IPART Independent Pricing and Regulatory Tribunal | NSW

Installation of High Efficiency Appliances for Businesses

Method Guide

V4.2, September 2025

ESS »

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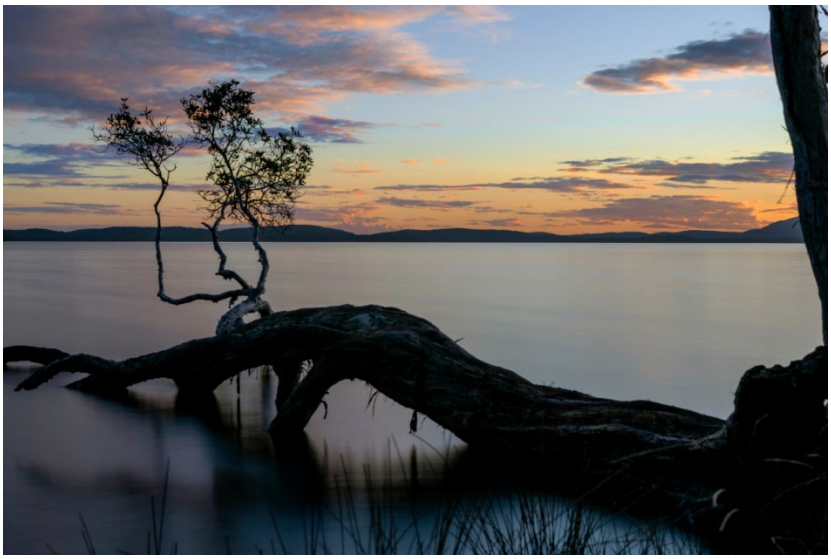

Image taken on Worimi Country (Myall Lakes)

The Independent Pricing and Regulatory Tribunal

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1 About this document

This document provides guidance about how the Installation of High Efficiency Appliances for Businesses (**IHEAB**) method of the Energy Savings Scheme (**ESS**) operates, some of the key requirements that must be met when using the method, and how to calculate energy savings for a Recognised Energy Saving Activity (**RESA**) and create energy savings certificates (**ESCs**). This document should be used by:

- applicants seeking accreditation as a certificate provider, to assist them in completing their application
- those persons who are already Accredited Certificate Providers (**ACPs**), to assist them in accurately calculating energy savings using this method.

1.1 Method overview

The IHEAB method can be used to calculate energy savings from a range of energy efficiency activities. The method provides an incentive to purchase and install high efficiency appliances for business consumers who will benefit from the ongoing energy savings.

1.2 Legislative requirements

This document is not legal advice. The legal requirements for ACPs participating in the ESS are set out in:

- Schedule 4A of the *Electricity Supply Act 1995* (NSW) (**Act**)
- Part 6 of the *Electricity Supply (General) Regulation 2014* (NSW) (**Regulation**)
- the *Energy Savings Scheme Rule of 2009* (**ESS Rule**).

ACPs are also required to meet any additional accreditation conditions as set out in their Accreditation Notice.

1.3 General requirements

The General Requirements Guide (**General Requirements**) summarises the key requirements (including Minimum Requirements of Conduct) that apply to all ACPs irrespective of calculation method. You will need to refer to the General Requirements when preparing an application for accreditation and to understand the obligations of an ACP.

1.4 Document control

Version number	Change description	Date published
V3.4	Updated to reflect amendments to the ESS Rule, and previous changes made to the ACP Application Guide and Application Form Part B.	March 2020
V3.5	Updated to reflect amendments to the ESS Rule.	September 2020
V3.6	Updated to: • Reflect amendments to the ESS Rule • Remove content duplicated in the General Requirements Guide or on the ESS website • Reorganise content to a more logical order.	January 2022
V3.7	Updated to reflect amendments to refrigerated cabinets and site eligibility requirements under the ESS Rule	August 2022
V3.8	Updated to reflect the introduction of The Energy Security Safeguard Application (TESSA)	September 2022
V3.9	Updated to reflect amendments to the ESS Rule	April 2023
V4.0	Updated to reflect new fact sheet, co-payment and record keeping requirements for Activity Definitions F16 and F17	March 2024
V4.1	Updated to reflect changes to Activity Definitions F1.1 and F1.2 in ESS Rule.	May 2024
V4.2	Updated to reflect changes to the ESS Rule and website links updated. Changes include: • adding monthly reporting requirements • banning unsolicited doorknocking • addition of warranty and implementation requirements for certain heat pumps • removing gas activities from 1 July 2026.	September 2025

2 Requirements that must be met

We have provided information below about the requirements of the IHEAB method. This is not an exhaustive list of requirements, and ACPs should ensure that they are familiar with their obligations under the Act, Regulation, ESS Rule and any additional accreditation conditions set out in their Accreditation Notice.

2.1 Energy saver

An ACP can only calculate energy savings and create ESCs from an implementation if the ACP is the energy saver under the ESS Rule. The ACP must be the energy saver as at the implementation date. An energy saver can be the:

- **original energy saver** – which, under the IHEAB method, is the purchaser (discussed in the next section)
- **nominated energy saver** – which is someone the original energy saver has nominated as the energy saver by completing a Nomination Form.

See Section 5 of the General Requirements for requirements about energy saver, the nominated energy saver, and form and manner of nomination.

2.1.1 Purchaser

In general, the purchaser is the person who purchases or leases the goods or services that enable the relevant energy savings to be made. However, the following persons cannot be a purchaser and therefore cannot be an original energy saver under the IHEAB method:[a]

- an ACP that is not the owner, occupier or operator of the relevant site[b]
- a person who purchases or leases the goods or services for the purpose of reselling the end-user equipment, unless the resale will be an inclusion in a contract for the sale of land, or a strata scheme lot.[c]

2.1.2 Minimum co-payment for refrigerated cabinets and heat pump water heaters

The purchaser is required to pay a net amount[d] towards the cost of the implementation[e] of some activities (Table 2.1) (**minimum co-payment**).

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[a] *ESS Rule*, cl 10.1 (definition of 'Purchaser').
[b] ACPs that are the nominated energy saver will typically fall under this category.
[c] Wholesalers will typically fall under this category.
[d] *ESS Rule*, cl 10.1 (definition of 'Net Amount').
[e] *ESS Rule*, cl 9.9.1(e).

Table 2.1 Minimum co-payments

Implementation date	Activity	Minimum co-payment (excluding GST)
Before 12 September 2025	Refrigerated display cabinets (Activity Definitions F1.1 and F1.2) Heat pump water heaters (Activity Definitions F16 and F17)	$200 per item of End-User Equipment
On or after 12 September 2025	Refrigerated display cabinets (Activity Definitions F1.1 and F1.2) Heat pump water heaters (Activity Definitions F16 and F17)	$1000 per item of End-User Equipment[a]

a. For heat pump water heater systems, multiple heat pump water heaters joined by a manifold (where they are identical models joined in a series with a balanced water flow) is considered one item .[f]

The minimum co-payment must not be reimbursed, credited by a third party, or made by non-cash inducements[g] or in-kind payments. The minimum co-payment must be paid before the ACP can register ESCs. Proof that the payment was made before the ESC registration date will be checked at audit.

2.2 Minimum Requirements of Conduct

ACPs and their representatives must follow the Minimum Requirements of Conduct (Minimum Requirements) when undertaking activities under the ESS. Representatives who engage with customers are effectively the public face of the ESS. The Minimum Requirements help ensure that ACPs and their representatives act in a way that protects the interests of customers and maintains the integrity of the ESS. The Minimum Requirements are a standard accreditation condition for all ACPs, and relate to:

- establishing and maintaining contractual relationships
- the provision of training for representatives
- establishing and maintaining a register of representatives, and
- customer engagement and management.

2.3 Implementation, implementation date and site

The ESS Rule defines implementations, implementation dates and sites (explained below). These concepts are used to determine the number of ESCs, and from when they can be created.

f *ESS Rule*, cl 9.9.1C.

g *ESS Rule*, cl 10.1 (definition of 'Non-Cash Inducement')

2.3.1 Implementation

An implementation is the delivery of a RESA[h] at a site.[i] Activities eligible to be RESAs where the IHEAB method is used are set out in Schedule F to the ESS Rule (see section 2.4 of this guide).

2.3.2 Implementation date

For RESAs under the IHEAB method, the implementation date is the date that the end-user equipment is installed.[j]

2.3.3 Site

Under the ESS Rule, a 'site' means the location of where the end-user equipment was installed. This may be defined by:

- an address
- a unique identifier, as specified for the relevant implementation that identifies the affected end-user equipment; or
- a method accepted by the Scheme Administrator.

For implementations under the IHEAB method, the site cannot be a residential building unless expressly permitted by the eligibility requirements for the relevant activity definition.

A residential building means 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.

2.4 Eligible activities

Eligible activities are defined in the activity definitions in Schedule F to the ESS Rule and are listed in Table 2.2. To be eligible, each activity undertaken at the site must comply with the requirements specified in the activity definition. These requirements include:

- eligibility requirements
- equipment requirements
- implementation requirements.

[h] A RESA must meet all of the criteria set out in clause 5.3, 5.3A, 5.3B and does not include those activities set out in clause 5.4 of the ESS Rule.

[i] *ESS Rule*, cl 10.1 (definition of 'Implementation').

[j] *ESS Rule*, cl 9.9.2.

Table 2.2 Eligible activities

Activity definitions	Name of Activity
F1.1	Install a new high efficiency refrigerated cabinet *Note: From 12 September 2025 Product Classes 12-15 are eligible to create certificates. Product Classes 1 – 11 remain suspended until the Minister notifies otherwise.*
F1.2	Replace an existing refrigerated display cabinet *Note: From 12 September 2025 Product Classes 1 – 11 are suspended until the Minister notifies otherwise and Product Classes 12-15 are eligible to create certificates.*
F2	Install a new high efficiency liquid chilling package
F3	Install a new high efficiency close control air conditioner
F4	High efficiency air conditioner (install or replace)
F5	Install an electronically commutated (brushless DC) motor to power a fan in a refrigerated cabinet, freezer or cool room
F6	Install an electronically commutated (brushless DC) motor to power a ventilation fan
F7	Three phase electric high efficiency motor (install or replace)
F8	Replace a gas fired steam boiler with a new high efficiency gas fired steam boiler (ends 30 June 2026)
F9	Replace a gas fired hot water boiler or gas fired water heater with a new high efficiency gas fired hot water boiler or gas fired water heater (ends 30 June 2026)
F10	Install an oxygen trim system on a gas fired steam boiler, hot water boiler or water heater
F11	Replace a burner on a gas fired steam boiler, hot water boiler or water heater
F12	Install an economiser on a gas fired steam boiler, hot water boiler or water heater
F13	Install a sensor based blowdown control on a gas fired steam boiler
F14	Install a blowdown flash steam heat recovery system on a gas fired steam boiler
F15	Install a residual blowdown heat exchanger on gas fired steam boiler
F16	Replace existing hot water boilers or water heaters with air source heat pump water heater systems
F17	Install new air source heat pump water heater systems

2.5 Ineligible activities

The ESS is designed to promote additional energy savings activities that would not otherwise have occurred. As such, a range of specific activities are not eligible for the creation of ESCs, including:

- an activity undertaken to comply with a mandatory, statutory or regulatory requirement, including BASIX or the Building Code of Australia requirements except for alterations, enlargements or extensions of a BASIX affected development
- a reduction in energy consumption by reducing production, service or safety levels
- an activity that reduces gas or biogas consumption by flaring gas or biogas instead
- a fuel switching activity that results in a net increase in greenhouse gas emissions
- an activity that reduces consumption of an eligible fuel by increasing consumption of non-renewable fuels (other than electricity) to provide equivalent goods or services.

- with effect from 12 September 2025, an activity connected with unsolicited doorknocking[k], and
- with effect from 1 July 2026, an activity that involves replacing existing equipment with a gas fired steam boiler, gas fired water heater or gas fired hot water boiler.

2.6 Banned End user equipment

The Scheme Administrator can ban end user equipment by publishing a Banned End User Equipment Notice on the Energy Sustainability Schemes website. The notice will set out the time frame for the ban, calculation methods or Activity Definitions as well as other relevant information. ACPs must not create ESCs for activities that involves the installation of banned equipment.

2.7 Heat pump water heater fact sheet

For heat pump water heater installations (Activity Definitions F16 and F17) on or after 1 April 2024, ACPs must ensure their representatives provide the customer with the IHEAB Heat Pump Water Heater Fact Sheet before the customer agrees to the upgrade (i.e. before they sign the nomination form and the installation commences).[l]

2.8 Eligibility requirements

The eligibility requirements relate to the existing conditions at the site. Please refer to the eligibility requirements specified in each activity definition in Schedule F to the ESS Rule.

ACPs must collect records to verify that the eligibility requirement(s) have been met for each activity they implement. The records required for each activity are specified in section 4 of this guide. This will be checked during audits.

2.8.1 Site assessment

The method requires a site assessment to be conducted to identify eligible energy savings at the site for some activities.[m] Where a site assessment requires particular technical expertise, or may pose a specific safety risk, the person conducting the site assessment should have relevant training, qualifications or certifications to ensure the site assessment can be completed safely and accurately.

ACPs undertaking these activities must arrange for the original energy saver or installer to complete and sign a site assessment report to be completed for each implementation. ACPs may use the template available on the ESS website or create their own report.

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[k] Refer to ESS Rule, cl 5.4 for more details on ineligible activities.

[l] Minimum Requirements of Conduct, Table 4.

[m] Gas saving activities (F8 to F15) and water heater activities (F16 and F17).

The purpose of the site assessment report is to:

- show that a site assessment has taken place at the site
- show the activities to be implemented as meeting the eligibility requirements specified in the activity definition(s) of the ESS Rule
- document and include a list of all equipment that is to be modified or replaced for the purposes of generating ESCs
- confirm the information provided is complete and accurate.

2.9 Equipment requirements

The equipment requirements are specific to the type of product being installed. Refer to the equipment requirements specified in each activity definition in Schedule F to the ESS Rule. These requirements may include:

- being a product accepted by the Scheme Administrator
- meeting the requirements of various Australian Standards
- being a Greenhouse and Energy Minimum Standards (**GEMS**) registered product
- meeting Minimum Energy Performance Standards (**MEPS**)
- meeting other performance requirements specified in Schedule F to the ESS Rule
- being of the same or corresponding product class or type as the replaced equipment
- any requirements specified by the Scheme Administrator.

ACPs can use the Commonwealth Government's GEMS registry to determine if their appliance meets these requirements. However, a listing in the GEMS registry does not guarantee an appliance meets all the equipment requirements for the ESS. Certain activity definitions in the ESS Rule place additional equipment requirements on appliances under this method, which must also be met for equipment to be installed under the ESS.

ACPs must collect records to verify that the equipment requirement(s) have been met for each activity they implement (refer to section 4 of this guide).

2.9.1 Heat pump product acceptance

We publish a list of all products accepted by the Scheme Administrator on the Accepted Products List in TESSA. Heat pumps must be accepted prior to certificate creation.

Heat pump equipment installed under Activity Definitions F16 and F17 must be accepted as meeting the relevant equipment requirements.[n] Information about the equipment requirements and the product acceptance process is available in the water heater products section of our website. There are multiple guides available to help you understand how to apply for product acceptance.

[n] Equipment requirements are in the Activity definitions in Schedule F of the ESS Rule.

2.10 Multiple heat pump installations

You can install one or more heat pump water heaters or replace one or more water heaters with one or more heat pump water heaters under Activity Definitions F16 and F17. This means you can create certificates from:

- installing multiple heat pump water heaters,
- replacing a single water heater with a single heat pump or
- replacing a single water heater with multiple heat pump water heaters, provided the installed or replaced heat pumps meet equipment requirements.

The Accepted Products List includes single heat pump water heater units and combinations of the individual units (multiples). In addition to using the units as listed on the Accepted Product List, you can replace an existing water heater with multiples of a single heat pump listed on the Accepted Products List provided the heat pumps units:

- are accepted for use in Activity Definitions F16 or F17
- the multiple heat pump water heaters:
  - are identical models
  - are joined in parallel, and
  - have balanced water flow.

If you would like to install multiple heat pump units that don't meet these requirements – for example, a combined system made up of a 100L and a 300L capacity heat pump – you may apply to have the combined system included on the Accepted Products List. Products must be modelled in accordance with how they are intended to be installed. See Product eligibility for details.

As with any installation, if proposing configurations of more than one heat pump water heater, ACPs should consider the needs of the customer and factors such as noise, ventilation and physical footprint to ensure the implementation is fit for purpose.

2.11 Implementation requirements

The method can only be used to calculate energy savings from eligible activities. This method cannot be used to calculate energy savings from the sale of products.

The installation must be performed or supervised by a suitably qualified licence holder in compliance with the relevant standards and legislation.

Additional implementation requirements are specific to each activity definition in Schedule F to the ESS Rule. ACPs must also comply with all relevant state or Commonwealth legislative requirements that apply to the activity.

ACPs must collect records to verify that the implementation requirements have been met for each activity implemented. The records required for each activity are specified in section 4 of this guide. This will be checked during audits.

2.11.1 Installer declaration

ACPs are required to provide an installer declaration for some activities to demonstrate the completed implementation meets all of the relevant implementation requirements specified in Schedule F to the ESS Rule. The installer declaration may be based on the template provided on the ESS website.

The purpose of the installer declaration is to confirm:

- the address where the equipment was installed
- the date of installation
- the make and model of the equipment installed
- that the equipment meets relevant ESS requirements, including that it was installed according to manufacturer's guidelines, equipment/installation standards and legislation, and (where relevant) that the implementation was performed or supervised by a suitably qualified person.

2.12 Efficiency requirement for installing new equipment

The installation of 'New End-User Equipment' only constitutes a RESA if the Scheme Administrator is satisfied that it is more efficient than the average energy efficiency of end-user equipment of the same type, or that it provides the same function, output or service.

The activity definitions in Schedule F provide a range of options for the installation of New End-User Equipment, as well as the replacement, modification or removal of existing end-user equipment or a particular component of existing end-user equipment.

Where an activity definition in Schedule F to the ESS Rule involves the installation of New End-User Equipment it must have a higher efficiency than any baseline/defined parameters specified in Schedule F to the ESS Rule (e.g. Activity Definition F4, when installing a new high efficiency air conditioner).

However, where an activity definition in Schedule F involves the installation of a new component for the purpose of reducing the energy consumption of existing end-user equipment, it does not necessarily need to consume less energy than end-user equipment of the same type. This is because the component is being used to achieve an overall reduction in energy consumption from its influence on the existing end-user equipment (e.g. Activity Definition F10 – Install an oxygen trim system on an existing boiler).

2.13 Recycling and disposal requirements

ACPs are responsible for ensuring that any refrigerants that are removed or replaced during a refrigeration equipment upgrade must be disposed of in a manner that is compliant with the *Ozone Protection and Synthetic Greenhouse Gas Management Act 1989*.[o]

An ACP must retain records of the recycling evidence for any disposal of refrigerants. This could be in the form of a tax invoice or recycling receipt.

2.14 Reporting

The activities that make up the implementation must be identified, recorded and reported in a form and manner specified by the Scheme Administrator. Starting with implementations in October 2025, ACPs must report all activities in a calendar month by the end of the following month. See the Reporting requirements page on our website for details on how to submit your report and what you need to include.

The Accreditation Notice may set out other reporting requirements. ACPs should review the accreditation notice to understand these additional reporting requirements (if any).

2.15 Use of templates

We provide templates and other documents for ACPs to use when engaging with customers, as outlined in Table 2.3. Templates are available on the ESS website. More information on the use of these templates is set out in section 4 of this document.

Table 2.3 Relationship between templates/forms and implementation stage

Project Stage	Template / document
Before implementation commences	• *Heat Pump Fact Sheet* given to customer before they sign the nomination form and implementation commences (for implementations on or after 1 April 2024) • *Nomination form* signed by customer and ACP
At the start of the implementation	• *Site Assessment Report* completed and signed by the original energy saver or the installer
At the end of the implementation	• *Installer Declaration* signed by the installer

[o] *ESS Rule*, cl 5.3A(b)

3 Calculating energy savings

Under the IHEAB method, energy savings may comprise only electricity savings and gas savings. Energy savings from switching from electricity to gas is not allowed (section 2.5).

3.1 Electricity savings

The electricity savings from an implementation of the IHEAB method can be calculated using:

- equation 17 of the ESS Rule, and
- the deemed activity energy savings from Schedule F to the ESS Rule.

A maximum of 5,000 ESCs can be created from one heat pump system installed. A system is one standalone heat pump or multiple heat pumps manifolded together (where they are identical models joined in a series with a balanced water flow).

3.2 Gas savings

The gas savings from an implementation of this method can be calculated using equation 17 of the ESS Rule, which uses the deemed activity gas savings from the relevant activity definition in Schedule F to the ESS Rule. Where there are no deemed activity gas savings for an activity, the gas savings will be zero.

From 1 July 2026, any activity that replaces existing equipment with equipment that is a gas fired steam boiler (Activity Definition F8), gas fired water heater or gas fired hot water boiler (Activity Definition F9), can no longer create energy savings. Implementations and certificate registrations for activity definitions F8 and F9 are not allowed after 30 June 2026.

3.3 Calculation tools

ACPs can develop their own calculation tool. Spreadsheets and tools used in the calculation of energy savings must be developed and maintained to ensure they are up to date and comply with the most recent requirements. For example, ESS Rule factors, including deemed activity electricity and gas savings factors, are updated from time to time. Calculations of energy savings must be done in accordance with the relevant equations outlined in the ESS Rule.

4 Minimum required records

4.1 Record keeping requirements

ACPs are required to keep records in respect of a RESA, including records of:

- the location in which the RESA occurred
- the energy savings arising from that RESA
- the methodology, data and assumptions used to calculate those energy savings
- any other records specified by the Scheme Administrator, including the minimum required records set out in section 4.2 of this guide.[a]

ACPs must retain records for at least six years, in a form and manner approved by the Scheme Administrator. Each ACP's Accreditation Notice may include a condition requiring that the ACP's record keeping arrangements are consistent with the *Record Keeping Guide*.

4.2 Minimum required records

Tables 4.1 to 4.16 describe the minimum documents ACPs are required to keep as a record of the energy savings from the project. For each implementation, ACPs must collect:

- the records described in the Table 4.1
- the records described in the table relevant to the activity or activities being implemented.

The records specified in these tables are the minimum records that an ACP must have to support the creation of ESCs. ACPs are encouraged to keep additional records to assist with auditing and may need to do so if the minimum required records are not adequate to demonstrate that a requirement has been met. For example, additional records may be necessary to clarify any inconsistencies between other records or for more complex projects.

[a] *Electricity Supply (General) Regulation 2014*, cl 46

Table 4.1 Minimum required records for all implementations – general requirements

Requirement	Document	Description
Implementation Date	Completion/commissioning report or Certificate of Compliance – Electrical Work (**CCEW**) or Gas Certificate of Compliance (**GCC**) or Tax invoice	The document must clearly show: • the date the appliance was installed • the address where the installation took place.
Implementation address	Completion/commissioning report or Certificate of Compliance – Electrical Work (**CCEW**) or Gas Certificate of Compliance (**GCC**) or Tax invoice	The document must clearly show: • the date the appliance was installed • the address where the installation took place • that the site is not a residential building (unless permitted for that activity definition)
Energy Saver	Tax invoice	The tax invoice must clearly show: • the amount paid for the implementation • the name of the purchaser • the ABN of the purchaser (if applicable) • the goods or services purchased • the date of the purchase.
Nomination	Nomination form	The nomination form must: • be in the required form (i.e. using the relevant template available from the ESS website) • clearly identify the activities for which the nomination applies • be completed and signed by the original energy saver on or before the implementation date.
Calculations	The spreadsheet or calculation tool used to calculate energy savings from each implementation.	The document must clearly show the calculation of energy savings, and the data inputs and factors applied as required for the relevant activity in Schedule F to the ESS Rule.

Table 4.2 Minimum required records – for implementations of **activity F1.1** – install a high efficiency refrigerated cabinet

Note: From 12 September 2025, only activities for product classes 12 to 15 are eligible.

Requirement	Document	Description
Appliance make and model	Geo-tagged photo(s) **or** Tax invoice[a]	Each document must clearly show: • the make of the appliance • the model number of the appliance.
Minimum co-payment	Tax invoice and Sales ledger	The tax invoice must clearly show: • the amount paid for the implementation • the name of the purchaser and seller • the ABN of the seller and purchaser (if applicable) • an itemised description of the goods or services purchased • the date of the purchase. The sales ledger must clearly show: • the amount paid for the implementation • when the payment was made • the details of the person who made the payment.
Equipment requirements	Extract or screenshot (or similar) of the GEMS Registry or the NZ Energy Efficiency Amendment Regulations 2020 **and**	The document must clearly show: • the equipment is registered under GEMS or the NZ Energy Efficiency Regulations 2020 • the Energy Efficiency Index (**EEI**) to confirm that the EEI is below 77, except for Integral Ice Cream Freezer Cabinets (class 5) which must have an EEI below 51.
	Geo-tagged photo(s)	The photograph(s) must show the number of sides and the material that each side is made from. Note that from 12 September 2025 only equipment with 1 display side can be used to create certificates.
Implementation requirements	Geo-tagged photo(s) **and**	The photograph(s) must show: • that there is no existing equipment installed at the site, • the new equipment installed at the site, in its installed location.
	Where product class 2, 4, 5, 6, 8, 10, 13 or 15 equipment is installed **and**	Evidence the equipment is being used as a freezer.
	Installer declaration **or** CCEW[b] **or**	ACPs must provide an installer declaration, CCEW or Commissioning Report completed and signed by the person who installed the equipment. The document must include: • the address of the site and date of installation

Requirement	Document	Description
	Commissioning report[c]	• the make and model of the new equipment • a statement that the new equipment was installed according to the manufacturer's guidelines, relevant equipment/installation standards and legislation • a statement that there was no existing equipment at the site before the installation. • if applicable, a statement that the person who installed the equipment was a qualified licence holder and undertook/supervised the installation in compliance with the relevant standards and legislation. Where electrical work is required, it must be done by a licenced electrician. A CCEW must be issued and the installer listed in your installer register.

a. The tax invoice must be for the installation of the appliance.
b. The CCEW must be signed and dated by the relevant licensed person.
c. The report must be produced by the party responsible for the commissioning/completion of the installation of the appliance.

Table 4.3 Minimum required records – for implementations of **activity F1.2** – replace an existing refrigerated cabinet

From 12 September 2025 activities for product classes 1 to 11 cannot be used to create energy savings.

Requirement	Document	Description
Appliance make and model	Geo-tagged photo(s) **or** Tax invoice[a]	Each document must clearly show: • the make of the appliance • the model number of the appliance.
Minimum co-payment	Tax invoice **and** Sales ledger	The tax invoice must clearly show: • the amount paid for the implementation • the name of the purchaser and seller • the ABN of the seller and purchaser (if applicable) • an itemised description of the goods or services purchased • the date of the purchase. The sales ledger must clearly show: • the amount paid for the implementation • when the payment was made • the details of the person who made the payment.
Equipment requirements	Extract or screenshot (or similar) of the GEMS Registry or the NZ Energy Efficiency Amendment Regulations 2020 **or** for existing equipment not listed on GEMS, manufacturer data **and**	The document must clearly show: • the replacement equipment is registered under GEMS or the NZ Energy Efficiency Regulations 2020 • the Energy Efficiency Index (**EEI**) to confirm that the EEI is below 81 EEI, except for Integral Ice Cream Freezer Cabinets (class 5) which must have an EEI below 51. **and** • the existing equipment is of the same Refrigerated Cabinet Product Class or of a corresponding AS 1731 Product Type (as set out in Table F1.2.1 of the Rule) (where implementation date is on or after 19 June 2024)

Requirement	Document	Description
	Geo-tagged photo(s)	For the replacement equipment, where the implementation is on or after 19 June 2024, the photograph(s) must show the number of sides and the material that each side is made from, noting that from 12 September 2025 only equipment with 1 display side can be used to create certificates.
Implementation requirements	Geo-tagged photo(s) **and**	The photograph(s) must show: • the existing equipment in place at the site before installation • the make and model number of the existing equipment for implementations on or after 19 June 2024, • the replacement equipment installed at the site in its installed location • that the replaced equipment has been removed from the site.
	Recycling/disposal receipt **and**	The recycling receipt or certificate must show that any replaced equipment has been removed from the site and disposed of in accordance with clause 5.3A(b) of the ESS Rule

Requirement	Document	Description
	Installer declaration **or** CCEW[b] **or** Commissioning report[c]	ACPs must provide an installer declaration, CCEW or Commissioning Report signed by the person who installed the equipment. The document must include: • the address of the site and date of installation • the make and model of the replacement equipment • a statement that the replacement equipment was installed according to the manufacturer's guidelines, relevant equipment/installation standards and legislation, • a statement that the existing equipment was disposed of in accordance with legislation • if applicable, a statement that the person(s) who installed the replacement equipment and removed the existing equipment was a qualified licence holder and undertook/supervised the installation in compliance with the relevant standards and legislation.

a. The tax invoice must be for the installation of the appliance.
b. The CCEW must be signed and dated by the relevant licensed person.
c. The report must be produced by the party responsible for the commissioning/completion of the installation of the appliance.

Table 4.4 Minimum required records – for implementations of **activities F2 and F3** –install a new high efficiency liquid chilling package and close control air conditioner

Requirement	Document	Description
Appliance make and model	Geo-tagged photo **or** Tax invoice	Each document must clearly show: • the make of the appliance • the model number of the appliance.
Equipment requirements	Extract or screenshot (or similar) of the GEMS Registry	The document must clearly show that the equipment is registered under GEMS. • For activity F2, the document must show the Integrated Part Load Value (**IPLV**) to confirm that the IPLV is 10% greater than the corresponding baseline in Table F2.1. • For activity F3, the document must show the Energy Efficiency Ratio (**EER**) to confirm that the EER is 20% greater than the corresponding baseline in Table F3.1.
Implementation requirements	Geo-tagged photo **and**	The photo must show the appliance in place at the site.
	Tax invoice[a] **or** CCEW[b] **or** Commissioning report[c]	The document must show the make and model of the appliance and the address of the site where the appliance was installed.

a. The tax invoice must be for the installation of the appliance.
b. The CCEW must be signed and dated by the relevant licensed electrician.
c. The report must be produced by the party responsible for the commissioning/completion of the installation of the appliance.

Table 4.5 Minimum required records – for implementations of **activity F4** – install a high efficiency air conditioners or replace an existing air conditioner with a high efficiency air conditioner

Requirement	Document	Description
Eligibility requirements	Site assessment report	A site assessment report, signed by the installer or the original energy saver, declaring that: • the equipment installed is a high efficiency air conditioner • the equipment was not installed in a residential building unless it is replacing an existing air conditioner in a centralised system or in the common areas of a Class 2 building,
Appliance make and model	Geo-tagged photo(s) **or** Tax invoice [a]	Each document must clearly show: • the make of the appliance • the model number of the appliance.
Equipment requirements	Extract or screenshot (or similar) of the GEMS Registry	The document must clearly show that the equipment is registered under GEMS as well as the following values of the product, as applicable: • Commercial TCSPF_mixed • Rated AEER • Commercial HSPF_mixed • Rated ACOP • Commercial HSPF_cold
Implementation requirements	Geo-tagged photo(s) **and**	The photograph(s) must show: • for replacement, the existing equipment installed at the site **or** • for installation of new equipment, that there is no existing equipment installed at the site.
	Installer declaration **or** CCEW[b] **or** Commissioning report[c]	ACPs must provide an installer declaration, CCEW or Commissioning Report signed by the person who installed the equipment. The document must include: • the address of the site and date of installation • the make and model of the new equipment • a statement that the new equipment was installed according to the manufacturer's guidelines, relevant equipment/installation standards and legislation, • if applicable, a statement that the existing equipment was removed by a qualified licence holder in compliance with the relevant standards and legislation, • if applicable, a statement that the person who installed the equipment was a qualified licence holder and undertook/supervised the installation in compliance with the relevant standards and legislation.

a. The tax invoice must be for the installation of the appliance.
b. The CCEW must be signed and dated by the relevant licensed electrician.
c. The report must be produced by the party responsible for the commissioning/completion of the installation of the appliance.

Table 4.6 Minimum required records - for implementations of **activity F5** - Install an electronically commutated motor to power a fan in an installed refrigerated cabinet, freezer or cool room

Requirement	Document	Description
Appliance details – new motor	Tax invoice **and**	The tax invoice must show the make and model of the new motor.
	Manufacturer's data	The manufacturer's data must show that the motor is a brushless DC motor used to power a refrigeration fan. Additionally, the data must show: • the make and model of the fan • the nominal input power (W) of the fan at full capacity with the impeller fitted • the output power (W) or airflow volume (m^3/hour) and that this is equal to or greater than that of the ventilation fan it replaced, but not greater than 500W at full capacity with the impeller fitted.
Appliance details – existing motor and refrigeration fan	Manufacturer's data **and**	The manufacturer's data must show that the motor is a shaded pole motor or a permanent split capacitor motor. Additionally, the data must show: • the make and model[a] • the nominal input power (W) of the appliance at full capacity with the impeller fitted, the output power (W), or airflow volume (m^3/hour).[b]
	Geo-tagged photo of the motor **and**	The photo must show the motor before and after it has been removed. Where possible, it should also show the make and model of the motor.
	Photo of the refrigeration unit	The photo must show: • that the refrigeration unit is a refrigerated cabinet, a reach in freezer or a cool room evaporation unit that is in use • the make and model of the refrigeration unit.
Implementation requirements	Geo-tagged photo **and**	The photo must clearly show the new motor in place at the site
	Installer declaration **and**	ACPs must provide a declaration signed by the person who installed the motor. The declaration must include: • the address of the site and date of installation • the make and model of the motor • a statement that the motor was installed according to the manufacturer's guidelines.
	Tax invoice[c] **or** CCEW[d] **or** Commissioning report[e]	The document must show: • the make and model of the motor • the address of the site where the motor was installed.

a. If the manufacturer's data does not show this, ACPs can provide a photo showing this instead.
b. If the manufacturer's data does not include this information, ACPs can provide calculations or actual measured data. ACPs must justify any assumptions they have made in the calculations, and provide any data/measurements that they have used.
c. The tax invoice must be for the installation of the motor.
d. The CCEW must be signed and dated by the relevant licensed electrician.
e. The report must be produced by the party responsible for the commissioning/completion of the installation.

Table 4.7 Minimum required records - for implementations of **activity F6** – Install an electronically commutated motor to power a ventilation fan

Requirement	Document	Description
Appliance details – new motor	Tax invoice **and**	The tax invoice must show the make and model of the new motor.
	Manufacturer's data	The manufacturer's data must show that the motor is a brushless DC motor that is part of an air handling unit used to power a ventilation fan. Additionally, the data must show: • the make and model of the fan • the nominal input power (W) of the fan at full capacity with the impeller fitted • the output power (W) or airflow volume (m^3/hour) and that this is equal to or greater than that of the ventilation fan it replaced, but not greater than 500W at full capacity with the impeller fitted.
	Manufacturer's specifications	The document must show that the electronically commutated motor is part of a ducted fan or partition fan in an air-handling system as defined in ISO 13349:2010.
Appliance details – existing motor and ventilation fan	Manufacturer's data **and**	The manufacturer's data must show that the motor is a shaded pole motor or a permanent split capacitor motor. Additionally, the data must show: • the make and model[a] • the nominal input power (W) of the appliance at full capacity with the impeller fitted, the output power (W), or airflow volume (m^3/hour).[b]
	Geo-tagged photo of the motor **and**	The photo must show the motor before and after it has been removed. Where possible, it should also show the make and model of the motor.
	Photo of the air-handling system	The photo must show: • that the ventilation unit is a ducted fan or a partition fan that is in use • the make and model of the air handling unit.
Implementation requirements	Geo-tagged photo **and**	The photo must clearly show the motor in place at the site.
	Installer declaration **and**	ACPs must provide a declaration signed by the person who installed the motor. The declaration must include: • the address of the site • the make and model of the motor • a statement that the motor was installed according to the manufacturer's guidelines.
	Tax invoice[c] **or** CCEW[d] **or** Commissioning report[e]	The document must show: • the make and model of the motor • the address of the site where the motor was installed.

a. If the manufacturer's data does not show this, ACPs can provide a photo showing this instead.
b. If the manufacturer's data does not include this information, ACPs can provide calculations or actual measured data. ACPs must justify any assumptions they have made in the calculations and provide any data/measurements that they have used.
c. The tax invoice must be for the installation of the motor.
d. The CCEW must be signed and dated by the relevant licensed electrician.
e. The report must be produced by the party responsible for the commissioning/completion of the installation.

Table 4.8 Minimum required records - for implementations of **activity F7** – Install a new high efficiency motor or replace an existing motor with a high efficiency motor

Requirement	Document	Description
Appliance details – new motor	Tax invoice **and**	The tax invoice must show the make and model of the new motor.
	Manufacturer's data **and**	The manufacturer's data must show: • the make and model of the motor • the rated (mechanical) output power of the motor in kW • the number of motor poles.
	Screenshot (or similar)	The screenshot must show that the product is registered under GEMS (www.energyrating.gov.au).
Load utilisation factor	Process/system information	This information may include: • piping and instrumentation diagram • flow diagram • process schematics, or • photographs of the process.
Appliance details – existing motor (if the implementation is not New End User Equipment)	Manufacturer's data **and**	The data must show: • the make and model[a] • the Full Load Efficiency recorded in the GEMS Registry.
	Geo-tagged photo of the existing motor	The photo must show the motor before and after it has been removed. Where possible, it should also show the make and model of the motor.
Implementation requirements	Geo-tagged photo **and**	The photo must clearly show the motor in place at the site.
	Installer declaration **and**	ACPs must provide a declaration signed by the person who installed the motor. The declaration must include: • the address of the site and date of installation • the make and model of the motor • a statement that the motor was installed according to the manufacturer's guidelines.
	Tax invoice[a] **or** CCEW[b] **or** Commissioning report[c]	The document must show: • the make and model of the motor • the address of the site where the motor was installed.

a. The tax invoice must be for the installation of the motor.
b. The CCEW must be signed and dated by the relevant licensed electrician.
c. The report must be produced by the party responsible for the commissioning/completion of the installation.

Table 4.9 Minimum required records - for implementations of **activities F8 and F9** – Replace an existing gas fired steam boiler, gas fired hot water boiler or gas fired water heater with a high efficiency gas fired steam boiler, gas fired hot water boiler or gas fired water heater (Note: these activities will cease after 30 June 2026)

Requirement	Document	Description
Eligibility Requirements	Site assessment report	A site assessment report, signed by the installer or the original energy saver, declaring that: • the building where the activity takes place is not a BCA Class 1 or 4 building (single dwelling, or single dwelling in a building) • the existing boiler is more than 10 years old • the existing boiler was in working order at the time of decommissioning.
Appliance details – existing equipment (gas fired steam boiler, hot water boiler or water heater)	Geo-tagged photo of the existing boiler/heater nameplate **and**	The photo must clearly show: • the model number • the serial number • the age of the boiler/heater • the nameplate capacity of the boiler/heater (refer to Appendix A for guidance on conversion to kW).
	Geo-tagged photo of the existing burner nameplate[a] **and**	The photo must clearly show: • the age of the burner • the fuel type.
	Manufacturer's data	The manufacturer's data must show: • the type of equipment as a steam boiler, hot water boiler or water heater • all other required information that is not clearly visible on the boiler/heater and burner nameplates (referenced using the model number).
Appliance details – replacement equipment (high efficiency gas fired steam boiler, hot water boiler or water heater)	Geo-tagged photo of the replacement boiler/heater nameplate **and**	The photo must clearly show: • the model number • the serial number • the nameplate capacity of the boiler/heater (refer to Appendix A for guidance on conversion to kW).
	Geo-tagged photo of the replacement burner nameplate[a] **and**	The photo must clearly show: • the age of the burner • the fuel type.
	Manufacturer's data **and**	The manufacturer's data must show: • the type of equipment as a steam boiler, hot water boiler or water heater • all other required information that is not clearly visible on the boiler and burner nameplates (referenced using the model number) • for equipment with a nameplate capacity of 1,000 kW or higher, that the burner is of the linkageless type with a turndown ratio of at least 4:1 • for equipment with a nameplate capacity of 2,000 kW or higher, that it includes an oxygen trim system

Requirement	Document	Description
		• the fuel-to-fluid efficiency of the equipment at high fire conditions.[b]
	Tax invoice	The tax invoice must show the make and model of the replacement boiler/heater. For replacement boilers/heaters with a nameplate capacity of 2,000 kW or higher, the tax invoice must itemise the boiler, the burner and oxygen trim system. If the burner and oxygen trim system are included in the boiler, the manufacturer's data must show this clearly.
Implementation requirements	Geo-tagged photo **and**	The photo must clearly show: • the existing equipment (boiler/heater and burner) in place at the site before installation • that the existing boiler/heater has been disconnected and removed.
	Installer declaration **or** Gas Certificate of Compliance (**GCC**)[c] **or** Commissioning report[d]	The document must be signed by the person who installed the equipment and include: • the address of the site where the equipment was installed • the date of installation • the make and model of the equipment • a statement that the existing equipment was disconnected and removed • a statement that the replacement equipment was installed according to the manufacturer's guidelines, relevant equipment/installation standards and legislation • if applicable, a statement that the replacement gas fired water heater is not a storage or instantaneous water heater as defined by AS/NZS 3814.

a. If the burner does not have a nameplate because it is inbuilt to the boiler, the photograph must show that the burner is inbuilt and the boiler nameplate photograph must show the fuel type and the burner maximum firing rate or gas consumption. If information, such as fuel type, is not clearly visible on the boiler/heater nameplate photo, a different form of evidence must be provided to the satisfaction of the Scheme Administrator.

b. Steam boilers must have a fuel-to-fluid efficiency of at least 80%, as defined by BTS-2000, ASME PTC 4 or equivalent standards. Hot water boilers and heaters must have a fuel-to-fluid efficiency of at least 85% at a return water temperature of 60°C. ACPs must have evidence that the efficiency test has been conducted by a qualified service provider.

c. The GCC must be signed and dated by the relevant licensed gas fitter.

d. The report must be produced by the party responsible for the commissioning/completion of the installation.

Table 4.10 Minimum required records - for implementations of **activity F10** – Install an oxygen trim system on a gas fired steam boiler, hot water boiler or water heater

Requirement	Document	Description
Eligibility Requirements	Site assessment report	A site assessment report, signed by the installer or the original energy saver, declaring that: • the building where the activity takes place is not a BCA Class 1 or 4 building (single dwelling, or single dwelling in a building) • there was no oxygen trim system installed on the existing boiler at the time of installation.
Appliance details – new equipment (oxygen trim system)	Geo-tagged photo of the oxygen trim system **and**	The photo must clearly show: • the installed system's control panel • the installed oxygen sensor.
	Manufacturer's data	The manufacturer's data must show the make and model of the equipment.
Appliance details – existing equipment (steam boiler, hot water boiler or water heater)	Geo-tagged photo of the boiler/heater nameplate **and**	The photo must clearly show: • the model number • the serial number • the nameplate capacity of the boiler/heater (refer to Appendix A for guidance on conversion to kW).
	Geo-tagged photo of the burner nameplate[a] **and**	The photo must clearly show the fuel type.
	Manufacturer's data	The manufacturer's data must show: • the type of equipment as a steam boiler, hot water boiler or water heater • all other required information that is not clearly visible on the boiler/heater and burner nameplates (referenced using the model number).
Implementation requirements	Geo-tagged photo **and**	The photo must clearly show: • the existing equipment (boiler/heater and burner) in place at the site before installation • the location where the oxygen trim system will be installed (before installation).
	Installer declaration **or** Gas Certificate of Compliance (**GCC**)[b] **or** Commissioning report[c]	The document must be signed by the person who installed the equipment and include: • the address of the site where the equipment was installed • the date of installation • the make and model of the equipment • the boiler/heater has a digital burner control system capable of receiving a signal from a flue gas sensor for oxygen trim purposes • a statement that the equipment was installed according to the manufacturer's guidelines, relevant equipment/installation standards and legislation.

a. If the burner does not have a nameplate because it is inbuilt to the boiler, provide a picture showing that the burner is inbuilt and ensure that the boiler nameplate photograph shows the fuel type and the burner maximum firing rate or gas consumption. If information, such as fuel type, is not clearly visible on the boiler nameplate photo, a different form of evidence must be provided to the satisfaction of the Scheme Administrator.
b. The GCC must be signed and dated by the relevant licensed gas fitter.
c. The report must be produced by the party responsible for the commissioning/completion of the installation.

Table 4.10 Minimum required records - for implementations of **activity F11** – Replace burner on a gas fired steam boiler, hot water boiler or water heater)

Requirement	Document	Description
Eligibility Requirements	Site assessment report	A site assessment report, signed by the installer or the original energy saver, declaring that: • the building where the activity takes place is not a BCA Class 1 or 4 building (single dwelling, or single dwelling in a building) • the existing burner is in working order at the time of replacement.
Appliance details – replacement equipment (burner)	Geo-tagged photo of the replacement burner **and**	The photo must clearly show: • the installed replacement burner • the burner nameplate showing the nameplate capacity and fuel type.
	Manufacturer's data	The manufacturer's data must show: • the make and model of the equipment • that replacement burners with a nameplate capacity of 1,000kW or more are linkageless, have a turndown ratio of at least 4:1 and are capable of receiving a signal from a flue gas sensor for oxygen trim purposes.
Appliance details – existing equipment (burner on a steam boiler, hot water boiler or water heater)	Geo-tagged photo of the boiler/heater nameplate **and**	The photo must clearly show: • the model number • the serial number • the nameplate capacity of the boiler/heater (refer to Appendix A for guidance on conversion to kW).
	Geo-tagged photo of the existing burner nameplate[a] **and**	The photo must clearly show: • the age of the burner • the fuel type.
	Manufacturer's data	The manufacturer's data must show: • the type of equipment as a steam boiler, hot water boiler or water heater that the existing burner used mechanical linkages to control the air-to-fuel ratio • all other required information that is not clearly visible on the boiler/heater and burner nameplates (referenced using the model number).
Implementation requirements	Geo-tagged photo **and**	The photo must clearly show the existing equipment (boiler/heater and burner) in place at the site before installation.
	Installer declaration **or** Gas Certificate of Compliance (**GCC**)[b] **or** Commissioning report[c]	The document must be signed by the person who installed the equipment and include: • the address of the site where the equipment was installed • the date of installation • the make and model of the equipment • a statement that the equipment was installed according to the manufacturer's guidelines, relevant equipment/installation standards and legislation.

a. If the burner does not have a nameplate because it is inbuilt to the boiler, provide a picture showing that the burner is inbuilt and ensure that the boiler nameplate photograph shows the fuel type and the burner maximum firing rate or gas consumption. If information, such as fuel type, is not clearly visible on the boiler nameplate photo, a different form of evidence must be provided to the satisfaction of the Scheme Administrator.
b. The GCC must be signed and dated by the relevant licensed gas fitter.
c. The report must be produced by the party responsible for the commissioning/completion of the installation.

Table 4.11 Minimum required records - for implementations of **activity F12** – Install an economiser on a gas fired steam boiler, hot water boiler or water heater

Requirement	Document	Description
Eligibility Requirements	Site assessment report	A site assessment report, signed by the installer or the original energy saver, declaring that: • the building where the activity takes place is not a BCA Class 1 or 4 building (single dwelling, or single dwelling in a building) • there was no economiser installed on the existing boiler/heater at the time of installation • if boiler feedwater is not used as the heat rejection line, another line is available for heat rejection at least 80% of the time.
Appliance details – new equipment (economiser)	Geo-tagged photo of the economiser **and**	The photo must clearly show: • the installed economiser • the boiler feedwater line entering the economiser or if boiler feedwater is not used as the heat rejection line, a design must be obtained showing which line will be used.
	Manufacturer's data	The manufacturer's data must show: • the make and model of the equipment • whether it is a condensing or non-condensing type • that the economiser is capable of controlling minimum flow rates or running dry.
Appliance details – existing equipment (steam boiler, hot water boiler or water heater)	Geo-tagged photo of the boiler/heater nameplate **and**	The photo must clearly show: • the model number • the serial number • the nameplate capacity of the boiler/heater (refer to Appendix A for guidance on conversion to kW).
	Geo-tagged photo of the burner nameplate[a] **and**	The photo must clearly show: • the age of the burner • the fuel type.
	Manufacturer's data	The manufacturer's data must show: • the type of equipment as a non-condensing steam boiler, hot water boiler or water heater • what the boiler/heater stack is constructed of (e.g. carbon steel or stainless steel) • all other required information that is not clearly visible on the boiler and burner nameplates (referenced using the model number).
Implementation requirements	Geo-tagged photo **and**	The photo must clearly show: • the existing equipment (boiler/heater and burner) in place at the site before installation • the location where the economiser will be installed on the boiler stack (before installation).
	Combustion test **and**	A combustion test report completed after the economiser is installed showing the stack temperature exiting the economiser whilst high firing.

Requirement	Document	Description
	Installer declaration **or** Gas Certificate of Compliance (**GCC**)[b] **or** Commissioning report[c]	The document must be signed by the person who installed the equipment and include: • the address of the site where the equipment was installed • the date of installation • the make and model of the equipment • a statement that the economiser has been fitted with a control system with minimum flow rates such that manual intervention is not required for operation, unless it is specifically designed to run dry • a statement that the equipment was installed according to the manufacturer's guidelines, relevant equipment/installation standards and legislation.

a. If the burner does not have a nameplate because it is inbuilt to the boiler, provide a picture showing that the burner is inbuilt and ensure that the boiler nameplate photograph shows the fuel type and the burner maximum firing rate or gas consumption. If information, such as fuel type, is not clearly visible on the boiler nameplate photo, a different form of evidence must be provided to the satisfaction of the Scheme Administrator.

b. The GCC must be signed and dated by the relevant licensed gas fitter.

c. The report must be produced by the party responsible for the commissioning/completion of the installation.

Table 4.12 Minimum required records - for implementations of **activity F13** – Install a sensor based blowdown control on a gas fired steam boiler

Requirement	Document	Description
Eligibility Requirements	Site assessment report	A site assessment report, signed by the installer or the original energy saver, declaring that: • the building where the activity takes place is not a BCA Class 1 or 4 building (single dwelling, or single dwelling in a building) • that the steam boiler does not have an existing sensor based automatic blowdown control.
Appliance details – new equipment (sensor based blowdown control)	Geo-tagged photo of the new equipment **and**	The photo must clearly show the installed blowdown control system.
	Manufacturer's data	The manufacturer's data must show: • the make and model of the equipment • that the end-user equipment is a sensor-based blowdown control system capable of automatically blowing down based on a sensor reading of the concentration of total dissolved solids in the steam boiler.
Appliance details – existing equipment (steam boiler)	Geo-tagged photo of the boiler nameplate **and**	The photo must clearly show: • the boiler model number • the boiler serial number • the boiler design pressure • the nameplate capacity of the boiler (refer to Appendix A for guidance on conversion to kW).
	Geo-tagged photo of the burner nameplate[a] **and**	The photo must clearly show: • the age of the burner • the fuel type.
	Manufacturer's data	The manufacturer's data must show: • the type of boiler as a steam boiler • all other required information that is not clearly visible on the boiler and burner nameplates (referenced using the boiler model number).
Implementation requirements	Geo-tagged photos **and**	The photos must clearly show: • the existing equipment (boiler and burner) in place at the site before installation • the boiler operating pressure • that the steam boiler did not have an existing sensor based automatic blowdown control system (before installation).

Requirement	Document	Description
	Installer declaration **or** Gas Certificate of Compliance (**GCC**)[b] **or** Commissioning report[c]	The document must be signed by the person who installed the equipment and include: • the address of the site where the equipment was installed • the date of installation • the make and model of the equipment • a statement that the equipment was installed according to the manufacturer's guidelines, relevant equipment/installation standards and legislation.

a. If the burner does not have a nameplate because it is inbuilt to the boiler, provide a picture showing that the burner is inbuilt and ensure that the boiler nameplate photograph shows the fuel type and the burner maximum firing rate or gas consumption. If information, such as fuel type, is not clearly visible on the boiler nameplate photo, a different form of evidence must be provided to the satisfaction of the Scheme Administrator.
b. The GCC must be signed and dated by the relevant licensed gas fitter.
c. The report must be produced by the party responsible for the commissioning/completion of the installation.

Table 4.13 Minimum required records - for implementations of **activity F14** – Install a blowdown flash steam heat recovery system on a gas fired steam boiler

Requirement	Document	Description
Eligibility Requirements	Site assessment report	A site assessment report, signed by the installer or the original energy saver, declaring that: • the building where the activity takes place is not a BCA Class 1 or 4 building (single dwelling, or single dwelling in a building) • that the steam boiler has, or will have, an existing sensor based blowdown control, in working order, installed at the time of commissioning of the blowdown flash steam heat recovery system • that the steam boiler does not have an existing blowdown flash steam heat recovery system.
Appliance details – new equipment (blowdown flash steam heat recovery system)	Geo-tagged photo of the new equipment **and**	The photo must clearly show the installed flash steam heat recovery system (flash vessel and sub-surface sparge line).
	Manufacturer's data **and**	The manufacturer's data must show: • the make and model of the equipment • that the end-user equipment is a flash steam heat recovery system (flash vessel and sub-surface sparge line).
Appliance details – existing equipment (steam boiler)	Geo-tagged photo of the boiler nameplate **and**	The photo must clearly show: • the boiler model number • the boiler serial number • the boiler design pressure • the nameplate capacity of the boiler (refer to Appendix A for guidance on conversion to kW).
	Geo-tagged photo of the burner nameplate[a] **and**	The photo must clearly show: • the age of the burner • the fuel type.
	Manufacturer's data	The manufacturer's data must show: • the type of boiler as a steam boiler • all other required information that is not clearly visible on the boiler and burner nameplates (referenced using the boiler model number).
Implementation requirements	Geo-tagged photos **and**	The photos must clearly show: • the existing equipment (boiler and burner) in place at the site before installation • the boiler operating pressure • the existing or new sensor-based blowdown control showing that it is in working order • the location where the flash steam heat recovery system will be installed showing that the steam boiler did not have an existing flash steam heat recovery system (before installation).

Requirement	Document	Description
	Installer declaration **or** Gas Certificate of Compliance (**GCC**)[b] **or** Commissioning report[c]	The document must be signed by the person who installed the equipment and include: • the address of the site where the equipment was installed • the date of installation • the make and model of the equipment • a statement that the equipment was installed according to the manufacturer's guidelines, relevant equipment/installation standards and legislation.

a. If the burner does not have a nameplate because it is inbuilt to the boiler, provide a picture showing that the burner is inbuilt and ensure that the boiler nameplate photograph shows the fuel type and the burner maximum firing rate or gas consumption. If information, such as fuel type, is not clearly visible on the boiler nameplate photo, a different form of evidence must be provided to the satisfaction of the Scheme Administrator.
b. The GCC must be signed and dated by the relevant licensed gas fitter.
c. The report must be produced by the party responsible for the commissioning/completion of the installation.

Table 4.14 Minimum required records - for implementations of **activity F15** – Install a residual blowdown heat exchanger on a gas fired steam boiler

Requirement	Document	Description
Eligibility Requirements	Site assessment report	A site assessment report, signed by the installer or the original energy saver, declaring that: • the building where the activity takes place is not a BCA Class 1 or 4 building (single dwelling, or single dwelling in a building) • that the steam boiler has, or will have, an existing sensor based blowdown control, in working order, installed at the time of commissioning of the blowdown flash steam heat recovery system, • that the steam boiler does not have an existing residual blowdown heat exchanger • that a fluid stream below 40°C will be available at all times to transfer heat from the boiler blowdown.
Appliance details – new equipment (residual blowdown heat exchanger)	Geo-tagged photo of the new equipment **and**	The photo must clearly show the installed heat exchanger connected to a cold fluid stream.
	Manufacturer's data	The manufacturer's data must show: • the make and model of the equipment • that the end-user equipment is a residual blowdown heat exchanger.
Appliance details – existing equipment (steam boiler)	Geo-tagged photo of the boiler nameplate **and**	The photo must clearly show: • the boiler model number • the boiler serial number • the boiler design pressure • the nameplate capacity of the boiler (refer to Appendix A for guidance on conversion to kW).
	Geo-tagged photo of the burner nameplate[a] **and**	The photo must clearly show: • the age of the burner • the fuel type.
	Manufacturer's data	The manufacturer's data must show: • the type of boiler as a steam boiler • all other required information that is not clearly visible on the boiler and burner nameplates (referenced using the boiler model number).
Implementation requirements	Geo-tagged photos **and**	The photos must clearly show: • the existing equipment (boiler and burner) in place at the site before installation • the boiler operating pressure • the existing, or new, sensor-based blowdown control showing that it is in working order • the location where the residual blowdown heat exchanger will be installed showing that the steam boiler did not have an existing heat exchanger (before installation).

	Installer declaration **or** Gas Certificate of Compliance (**GCC**)[b] **or** Commissioning report[c]	The document must be signed by the person who installed the equipment and include: • the address of the site where the equipment was installed • the date of installation • the make and model of the equipment • that the residual blowdown heat exchanger was installed such that it transfers heat from the steam boiler's blowdown fluid to a fluid stream of less than 40°C • a statement that the equipment was installed according to the manufacturer's guidelines, relevant equipment/installation standards and legislation.

a. If the burner does not have a nameplate because it is inbuilt to the boiler, provide a picture showing that the burner is inbuilt and ensure that the boiler nameplate photograph shows the fuel type and the burner maximum firing rate or gas consumption. If information, such as fuel type, is not clearly visible on the boiler nameplate photo, a different form of evidence must be provided to the satisfaction of the Scheme Administrator.

b. The GCC must be signed and dated by the relevant licensed gas fitter.

c. The report must be produced by the party responsible for the commissioning/completion of the installation.

Table 4.15 Minimum required records - for implementations of **activity F16** – Replace one or more existing hot water boilers or water heaters with one or more air source heat pump water heater systems

Requirement	Document	Description
Eligibility Requirements	Site assessment report	A site assessment report, signed by the installer or the original energy saver, declaring that: • the building where the activity takes place is not a BCA Class 1 or 4 building (single dwelling, or single dwelling in a building) • the existing equipment is a gas or electric resistance hot water boiler or water heater. • the existing equipment must be a gas hot water boiler or gas water heater if the new equipment is a gas boosted air source heat pump water heater. Refer to Appendix B for guidance on single implementations that may involve F16 and F17.
Minimum co-payment	Tax invoice **and** Sales ledger	The tax invoice must clearly show: • the amount paid for the implementation • the name of the purchaser and seller • the ABN of the seller and purchaser (if applicable) • an itemised description of the goods or services purchased • the date of the purchase. The sales ledger must clearly show: • the amount paid for the implementation • when the payment was made • the details of the person who made the payment.
Equipment Requirements	Tax invoice **and**	The document must clearly show the product make and model of the new equipment installed
	Acceptance by the Scheme Administrator	Refer to the *Product eligibility* webpage on the ESS website.
Implementation requirements	Geo-tagged photo of the new equipment **and**	The photo must clearly show: • the new equipment in place at the site • the make and model number of the new equipment • the nameplate heating capacity (kW) of the new equipment • where multiples of a single heat pump water heater on the Accepted Products List are installed, that multiples are identical and have been joined together using a manifold.
	Geo-tagged photo of the existing equipment **and**	The photo must clearly show: • the equipment before and after it has been removed • the make and model of the equipment • the nameplate heating capacity (kW) of the hot water boiler(s) or water heater(s).

Manufacturer's data **and**	For existing equipment, the manufacturer's data must show the heating capacity (kW) if not visible or displayed on the hot water boiler(s) or water heater(s) nameplate (referenced using the equipment model number). For new equipment, the manufacturer's data must show the heating capacity (kW) if not visible or displayed on the heat pump water heater(s) nameplate (referenced using the equipment model number).
Installer declaration **or** Certificate of Compliance[a] **or** Commissioning report[b]	The document must be signed by the person who installed the equipment and include: • the address of the site where the equipment was installed and the date of installation • the make and model of the new equipment • a statement that the activity, including the removal of the existing equipment, was performed or supervised by a qualified licence holder in compliance with the relevant standards and/or legislation • a statement that the new equipment was installed according to the manufacturer's guidelines, relevant equipment/installation standards and/or legislation.
User Manual **and** geo-tagged photo of the new equipment	The User Manual must: • show how manufacturer installation recommendations are followed, • comply with AS/NZS 5149.3:2016 for split system's refrigerant flows between the evaporator and tank, and The geo-tagged photo must: • show how manufacturer installation recommendations are followed, and • show that the installed equipment meets location requirements of AS/NZS 5149.3:2016.
Warranty	For hot water heat pumps with an Average Insulated Storage Volume of 700 litres or less, that are installed from 1 December 2025, the manufacturer warranty must: • include protection against defects, • cover the heat pump unit and tank, • cover a period of at least 5 years from the date of installation, purchase or supply (as applicable), and • include the name and contact details of who to contact in Australia (in the event of a product failure).

a. A Certificate of Compliance (e.g. CCEW, CoC) provides evidence of plumbing, gas and/or electrical work. The certificate must be signed and dated by the relevant qualified person, licensed with NSW Fair Trading.
b. The report must be produced by the party responsible for the commissioning/completion of the installation.

Table 4.16 Minimum required records - for implementations of **activity F17** – Install one or more air source heat pump water heater systems

Requirement	Document	Description
Eligibility requirements	Site assessment report	A site assessment report, signed by the installer or the original energy saver, declaring that the building where the activity takes place is not a BCA Class 1 or 4 building (single dwelling, or single dwelling in a building) Refer to Appendix B for guidance on single implementations that may involve F16 and F17.
Minimum co-payment	Tax invoice **and** Sales ledger	The tax invoice must clearly show: • the amount paid for the implementation • the name of the purchaser and seller • the ABN of the seller and purchaser (if applicable) • an itemised description of the goods or services purchased • the date of the purchase. The sales ledger must clearly show: • the amount paid for the implementation • when the payment was made • the details of the person who made the payment.
Equipment requirements	Tax invoice **and**	The document must clearly show the product make and model number of the new equipment installed.
	Acceptance by the Scheme Administrator	Refer to the *Product eligibility* webpage on the ESS website.
Implementation requirements	Geo-tagged photo of the new equipment **and**	The photo must clearly show: • the new equipment in place at the site • the make and model number of the new equipment • that multiples are identical and have been joined together using a manifold (when multiples of a single heat pump water heater on the Accepted Products List are installed).
	Installer declaration **or** Certificate of Compliance[a] **or** Commissioning report[b]	The document must be signed by the person who installed the equipment and include: • the address of the site where the equipment was installed and the date of installation • the make and model of the new equipment • a statement that the activity was performed or supervised by a qualified licence holder in compliance with the relevant standards and/or legislation • a statement that the equipment was installed according to the manufacturer's guidelines, relevant equipment/installation standards and legislation • a statement that the installed equipment did not replace any existing equipment.
	User Manual **and** geo-tagged photo of the new equipment	The User Manual must: • show how manufacturer installation recommendations are followed,

	• comply with AS/NZS 5149.3:2016 for split system's refrigerant flows between the evaporator and tank, • and The geo-tagged photo must: • show how manufacturer installation recommendations are followed, and • show that the installed equipment meets location requirements of AS/NZS 5149.3:2016. •
Warranty	For hot water heat pumps with an Average Insulated Storage Volume of 700 litres or less that are installed from 1 December 2025 the manufacturer warranty must: • include protection against defects, • cover the heat pump unit and tank, • cover a period of at least 5 years from the date of installation, purchase or supply (as applicable), and • include the name and contact details of who to contact in Australia (in the event of a product failure).

a. A Certificate of Compliance (e.g. CCEW, CoC) provides evidence of plumbing, gas and/or electrical work. The certificate must be signed and dated by the relevant qualified person, licensed with NSW Fair Trading.
b. The report must be produced by the party responsible for the commissioning/completion of the installation.

Appendices

A Converting steam output to kW

For gas activities, the deemed equipment gas savings requires the nameplate capacity of the boiler/heater (boiler rating) in kW. If the boiler/heater capacity is shown as 'steam output (kg/h)' or similar it should be converted to kW rating using the following conversion:

- Multiply the steam output by the difference between the specific enthalpy of saturated steam at the boiler maximum pressure and the specific enthalpy of feedwater at 100°C and atmospheric pressure.
- Multiply the result by the corresponding unit conversion factor to convert energy units to kW.

An example is provided in Box A.1.

Box A.1 Boiler capacity conversion example

Consider the following boiler nameplate data:

Capacity (steam output) : 7,960 (kg/h)

Maximum pressure : 17 (bar)

Calculate the boiler kW rating using the following steps:

1) Specific enthalpy of saturated steam @ 17 bar = 2,793 (kJ/kg) (from saturated steam tables)

2) Specific enthalpy of water @ 100˚C and 1 bar = 419 (kJ/kg) (from saturated steam tables)

3) Boiler capacity (energy) = 7,960 (kg/h) x (2,793 – 419) (kJ/kg)

= 18,897,040 (kJ/h)

4) Boiler capacity (power) = 18,897,040 (kJ/h) / 3600 (s/h)

= 5,249 (kW)[a]

a 1 kW = 1 kJ/s

B Commercial and industrial water heaters

A single implementation under the IHEAB method may involve both replacing existing end-user equipment and installing new end-user equipment under activity definitions F16 and F17.[q]

Depending on different scenarios, ACPs can choose which activity definitions they can apply, which impacts how energy savings and ESCs are calculated. We provide examples of how the activity definitions may apply in different scenarios below as a guide.

Scenario 1: Two existing resistive electric hot water heaters are replaced with two new heat pump water heaters. The combined capacity of the new heat pump water heaters is less than the combined capacity of the existing water heaters (bar 2 in Figure B.1).

In this scenario, both new heat pump water heaters replace the two resistive electric water heaters under Activity Definition F16. The energy savings calculated would be capped at the combined capacity of the new heat pump water heaters.

Scenario 2: Two existing resistive electric hot water heaters are replaced with two new heat pump water heaters. The combined capacity of the new heat pump water heaters is greater than the combined capacity of existing water heaters (bar 3 in Figure B.1).

In this scenario, both new heat pump water heaters replace the two existing water heaters under Activity Definition F16. However, the energy savings would be capped at the combined capacity of the two existing water heaters. You will not be able to calculate energy savings for any excess capacity above the red dotted line.

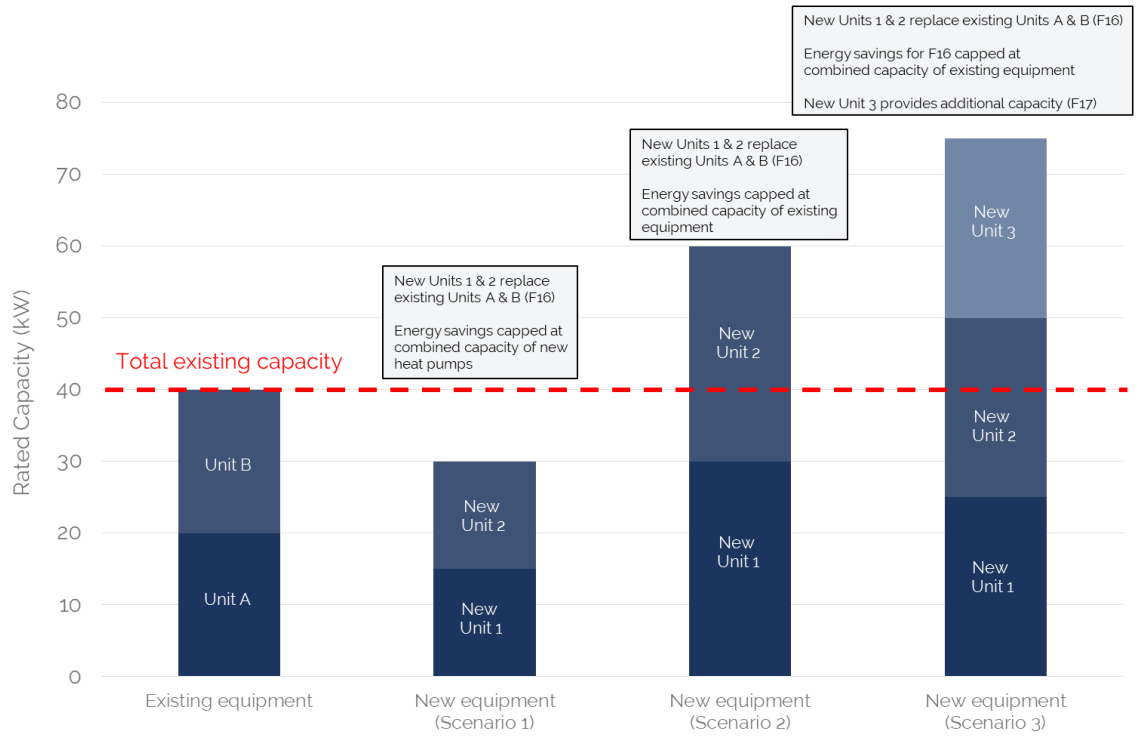
Scenario 3: Two existing resistive electric hot water heaters are replaced with three new heat pump water heaters. The combined capacity of two of the new heat pump water heaters is greater than (or equal to) the capacity of existing water heaters (bar 4 in Figure B.1).

In this scenario, energy savings for all three heat pump water heaters could be calculated under Activity Definition F16, but the energy savings will be capped at the capacity of the existing water heaters. You will not be able to calculate energy savings for any excess capacity above the red dotted line.

Alternatively, it would be possible to calculate energy savings for two heat pump water heaters under F16, capped at the capacity of the existing water heaters. For the third heat pump, it would be possible to calculate energy savings for the excess capacity under F17. This is because the third heat pump does not replace any existing equipment and can be considered as a new installation under F17. It is not possible to claim energy savings for the excess capacity of the two replacement heat pumps under F17.

[q] Under Activity Definition F17, a new heat pump that is added to an existing water heating system can be considered as New end-user equipment if it does not replace any existing end-user equipment.

Figure B.1 Examples of how activity definitions would apply in different scenarios



C Energy savings for heat pump water heaters

This appendix outlines the variables used to calculate energy savings for heat pump replacements under the IHEAB method, including how you report multiple heat pumps activities.

Implementation data uploads for single or multiple heat pumps

Where one existing water heater is replaced with multiple heat pump water heaters, you should sum the energy savings for each heat pump and enter the implementation as a single line item in the implementation data upload.

If you replace multiple existing systems with multiple heat pump water heaters, you may use a single line item in the implementation data upload. You can also use a separate line item in the implementation data upload for each water heater that is being replaced (e.g. if you are replacing 2 water heaters with 4 heat pump hot water heaters you could use 1 line item or 2 – but not 4).

F16 energy savings formula

Energy savings for F16 are calculated by multiplying the energy savings by a capacity factor, a confidence factor, the lifetime and then dividing by 3.6. See the example equation below.

$$Deemed\ Equipment\ Electricity\ Savings = \sum_{systems} [RefElec - HPElec]\ x\ Capacity\ Factor\ x\ Confidence\ Factor\ x\ Lifetime/3.6$$

RefElec is the annual electrical energy (GJ/year) used by a reference electric resistance water heater.

HPElec is the annual electrical energy (GJ/year) used by the End-User Equipment. If multiple heat pumps replace one electrical water heater, HPElec is the **sum of the annual electrical electricity used by all replacement heat pumps**.

Calculating the Capacity Factor

Electricity savings under Activity Definition F16 are capped at the capacity of the existing system. The Capacity Factor accounts for this cap. Where the installed capacity is the same or less than the existing capacity, the capacity factor is one. Where more capacity is installed, the capacity factor is determined by dividing the total rated capacity of the existing system (**WHCap**) by total rated capacity of the heat pumps installed (**HPCap**).

$$Capacity\ Factor = \frac{WHCap}{HPCap}$$

Note: **HPCap** is the Total Thermal Capacity, which represents the capacity of the heat pump and booster heaters. Where multiple heat pumps are installed HPCap will be the sum of Total Heat Pump Thermal Capacity for the individual units installed.

WHCap is the total thermal capacity of the equipment that is replaced and can be found on the nameplate of the replaced equipment. Note if more than one unit is replaced, WHCap is the sum of the total thermal capacity of the individual units that are replaced.

If the replacement Total Thermal Capacity of the replacement heat pumps is greater than the thermal capacity of the electrical water heater being replaced, the Capacity Factor will be less than 1.

Calculating the Confidence Factor

The confidence factor calculation for products with an Individual Heat Pump Thermal Capacity less than 10kW is limited to 1 and can be calculated using the peak daily (winter) load in MJ/Day, when modelled in the climate zone in which it is installed (Peak Load).

$$Confidence\ Factor = \frac{42}{Peak\ Load}$$

Individual Heat Pump Thermal Capacity (kW) is equal to the Total Heat Pump Thermal Capacity (kW) / Number of heat pump(s). The Number of heat pump(s) is the number of individual heat pumps combined within the system and published on our accepted products list.

If 3 heat pumps with a total Heat Pump Thermal Capacity of 10kW are installed, the Individual Heat Pump Thermal Capacity is 10/3 = 3.33 kW. The Confidence Factor for the above example is then 42 divided by the **sum of the 3 replacement heat pump's peak loads**.

For products with an Individual Heat Pump Thermal Capacity greater than or equal to 10 kW, the Confidence Factor is equal to 1.