



Independent Pricing and Regulatory Tribunal  
New South Wales

# Aggregated Metered Baseline

## Method Guide

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# 1 About this guide

The NSW Energy Savings Scheme (**ESS**) seeks to reduce energy consumption in NSW by creating financial incentives for organisations to invest in energy saving projects.

The other objects of the ESS are to:

- ▼ assist households and businesses to reduce energy consumption and energy costs
- ▼ make the reduction of greenhouse gas emissions achievable at a lower cost, and
- ▼ reduce the cost of, and need for, additional energy generation, transmission and distribution infrastructure.<sup>1</sup>

Electricity retailers and other mandatory participants (**Scheme Participants**) are obliged to meet energy saving targets. Energy savings can be achieved by installing, improving or replacing energy saving equipment. Persons that become Accredited Certificate Providers (**ACPs**) can create energy savings certificates (**ESCs**) from these activities and then sell those ESCs to Scheme Participants. The Independent Pricing and Regulatory Tribunal of NSW (**IPART**) is both the Scheme Administrator and Scheme Regulator of the ESS.<sup>2</sup>

This document provides guidance about how the Aggregated Metered Baseline (**AMB**) method of the 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 ESCs. This document should be used by:

- ▼ applicants seeking accreditation as a certificate provider, to assist them in completing their application,<sup>3</sup> and
- ▼ those persons who are already ACPs, to assist them in accurately calculating energy savings using this method.

## 1.1 Legislative requirements

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

- ▼ Part 9 of the *Electricity Supply Act 1995* (**Act**)
- ▼ Part 6 of the *Electricity Supply (General) Regulation 2014* (**Regulation**), and
- ▼ 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.

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<sup>1</sup> *Electricity Supply Act 1995*, section 98(2)

<sup>2</sup> *Electricity Supply Act 1995*, sections 153(2) and 151(2)

<sup>3</sup> A full explanation of the application process is provided in the Application Guide [www.ess.nsw.gov.au/How\\_to\\_apply\\_for\\_accreditation/The\\_application\\_process](http://www.ess.nsw.gov.au/How_to_apply_for_accreditation/The_application_process). ACPs should ensure they read this document and the Application Guide in full before applying for accreditation.

## 2 Method overview

The AMB method provides a way to calculate and create ESCs for energy savings that occur across a group of electricity and/or natural gas customers using statistical techniques and metered energy consumption data. Statistical knowledge is required in order to successfully conduct energy savings activities under this method.

The AMB method may be used to calculate energy savings for most energy saving activities, but is generally best suited to low cost energy saving activities across a large number of energy users where:

- ▼ energy savings are small on a site by site basis
- ▼ energy savings vary greatly from site to site, or
- ▼ there is uncertainty over the amount of energy that will be saved, or the length of time for which energy savings will continue.

Energy saving programs run by energy retailers or distributors are particularly well suited to this method.

## 3 Requirements that must be met

The information below is guidance about the requirements of the 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 conditions of their accreditation.

### 3.1 Energy saver

An ACP can only calculate energy savings and create ESCs 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 either:

- ▼ **the original energy saver** – which, under the AMB method, is the person who holds the measured electricity and/or natural gas consumption data for all the sites in the population as at the implementation date,<sup>4</sup> or
- ▼ **the nominated energy saver** – which is someone the original energy saver has nominated as the energy saver by completing a Nomination Form.<sup>5</sup>

An ACP that is the original energy saver must be accredited as an ACP **prior to** the implementation date in order to create ESCs from an implementation.

An ACP that is a nominated energy saver must:

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<sup>4</sup> See section 3.2.2 for the definition of implementation date.

<sup>5</sup> Available at: [www.ess.nsw.gov.au/Accredited\\_Certificate\\_Providers/Templates](http://www.ess.nsw.gov.au/Accredited_Certificate_Providers/Templates)

- ▼ be **accredited** as an ACP **prior** to the implementation date and before the nomination is made,<sup>6</sup>
- ▼ have a documented procedure for obtaining the nomination from the original energy saver, and
- ▼ be **nominated** by the original energy saver **on or before** the implementation date. The nomination is taken to occur on the date that the nomination form is signed by the original energy saver.

## 3.2 Implementation and implementation date

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

### 3.2.1 Implementation

An implementation under the AMB method is the delivery and monitoring of an energy savings initiative (the **treatment**<sup>7</sup>) to sites in the population.<sup>8</sup> For example, a program delivered to a number of houses to assist them to reduce their electricity or natural gas consumption or both, through equipment or behavioural changes.

### 3.2.2 Implementation date

The implementation date is the start date of the implementation period. This date is important, as only implementations after the date the energy saver is registered as an ACP and (where applicable) nominated by the holder of the electricity or natural gas consumption data, or both, are eligible.

### 3.2.3 Pre-implementation period

Electricity and/or natural gas consumption data measured prior to the treatment commencing can be used in the calculation of energy savings. The time period where data is available before the implementation date is called the pre-implementation period.

Pre-implementation period data is necessary to calculate the observed energy savings under method 5.3 and 5.4 of the ESS Rule.<sup>9</sup>

If ACPs use data from the pre-implementation period, they must specify before the implementation date a period for which the pre-implementation data is available for all sites.

<sup>6</sup> The ESS website provides information on applying to become an ACP at: [www.ess.nsw.gov.au/How\\_to\\_apply\\_for\\_accreditation](http://www.ess.nsw.gov.au/How_to_apply_for_accreditation).

<sup>7</sup> See section 3.3.1 for a definition of treatment.

<sup>8</sup> See section 3.3 for a definition of population.

<sup>9</sup> See section 4.1 for a definition of observed energy savings and the three calculation methods.

### 3.2.4 Implementation period

The time period over which the electricity and/or natural gas consumption will be measured to create ESCs is called the implementation period. The implementation period must be:

- ▼ over a continuous time period
- ▼ at least three months long, and
- ▼ no longer than 15 months.

The implementation period must not overlap with the pre-implementation period, but they do not have to be immediately sequential.

If the ACPs' energy savings initiative will result in energy savings over a period longer than 15 months, they can continue the treatment under a new implementation period.

ACPs must determine and document the length of each implementation period prior to the implementation date, that is, before the start date of the first implementation period.

## 3.3 The population

The population is the group of sites from which energy savings are calculated. A site can be either residential or commercial. An Accredited Statistician must randomly allocate each site in the population to either the control group or the treatment group prior to the implementation date.

The ACP is free to choose which sites they wish to include in the population. Alternatively, a site may ask to join the population, however that site must be randomly allocated to either the treatment or control group and cannot choose which group it will be assigned to.

A site cannot be removed from the population unless it has been affected by attrition.<sup>10</sup>

### 3.3.1 Treatment and treatment group

The treatment is the **offering** of goods or services designed to deliver energy savings to sites in the treatment group. It does not matter if a site in the treatment group accepts or rejects the offer. The treatment is deemed to have been applied once the offer for goods or services is made.

The treatment group includes all sites within the population that receive the treatment. Therefore if a site in the treatment group is offered the energy saving goods or services but chooses not to receive them, that site is still considered to have received the treatment and must be retained in the treatment group for the purpose of calculating the energy savings unless it affected by attrition.<sup>11</sup>

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<sup>10</sup> See section 3.3.4 for an explanation of attrition.

<sup>11</sup> See section 3.3.4 for an explanation of attrition.



### 3.3.2 Control group

The control group includes all sites within the population that do not receive the treatment (that is, they are not offered the energy saving goods or services). The control group is used to estimate the expected electricity and/or natural gas consumption of the treatment group, were they not to receive the treatment.

The population must not be targeted with the offer of any goods or services intended to increase the difference in electricity and/or natural gas consumption between the control group and treatment group.

### 3.3.3 Allocating a site to the treatment group or control group

A site must be randomly allocated to either the treatment group or the control group using an unbiased selection method and this allocation must occur before the implementation date. This means that the allocation is conducted using a randomisation technique that ensures every site in the population has the same chance of being assigned to the treatment group. That is, site 'A' must have the same chance of being assigned to the treatment group as site 'B'. This requirement does not mean that the treatment group must be the same size as the control group.

The size of the population, control group and treatment group is not prescribed. ACPs must determine the most cost-effective population size for their business model, and the most effective ratio of treatment group to control group sizes to use when allocating sites.

Segmenting the population into strata may improve the accuracy of energy saving calculations in some circumstances. If ACPs choose to do this, it must be done before randomly allocating the sites within the population to the treatment group or control group. Persons at a site must not be informed of their allocation into either group.

### 3.3.4 Attrition

Attrition means the termination of an electricity and/or natural gas account in relation to a specific site. The result of attrition is that measured electricity and/or natural gas consumption data may not be available for that site during the whole or part of the implementation period. Examples of when attrition occurs include:

- ▼ A customer switching electricity and/or natural gas retailers.
- ▼ A customer relocates to a different site.
- ▼ A customer's electricity and/or natural gas services at a site are disconnected.

If attrition occurs during an implementation period, it may be managed in two ways, provided all sites affected by attrition are managed in the same manner:

1. The attrition affected sites are removed from the population and any partial measured electricity and/or natural gas consumption data from those sites are omitted from the calculation of energy savings.

2. Each attrition affected site is retained in the population only until the last day that the measured electricity and/or natural gas consumption data is available for it, following which the site is removed from the population.

Although option 2 allows limited energy consumption data for each affected site to be included in the calculation of energy savings, additional steps are required for the purpose of calculating those energy savings. Depending on the method ACPs use to calculate the observed energy savings, these additional steps will differ. This is explained further in section 4.1.4 of this guide.

Where an attrition-affected site is removed from the population, the reason for the attrition must be recorded.

### 3.4 Measurement of electricity and/or natural gas consumption

Measured electricity and/or natural gas consumption data refers to the metered amount of electricity and/or natural gas consumed by a site over the implementation period, as determined by:

- ▼ Metering data, held by the electricity and/or natural gas retailer or network service provider, pro-rated across the implementation period or pre-implementation period as necessary.<sup>12</sup>
- ▼ A metering arrangement compliant with the National Measurement Institute document M6 for Electricity Meters,<sup>13</sup> or R137 for Gas Meters,<sup>14</sup> or
- ▼ A metering arrangement compliant with a benchmark accepted by us.

Access to energy meter data for both the treatment and control groups needs to be gathered and retained for as long as the site is part of the program. If ACPs are not using metering data held by an electricity and/or natural gas retailer or network service provider, ACPs must notify us of the metering arrangement they intend to use, and obtain written acceptance of this arrangement before the implementation date. ACPs will also need to ensure the installation and reading of metering devices which are comprised in that metering arrangement is done without consideration of whether the site was allocated to the treatment group or control group.

### 3.5 Accredited statistician

Prior to the implementation date, ACPs must engage a statistician who is accredited by the Statistical Society of Australia Inc. (SSAI)<sup>15</sup>, and who is accepted by us. The accredited statistician must perform the randomised Site allocation and confirm in writing:<sup>16</sup>

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<sup>12</sup> The measurements and estimates of electricity and/or natural gas consumption must have occurred in accordance with the National Energy Retail Rules, the Electricity Supply (General) Regulation 2014 and the Gas Supply (Consumer Safety) Regulation 2012

<sup>13</sup> [www.industry.gov.au/data-and-publications/pattern-approval-requirements](http://www.industry.gov.au/data-and-publications/pattern-approval-requirements)

<sup>14</sup> [www.industry.gov.au/data-and-publications/pattern-approval-requirements](http://www.industry.gov.au/data-and-publications/pattern-approval-requirements)

<sup>15</sup> [www.statsoc.org.au/astat](http://www.statsoc.org.au/astat)

<sup>16</sup> The statistician's accreditation must be current at the time of the verification.

- ▼ The method for allocating sites to either the treatment group or the control group is unbiased.
- ▼ The analysis method for calculating the observed energy savings under Methods 5.2, 5.3 or 5.4 of the ESS Rule has been chosen and is valid.
- ▼ If Method 5.4 of the ESS Rule is used, the explanatory variables and any interactions between them have been documented.
- ▼ The lengths of the implementation and any pre-implementation period have been determined and documented.

ACPs cannot deviate from the methods verified by the statistician during the implementation period. ACPs wishing to modify these methods for a subsequent implementation period must obtain a new verification in writing from an accredited statistician prior to the commencement of the subsequent implementation period, that is, before the implementation date.

### **3.5.1 Obtaining acceptance for the Accredited Statistician**

ACPs will need to provide us with the following details of the Accredited Statistician at the time of applying for accreditation, or when they wish to add or use another Accredited Statistician (as part of an application for amendment):

- ▼ name
- ▼ company/ organisation name
- ▼ ABN
- ▼ postal address
- ▼ phone number and email address, and
- ▼ evidence of accreditation.

### **3.6 Minimum requirements of conduct**

The Scheme Administrator has established minimum requirements for the conduct of ACPs and their representatives. This includes ACP responsibilities for:

- ▼ training representatives
- ▼ maintaining a register of representatives
- ▼ ensuring there is a formal, documented, signed and enforceable (legally binding) contract or agreement in place for each representative, and
- ▼ providing appropriate customer service.

ACPs are accountable for all ESS activities conducted by employees, third parties and other representatives. This includes all aspects of an activity for which they create ESCs, from the initial engagement with customers, through to the final quality assurance of documents. ACPs will be held responsible for all actions, omissions and information provided by representatives acting on their behalf under the ESS – regardless of any contract or agreement

with other parties. For more information, refer to *ESS Notice 01/2013 (V3.0) Minimum requirements of conduct*.<sup>17</sup>

## 4 Calculation of energy savings

The energy savings resulting from an implementation period of the AMB method are the observed energy savings of the population and relate to the difference in energy consumption between the control group and the treatment group. The observed energy savings are calculated using one of the three methods outlined in section 4.1, less any uplift energy savings (as outlined in section 4.2).

### 4.1 Calculating the observed energy savings over the implementation period

The observed energy savings are the statistically significant energy savings within the population for an implementation period. The observed energy savings includes all apparent energy savings including energy savings resulting from programs or initiatives that are not part of the treatment.

Under the ESS Rule, ACPs may calculate the observed energy savings for each implementation period using one of three methods, which must be selected prior to the implementation date:

- ▼ Method 5.2: Time-aggregated energy consumption during the implementation period, outlined in section 4.1.1.
- ▼ Method 5.3: Time-aggregated energy consumption during both the implementation and pre-implementation periods, outlined in section 4.1.2.
- ▼ Method 5.4: Regression modelling, outlined in section 4.1.3.

Methods 5.3 and 5.4 require the use of a pre-implementation period to calculate the observed energy savings. If ACPs do not have pre-implementation period data they must use method 5.2 to calculate the energy savings. If they have pre-implementation data, they can choose the calculation method that best suits their circumstances.

Methods 5.2 and 5.3 determine energy savings by subtracting the measured energy consumption of the treatment group<sup>18</sup> from that of the control group.<sup>19</sup>

The observed energy savings are only eligible if they are statistically significant. A hypothesis test is used to determine whether energy savings are statistically significant.

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<sup>17</sup> Refer: [www.ess.nsw.gov.au/Home/Document-Search/Notices/Notice-012013-Minimum-requirements-of-conduct/Notice-012013-Requirements-for-all-methods-Minimum-requirements-of-conduct-V3.0](http://www.ess.nsw.gov.au/Home/Document-Search/Notices/Notice-012013-Minimum-requirements-of-conduct/Notice-012013-Requirements-for-all-methods-Minimum-requirements-of-conduct-V3.0)

<sup>18</sup> This represents the reduced consumption with energy savings activity in place.

<sup>19</sup> This represents the estimated energy consumption for the treatment group where the energy savings activity is not in place.

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Method 5.4 utilises the variation in the treatment group, in addition to the variation in the control group. This may result in a variance larger than necessary to be statistically significant, and require ACPs to use explanatory variables to offset this.

The sections below outline the three calculation methods. ACPs should consult with their accredited statistician on which method of calculating the observed energy savings is best suited for their circumstances.

#### **4.1.1 Method 5.2: Time aggregated energy consumption during the implementation period**

**Method 5.2** of the ESS Rule must be used if ACPs do not have pre-implementation data. ACPs may also use this method if they do not wish to use pre-implementation data.

Method 5.2 calculates the observed energy savings by subtracting the mean daily energy consumption of the treatment group during the implementation period from that of the control group and then multiplying this difference by the number of days in the implementation period.

Method 5.2 consists of the following steps:

1. Calculate the mean daily energy consumption of the treatment group and control group, respectively.
2. Using the mean daily energy usage of the control group and treatment group and the standard error for the control group mean, perform a hypothesis test to verify that the treatment group energy consumption was lower than the estimated control group energy consumption.
3. If the outcome of the hypothesis test shows the mean daily treatment group energy consumption is statistically significantly lower than that of the control group, then subtract the mean daily treatment group energy consumption from the mean daily control group energy consumption and multiply this by the number of days in the implementation period for each site in the population to obtain the observed energy savings.
4. If the outcome of the hypothesis test shows the mean daily treatment group energy consumption is statistically equal to or greater than that of the control group, then no energy savings have occurred.

#### **4.1.2 Method 5.3: Time aggregated energy consumption during the implementation and pre-implementation periods**

**Method 5.3** of the ESS Rule may be used when ACPs have pre-implementation data that provides a better estimate of observed energy savings, and they do not wish to use regression modelling.

Method 5.3 calculates the observed energy savings from the change in energy consumption between the implementation period and the pre-implementation period, by subtracting the

change in electricity and/or natural gas consumption of the treatment group from that of the control group.

The method requires that ACPs have measured energy consumption data for the population over the implementation and pre-implementation periods. The pre-implementation period must cover the same time period in a previous year as the implementation period. That is, both pre-implementation and implementation periods must have the same length and be from the same time of year.

Method 5.3 consists of the following steps:

1. Calculate the difference in mean daily energy use between the implementation period and the pre-implementation period for each site in the population.
2. Calculate the mean change in daily energy use between the implementation and pre-implementation period for the treatment group and the control group.
3. Perform a hypothesis test to verify that the change in energy consumption from the pre-implementation period to the implementation period with the treatment (using treatment group data) was statistically significantly lower than the estimated change without the treatment (using control group data).
4. If the outcome of the hypothesis test shows the change in energy consumption for the treatment group to be statistically significantly less than the change in energy consumption for the control group, subtract the mean treatment group energy change from the estimated energy change (using control group data) and multiply it by the number of days in the implementation period for each site in the treatment group to obtain the observed energy savings.
5. If the outcome of the hypothesis test shows the change in energy consumption for the treatment group is statistically equal to or greater than the change in energy consumption for the control group, then no energy savings have occurred.

#### **4.1.3 Method 5.4 Regression modelling**

**Method 5.4** of the ESS Rule may be used where ACPs have pre-implementation data and can incorporate explanatory variables into the calculation through regression modelling to produce a better estimate of the observed energy savings. This method should only be considered if ACPs have the relevant knowledge and experience to perform regression modelling.

The method requires that ACPs have measured energy consumption data for the population over the implementation and pre-implementation periods. ACPs can also incorporate additional explanatory variables into the model to provide a better estimate of the energy savings.

Method 5.4 consists of the following steps:

1. Calculate for each site in the population, the mean daily energy use over the implementation period and pre-implementation period respectively.

2. Create the evaluation data set, which consists of one observation for each site in the population for mean daily energy use, a variable indicating whether the site is in the treatment group or the control group and other appropriate explanatory variables.
3. Estimate the average treatment effect per day by estimating a regression via weighted least squares. Using the estimated average daily treatment effect, perform a hypothesis test to verify that the average daily treatment effect is statistically significant.
4. If the hypothesis test shows a statistically significant average daily treatment effect, multiply the average daily treatment effect by the number of days in the implementation period for each site to obtain the observed energy savings.

#### **4.1.4 Calculation of observed energy savings where attrition has occurred**

If ACPs have chosen to include sites affected by attrition in the calculation of energy savings they must ensure these sites are included in a manner that complies with the methods set out in section 3.4.4 of this guide.

In addition, Method 5.4 of the ESS Rule requires an extra step to be included in the calculation if attrition affected sites are included. The process for including these sites is explained in step 3B of Method 5.4

However, attrition affected sites can be included in Methods 5.2 and 5.3 of the ESS Rule without the need for any additional steps.

#### **4.1.5 Finite population correction**

The hypothesis tests used in Methods 5.2 and 5.3 of the ESS Rule allow the use of optional finite population correction. Without finite population correction the calculation of the standard error assumes that the sample size is much smaller than the population size, that is, the population size is infinite.

Finite population correction reduces the standard error by adjusting for the added precision gained by sampling a larger percentage of the population, increasing the likelihood of satisfying the hypothesis test.

Including both finite population factors will produce a greater reduction in the standard error than including just one, leading to a greater likelihood of satisfying the hypothesis test.

## **4.2 Calculation of uplift energy savings**

Uplift energy savings are energy savings within the population, which are estimated to have occurred as a result of activities that were not part of the treatment. The estimated uplift energy savings are subtracted from the observed energy savings to determine the energy savings resulting from the treatment.



We may provide ACPs with an estimate for the uplift energy savings, which we will calculate on a case by case basis using either Method 5.5 of the ESS Rule or another method that we publish. If we do not provide ACPs with an estimate, the uplift energy savings will be zero.

ACPs should contact us<sup>20</sup> to confirm whether we will provide them with an estimate of uplift energy savings for the implementation period for which intend to calculate energy savings.

ACPs may be required to provide us with data, including the addresses of sites in the population and measured electricity and/or gas consumption data for the implementation period, to allow us to provide them with an estimate of the uplift energy savings.

Activities that may result in uplift energy savings include:

- ▼ Other ESS activities (performed by the ACP or another ACP) that are not part of the treatment.
- ▼ Activities that reduce electricity and/or natural gas consumption by generating electricity or natural gas from another source, or by converting non-renewable energy (such as gas) to provide equivalent goods or services.
- ▼ Activities eligible to create tradeable certificates under the Commonwealth's Renewable Energy Target (RET) scheme.<sup>21</sup>

## 5 Calculating and creating ESCs

Equation 1 of the ESS Rule is used to calculate the number of ESCs that may be created from an implementation or implementations.

### Equation 1

$$\text{Number of Certificates} = \sum_{\text{Implementations}} (\text{Electricity Savings} \times \text{Electricity Certificate Conversion Factor} + \text{Gas Savings} \times \text{Gas Certificate Conversion Factor})$$

### 5.1 Applying to register ESCs

Certain information must be submitted to the Scheme Administrator **before** an ACP applies to register ESCs.<sup>22</sup> ACPs are to provide the required information by completing an *Implementation Data Sheet*<sup>23</sup> and submitting it through the ESS Portal.<sup>24</sup> The *Implementation Data Sheet* will include a calculation of the number of ESCs to be created in accordance with Equation 1 in the ESS Rule. This calculation involves:

- ▼ multiplying the electricity savings from the implementation or implementations by the electricity certificate conversion factor (1.06)<sup>25</sup>

<sup>20</sup> [ESS@ipart.nsw.gov.au](mailto:ESS@ipart.nsw.gov.au) or (02) 9290 8452.

<sup>21</sup> Any activity eligible to create tradeable certificates under the *Renewable Energy (Electricity) Act 2000 (Cth)*.

<sup>22</sup> ESS Rule, cl 6.8

<sup>23</sup> Available at: [www.ess.nsw.gov.au/Home/About-ESS/ESS-Registry-and-ESS-Portal/Registering-ESCs](http://www.ess.nsw.gov.au/Home/About-ESS/ESS-Registry-and-ESS-Portal/Registering-ESCs)

<sup>24</sup> Information and access to the portal can be found here: [www.ess.nsw.gov.au/ESS\\_Portal](http://www.ess.nsw.gov.au/ESS_Portal)

<sup>25</sup> *Electricity Supply Act 1995*, section 130(1)



- ▼ multiplying the gas savings from the implementation or implementations by the gas certificate conversion factor (0.39),<sup>26</sup> and
- ▼ adding the two figures together.

The result is the total number of ESCs that ACPs can apply to register from the implementation or implementations. If the result is not a whole number, it is rounded down to the nearest whole number.

There are no restrictions on how many implementations can be bundled together in the same *Implementation Data Sheet*. However:

- ▼ ACPs must apply to register all ESCs included in an *Implementation Data Sheet* in a single application
- ▼ ACPs cannot split energy savings calculated from a single implementation across two or more *Implementation Data Sheets*, and
- ▼ each *Implementation Data Sheet* must only include the calculation of energy savings that are taken to have occurred in the same calendar year (commonly referred to as 'vintage').

When determining how many implementations to bundle in the same *Implementation Data Sheet*, ACPs should consider:

- ▼ the ESC creation limit specified in their Accreditation Notice, as they must be able to register all the ESCs in the bundle at the same time, and
- ▼ the cost of registering the ESCs.<sup>27</sup>

More information on applying to register the creation of ESCs can be found on the ESS website.<sup>28</sup>

## 6 Minimum required records

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, and
- ▼ any other records specified by the Scheme Administrator.<sup>29</sup>

<sup>26</sup> *Electricity Supply Act 1995*, section 130(1)

<sup>27</sup> The ESC registration fee must be paid in a single payment for all ESCs registered in a single bundle. Payment for a single bundle cannot be split into two payments. Refer: [www.ess.nsw.gov.au/Home/About-ESS/ESS-Registry-and-ESS-Portal/Registering-ESCs](http://www.ess.nsw.gov.au/Home/About-ESS/ESS-Registry-and-ESS-Portal/Registering-ESCs)

<sup>28</sup> Available at: [www.ess.nsw.gov.au/Home/About-ESS/ESS-Registry-and-ESS-Portal/Registering-ESCs](http://www.ess.nsw.gov.au/Home/About-ESS/ESS-Registry-and-ESS-Portal/Registering-ESCs)

<sup>29</sup> *Electricity Supply (General) Regulation 2014*, cl 46

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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 *ESS Record Keeping Guide*.<sup>30</sup>

**Applicants should include details of the records they plan to collect to evidence the above in their application.**

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<sup>30</sup> Available at: [www.ess.nsw.gov.au/Accredited\\_Certificate\\_Providers/Record\\_keeping\\_arrangements](http://www.ess.nsw.gov.au/Accredited_Certificate_Providers/Record_keeping_arrangements)

## 7 Glossary

Words which are defined in the ESS Rule and used in this Method Guide have the same meaning in this Method Guide as in the ESS Rule, unless the context requires otherwise.

Acronym	Description
Accredited statistician	A person accredited by the Statistical Society of Australia Inc. at the time of carrying out the verification in accordance with clause 8.9.7(e) of the ESS Rule, and accepted by the Scheme Administrator for the purposes of the ESS Rule.
ACP	Accredited Certificate Provider
Control group	The group of sites in the population selected to not be offered the Treatment.
Energy savings	The reduction in energy electricity and/or natural gas consumption arising from the implementation of a RESA.
ESCs	Energy Savings Certificates
ESS	Energy Savings Scheme
Evidence Package	The <i>Aggregated Metered Baseline Evidence Package</i>
Implementation	The delivery of an energy savings initiative to sites in a population.
Implementation date	The start date of the implementation period.
Implementation period	A measurement period after the treatment is provided to the treatment group, from which energy savings are measured.
IPART	Independent Pricing and Regulatory Tribunal of NSW
<i>Nominated</i> energy saver	A person nominated to be the energy saver by the <i>original</i> energy saver under the provisions of clause 5.2 (b) of the ESS Rule.
Observed energy savings	The measured energy savings of the population over an implementation period, including energy savings resulting from activities not related to the treatment.
<i>Original</i> energy saver	The person who holds the measured electricity and/or natural gas consumption data for all the sites in the population at the implementation date, as defined in clauses 5.2 and 8.9.10 of the ESS Rule.
Population	The group of sites from which energy savings is calculated.
Pre-implementation period	A measurement period prior to the implementation period.
RESA	Recognised Energy Saving Activity.
Treatment	The offering of goods or services intended to reduce electricity and/or natural gas consumption at a site.
Treatment group	The group of sites in the population who receive the treatment.
Uplift energy savings	Energy savings that are the result of activities not part of the treatment, including other ESS activities.