYS2 (residential pool pumps). The ACP installs a high efficiency air conditioner at a residential property in NSW on 15 November 2022. The ACP returns two weeks later,

on 6 December 2022, to install a new high efficiency pool at the same residence. The ACP can't complete the entire installation on 6 December and returns on 9 December 2022 to complete the installation.

Under the RPA, the Implementation Date for the HVAC 1 activity is 15 November 2022 and the Implementation Date for the SYS2 activity is 9 December 2022.

You must collect and keep appropriate documents to prove the Implementation Date of each activity under the RPA.

The document(s) must clearly show the date the work was conducted (i.e. either the installation or removal) and the address where the work took place.

Examples of the types of documents you can collect is contained in Table 7.1.

### Table 7.1 Examples of evidence that may prove the Implementation Date

| Activity Definition | PDRS Rule Reference | Examples of evidence that may prove requirement is met |
|---|---|---|
| HVAC1, SYS2, HVAC2, WH1, RF2 and SYS1 | Cl 7.2.3 and Cl 7.2.13 | CCEW, tax invoice, run sheet, signed owner and contractor declaration or time-stamped photograph. |
| RF1 | Cl. 7.2.6.9 | CCEW, tax invoice, run sheet, signed owner and contractor declaration or time-stamped photograph. |

## 7.1.2 You must create PRCs within 6 months after the end of the compliance period

ACPs must create PRCs within 6 months after the end of the compliance period in which the peak demand reduction capacity is made available.

### Example

On 1 September 2022, an ACP installed an air conditioner at a small business under Activity Definition HVAC1.

The air conditioner created the capacity to reduce demand for electricity by an average of **0.2kW** for each of the **6 hours** of peak demand reduction between 2.30pm and 8.30pm AEST.

The installation of the air conditioner is eligible to create **12 PRCs** for the 2022-2023 compliance period and for each year after for the lifetime of the project.

**120 PRCs** (12 PRCs x 10 years of forward creation) are eligible to be created from the project. As the end of the compliance period is 31 March 2023, the ACP must create the first 12 PRCs by 30 September 2023.

## 7.2 Calculation of PRCs

### 7.2.1 Equations used to calculate PRCs

The *Peak Demand Reduction Scheme Rule of 2022* (**PDRS Rule**) sets out the equations to calculate the number of PRCs that can be created from an implementation.

PRCs for the Reducing Demand Using Efficiency sub method (**RDUE Method**) are calculated using the following equations in the PDRS Rule:

- Equation 1 – used to calculate the number of PRCs based on Peak Demand Reduction Capacity and network loss factor[xxvii]
- Equation 2a - used to calculate Peak Demand Reduction Capacity based on Peak Demand Savings Capacity, summer peak duration and lifetime of the Activity Definition[xxviii]
- Activity Definition specific equations used to calculate Peak Demand Savings Capacity based on a firmness factor and the difference between baseline and actual input power adjusted to account for conditions during peak times.

Worked examples for each Activity Definition are contained in Appendix B.

## Equation 1

Number of PRCs = **Peak Demand Reduction Capacity** x Network Loss Factor x 10

Peak Demand Reduction Capacity, in kilowatts, is calculated using Equation 2a.

The Network Loss Factor is a factor that accounts for energy losses in the network (see Table A3 of the PDRS Rule).

## Equation 2a

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

Peak Demand Savings Capacity is calculated using an activity specific peak demand savings capacity equation set out in the PDRS Rule (see example below).

The Summer Peak Demand Reduction Duration (**6 hours**) is based on the peak demand reduction period of 2.30pm to 8.30pm AEST.

Lifetime is lifetime of the End User Equipment as set out in each Activity Definition in the PDRS Rule.

## Equation for Peak Demand Savings Capacity

**Peak Demand Savings Capacity** = ((Baseline Input Power x Baseline Peak Adjustment Factor) – (Input Power x Peak Adjustment Factor)) x Firmness Factor

$$\left(\text{Baseline Input Power} \times \text{Baseline Peak Adjustment Factor} - \text{Input Power} \times \text{Input Peak Adjustment Factor}\right) \times \text{Firmness Factor}$$

Peak Demand Savings Capacity is:

- the difference between the baseline power put into an average reference product (called the "baseline input power") and the power put into the new product (called the "input power"). These values are both adjusted to consider conditions such as temperature that are typical of a summer peak demand event.
- A "firmness factor", representing the likelihood of peak demand reduction capacity being both available and able to contribute to reducing peak demand (for activities under the RDUE Method, the assigned value is 1 as peak demand reduction capacity is always available).

### 7.2.2 You can develop your own calculation tool

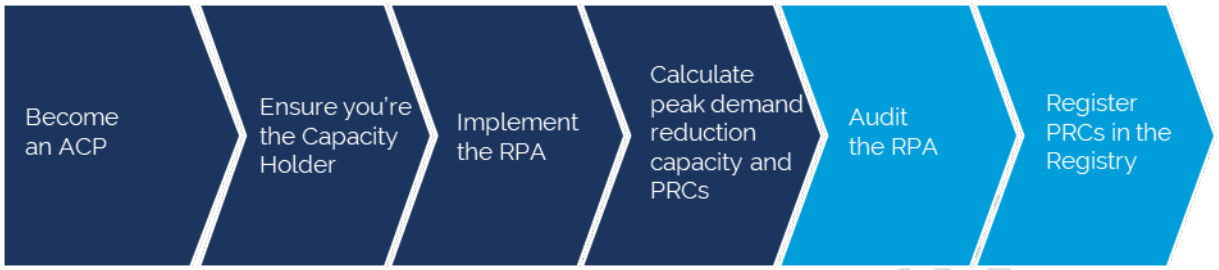
You can develop your own calculation tool to assist in the calculation of PRCs under the RDUE Method. Spreadsheets and tools used in the calculation of peak demand reduction capacity must be developed in accordance with the most recent requirements of the method under the PDRS Rule and maintained to help ensure they are up to date with such requirements.

### 7.2.3 Collection of documents to prove inputs to calculations

You will need to collect and keep documents to support the values you have used in the PRC calculations.

# 8 Next steps in the project cycle

Depending on your conditions of accreditation you may be required to conduct an audit of your RPA before you create Peak Reduction Certificate (**PRCs**) in the PRC registry (called the **Registry of Certificates**). This chapter explains these next steps in the RPA project cycle.




**Key points**

- Your conditions of accreditation will determine whether you're required to audit your RPA before or after you create PRCs
- Audits must be performed by a member of the Audit Panel at your cost
- You must create, transfer or surrender PRCs in accordance with the relevant procedure

## 8.1 You may need to have your RPA audited

Auditing of Accredited Certificate Providers (**ACPs**) is one of the ways we monitor compliance under the PDRS.

Your Accreditation Notice sets out when you need to engage an auditor and the scope of the audit. We may also conduct an audit of your participation in the PDRS at any time[xxix]. If you're also an ACP under the Energy Savings Scheme, we will try and align your audit requirements under both schemes, where possible.

We use the audit process to check that you have complied with all the requirements for your ongoing eligibility to participate as an ACP and that the Peak Reduction Certificates (**PRCs**) you have created (or are proposing to create) reflect real and accurate peak demand reduction capacity.

Audits must be performed by an approved member of the Audit Services Panel[19] and you're responsible for negotiating the commercial arrangements and paying the costs of the audit. Panel members have been assessed by us to check that they hold the necessary qualifications to conduct reasonable assurance audits.

[19] See https://www.energysustainabilityschemes.nsw.gov.au/Auditors-and-MV-Professionals/Audit-Panel

We have prepared an Audit Guide to help you understand the requirements and processes relating to audits under the Safeguard.

## 8.2 Creating, transferring and surrendering PRCs

### 8.2.1 Creating PRCs

We have established a Registry of Certificates[xxx]. Provided an ACP has complied with the requirements of an RPA as set out in the applicable legislation and the conditions of its accreditation, an ACP can apply to register PRCs from its RPAs. A PRC has no effect until the Scheme Administrator registers the creation of the PRC in the Registry of Certificates[xxxi].

Information required to be uploaded includes:

- ACP identifier
- Recognised Peak Activity identifier
- Address of the Site or Sites where the Implementation(s) took place
- any other identifiers required to identify the Site or Sites where the Implementation(s) took place
- the Implementation Date of the Implementation(s)
- the Network Factor applied for each Implementation
- the Australian Business Number (if any) of the entity utilising the End-Use Service
- the cost to the person who pays for the goods or services that comprise the Implementation, excluding GST
- the type of the End-Use Service for which Peak Demand Reduction Capacity was created in accordance with Table A1 of Schedule A
- the Business Classification of the entity utilising the End-Use Service in accordance with Table A2 of Schedule A
- the Method or sub-method and Activity Definition, where relevant, used to calculate the Peak Demand Reduction Capacity
- the Peak Demand Reduction Capacity calculated under each Activity Definition that is used for the Implementation
- any other data providing evidence of Peak Demand Reduction Capacity from the Implementation as Published, from time to time, by the Scheme Administrator

You may add together more multiple implementations of the same Activity Definition into a single Peak Demand Reduction Capacity. The capacity created from each Activity Definition in an application to register certificate creation will be summed and converted to PRCs using Equation 1. Once converted to PRCs the number of certificates will be rounded down to the nearest certificate.

Where implementations result in the forward creation of certificates, the certificates generated across all implementations within an Activity Definition will be apportioned as equally as possible between the compliance periods (vintage years) within the lifetime of the Activity Definition.

Where dividing the number of certificates by the number of years in the lifetime would not result in a whole number, then the certificates would be allocated such that:

- each year is first allocated a whole number equal to the average annual capacity over the lifetime of the implementation, rounded down
- the remaining certificates are allocated one per year starting from the first year until exhausted

> **Example**
> 10 implementations of the air conditioning Activity Definition HVAC1 with a lifetime of **10 years** results in peak demand reduction capacity of 1090.1 kW (**10,901 PRCs**). The PRCs from these implementations are allocated such that 1091 PRCs are allocated to the first vintage year and 1090 PRCs are allocated to each of the nine vintage years that follow.

You must pay the registration fee when you apply to register PRCs. An invoice will be generated by TESSA as part of your application to register PRCs. The registration fee is adjusted annually[xxxii].

### 8.2.2 Registering certificates

[new TESSA process]

### 8.2.3 Transferring PRCs

Once PRCs are registered, you may request to transfer them to another party[xxxiii].

[new TESSA process]

### 8.2.4 Surrendering PRCS

You may be required to surrender PRCs in the following circumstances[xxxiv]:

- We may order you to surrender PRCs if we find you have:
  - Improperly created PRCs; or
  - Are in breach of your conditions of accreditation.
- We may require you to set aside PRCs under an undertaking signed at the time of accreditation as an Accredited Certificate Provider (ACP).

[new TESSA process]

## 8.3 The market for PRCs

The PDRS creates a market for PRCs by requiring Scheme Participants (mainly electricity retailers) to surrender a certain number of PRCs each year to meet their individual certificate target.

After you have registered PRCs, you can sell them to Scheme Participants or other buyers in the market. They are transferred from the seller to the buyer in the Registry of Certificates. There are no standard contracts, and it is up to you to negotiate the commercial arrangements of this transaction.

Our role as the administrator and regulator of the PDRS finishes once PRCs are registered. We do not have any role in the buying or selling of PRCs, including setting prices or developing standard contracts.

# Appendices

# A Acronyms and key concepts

## A.1 Acronyms

| Acronym / Abbreviation | Full Name |
|---|---|
| AEST | Australian Eastern Standard Time |
| ACP | Accredited Certificate Provider |
| BCA | Building Code of Australia |
| CCEW | Certificate of Compliance of Electrical Work |
| ES Act | *Electricity Supply Act 1995* |
| ES Regulation | *Electricity Supply (General) Regulation 2014* |
| ESS | Energy Savings Scheme |
| EUE | End-User Equipment |
| GEMS | Greenhouse and Minimum Energy Standards |
| HEER Method | Home Energy Efficiency Retrofits Method |
| IHEAB Method | Installation of High Efficiency Appliances for Business |
| IPART | Independent Pricing and Regulatory Tribunal |
| MEPS | Minimum Energy Performance Standards |
| PDRS | Peak Demand Reduction Scheme |
| PDRS Rule | *Peak Demand Reduction Scheme Rule of 2022* |
| PRC | Peak Reduction Certificate |
| RESA | Recognised Energy Saving Activity |
| RET | Renewable Energy Target |
| ROA Method | Return of Appliance Method |
| RDUE Method | Reducing Demand Using Efficiency sub method |
| RFS | Renewable Fuel Scheme |
| Safeguard | Energy Security Safeguard |

## A.2 Key concepts

| Term | Description |
|---|---|
| Accreditation conditions | Conditions imposed by the Scheme Administrator on the accreditation of an ACP under clause 114 of Schedule 4A of the ES Act and specified in their Accreditation Notice. |
| Accreditation Notice | A written notice issued by the Scheme Administrator under cl 61S of the ES Regulation specifying any accreditation conditions. |
| Accredited Certificate Provider (ACP) | Are voluntary participants in the Peak Demand Reduction Scheme (PDRS) and are parties that are accredited to create Peak Reduction Certificates (PRC) from Recognised Peak Activities (RPA) that increase the peak demand reduction capacity. |
| Activity Definitions | Are the types of activities that can comprise an RPA and are set out in Schedule B of the PDRS Rule. |
| Audit | An assessment of whether the ACP has complied, in all material respects, with the requirements of the ESS or PDRS legislation and conditions of their accreditation. Audits can occur either before certificate registration (pre-registration) or after certificate registration (post-registration). |
| Capacity Holder | The person with the right to the capacity to reduce peak demand (e.g. the property owner) and defined in the PDRS Rule for each Activity Definition. |
| Compliance period | Is the period commencing on 1 November and ending on 31 March the following year. |
| End-User Equipment | Is the equipment (new or existing) that causes, controls or influences electricity consumption. |
| Energy Saver | Means the person who has the right to create ESCs for energy savings arising from an implementation of a RESA at a site, as defined in the relevant calculation method of the *Energy Savings Scheme Rule of 2009*. The PDRS equivalent of 'Capacity Holder'. |
| Energy Security Safeguard | The Safeguard is part of the NSW Government's Electricity Strategy and aims to improve the affordability, reliability and sustainability of energy through the creation of financial incentives encouraging "energy activities" and in the case of the PDRS, "peak demand reduction capacity". |
| Implementation Date | Is defined by the PDRS Rule for each activity and is the date from which peak demand reduction can be calculated. |
| Improperly created PRCs | PRCs not created in a way that meet the requirements of the ES Act, ES Reg, PDRS Rule and any conditions of accreditation imposed on the ACP. In general, improperly created PRCs must be surrendered by the ACP. |
| Peak demand reduction capacity | Peak demand reduction capacity means the capacity to reduce demand for electricity during the period between 2.30pm to 8.30pm AEST[a] from 1 November to 31 March. |
| Peak Reduction Certificate (PRC) | One PRC represents 0.1 kilowatt of peak demand reduction capacity averaged over one hour on 6 hours of one day of the compliance period (i.e. between 2.30pm and 8.30pm AEST) |
| Recognised Peak Activity (RPA) | An activity that provides capacity to reduce electricity use during the time of peak demand in accordance with the requirements of the PDRS Rule. |
| Registry of Certificates | The registry of Energy Savings Certificates and Peak Reduction Certificates established and managed by IPART and accessed through the Energy Security Safeguard Application or "TESSA". |
| Scheme Participants | Mandatory participants in the ESS and PDRS, primarily electricity retailers, who are required to meet individual targets through the surrender of ESCs/PRCs or payment of a penalty. |

[a] Australia Eastern Standard Time (AEST). This is equivalent to 3.30pm – 9.30pm Australian Eastern Daylight Time.

# B Peak Demand Certificate calculations: Worked examples

## B.1 HVAC1 – Install a new high efficiency air conditioner or replace an existing air conditioner with a high efficiency air conditioner

### Table B.1 Calculation of Peak Demand Reduction Capacity

| Step | Description |
|---|---|
| Scenario: | The activity is a new installation not a replacement<br>Location of implementation: Coffs Harbour (Postcode: 2450, Essential Energy distribution)<br>BCA climate zone in which the product is installed: 2 (Source: Table A5 ESS Rule)<br>The product meets the equipment requirements<br>The product has a Residential TCSPF_mixed value recorded in the GEMS Registry |
| Product: | Installation of a Panasonic non ducted split system air conditioner (CU-Z71VKR / CS-Z71VKR)<br>Configuration: Air-air, non-ducted, split system (Source: GEMS Registry)<br>Residential TCSPF_mixed value: 4.6 (Source: GEMS Registry, Column DX)<br>Rated AEER: 3.5824 (Source: GEMS Registry, Column FJ) |
| **Step 1:** Baseline Input Power | Equation HVAC1.1: Baseline Input Power = Rated Capacity ÷ Baseline EER<br>Rated Capacity[b] = 7.1 kW (Source: GEMS Registry, Column Q)<br>Baseline EER = 3.28 (Source: Table HVAC1.1)<br>**Baseline Input Power = 7.1 ÷ 3.28 = 2.164 kW** |
| **Step 2:** Baseline Peak Adjustment Factor | Equation HVAC1.2: Baseline Peak Adjustment Factor = Temperature Factor x Usage Factor<br>Temperature Factor = 0.48 (Source: Table A5 of PDRS Rule)<br>Usage Factor = 0.72 (Source: PDRS Rule)<br>**Baseline Peak Adjustment Factor = 0.48 x 0.72 = 0.3456** |
| **Step 3:** Input Power | Rated input power at 35 degrees Celsius: 1.97 kW (Source: GEMS Registry, Column CC) |
| **Step 4:** Peak Adjustment Factor | Peak adjustment factor = Baseline Peak Adjustment Factor (Source: Step 2) |
| **Step 5:** Firmness Factor | Firmness Factor: = 1 (Source: Table A6 of the PDRS Rule) |
| **Step 6:** Peak Demand Savings Capacity | Peak Demand Savings Capacity = ((Baseline Input Power x Baseline Peak Adjustment Factor) – (Input Power x Peak Adjustment Factor)) x Firmness Factor<br>Baseline Input Power = 2.164 kW (Calculation Step 1)<br>Baseline Peak Adjustment Factor = 0.3456 (Calculation Step 2)<br>Input Power = 1.97 kW (Calculation Step 3)<br>Peak Adjustment Factor = 0.3456 (Step 4)<br>Firmness Factor = 1 (Step 5)<br>Peak Demand Savings Capacity = ((2.164 x 0.3456) – (1.97 x 0.3456)) x 1 = 0.067 |
| **Step 7:** Peak Demand Reduction Capacity | Equation 2a: Peak Demand Reduction Capacity = Peak Demand Savings Capacity x Summer Peak Demand Reduction Duration x Lifetime<br>Peak Demand Savings Capacity = 0.067 kW (Calculation Step 6)<br>Summer Peak Demand Reduction = 6 hrs (Source: Equation 2a)<br>Lifetime = 10 years (Activity Definition HVAC1)<br>Peak Demand Reduction Capacity = 0.067 x 6 x 10 = 4.02 kW |
| **Step 8:** PRCs | Equation 1: Number of Certificates = Peak Demand Reduction Capacity x Network Loss Factor x 10<br>Peak Demand Reduction Capacity = 4.02 kW (Calculation Step 7)<br>Network Loss Factor = 1.05 (Source: Table A3 of PDRS Rule)<br>**Number of Certificates = 4.02 x 1.05 x 10 = 42.21** |

[b] The GEMS Registry uses the terms "C-Total Cool Rated" for the cooling capacity.

## B.2 HVAC2 – Install a new high efficiency air conditioner or replace an existing air conditioner with a high efficiency air conditioner

### Table B.2 Calculation of Peak Demand Reduction Capacity

| Step | Description |
|---|---|
| Scenario: | The product is a replacement and not a new installation<br>Location of implementation: Gosford (Postcode: 2250, Ausgrid distribution)<br>BCA climate zone in which the product is installed: Zone 5 (Source: Table A5 ESS Rule)<br>The product meets the equipment requirements<br>The product has a Cooling Capacity recorded in GEMS registry<br>The product has a Commercial TCSPF_mixed value |
| Product: | Installation of a Fujitsu General ducted split system air conditioner (AOTA90LALT/ARTC90LATU)<br>Configuration: Air-air, ducted, single split system (Source: GEMS Registry, Columns I-M)<br>Commercial TCSPF_mixed value: 4.045 (Source: GEMS Registry, Column EA)<br>Rated AEER: 3.1359 (Source: GEMS Registry, Column FJ) |
| **Step 1**: Baseline Input Power | **Equation HVAC2.1:** Baseline Input Power = Rated Capacity ÷ Baseline EER<br>Rated Capacity = 25kW (Source: Rated cooling capacity at 35 degrees Celsius as recorded in Column Q of GEMS Registry)<br>Baseline EER = 2.84 (Source: Table HVAC2.2, Activity Definition HVAC2)<br>**Baseline Input Power = 25 ÷ 2.84 = 8.802 kW** |
| **Step 2**: Baseline Peak Adjustment Factor | **Equation HVAC2.2:** Baseline Peak Adjustment Factor = Temperature Factor x Usage Factor<br>Temperature Factor = 0.55 (Source: Table A5 of PDRS Rule)<br>Usage Factor = 0.6 (Source: Activity Definition HVAC2)<br>**Baseline Peak Adjustment Factor = 0.55 x 0.6 = 0.33** |
| **Step 3**: Input Power | **Rated input power at 35 degrees Celsius:** 7.82 kW (Source: as recorded in Column O of GEMS Registry) |
| **Step 4**: Peak Adjustment Factor | **Peak adjustment factor:** 0.33 (Source: Table A4 of the PDRS Rule) |
| **Step 5**: Firmness Factor | **Firmness Factor:** = 1 (Source: Table A6 of the PDRS Rule) |
| **Step 6**: Peak Demand Savings Capacity | **Peak Demand Savings Capacity** = ((Baseline Input Power x Baseline Peak Adjustment Factor) – (Input Power x Peak Adjustment Factor)) x Firmness Factor<br>Baseline Input Power = 8.802 kW (Calculation Step 1)<br>Baseline Peak Adjustment Factor = 0.33 (Calculation Step 2)<br>Input Power = 7.82 kW (Calculation Step 3)<br>Peak Adjustment Factor = 0.33 (Step 4)<br>Firmness Factor = 1 (Step 5)<br>**Peak Demand Savings Capacity = ((8.802 x 0.33) – (7.82 x 0.33)) x 1 = 0.324 kW** |
| **Step 7**: Peak Demand Reduction Capacity | **Equation 2a:** Peak Demand Reduction Capacity = Peak Demand Savings Capacity x Summer Peak Demand Reduction Duration x Lifetime<br>Peak Demand Savings Capacity = 0.324 kW (Calculation Step 6)<br>Summer Peak Demand Reduction = 6 hrs (Source: Equation 2a)<br>Lifetime = 10 years (Activity Definition HVAC2)<br>**Peak Demand Reduction Capacity = 0.324 x 6 x 10 = 19.44 kW** |
| **Step 8**: PRCs | **Equation 1:** Number of Certificates = Peak Demand Reduction Capacity x Network Loss Factor x 10<br>Peak Demand Reduction Capacity = 35.28 kW (Calculation Step 7)<br>Network Loss Factor = 1.04 (Source: Table A3 of PDRS Rule)<br>**Number of Certificates = 19.44 x 1.04 x 10 = 202.21** |

## B.3 WH1 – Replace one or more existing hot water boilers or water heaters with one or more air source heat pump water heaters

### Table B.3 Calculation of Peak Demand Reduction Capacity

| Step | Description |
|---|---|
| Scenario: | The product is on the Product Register.<br>Location of implementation: Randwick, Sydney (Postcode: 2031)<br>Climate Zone in which the product is installed: 5(Source: Table A5 of PDRS Rule) |
| Product: | Eco Alliance 170L Heat Pump (Eco-170LHPWH) |
| **Step 1**: Baseline Input Power | **Equation WH1.1:** Baseline Input Power = 0.01 x ComPkLoad<br>ComPkLoad = 68 MJ/day (Source: Peak daily (winter) load in MJ/d as recorded in the Product Registry for the zone in which the product is installed)<br>**Baseline Input Power = 0.01 x 68 = 0.68 kW** |
| **Step 2**: Baseline Peak Adjustment Factor | **Baseline Peak Adjustment Factor:** 1 (Source: Table A4 of the PDRS Rule) |
| **Step 3**: Input Power | **Equation WH1.2:** Input Power = (100 – Annual Energy Savings %) x Baseline Input Power ÷ 100<br>Annual Energy Savings = 70.2% (Source: Published in the Product Registry)<br>Baseline Input power = 0.68kW (Source: Calculation Step 1)<br>Input Power = (100-70.2) x (0.68 ÷100) = 0.2026 |
| **Step 4**: Peak Adjustment Factor | **Peak adjustment factor:** 0.77 (Source: Table A4) |
| **Step 5**: Firmness Factor | **Firmness Factor:** = 1 (Source: Table A6 of the PDRS Rule) |
| **Step 6**: Peak Demand Savings Capacity | **Peak Demand Savings Capacity** = ((Baseline Input Power x Baseline Peak Adjustment Factor) – (Input Power x Peak Adjustment Factor)) x Firmness Factor<br>Baseline Input Power = 0.68kW (Calculation Step 1)<br>Baseline Peak Adjustment Factor = 1 (Step 2)<br>Input Power = 0.2026 kW (Calculation Step 3)<br>Peak Adjustment Factor = 0.77 (Step 4)<br>Firmness Factor = 1 (Step 5)<br>**Peak Demand Savings Capacity = ((0.68 x 1) – (0.2026 x 0.77)) x 1 = 0.524 kW** |
| **Step 7**: Peak Demand Reduction Capacity | **Equation 2a:** Peak Demand Reduction Capacity = Peak Demand Savings Capacity x Summer Peak Demand Reduction Duration x Lifetime<br>Peak Demand Savings Capacity = 0.524 kW (Calculation Step 6)<br>Summer Peak Demand Reduction = 6 hrs (Source: Equation 2a)<br>Lifetime = 12 years (Activity Definition WH1)<br>**Peak Demand Reduction Capacity = 0.524 x 6 x 12 = 37.73 kW** |
| **Step 8**: PRCs | **Equation 1:** Number of Certificates = Peak Demand Reduction Capacity x Network Loss Factor x 10<br>Peak Demand Reduction Capacity = 37.73 kW (Calculation Step 7)<br>Network Loss Factor = 1.04 (Source: Table A3 of PDRS Rule (Ausgrid))<br>**Number of Certificates = 37.73 x 1.04 x 10 = 392.39** |

## B.4 RF1 – Remove a spare refrigerator or freezer

### Table B.4 Calculation of Peak Demand Reduction Capacity

| Step | Description |
|---|---|
| Scenario: | Location of implementation: Richmond (Postcode: 2753, Endeavour Energy distribution)<br>The product meets the equipment requirements<br>The activity results in 1 fewer spare refrigerators and freezers at the Site |
| Product: | The product is greater than 200 litres in capacity and is in working order |
| **Step 1**: Peak Demand Savings Capacity | **Peak Demand Savings Capacity** = ((Baseline Input Power x Baseline Peak Adjustment Factor) – (Input Power x Peak Adjustment Factor)) x Firmness Factor<br>Baseline Input Power = 0.093kW (Source: Activity Definition RF1)<br>Baseline Peak Adjustment Factor = 1.25 (Source: Table A4 of the PDRS Rule)<br>Input Power = 0kW (Source: Activity Definition RF1)<br>Peak Adjustment Factor = 1.25 (Source: Table A4 of the PDRS Rule)<br>Firmness Factor = 1 (Source: Table A6 of the PDRS Rule)<br>**Peak Demand Savings Capacity = ((0.093 x 1.25) – (0 x 1.25)) x 1 = 0.11625 kW** |
| **Step 2**: Peak Demand Reduction Capacity | **Equation 2a:** Peak Demand Reduction Capacity = Peak Demand Savings Capacity x Summer Peak Demand Reduction Duration x Lifetime<br>Peak Demand Savings Capacity = 0.11625 kW (Calculation Step 1)<br>Summer Peak Demand Reduction = 6 hrs (Source: Equation 2a)<br>Lifetime = 7 years (Activity Definition RF1)<br>**Peak Demand Reduction Capacity = 0.11625 x 6 x 7 = 4.8825 kW** |
| **Step 3**: PRCs | **Equation 1:** Number of Certificates = Peak Demand Reduction Capacity x Network Loss Factor x 10<br>Peak Demand Reduction Capacity = 48.825 kW (Calculation Step 2)<br>Network Loss Factor = 1.05 (Source: Table A3 of PDRS Rule)<br>**Number of Certificates = 4.8825 x 10 x 1.05 = 51.266** |

## B.5 RF2 – Install a new high efficiency refrigerated cabinet or replace an existing refrigerated cabinet

*The NSW Office of Energy and Climate Change (OECC) is considering stakeholder feedback on the installation of refrigerated cabinets under activity F1 in the Energy Savings Scheme. The results of this feedback and any subsequent policy changes made in respect of this activity will have flow on effects to the corresponding activity (RF2) in the PDRS. The draft Method Guide is based on the version of the Peak Demand Reduction Scheme Rule of 2022 that was released for public consultation in early 2022. The final version of the Method Guide will be updated to reflect any subsequent changes made to the Rule.*

### Table B.5 Calculation of Peak Demand Reduction Capacity

| Step | Description |
|---|---|
| Scenario: | The product meets the equipment requirements<br>Location of implementation: Wollongong (Postcode: 2500, Endeavour Energy distribution) |
| Product: | The product is SKOPE TMF1000N-A<br>Integrated Freezer Vertical, Refrigerated Display Cabinet (GEMS Registry, Columns AA and AC)<br>Total display area: 1.25m$^2$ (GEMS Registry, Column M)<br>Product type: IVF4 (GEMS Registry, Column AI)<br>Product class: 8 (GEMS Registry, Column R or AJ)<br>Energy Efficiency Index: 63.474 (Source: GEMS Registry, Column AE)<br>Total Energy Consumption (kWh/24h): 16.17 (Source: GEMS Registry, Column AB) |
| **Step 1**: Baseline Input Power | **Equation RF2.1:** Baseline Input Power = TEC x af x [Baseline EEI ÷ Product EEI] ÷ 24<br>TEC = 16.17 kWh/day (Source: GEMS Registry, Column AB)<br>af = 1 (Source: Table RF2.1)<br>Baseline EEI = 97 (Source: Table RF2.1)<br>Product EEI = 63.474 (Source: GEMS Registry, Column AE)<br>**Baseline Input Power = 16.17 x 1 x [90 ÷ 63.474] ÷ 24 = 1.030 kW** |
| **Step 2**: Baseline Peak Adjustment Factor | **Equation RF2.3:** Baseline Peak Adjustment Factor = Temperature Factor x Usage Factor<br>Temperature Factor = 1.14 (Source: Table RF2.2)<br>Usage Factor = 1 (Source: Activity Definition RF2)<br>**Baseline Peak Adjustment Factor = 1.14 x 1 = 1.14** |
| **Step 3**: Input Power | **Equation RF2.2:** Input Power = TEC x af ÷ 24<br>TEC = 16.17 kWh/day (Source: GEMS Registry, Column AB)<br>af = 1 (Source: Table RF2.1)<br>**Input Power = 16.17 x 1 ÷ 24 = 0.674 kW** |
| **Step 4**: Peak Adjustment Factor | **Peak adjustment factor:** equal to Baseline Peak Adjustment Factor (Source: Step 2) |
| **Step 5**: Firmness Factor | **Firmness Factor:** = 1 (Source: Table A6 of the PDRS Rule) |
| **Step 6**: Peak Demand Savings Capacity | **Peak Demand Savings Capacity** = ((Baseline Input Power x Baseline Peak Adjustment Factor) – (Input Power x Peak Adjustment Factor)) x Firmness Factor<br>Baseline Input Power = 1.030 kW (Calculation Step 1)<br>Baseline Peak Adjustment Factor = 1.14 (Step 2)<br>Input Power = 0.674 kW (Calculation Step 3)<br>Peak Adjustment Factor = 1.14 (Step 4)<br>Firmness Factor = 1 (Step 5)<br>**Peak Demand Savings Capacity = ((1.030 x 1.14) – (0.674 x 1.14)) x 1 = 0.406 kW** |
| **Step 7**: Peak Demand Reduction Capacity | **Equation 2a:** Peak Demand Reduction Capacity = Peak Demand Savings Capacity x Summer Peak Demand Reduction Duration x Lifetime<br>Peak Demand Savings Capacity = 0.406 kW (Calculation Step 6)<br>Summer Peak Demand Reduction = 6 hrs (Source: Equation 2a)<br>Lifetime = 8 years (Table RF2.3)<br>**Peak Demand Reduction Capacity = 0.406 x 6 x 8 = 19.488 kW** |
| **Step 8**: PRCs | **Equation 1:** Number of Certificates = Peak Demand Reduction Capacity x Network Loss Factor x 10<br>Peak Demand Reduction Capacity = 50.88 kW (Calculation Step 7)<br>Network Loss Factor = 1.05 (Source: Table A3 of PDRS Rule)<br>**Number of Certificates = 19.488 x 1.05 x 10 = 204.62** |

## B.6 SYS1 – Install a new high efficiency ventilation or refrigeration motor

### Table B.6 Calculation of Peak Demand Reduction Capacity

| Step | Description |
|---|---|
| Scenario: | The product meets the equipment requirements<br>The product is listed in the GEMS Registry<br>The product is installed in Richmond (Postcode: 2753) (BCA Climate Zone 6 / Endeavour Energy)<br>The product is a new installation and is not replacing existing EUE |
| Product: | ABB M3BP/ GP/JP/KP 315SMC 4<br>Number of poles: 4 |
| **Step 1**: Baseline Input Power | **Equation SYS2.1:** Baseline Input Power = Rated Output ÷ Baseline Efficiency<br>Rated Output = 160 (Source: GEMS Registry, Column K)<br>Baseline Efficiency = 94.9 (Source: Table SYS1.1)<br>**Baseline Input Power = 160 ÷ 94.9 = 1.6859 kW** |
| **Step 2**: Baseline Peak Adjustment Factor | **Equation SYS1.2:** Baseline Peak Adjustment Factor = Temperature Factor x Usage Factor<br>Temperature Factor = 1.04 (Source: Table A5 of the PDRS Rule)<br>Usage Factor = 0.6 (Source: Activity Definition SYS1.1)<br>**Baseline Peak Adjustment Factor = 1.04 x 0.6 = 0.624** |
| **Step 3**: Input Power | **Equation RF2.2:** Input Power = Rated Output ÷ New Efficiency<br>Rated Output = 160 (Source: GEMS Registry, Column K)<br>New Efficiency = 95.7 (Source: GEMS Registry, Column F)<br>**Input Power = 160 ÷ 95.7 = 1.6718 kW** |
| **Step 4**: Peak Adjustment Factor | **Peak adjustment factor: 0.624 (**equal to Baseline Peak Adjustment Factor (Source: Step 2)) |
| **Step 5**: Firmness Factor | **Firmness Factor:** = 1 (Source: Table A6 of the PDRS Rule) |
| **Step 6**: Peak Demand Savings Capacity | **Peak Demand Savings Capacity** = ((Baseline Input Power x Baseline Peak Adjustment Factor) – (Input Power x Peak Adjustment Factor)) x Firmness Factor<br>Baseline Input Power = 1.6859 kW (Calculation Step 1)<br>Baseline Peak Adjustment Factor = 0.624 (Step 2)<br>Input Power = 1.6718 kW (Calculation Step 3)<br>Peak Adjustment Factor = 0.624 (Step 4)<br>Firmness Factor = 1 (Step 5)<br>**Peak Demand Savings Capacity = ((1.6859 x 0.624) – (1.6718 x 0.624) x 1 = 0.0088 kW** |
| **Step 7**: Peak Demand Reduction Capacity | **Equation 2a:** Peak Demand Reduction Capacity = Peak Demand Savings Capacity x Summer Peak Demand Reduction Duration x Lifetime<br>Peak Demand Savings Capacity = 0.0088 kW (Calculation Step 6)<br>Summer Peak Demand Reduction = 6 hrs (Source: Equation 2a)<br>Lifetime = 25 years (Table SYS1.2)<br>**Peak Demand Reduction Capacity = 0.0088 x 6 x 25 = 1.32 kW** |
| **Step 8**: PRCs | **Equation 1:** Number of Certificates = Peak Demand Reduction Capacity x Network Loss Factor x 10<br>Peak Demand Reduction Capacity = 1.32 kW (Calculation Step 7)<br>Network Loss Factor = 1.05 (Source: Table A3 of PDRS Rule)<br>**Number of Certificates = 1.32 x 1.05 x 10 = 13.86** |

## B.7 SYS2 – Replace an existing pool pump with a high efficiency pool pump

### Table B.7 Calculation of Peak Demand Reduction Capacity

| Step | Description |
|---|---|
| Scenario: | Pool size: 45,000 litres<br>Location: Mosman (2088) (Ausgrid) |
| Product: | TriStar VS 540 pool pump (1B-SP3220HVS)<br>Star rating: 10<br>Speed: Multispeed |
| **Step 1**: Peak Demand Savings Capacity | **Peak Demand Savings Capacity** = ((Baseline Input Power x Baseline Peak Adjustment Factor) – (Input Power x Peak Adjustment Factor)) x Firmness Factor<br>Baseline Input Power = 0.491 kW (Source: Table SYS2.1)<br>Baseline Peak Adjustment Factor = 0.28 (Source: Table A4 of the PDRS Rule)<br>Input Power = 0.061 kW (Source: Table SYS2.2)<br>Peak Adjustment Factor = 0.28 (Source: Table A4 of the PDRS Rule)<br>Firmness Factor = 1 (Source: Table A6 of the PDRS Rule)<br>**Peak Demand Savings Capacity = ((0.491 x 0.28) – (0.061 x 0.28)) x 1 = 0.1204 kW** |
| **Step 2**: Peak Demand Reduction Capacity | **Equation 2a:** Peak Demand Reduction Capacity = Peak Demand Savings Capacity x Summer Peak Demand Reduction Duration x Lifetime<br>Peak Demand Savings Capacity = 0.1204 kW (Calculation Step 1)<br>Summer Peak Demand Reduction = 6 hrs (Source: Equation 2a)<br>Lifetime = 12 years (Activity Definition SYS2)<br>**Peak Demand Reduction Capacity = 0.1204 x 6 x 12 = 8.6688 kW** |
| **Step 3**: PRCs | **Equation 1:** Number of Certificates = Peak Demand Reduction Capacity x Network Loss Factor x 10<br>Peak Demand Reduction Capacity = 8.6688 kW (Calculation Step 2)<br>Network Loss Factor = 1.04 (Source: Table A3 of PDRS Rule)<br>**Number of Certificates = 8.6688 x 1.04 x 10 = 90.15** |

[1] Cl 83(1) of Schedule 4A, *Electricity Supply Act 1995*.
[2] Part 7, *Electricity Supply (General) Regulation 2014*.
[3] Cl 5.1 of the *Peak Demand Reduction Scheme Rule of 2022*.
[4] Cl 60B of the *Electricity Supply (General) Regulation 2014*
[5] Cl 5.2(a) of the *Peak Demand Reduction Scheme Rule of 2022*.
[6] Cl 5.2(a) of the *Peak Demand Reduction Scheme Rule of 2022*.
[7] Cl 5.2(c) of the *Peak Demand Reduction Scheme Rule of 2022*.
[8] Cl 5.4 of the *Peak Demand Reduction Scheme Rule of 2022*.
[9] Cl 81 of Schedule 4A to the *Electricity Supply Act 1995*.
[10] Cl 117 of Schedule 4A to the *Electricity Supply Act 1995*
[11] Cl 6.1(c) of the *Peak Demand Reduction Scheme Rule of 2022*.
[12] Cl 7.2 of the *Peak Demand Reduction Scheme Rule of 2022*.
[xiii] Cl 109(1) of Schedule 4A of the *Electricity Supply Act 1995*.
[xiv] Cl 61P of the *Electricity Supply (General) Regulation 2014*
[xv] Cl 4.1(a) of the *Peak Demand Reduction Scheme Rule of 2022*.
[xvi] Cl 10 of the *Peak Demand Reduction Scheme Rule of 2022*.
[xvii] Cl 5.1(b) of the Peak *Demand Reduction Scheme Rule of 2022*.
[xviii] Cl 7.2.2(a) and 7.2.7(a) of the *Peak Demand Reduction Scheme Rule of 2022*.
[xix] Cl 10 of the *Peak Demand Reduction Scheme Rule of 2022*.
[xx] Cl 5.3(a) of the *Peak Demand Reduction Scheme Rule of 2022*.
[xxi] Cl 5.3(b) of the *Peak Demand Reduction Scheme Rule of 2022*.
[xxii] Cl 7.2.2(d), Cl 7.2.7(b) and Cl 7.2.12(d) of the *Peak Demand Reduction Scheme Rule of 2022*.
[xxiii] Cl 114 of Schedule 4A, *Electricity Supply Act 1995*.
[xxiv] Cl 7.2.3 and Cl 7.2.13 of the *Peak Demand Reduction Scheme Rule of 2022*.
[xxv] Cl 7.2.9 of the *Peak Demand Reduction Scheme Rule of 2022*.
[xxvi] Cl 9.8.2, Cl 9.9.2 and Cl 9.7.2 of the *Energy Saving Scheme Rule of 2009*.
[xxvii] Cl 6.2 of the *Peak Demand Reduction Scheme Rule of 2022*.
[xxviii] Cl 7.2 of the *Peak Demand Reduction Scheme Rule of 2022*.
[xxix] Cl 62A(1) of the *Electricity Supply (General) Regulation 2014*
[xxx] Cl 133(1)(b) of Schedule 4A,*Electricity Supply Act 1995*.
[xxxi] Cl 118(1) of Schedule 4A,*Electricity Supply Act 1995*.
[xxxii] Cl 2 of Schedule 3, *Electricity Supply (General) Regulation 2014*
[xxxiii] Cl 61Y of the *Electricity Supply (General) Regulation 2014*
[xxxiv] Cl 117 of Schedule 4A, *Electricity Supply Act 1995, cl 61X* of the *Electricity Supply (General) Regulation 2014*

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