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GOVERNMENT NOTICES

Miscellaneous Instruments

NOTICE OF APPROVAL OF ENERGY SAVINGS SCHEME (AMENDMENT NO. 1) RULE 2017

under the

ELECTRICITY SUPPLY ACT 1995

I, Don Harwin MLC, Minister for Energy and Utilities, pursuant to section 167 (4) of the *Electricity Supply Act 1995*, hereby approve the *Energy Savings Scheme (Amendment No. 1) Rule 2017* (Amending Rule) attached to this notice.

The Amending Rule commences on 28 April 2017 and amends the *Energy Savings Scheme Rule of 2009*.

This notice of approval of the Amending Rule is provided pursuant to section 167 (5) of the *Electricity Supply Act 1995*.

A copy of the amended *Energy Savings Scheme Rule of 2009* may also be obtained through the NSW Resources and Energy Division website at <http://www.resourcesandenergy.nsw.gov.au/energy-consumers/sustainable-energy/efficiency/scheme>.

Dated this 27th day of March 2017.

The Hon DON HARWIN MLC
Minister for Energy and Utilities

ENERGY SAVINGS SCHEME (AMENDMENT NO. 1) RULE 2017

under the

ELECTRICITY SUPPLY ACT 1995

1. Name of Rule

This Rule is the Energy Savings Scheme (Amendment No.1) Rule 2017.

2. Operation of Rule

This Rule amends the Energy Savings Scheme Rule 2009. The amended Energy Savings Scheme Rule 2009 is set out in Schedule 1 of this Rule.

3. Commencement

This Rule commences on 28 April 2017.

SCHEDULE 1

Energy Savings Scheme Rule of 2009

The Hon Don Harwin, MLC
Minister for Energy and Utilities

Simplified outline

The following is a simplified outline of this Rule:

- clauses 1-4 set out the commencement of the Rule, the objects of the Rule, the application of the Rule, and status and operation of the Rule.
- clause 5 sets out the definitions of Energy Saver and Recognised Energy Saving Activity, and eligibility for accreditation as an Accredited Certificate Provider.
- clause 6 sets out the conditions on the creation of Energy Savings Certificates under the Rule.
- clause 7 sets out the calculation method for determining Energy Savings under the Project Impact Assessment Method.
- clause 7A sets out the calculation method for determining Energy Savings under the Project Impact Assessment with Measurement and Verification Method.
- clause 8 sets out the calculation method for determining Energy Savings under the Metered Baseline Method using one of the following sub-methods:
 - Baseline per unit of output (clause 8.5)
 - Baseline unaffected by output (clause 8.6)
 - Normalised baseline (clause 8.7)
 - NABERS baseline (clause 8.8)
 - Aggregated Metered Baseline (clause 8.9)
- clause 9 sets out the calculation method for determining Energy Savings under the Deemed Energy Savings Method using one of the following sub-methods:
 - Sale of New Appliances (clause 9.3)
 - Commercial Lighting Energy Savings Formula (clause 9.4)
 - Public Lighting Energy Savings Formula (clause 9.4A)
 - High Efficiency Motor Energy Savings Formula (clause 9.5)
 - Power Factor Correction Energy Savings Formula (clause 9.6)
 - Removal of Old Appliances (clause 9.7)
 - Home Energy Efficiency Retrofits (clause 9.8)

- Installation of High Efficiency Appliances for Businesses (clause 9.9)
- clause 10 sets out the definitions and interpretation provisions.
- clause 11 sets out savings and transitional arrangements relating to the amendment of this Rule.
- Schedule A sets out Default Factors and Classifications.
- Schedule B sets out Activity Definitions for the Sale of New Appliances (clause 9.3)
- Schedule C sets out Activity Definitions for the Removal of Old Appliances (clause 9.7)
- Schedule D sets out Activity Definitions for General Activities for Home Energy Efficiency Retrofits (clause 9.8)
- Schedule E sets out Activity Definitions for Low Cost Activities for Home Energy Efficiency Retrofits (clause 9.8)
- Schedule F sets out Activity Definitions for the Installation of High Efficiency Appliances for Businesses (clause 9.9)

1 Name and commencement

1.1 This Rule is the *Energy Savings Scheme Rule of 2009* and commences on 28 April 2017, with the following exceptions:

- (a) Activities D6, D7, D8 and D9 (Insulation) of Schedule D commence on a date notified by the Minister responsible for the Act by notice published in the NSW Government Gazette;
- (b) Clauses 5.4(k), 5.4(l) and 5.9 commence on a date notified by the Minister responsible for the Act by notice published in the NSW Government Gazette.

Note: The provisions referred to in clause 1.1(b) may commence on or after an Approved Corresponding Scheme is in operation in the Australian Capital Territory.

2 Objects of the Rule

2.1 The object of this Rule is to provide specific arrangements for the creation and calculation of Energy Savings Certificates where energy is saved, with no negative effect on production or service levels, through increased efficiency of electricity consumption or Gas consumption or both, or reduction in electricity consumption or Gas consumption or both. The Rule aims to save energy through measures that improve electricity end-use efficiency or Gas end-use efficiency or both.

3 Application of the Rule

- 3.1 This Rule applies to Accredited Certificate Providers accredited to create Energy Savings Certificates in respect of Recognised Energy Saving Activities in accordance with Part 9 Division 8 of the Act, the Regulations and this Rule.
- 3.2 For the avoidance of doubt, unless expressly provided otherwise, this Rule applies to the calculation of Energy Savings used to create Energy Savings Certificates for which an application for registration is made on or after 28 April 2017.

4 Status and Operation of the Rule

4.1 This Rule is an Energy Savings Scheme Rule made under Part 9 Division 13 of the Act.

5 Definitions of Energy Saver and Recognised Energy Saving Activity, and eligibility for accreditation

Note: Other definitions of terms used in this document are set out at clause 10.

5.1 (deleted)

Energy Saver

5.2 The Energy Saver with respect to Energy Savings arising from a Recognised Energy Saving Activity, as calculated according to a calculation method in this Rule, is either:

- (a) the person defined as the Energy Saver in the relevant calculation method, provided that, as at the relevant Implementation Date, that person has not nominated another person to be the Energy Saver for those Energy Savings in accordance with clause 5.2 (b); or

- (b) the person nominated to be the Energy Saver by the person in clause 5.2 (a), provided that:
 - (i) the nomination has been made in a form and manner approved by the Scheme Administrator; and
 - (ii) as at the relevant Implementation Date, another person has not been nominated as the Energy Saver with respect to the same Energy Savings.

Recognised Energy Saving Activity

5.3 A Recognised Energy Saving Activity is any activity that meets all of the following criteria:

- (a) it increases the efficiency of energy consumption, by:
 - (i) modifying End-User Equipment or the usage of End-User Equipment (including by installing additional components) with the result that there is a reduction in the consumption of energy compared to what would have otherwise been consumed;
 - (ii) replacing End-User Equipment with other End-User Equipment that consumes less energy, subject to clause 5.3A;
 - (iii) installing New End-User Equipment that consumes less energy than other comparable End-User Equipment of the same type, function, output or service, subject to clause 5.3B; or
 - (iv) removing End-User Equipment with the result that there is a reduction in the consumption of energy compared to what would have otherwise been consumed, subject to clause 5.3A; and
- (b) it does not result in a reduction in energy consumption by reducing production or service levels (including safety levels); and
- (c) it is implemented at a Site or Sites in an ESS Jurisdiction; and
- (d) it is not unlawful to carry out the activity in that ESS Jurisdiction as at the Implementation Date; and
- (e) it increases the efficiency of the energy consumption by:
 - (i) increasing the efficiency of electricity consumption;
 - (ii) increasing the efficiency of consumption of a Gas, where the Gas is combusted for stationary energy;
 - (iii) fuel switching from electricity to Gas, or Gas to electricity; or
 - (iv) generating electricity where the electricity is used to provide equivalent goods or services, with the result that there is an overall reduction in the consumption of energy compared to what would have otherwise been consumed, subject to clause 5.4(i).

5.3A The replacement or removal of End-User Equipment only constitutes a Recognised Energy Saving Activity if the Accredited Certificate Provider:

- (a) does not refurbish, re-use or resell that End-User Equipment; and
- (b) if the Implementation Date is on or after 15 May 2016, disposes of that End-User Equipment appropriately, such that:
 - (i) if the postcode of the Implementation is in a Metropolitan Levy Area listed in Table A25 of Schedule A, any lighting End-User Equipment containing mercury must be recycled in accordance with the recycling requirements of a Product Stewardship Scheme; and
 - (ii) recycling evidence is obtained for any refrigerants being disposed of, such as a tax invoice or a recycling receipt, or any other evidence acceptable to the Scheme Administrator.

Note: any refrigerants in the End-User Equipment must be disposed of in a manner that is compliant with the *Ozone Protection and Synthetic Greenhouse Gas Management Act 1989 (Cth)*.

5.3B The installation of New End-User Equipment only constitutes a Recognised Energy Saving Activity if the Scheme Administrator is satisfied that the efficiency of energy consumption of the New End-User Equipment is greater than the average energy efficiency of End-User Equipment that provides the same type, function, output or service. For these purposes, the energy efficiency of End-User Equipment may be estimated by reference to:

- (a) baseline efficiency for that class of End-User Equipment which may, from time to time, be Published by the Scheme Administrator;
- (b) sales-weighted market data for that class of End-User Equipment collected from installers, retailers, distributors or manufacturers; or
- (c) product-weighted averages of Products registered as complying with an AS/NZS that defines how energy efficiency is to be measured for that class of End-User Equipment.

Activities which are not Recognised Energy Saving Activities

5.4 Recognised Energy Saving Activities do not include any of the following:

- (a) the installation of End-User Equipment defined as a:
 - (i) T5 Adaptor kit in Table A9.3 of Schedule A; or
 - (ii) Retrofit Luminaire-LED Linear Lamp in Table A9.3 of Schedule A;
- (b) an activity undertaken in order to comply with any mandatory legal requirement imposed through a statutory or regulatory instrument of any jurisdiction, including, but not limited to, compliance with BASIX and BCA requirements;
- (c) an activity that is a Standard Control Service or Prescribed Transmission Service undertaken by a Network Service Provider in accordance with the National Electricity Rules under the *National Electricity (NSW) Law*, except if the activity is a Non-Network Option;

Note: Clause 5.4(c) does not prohibit the calculation of Energy Savings under the Public Lighting Energy Savings Formula in clause 9.4A.

- (d) the supply of electricity by an Electricity Retailer, or the purchase of electricity from an Electricity Retailer by a customer, from the Electricity Network, under a representation by the Electricity Retailer that there is a reduction in greenhouse gas emissions because the electricity supplied is connected with, or represents an amount equal to, the generation of electricity from a particular energy source. This includes but is not limited to purchases of GreenPower;

Note: This excludes activities involving the purchase of electricity under “GreenPower” accredited or similar schemes that are eligible to create certificates or Renewable Energy Certificates at the point of generation.

- (e) an activity that results in a reduction in the consumption of energy by reducing production or service levels (including safety levels);

Note: Reduced energy consumption not directly due to specific actions to improve efficiency does not qualify as a Recognised Energy Saving Activity. Mild weather, lower production, closing

down part of a Site, or reducing the quality or quantity of service derived from the use of that energy do not qualify as a Recognised Energy Saving Activity.

Reducing energy consumption where there is no negative effect on production or service levels (e.g. reduction of excessive lighting, removal of redundant installed capacity or the installation of more energy efficient equipment) is a Recognised Energy Saving Activity and is not excluded by this clause.

- (f) an activity that reduces energy consumption by increasing consumption of non-renewable fuels (other than Gas) to provide equivalent goods or services;
- (g) an activity that is eligible to create tradeable certificates under the *Renewable Energy (Electricity) Act 2000 (Cth)*;
- (h) an activity that increases the efficiency of Gas consumption and results in flaring of Gas;
- (i) an activity that reduces energy consumption by generating electricity from any source where:
 - (i) the generated electricity is exported to the Electricity Network; or
 - (ii) the generating system has a nameplate rating of 5 MW or higher;
- (j) a fuel switching activity under clause 7A, clause 8.5, clause 8.6 or clause 8.7 that leads to a net increase in greenhouse gas emissions, where greenhouse gas emissions are calculated using Electricity Savings, Gas Savings, and full fuel cycle emissions factors and equations from the current version of the National Greenhouse Accounts Factors.
- (k) an activity implemented at a Site in the Australian Capital Territory where the Site is required to report energy consumption under any of the following:
 - (i) the *National Greenhouse and Energy Reporting Act 2007 (Cth)*; or
 - (ii) the Australian Government's Energy Efficiency in Government Operations Policy; or
 - (iii) the Carbon Neutral ACT Government Framework.
- (l) if the Site is in the Australian Capital Territory, any Lighting Upgrade (as referred to in clause 9.4) that is undertaken as part of a development or refurbishment requiring development approval under the *Planning and Development Act 2007 (ACT)*.

5.5 For the purposes of clause 5.3, a Recognised Energy Saving Activity may:

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

Eligibility for accreditation

5.6 A person is only eligible for accreditation as an Accredited Certificate Provider if the person is a suitable person to be so accredited.

5.7 In considering the suitability of a person to be accredited as an Accredited Certificate Provider, the Scheme Administrator may take into account such matters as it thinks relevant, including:

- (a) previous commercial dealings of the person and its associates; and

(b) the standard of honesty and integrity shown in previous commercial dealings of the person and its associates.

5.8 In clause 5.7, "associate", in relation to a person, has the same meaning it would have under Division 2 of Part 1.2 of the *Corporations Act 2001 (Cth)* if only sections 10, 11, 12(2), 12(5), 15 and 16(1) formed part of that Division.

5.9 For Implementations at any Site located in the Australian Capital Territory, the Accredited Certificate Provider must be an Approved Abatement Provider approved by the Energy Efficiency Improvement Scheme Administrator as at the Implementation Date.

6 Creation of Energy Savings Certificates

Note: Only Accredited Certificate Providers may create Energy Savings Certificates (section 134 of the Act).

6.1 (deleted)

6.2 An Accredited Certificate Provider may only create Energy Savings Certificates in respect of the Energy Savings for an Implementation where:

(a) the Accredited Certificate Provider is the Energy Saver for those Energy Savings as at the Implementation Date; and

(b) the Accredited Certificate Provider's Accreditation Date for that Recognised Energy Saving Activity is prior to the Implementation Date.

6.3 (deleted)

6.4 An Accredited Certificate Provider may not create Energy Savings Certificates in respect of any Energy Savings for which Energy Savings Certificates have already been created.

6.5 An Accredited Certificate Provider may only create a certain Number of Certificates in respect of the Energy Savings arising from a Recognised Energy Saving Activity, calculated in accordance with **Equation 1**.

Equation 1

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

Where:

- *Number of Certificates* is rounded down to a whole number of Energy Savings Certificates;
- the summation is across the Energy Savings arising from one or more Implementations of the Recognised Energy Saving Activity;
- *Electricity Savings and Gas Savings* are the Electricity Savings and Gas Savings respectively, in MWh, arising from each Implementation as calculated according to (as relevant):
 - the Project Impact Assessment Method (clause 7);
 - the Project Impact Assessment with Measurement and Verification Method (clause 7A);
 - the Metered Baseline Method (clause 8); or
 - the Deemed Energy Savings Method (clause 9).
- *Electricity Certificate Conversion Factor* is 1.06, as specified in section 130(1) of the Act, or as amended by Regulation.
- *Gas Certificate Conversion Factor* is 0.39, as specified in section 130(1) of the Act, or as amended by Regulation.

Note: For fuel switching activities, either Gas Savings or Electricity Savings may be negative. Energy Savings Certificates may only be created where the result of Equation 1 is a positive number.

- 6.5A The method used to calculate the Energy Savings arising from a Recognised Energy Saving Activity must:
- (a) be approved by the Scheme Administrator before any Energy Savings Certificates are created using that method. For the purposes of such an approval, the Scheme Administrator may impose additional conditions in respect of the use or application of that method; and
 - (b) produce a result reasonably reflecting, to the satisfaction of the Scheme Administrator, the Energy Savings arising from that Implementation.
- 6.5B Energy Savings may be totalled over more than one Implementations of the same Recognised Energy Saving Activity to create one or more Energy Savings Certificates.
- 6.5C Any Implementation that meets all of the Eligibility Requirements, Equipment Requirements and Implementation Requirements for the relevant Recognised Energy Saving Activity on the Implementation Date, is deemed to meet the requirements of this Rule for Energy Savings Certificate creation, unless otherwise advised in writing by the Scheme Administrator.
- 6.6 (deleted)
- 6.7 (deleted)

- 6.8 For the purpose of applying to register the creation of Energy Savings Certificates for one or more Implementations, an Accredited Certificate Provider must provide the following data to the Scheme Administrator in a manner and form determined by the Scheme Administrator:
- (a) the Accredited Certificate Provider identifier;
 - (b) the Recognised Energy Saving Activity identifier;
 - (c) the Address of the Site or Sites where the Implementation(s) took place;
 - (d) any other identifiers required to identify the Site or Sites where the Implementation(s) took place;
 - (e) the Implementation Date of the Implementation(s);
 - (f) the Electricity Savings, Regional Network Factor applied and Gas Savings for each Implementation, and the estimated percentage of each attributable to fuel switching from electricity to Gas, and Gas to electricity;
 - (g) the Australian Business Number of the entity utilising the End-Use Service, where applicable;
 - (h) the cost to the person who pays for the goods or services that comprise the Implementation, excluding GST;
 - (i) the type of the End-Use Service for which energy was saved in accordance with Table A17 of Schedule A;
 - (j) the Business Classification of the entity utilising the End-Use Service in accordance with Table A18 of Schedule A;
 - (k) the Method or sub-method and Activity Definition, where relevant, used to calculate the Energy Savings;
 - (l) the Electricity Savings and Gas Savings calculated under each Activity Definition that is used for the Implementation, if the Energy Savings are calculated under clause 9.8 or 9.9 of the Deemed Energy Savings Method; and
 - (m) any other data providing evidence of Energy Savings from the Implementation as Published, from time to time, by the Scheme Administrator.
- 6.9 Before registering the creation of an Energy Savings Certificate, the Scheme Administrator may review the data provided in accordance with clause 6.8 to ensure that the calculation of the Energy Savings used to create the Energy Savings Certificate is based on complete data.

Note: An Energy Savings Certificate has no force or effect until the creation of the certificate is registered by the Scheme Administrator (section 143 of the Act).

7 Project Impact Assessment Method

Note: The Project Impact Assessment Method may only be used to “forward create” (under clause 7.4.4) or “top-up” (under clause 7.4.6) Energy Savings Certificates in relation to Implementations with an Implementation Date on or before 30 October 2015.

The Project Impact Assessment Method may only be used for “annual creation” (using Equation 2) to create Energy Savings Certificates in relation to Implementations with an Implementation Date on or before 15 April 2016.

7.1 Energy Savings under the Project Impact Assessment Method

- (a) An Accredited Certificate Provider may only use the Project Impact Assessment Method to calculate the Energy Savings of Implementations if the Accredited Certificate Provider is authorised, on or before 30 September 2014, to use clause 7 to calculate those Energy Savings under its accreditation conditions.
- (b) (deleted)
- (c) Energy Savings calculated in accordance with clause 7.4.4 or 7.4.6, may only be used to create Energy Savings Certificates where those Energy Savings are for Implementations with an Implementation Date on or before 30 October 2015.
- (d) Using the Project Impact Assessment Method, the Energy Savings of an Implementation may be calculated using **Equation 2**, where:
- (i) those Energy Savings are for Implementations with an Implementation Date on or before 15 April 2016; and
- (ii) those Energy Savings are for a maximum period of 10 years after the Implementation Date.

Equation 2

Electricity Savings = Reduced Electricity Consumption x Confidence Factor

Where:

- *Reduced Electricity Consumption* is the extent to which the electricity consumption of the equipment, process, or system is, as a consequence of the Recognised Energy Saving Activity, different to what it otherwise would have been, and is to be calculated in accordance with the engineering assessment in clause 7.2; and
- *Confidence Factor* is the number determined in accordance with clause 7.3 (depending on the type of engineering assessment performed).

7.2 Engineering assessment of reduced electricity consumption

Accredited Certificate Providers using the Project Impact Assessment Method in respect of any Recognised Energy Saving Activity must calculate the reduced electricity consumption of only the equipment, process, or system that is the subject of the Recognised Energy Saving Activity using an engineering assessment or model:

- (a) that uses reasonable assumptions and generally accepted engineering methods, models, and formulae;
- (b) in which the methods, models and formulae used to assess the Recognised Energy Saving Activity are chosen by the Accredited Certificate Provider, but the assessment is assigned a Confidence Factor under clause 7.3 reflecting the accuracy of the engineering assessment conducted; and
- (c) that takes account of:
- (i) the consumption of the existing equipment, systems or processes, or for the purposes of clause 5.3B, the average energy efficiency of comparable New End-User Equipment as described in that clause;
- (ii) the performance of the equipment, systems or processes, including degradation over time;

- (iii) the operating characteristics of the equipment, systems or processes, including hours of use, degree of loading, usage, operating patterns and behaviour, ambient conditions and any other relevant factors; and
- (iv) any of the factors or constants used in a Deemed Energy Savings Method under clause 9, if the variable that the value represents is relevant to the assessment or, if the Accredited Certificate Provider proposes to use a different value for the same purpose, that value is acceptable to the Scheme Administrator.

7.3 Confidence Factor

The Confidence Factor is:

- (a) 1.0, if the engineering assessment determines energy consumption to a high level of accuracy based on logged or equivalent data from the End-User Equipment such as:
 - (i) hours of operation for the End-User Equipment determined from measurements taken over time or other logged data, or a simpler method where this yields an equivalent level of accuracy;
 - (ii) allowances for any variance in input characteristics and usage, degree of loading, or output characteristics for the End-User Equipment over time determined from measurements or other logged data, or a simpler method where this yields an equivalent level of accuracy;
 - (iii) operating environment and ambient conditions over time for the End-User Equipment determined from measurements or other logged data, or a simpler method where this yields an equivalent level of accuracy;
 - (iv) End-User Equipment characteristics using a full performance curve from manufacturers' or measured data, or a simpler method where this yields an equivalent level of accuracy; and
 - (v) performance degradation of the End-User Equipment over time using detailed calculations and manufacturers' or measured degradation characteristics, or a simpler method where this yields an equivalent level of accuracy, (including where the engineering assessment relies upon factors or constants used in a Deemed Energy Savings Method set out in this Rule);

or,

- (b) 0.9, if the engineering assessment determines energy consumption to a lesser level of accuracy from that described in clause 7.3(a), based on estimations from logged data, records or equivalent data such as:
 - (i) hours of operation for the End-User Equipment estimated from records, or a simpler method where this yields an equivalent level of accuracy;
 - (ii) allowances for any variance in input characteristics and usage, degree of loading, or output characteristics for the End-User Equipment over time estimated from records, or a simpler method where this yields an equivalent level of accuracy;
 - (iii) operating environment and ambient conditions over time estimated for the End-User Equipment from records or average measurements, or a simpler method where this yields an equivalent level of accuracy;
 - (iv) End-User Equipment characteristics taking account of performance at full and part load or discrete operating modes, or a simpler method where this yields an equivalent level of accuracy; and
 - (v) estimates of performance degradation of the End-User Equipment over time using manufacturers' or other representative degradation characteristics, or a simpler method where this yields an equivalent level of accuracy,

or,

- (c) 0.8, or another value approved by the Scheme Administrator, if the engineering assessment does not meet the level of accuracy set out in clause 7.3 (a) or (b).

7.4 Energy Savings able to be brought forward using the Project Impact Assessment Method

Note: Section 131 of the Act provides that the Rules may specify when Energy Savings arising from a Recognised Energy Saving Activity are considered to have occurred.

Therefore, under the Rule, Accredited Certificate Providers may elect to 'forward create' Energy Savings Certificates by deeming Energy Savings which will cumulatively occur for a future period, to have occurred on the Implementation Date or a later date per the requirements of clause 7.4.3. However, a discount will be applied to the calculation of those Energy Savings.

- 7.4.1 For the purposes of section 131 of the Act, an Accredited Certificate Provider may elect for future Energy Savings for an Implementation to be deemed to have occurred on a date determined in accordance with clause 7.4.3.
- 7.4.2 The time period of future Energy Savings for an Implementation which may be deemed to have occurred on a date determined by clause 7.4.3, must be set such that:
- (a) the period does not exceed 5 years;
 - (b) the sum of all time periods of future Energy Savings for an Implementation does not exceed the life of the Implementation (in years) determined by the Accredited Certificate Provider, to the satisfaction of the Scheme Administrator, with reference to:
 - (i) the number of Energy Savings Certificates that are otherwise eligible to be created over a given period, determined in accordance with this Rule and to the satisfaction of the Scheme Administrator;
 - (ii) any likely performance degradation of the End-User Equipment that will tend to result in Energy Savings in one period being lower than Energy Savings in preceding periods of equal duration; and
 - (iii) the expected lifetime of the End-User Equipment, taking into account its characteristics, usage and typical frequency of replacement assuming that the use of the Site and End-User Equipment remains the same; and
 - (c) the end date of the period is not later than 10 years after the Implementation Date.
- 7.4.3 If an Accredited Certificate Provider makes the election in clause 7.4.1, the date on which the Energy Savings for that Implementation are deemed to occur is the later of:
- (a) the Implementation Date; and
 - (b) in respect of an Implementation prior to 1 July 2014, the first date by which all the Energy Savings previously brought forward under clause 7.4.1 to create Energy Savings Certificates in respect of the same Recognised Energy Saving Activity have actually occurred.
- 7.4.4 The amount of Energy Savings deemed to occur on the date determined by clause 7.4.3 must be calculated in accordance with the method set out in **Equation 3**.

Equation 3

$$\text{Electricity Savings} = \text{Reduced Electricity Consumption}_n \times \text{Confidence Factor} \times \text{Decay Factor}_n$$

Where:

- *Reduced Electricity Consumption* is the extent to which the electricity consumption of the equipment, process, or system is, as a consequence of the Recognised Energy Saving Activity, different to what it otherwise would have been in year n ;
- *Confidence Factor* depends on the type of engineering assessment performed under clause 7.2 and is assigned according to clause 7.3;
- *Decay Factor_n* is set out in **Table A16** of Schedule A for year n ; and
- n is the year from 1 (the first year of Energy Savings claimed) to the number of years in the time period determined by clause 7.4.2.

Note: At the end of the period for which Energy Savings Certificates were ‘forward created’, Accredited Certificate Providers can apply to create Energy Savings Certificates for the Energy Savings which were previously discounted.

- 7.4.5 For the purposes of section 131 of the Act, Energy Savings which are used to create Energy Savings Certificates in accordance with clause 7.4.6 are taken to occur on the date on which the time period as determined in clause 7.4.2 ends.
- 7.4.6 At the end of the time period determined by clause 7.4.2, the Accredited Certificate Provider may create Energy Savings Certificates using Energy Savings for the relevant Implementation equal to:
- (a) the Energy Savings for each year in the time period other than the first year as calculated using **Equation 2**; less
 - (b) the Energy Savings for each year in the time period other than the first year as calculated for the relevant year in **Equation 3**,
- provided the Accredited Certificate Provider establishes, to the satisfaction of the Scheme Administrator, that the Energy Savings calculated in clause 7.4.6(a) have actually occurred.

7.4.7 (deleted)

7.5 The Implementation Date is the date that the Implementation commenced normal operations.

7.6 The Energy Saver is the Purchaser.

7.7 (deleted)

7A Project Impact Assessment with Measurement and Verification Method

7A.1 Equations to calculate Energy Savings

Using the Project Impact Assessment with Measurement and Verification Method, the Energy Savings for an Implementation may be calculated using either:

- (a) **Equations 7A.1 and 7A.2 for forward creation for a single Site model**, for Energy Savings calculated from a Baseline Energy Model and Operating Energy Model established to model performance before and after the Implementation; or

- (b) **Equations 7A.3 and 7A.4 for annual creation or top-up**, for Energy Savings calculated from actual measurements taken after Implementation compared with expected performance of a Baseline Energy Model under the same conditions; or
- (c) **Equations 7A.1 and 7A.5 for creation based on a multiple Site model**, for Energy Savings calculated from a Baseline Energy Model and Operating Energy Model using a Sampling Method.

7A.2 Acceptable energy model types

- (a) Baseline Energy Models and Operating Energy Models must be established in accordance with the following criteria:
 - (i) An Estimate of the Mean that is based on measurements of energy consumption, Independent Variables and Site Constants, where relevant, specifies a Measurement Period, and where the Coefficient of Variation of the energy consumption over the Measurement Period is less than 15%; or
 - (ii) Regression Analysis that is based on measurements of energy consumption, Independent Variables and Site Constants, specifies a Measurement Period, and where the -number of independent observations for each Site when calculated in accordance with clause 7A.6 is at least six times the Number of Model Parameters in the energy model; or
 - (iii) Computer Simulation that uses a commercially available software package approved by the Scheme Administrator for use in modelling the relevant type of End-User Equipment, and that is calibrated against measurements taken from the actual End-User Equipment being simulated to meet any requirements as Published by the Scheme Administrator.
- (b) Baseline Energy Models and Operating Energy Models may be developed for:
 - (i) a single Site based on measurements taken from that Site; or
 - (ii) multiple Sites based on measurements taken from Sample Sites, using a Sampling Method in accordance with clause 7A.20.

7A.3 Baseline Energy Model

A Baseline Energy Model must estimate either electricity consumption or Gas consumption in the absence of the Implementation and must:

- (a) be dependent on Independent Variables and Site Constants, where relevant, that are established by measurements taken under normal operating conditions in accordance with clause 7A.5 of this Rule;
- (b) if the model is for New End-User Equipment, be established based on Independent Variables and Site Constants that incorporate the average energy performance of the same type of equipment in accordance with clause 5.3B of this Rule;
- (c) have an Effective Range determined in accordance with clause 7A.8 of this Rule;
- (d) if using **Equation 7A.1**, estimate annual electricity consumption or Gas consumption based on a Normal Year established in accordance with clause 7A.7 of this Rule;
- (e) if using **Equation 7A.3**:
 - (i) estimate annual electricity consumption or Gas consumption based on measurements of Independent Variables and Site Constants; and
 - (ii) use a baseline Measurement Period that has an end date that is no more than 10 years earlier than the end date of the Measurement Period that Energy Savings are being claimed for;
- (f) be deemed appropriate for the Implementation by a Measurement and Verification Professional, with their written explanatory reasoning provided.

7A.4 Operating Energy Model

An Operating Energy Model must estimate electricity consumption or Gas consumption after an Implementation during a Normal Year and must:

- (a) be dependent on Independent Variables and Site Constants, where relevant, that are established by measurements taken under normal operating conditions in accordance with clause 7A.5 of this Rule;
- (b) have an Effective Range determined in accordance with clause 7A.8 of this Rule;
- (c) estimate annual electricity consumption or Gas consumption based on a Normal Year established in accordance with clause 7A.7 of this Rule; and
- (d) be deemed appropriate for the Implementation by a Measurement and Verification Professional, with their written explanatory reasoning provided.

7A.5 Measurement Procedures

When measuring electricity consumption, Gas consumption, Independent Variables, Site Constants, or any other relevant parameter, the Accredited Certificate Provider must:

- (a) define the Measurement Period so that it consists of a start date and an end date, and optionally a time of day for each of those dates;
- (b) define the Measurement Period so that it will have:
 - (i) in relation to the Baseline Energy Model under clause 7A.3 of this Rule, an end date that occurs before the Implementation Date;
 - (ii) in relation to the Operating Energy Model under clause 7A.4 of this Rule, a start date that occurs after the Implementation Date; and
 - (iii) in relation to Measured Annual Electricity Savings or Gas Savings under **Equation 7A.3** and **Equation 7A.4** of this Rule, a start date that occurs after the Implementation Date and an end date that is the day before the anniversary of the start date (such that the Measurement Period is for a full year).
- (c) define the frequency of measurements over the Measurement Period;
- (d) define which items of End-User Equipment will have their electricity consumption, Gas consumption, or both, measured (the measurement boundary);
- (e) specify measurement equipment (meters) or other sources of measurements;
- (f) define the calibration procedures, accuracy and precision of such measurement methods;
- (f1) ensure that the Measurement Period includes any time periods during which Independent Variables may reasonably be expected to lead to the Implementation increasing electricity consumption or Gas consumption or both;
- (g) record and exclude any Non-Routine Events that occurred during the Measurement Period, ensuring that the percentage of time excluded is less than 20% of the Measurement Period; and
- (h) have the Measurement Procedures defined by clauses 7A.5 (a) to (g) deemed appropriate for the Implementation by a Measurement and Verification Professional, with their written explanatory reasoning provided.

7A.6 Energy consumption, Independent Variables and Site Constants

When identifying and assigning values for electricity consumption, Gas consumption, Independent Variables and Site Constants an Accredited Certificate Provider must:

- (a) define procedures for converting measurements to estimates of the electricity consumption, Gas consumption, Independent Variables and Site Constants, if relevant;
- (b) assign values for electricity consumption, Gas consumption, Independent Variables and Site Constants for each time period in each Measurement Period, where relevant;
- (c) ensure the frequency of independent observations for the Independent Variables and electricity consumption or Gas consumption within the Measurement Period for each energy model are the same; and
- (d) have the electricity consumption, Gas consumption, Independent Variables and Site Constants deemed appropriate for the Implementation by a Measurement and Verification Professional, with their written explanatory reasoning provided.

7A.7 Normal Year

When determining a Normal Year an Accredited Certificate Provider must:

- (a) provide values for each Independent Variable and Site Constant over a full year;
- (b) ensure the Normal Year represents a typical year for operation of the End-User Equipment within the Maximum Time Period for Forward Creation determined in accordance with clause 7A.12;
- (c) describe the assumptions used to establish the Normal Year; and
- (d) for a single Site model, have the Normal Year deemed appropriate for the Implementation by a Measurement and Verification Professional, with their written explanatory reasoning provided; and
- (e) for a multiple Site model:
 - (i) develop a procedure for determining the Normal Year for each Site in the Population; and
 - (ii) have the procedure for determining the Normal Year deemed appropriate by a Measurement and Verification Professional, with their written explanatory reasoning provided.

7A.8 Effective Range

When defining the Effective Range of the energy models in clauses 7A.3 and 7A.4 an Accredited Certificate Provider must:

- (a) ensure that the Effective Range is based on the range of measured values for each Independent Variable used to develop the energy model, where each Independent Variable has:
 - (i) a lower limit that is calculated as the minimum of the measured values, minus 5% of difference between the minimum and maximum of the measured values; and
 - (ii) an upper limit that is calculated as the maximum of the measured values, plus 5% of difference between the minimum and maximum of the measured values; and
- (b) (deleted)
- (c) have the Effective Range deemed appropriate for the Implementation by a Measurement and Verification Professional, with their written explanatory reasoning provided.

7A.9 Interactive Energy Savings

When estimating Interactive Energy Savings an Accredited Certificate Provider, in relation to **Equations 7A.2, 7A.4 or 7A.5**, must:

- (a) estimate the changes to electricity consumption from End-User Equipment for which electricity consumption will not be measured (Interactive Electricity Savings);

- (b) estimate the changes to Gas consumption from End-User Equipment for which Gas consumption will not be measured (Interactive Gas Savings);
- (c) ensure that Interactive Electricity Savings and Interactive Gas Savings are not greater than 10% of total Electricity Savings and Gas Savings respectively, unless estimated in accordance with a Guide; and
- (d) have the Interactive Energy Savings deemed appropriate for the Implementation by a Measurement and Verification Professional, with their written explanatory reasoning provided.

7A.10 Accuracy Factor

The Accuracy Factor, in relation to **Equations 7A.1** and **7A.3**, is between 1 and 0; and

- (a) is either;
 - (i) the value corresponding to the energy model type and relative precision of the Electricity Savings or Gas Savings estimate at 90% confidence level as listed in Table A23 of Schedule A; or
 - (ii) determined by another process as Published by the Scheme Administrator; and
- (b) must be deemed appropriate for the Implementation by a Measurement and Verification Professional, with their written explanatory reasoning provided.

7A.11 Energy Savings brought forward

- (a) For the purposes of section 131 of the Act, the Energy Savings for an Implementation calculated using **Equation 7A.1**, based on Normal Year Electricity Savings or Gas Savings calculated using **Equation 7A.2**, are taken to occur on the last date of the Measurement Period for the Operating Energy Model as defined in clause 7A.4 of this Rule.
- (b) For the purposes of section 131 of the Act, the Energy Savings for an Implementation calculated using **Equation 7A.1**, based on Normal Year Electricity Savings or Gas Savings calculated using **Equation 7A.5**, are taken to occur on the later of:
 - (i) the last date of the Measurement Period for the Operating Energy Model; and
 - (ii) the Implementation Date.
- (c) A maximum of 50,000 Energy Savings Certificates can be brought forward from each Implementation.

7A.12 Maximum Time Period for Forward Creation

The Maximum Time Period for Forward Creation of Energy Savings Certificates in respect of Energy Savings for an Implementation calculated using **Equation 7A.1**, and for the purposes of clauses 7A.7, 7A.13 and 7A.14, must be set such that:

- (a) the period does not exceed the expected lifetime of the End-User Equipment in whole years, as determined by a Persistence Model;
- (b) if Energy Savings Certificates have previously been created for the Implementation using the Project Impact Assessment Method, the period does not exceed 5 years; and
- (c) the start date of the period is the Implementation Date, and the end date of the period is not later than 10 years after the Implementation Date.

7A.13 Persistence Model

- (a) A Persistence Model must not be used in connection with the calculation of Energy Savings unless it has first been determined to be acceptable for use by the Scheme Administrator.
- (b) A Persistence Model must:
 - (i) estimate the expected lifetime of the End-User Equipment in whole years;
 - (ii) estimate the Decay Factor for each future year within the Maximum Time Period for Forward Creation;
 - (iii) be publicly accessible; and
 - (iv) satisfy any requirements Published by the Scheme Administrator.
- (c) The use of a Persistence Model to forecast the Energy Savings from an Implementation must take into account:
 - (i) the Business Classification from Table A18 of Schedule A for the Site, if known and relevant;
 - (ii) the End-User Equipment type;
 - (iii) the operating hours for the End-User Equipment; and
 - (iv) typical ambient conditions for the Site, including, where relevant, temperature, humidity and salinity.
- (d) The Accredited Certificate Provider must have the use of the Persistence Model deemed appropriate for the Implementation by a Measurement and Verification Professional, with their written explanatory reasoning provided.

7A.14 Top-up certificate creation

- (a) Accredited Certificate Providers may create new Energy Savings Certificates in respect of Additional Energy Savings calculated using **Equation 7A.3** and **7A.4**, provided that:
 - (i) the calculation is based on a full year of measurements;
 - (ii) the start date of the Measurement Period must fall on an anniversary of the Implementation Date; and
 - (iii) the end date of the Measurement Period is within the Maximum Time Period for Forward Creation determined under clause 7A.12.
- (b) For the purposes of section 131 of the Act, the Energy Savings for which Energy Savings Certificates are created under this clause are taken to occur on the end date of the Measurement Period of the Energy Savings.

7A.15 Measurement and Verification Professional

- (a) A Measurement and Verification Professional is a person who is approved by the Scheme Administrator on the basis that such person meets the following criteria to the satisfaction of the Scheme Administrator:
 - (i) the person can demonstrate an understanding of clause 7A and relevant measurement and verification techniques;
 - (ii) the person has an understanding of how the relevant End-User Equipment converts energy into End-Use Services and is affected by the Independent Variables;
 - (iii) the person is able to perform Regression Analysis, if relevant;
 - (iv) the person is able to perform an Estimate of the Mean, if relevant;

- (v) the person is able to calibrate outputs from a computer simulation, if relevant;
 - (vi) the person has an understanding of the Sampling Method, if relevant; and
 - (vii) the person satisfies such additional requirements as Published, from time to time, by the Scheme Administrator.
- (b) An application for approval as a Measurement Verification Professional must be in the manner and form (if any) as determined and Published by the Scheme Administrator.
- (c) The Scheme Administrator may withdraw its approval of a person as a Measurement and Verification Professional if the Scheme Administrator considers that the person does not, or ceases to, satisfy the criteria set out in clause 7A.15(a).
- (d) The Scheme Administrator may approve or refuse an application made under clause 7A.15(a).

7A.16 Guides

The Scheme Administrator may Publish, from time to time, Guides that detail acceptable and unacceptable approaches for Accredited Certificate Providers and Measurement and Verification Professionals to meet the requirements of clause 7A of this Rule.

7A.17 Implementation Date

The Implementation Date is the date that the Implementation commenced normal operations.

7A.18 Energy Saver

The Energy Saver is the Purchaser.

7A.19 (deleted)

7A.20 Sampling Method

When using the Sampling Method to establish a Baseline Energy Model and Operating Energy Model for multiple Sites, an Accredited Certificate Provider must:

- (a) define the Eligibility Requirements to test if a Site can be included in the Population, based on the:
 - (i) existing End-User Equipment;
 - (ii) End-Use Services being provided;
 - (iii) Recognised Energy Saving Activity to be undertaken;
 - (iv) Site Constants; and
 - (v) any additional requirements as Published, from time to time, by the Scheme Administrator;
- (b) only include Sites, that meet the Eligibility Requirements, in the Population;
- (c) describe the expected distribution of Site Constants across the Population;
- (d) define the Representativeness Test to determine if the Sample Sites are representative of the Population with respect to Site Constants;
- (e) define conditions under which additional Sample Sites must be selected to ensure Representativeness Tests are met;
- (f) ensure that the number of Sample Sites is at least six times the number of Site Constants in each energy model;

- (g) ensure the process of selecting Sample Sites minimises bias;
- (h) determine the Normal Year for each Site prior to the Implementation Date, according to the procedure that is deemed appropriate under clause 7A.7 (e);
- (i) have the Sampling Method deemed appropriate for the Population by a Measurement and Verification Professional, with their written explanatory reasoning provided; and
- (j) meet any other criteria as Published, from time to time, by the Scheme Administrator.

Note: Equations 7A.1 to 7A.5 are used as required to:

- calculate Electricity Savings for projects that affect electricity consumption;
- calculate Gas Savings for projects that affect Gas consumption; or
- calculate Electricity Savings and Gas Savings separately for projects that affect both electricity consumption and Gas consumption.

Equation 7A.1

Energy Savings calculated from a Baseline Energy Model and Operating Energy Model

$$\text{Electricity Savings} = \sum_i \left((\text{Normal Year Electricity Savings} \times \text{Accuracy Factor} \times \text{Decay Factor}_i - \text{Counted Energy Savings}_i) \times \text{Regional Network Factor} \right)$$

$$\text{Gas Savings} = \sum_i (\text{Normal Year Gas Savings} \times \text{Accuracy Factor} \times \text{Decay Factor}_i - \text{Counted Energy Savings}_i)$$

Where:

- the summation is over each year i over the *Maximum Time Period for Forward Creation* of the Electricity Savings or Gas Savings.
- *Normal Year Electricity Savings or Gas Savings*, in MWh, is the estimated electricity savings, if calculating *Electricity Savings*, or estimated Gas savings, if calculating *Gas Savings*, attributable to the Implementation from a Normal Year of operation before taking into account equipment degradation, and is calculated using:
 - **Equation 7A.5** if a Sampling Method is used, and
 - **Equation 7A.2** in all other cases.
- *Accuracy Factor*, is a number between 0 and 1, as determined by clause 7A.10 of this Rule.
- *Decay Factor_i*, is a number between 0 and 1, which quantifies the decay of the Electricity Savings or Gas Savings in year i due to equipment degradation over time, and is:
 - equal to 1 for Electricity Savings in any years the Normal Year Electricity Savings are negative; and
 - equal to 1 for Gas Savings in any years the Normal Year Gas Savings are negative; and
 - in all other cases, determined by either:
 - applying the value corresponding to the relevant year since the Implementation Date in **Table A16** of Schedule A, or
 - assigning a value for that year from a Persistence Model in accordance with clause 7A.13 of this Rule.
- *Maximum Time Period for Forward Creation* is determined in accordance with clause 7A.12 of this Rule.
- *Counted Energy Savings_i* is the:
 - total Electricity Savings for which Energy Savings Certificates have previously been created for

- the Implementation in the year i if calculating Electricity Savings; or
- total Gas Savings for which Energy Savings Certificates have previously been created for the Implementation in the year i if calculating Gas Savings.
 - Regional Network Factor* is the value from **Table A24** of Schedule A corresponding to the postcode of the Address of the Site or Sites where the Implementation(s) took place.

Equation 7A.2**Calculation of Normal Year Electricity Savings or Gas Savings**

$$\text{Normal Year Electricity Savings or Gas Savings} = \sum_t (E_{\text{Baseline}}(\tilde{x}_1(t), \tilde{x}_2(t), \dots, \tilde{x}_p(t)) - E_{\text{Operating}}(\tilde{x}_1(t), \tilde{x}_2(t), \dots, \tilde{x}_p(t))) + \text{Interactive Energy Savings}$$

Where:

- the summation is over all time periods t in the Normal Year, excluding any time periods for which any of $\tilde{x}_1(t), \tilde{x}_2(t), \dots, \tilde{x}_p(t)$ are outside the Effective Range of either the Baseline Energy Model or Operating Energy Model; or where the Site Constants are not their standard value.
- $\tilde{x}_p(t)$ is the value of each of the Independent Variables x_p for time period t over the Normal Year determined in accordance with clause 7A.7 of this Rule.
- E_{Baseline} is:
 - the electricity consumption predicted by a Baseline Energy Model established in accordance with clauses 7A.2 and 7A.3 using measurements of electricity consumption; or
 - the Gas consumption predicted by a Baseline Energy Model established in accordance with clauses 7A.2 and 7A.3 using measurements of Gas consumption.
- $E_{\text{Operating}}$ is:
 - the electricity consumption predicted by an Operating Energy Model established in accordance with clauses 7A.2 and 7A.4 using measurements of electricity consumption; or
 - the Gas consumption predicted by an Operating Energy Model established in accordance with clauses 7A.2 and 7A.4 using measurements of Gas consumption.
- Interactive Energy Savings* is estimated in accordance with clause 7A.9 of this Rule and is either the:
 - Interactive Electricity Savings if calculating Electricity Savings; or
 - Interactive Gas Savings if calculating Gas Savings.

Equation 7A.3**Energy Savings calculated from measurements and Baseline Energy Model**

$$\text{Electricity Savings} = (\text{Measured Annual Electricity Savings} \times \text{Accuracy Factor} - \text{Counted Energy Savings}_i) \times \text{Regional Network Factor}$$

$$\text{Gas Savings} = \text{Measured Annual Gas Savings} \times \text{Accuracy Factor} - \text{Counted Energy Savings}_i$$

Where:

- Measured Annual Electricity Savings or Gas Savings*, in MWh, is the Electricity Savings or Gas Savings

attributable to the Implementation from the actual measured conditions over a full year i , and is calculated in **Equation 7A.4**.

- *Accuracy Factor* is the number determined by clause 7A.10 of this Rule.
- *Counted Energy Savings_i* is the:
 - total Electricity Savings for which Energy Savings Certificates have previously been created for the Implementation in the year i if calculating Electricity Savings; or
 - total Gas Savings for which Energy Savings Certificates have previously been created for the Implementation in the year i if calculating Gas Savings.
- *Regional Network Factor* is the value from **Table A24** of Schedule A corresponding to the postcode of the Address of the Site or Sites where the Implementation(s) took place.

Equation 7A.4

Calculation of Measured Annual Electricity Savings or Gas Savings

$$\text{Measured Annual Electricity Savings or Gas Savings} = \sum_t \left(E_{\text{Baseline}}(x_1(t), x_2(t), \dots, x_p(t)) - E_{\text{Measured}}(t) \right) + \text{Interactive Energy Savings}$$

Where:

- the summation is over all measurement time periods t in the year, excluding any time periods t for which any of the measured Independent Variable values $x_1(t)$, $x_2(t)$, ... $x_p(t)$ are outside the Effective Range of the Baseline Energy Model, or where the Site Constants are not their standard value
- $x_j(t)$ is the value of the Independent Variable x_j measured during time period t determined in accordance with clause 7A.5.
- E_{Measured} is:
 - the electricity consumption measured during the time period t in accordance with clause 7A.5 if calculating Electricity Savings; or
 - the Gas consumption measured during the time period t in accordance with clause 7A.5 if calculating Gas Savings.
- E_{Baseline} is:
 - the electricity consumption predicted by a Baseline Energy Model established in accordance with clauses 7A.2 and 7A.3 using measurements of electricity consumption; or
 - the Gas consumption predicted by a Baseline Energy Model established in accordance with clauses 7A.2 and 7A.3 using measurements of Gas consumption.
- *Interactive Energy Savings* is estimated in accordance with clause 7A.9 of this Rule and is either the:
 - Interactive Electricity Savings if calculating Electricity Savings; or
 - Interactive Gas Savings if calculating Gas Savings.

Equation 7A.5

Calculation of Normal Year Electricity Savings or Gas Savings using a Sampling Method

$$\text{Normal Year Electricity Savings or Gas Savings} = \sum_t \left(E_{\text{Baseline}}(\tilde{x}_1(t), \tilde{x}_2(t), \dots, \tilde{x}_p(t), y_1, y_2, \dots, y_q) - E_{\text{Operating}}(\tilde{x}_1(t), \tilde{x}_2(t), \dots, \tilde{x}_p(t), y_1, y_2, \dots, y_q) \right) + \text{Interactive Energy Savings}$$

Where:

- the summation is over all time periods t in the Normal Year, excluding any time periods for which any of $\tilde{x}_1(t), \tilde{x}_2(t), \dots, \tilde{x}_p(t)$ are outside the Effective Range of either the Baseline Energy Model or Operating Energy Model, or where the Site Constants are not their standard value for the Site.
- $\tilde{x}_j(t)$ is the value of the Independent Variable x_j for time period t in the Normal Year for the Site determined in accordance with clause 7A.7 of this Rule.
- y_k is the value of the Site Constant k for the Site measured in accordance with clause 7A.6.
- E_{Baseline} is:
 - the electricity consumption predicted by a Baseline Energy Model established in accordance with clauses 7A.2 and 7A.3 using measurements of electricity consumption; or
 - the Gas consumption predicted by a Baseline Energy Model established in accordance with clauses 7A.2 and 7A.3 using measurements of Gas consumption.
- $E_{\text{Operating}}$ is:
 - the electricity consumption predicted by an Operating Energy Model established in accordance with clauses 7A.2 and 7A.4 using measurements of electricity consumption; or
 - the Gas consumption predicted by an Operating Energy Model established in accordance with clauses 7A.2 and 7A.4 using measurements of Gas consumption.
- *Interactive Energy Savings* is estimated in accordance with clause 7A.9 of this Rule and is either the:
 - Interactive Electricity Savings if calculating Electricity Savings; or
 - Interactive Gas Savings if calculating Gas Savings.

8 Metered Baseline Method

Note: The Metered Baseline Method uses measurements of energy consumption “before” the Implementation has been undertaken to establish a “baseline” energy consumption standard for the Site being considered. The same measurements performed “after” the Implementation has been undertaken will establish new levels of energy consumption, with the difference representing the impact of the Implementation.

Energy Savings are adjusted by a confidence factor that is calculated based on the size of the Energy Savings relative to the unexplained variance in the baseline.

- 8.1 The Metered Baseline Method in this clause 8 may only be used to calculate Energy Savings if measurements made are of a standard, duration, and to a level of accuracy, satisfactory to the Scheme Administrator.
- 8.2 Using the Metered Baseline Method, the Energy Savings are calculated under:
- (a) clause 8.5, using the Baseline per unit of output sub-method;
 - (b) clause 8.6, using the Baseline unaffected by output sub-method;

- (c) clause 8.7, using the Normalised baseline sub-method;
 - (d) clause 8.8, using the NABERS baseline sub-method; or
 - (e) clause 8.9, using the Aggregated Metered Baseline sub-method,
- provided that all Energy Savings can (to the satisfaction of the Scheme Administrator) be attributed to the corresponding Recognised Energy Saving Activity.

- 8.3 The time period over which any baseline is determined under this clause 8, using energy measurements before the Implementation Date of the Implementation, must include one or more time periods preceding the Implementation Date. The time period(s) used to determine the baseline must be acceptable to the Scheme Administrator.
- 8.3A For the purposes of clauses 8.5, 8.6 and 8.7, where the Accreditation Date, with respect to the Recognised Energy Saving Activity, is:
- (a) on or after 15 April 2016, Energy Savings may only be calculated for up to a maximum of 10 years from the end date of the baseline Measurement Period;
 - (b) before 15 April 2016 and the end date of the baseline Measurement Period is less than or equal to 10 years before 15 April 2016, Energy Savings may only be calculated for a maximum of 10 years from the end date of the baseline Measurement Period; and
 - (c) before 15 April 2016 and the end date of the baseline Measurement Period is more than 10 years before 15 April 2016, Energy Savings may only be calculated for a period that is, as a maximum, equal to the length of the period from the end date of the baseline Measurement Period to 15 April 2016.
- 8.4 The Accredited Certificate Provider must use utility meters or other metering equipment acceptable to the Scheme Administrator.

Note: Sub-metering may be used to effectively reduce the size of the Site considered for baseline calculations, thereby increasing the accuracy of the baseline and hence the Confidence Factor.

8.5 Baseline per unit of output

Note: This Metered Baseline Method is most appropriate where energy consumption is strongly linked to output (for example, in aluminium smelting).

Where the relationship is non-linear, or there are multiple products or changes in raw materials affecting consumption, another method of normalising the baseline should be used.

- 8.5.1 The Energy Savings for an Implementation may be calculated using **Method 1**, provided that:
- (a) the energy consumption for the Site is a linear function of output;
 - (b) fixed energy consumption, which is the energy consumption of the Site that does not vary with variations in output, can be measured or estimated;
 - (c) output has not changed from the average output over the period during which the variable energy baseline is measured by more than 50%; and
 - (d) the variable energy baseline is calculated using data from periods immediately preceding the Implementation Date, up to a maximum of 5 years, excluding any periods that are not representative of the long term Site consumption due to factors including plant shutdown or major maintenance.

Where this is not possible, due to data unavailability or other reasons, a baseline may be set using other periods acceptable to the Scheme Administrator.

- (e) Electricity Savings and Gas Savings are calculated for Implementations that increase either electricity consumption or Gas consumption.

8.5.2 The Implementation Date is the earlier of the start date of the first Measurement Period that occurs after the end of the last period T_b referred to in Method 1 or the date on which the reduction of energy consumption commenced due to the Implementation.

8.5.3 The Energy Saver is the person who is liable (contractually or otherwise) to pay for the energy consumption at the Site at the Implementation Date.

8.5.4 For the purposes of section 131 of the Act, Energy Savings calculated under this clause 8.5 are taken to have occurred on the last date of the Measurement Period.

Method 1 – Baseline per unit of output

Step (1) Select a *Measurement Period* acceptable to the Scheme Administrator, that will be the duration of time over which all measurements in this method will be taken and that is:

- (a) a minimum of one day and a maximum of one year; and
- (b) if there is a regular cycle to the consumption of energy on the Site, an integer multiple of the period of that cycle.

Step (2) Determine *Electricity Savings*, or *Gas Savings*, or both, by completing Steps (2A) to (2G) for each energy source, and for each time period T_a by reference to which the Accredited Certificate Provider seeks to create Energy Savings Certificates by repeating Steps (2E) to (3) for each energy source for each such period.

Step (2A) Determine the *Fixed Consumption* (in MWh), which is the consumption of electricity or Gas for the Site that does not vary with variations in output, and is:

- determined by estimating or extrapolating from measurements taken during plant downtime or estimated or determined mathematically from multiple periods;
- a reasonable reflection of the consumption unaffected by output, and will lead to Energy Savings calculations that are reasonable, and
- over a period T_b before Energy Savings commence and the duration of which is equal to the Measurement Period.

Step (2B) Calculate *Variable Consumption* _{T_b} (in MWh / unit of output) for n time periods T_b as follows:

$$\text{Variable Consumption}_{T_b} = (\text{Total Consumption}_{T_b} - \text{Fixed Consumption}) / \text{Output}_{T_b}$$

Where:

- T_b denotes a time period, before the Implementation Date, the duration of which is equal to the Measurement Period, and where each time period is mutually exclusive with each other such time period;
- *Total Consumption* _{T_b} (in MWh) is the consumption of electricity or Gas for the Site measured by metering that consumption over each time period T_b ;
- *Output* _{T_b} is the number of units of output during each time period T_b ; and
- n is the number of time periods, T_b , where n must be at least 1.

Step (2C) Calculate *Variable Baseline* (in MWh / unit of output):

$$\text{Variable Baseline} = \left\{ \sum_{T=1}^n \text{Variable Consumption}_{T_b} \right\} / n$$

Step (2D) Calculate *Baseline Variability* (in MWh / unit of output), which is the unexplained variance in the

baseline, as follows:

If $n > 2$:

$$\text{Baseline Variability} = (\text{maximum Variable Consumption}_{T_b} - \text{minimum Variable Consumption}_{T_b}) / 2$$

Where:

- *maximum Variable Consumption_{T_b}* is the maximum value of *Variable Consumption_{T_b}* over *n* time periods *T_b*; and
- *minimum Variable Consumption_{T_b}* is the least value of *Variable Consumption_{T_b}* over *n* time periods *T_b*.

If $n \leq 2$:

$$\text{Baseline Variability} = 10\% \text{ of Variable Baseline}$$

Step (2E) Calculate *Reduced Consumption* (in MWh) for the time period *T_a* (after the Implementation Date) for which the Accredited Certificate Provider seeks to create Energy Savings Certificates as follows:

$$\text{Reduced Consumption} = (\text{Output}_{T_a} \times \text{Variable Baseline} + \text{Fixed Consumption}) - \text{Total Consumption}_{T_a}$$

Where:

- *T_a* denotes a time period, after the Implementation Date, the duration of which is equal to the *Measurement Period*;
- *Total Consumption_{T_a}* (in MWh) is the consumption of electricity or Gas for the Site measured by metering that consumption over a time period *T_a*; and
- *Output_{T_a}* is the number of units of output during the time period *T_a*.

Step (2F) Calculate the *Confidence Factor* as follows:

$$\text{Confidence Factor} = 1 - (\text{Baseline Variability} / \text{Variable Baseline})$$

Step (2G) If measuring electricity consumption, calculate *Electricity Savings* (in MWh) for each time period *T_a* by reference to which the Accredited Certificate Provider seeks to create Energy Savings Certificates as follows:

$$\text{Electricity Savings} = \text{Reduced Consumption} \times \text{Confidence Factor} \times \text{Regional Network Factor}$$

Where:

- *Regional Network Factor* is the value from **Table A24** of Schedule A corresponding to the postcode of the Address of the Site or Sites where the Implementation(s) took place.

If measuring Gas consumption, calculate *Gas Savings* (in MWh) for each time period *T_a* by reference to which the Accredited Certificate Provider seeks to create Energy Savings Certificates as follows:

$$\text{Gas Savings} = \text{Reduced Consumption} \times \text{Confidence Factor}$$

Step (3) Ensure net *Energy Savings* are non-negative.

If $\text{Electricity Savings} \times \text{Electricity Certificate Conversion Factor} + \text{Gas Savings} \times \text{Gas Certificate Conversion Factor} < 0$, then $\text{Electricity Savings} = 0$ and $\text{Gas Savings} = 0$

8.6 Baseline unaffected by output

Note: This Metered Baseline Method is most appropriate where consumption is not linked to output of the End-User Equipment subject to the energy savings activity. To use this method the output of the End-User Equipment should not be affected by temperature or other standard normalisation variables.

8.6.1 The Energy Savings for an Implementation may be calculated using **Method 2**, provided that:

- (a) the consumption of all energy sources for the Site is independent of output; and
- (b) the *Baseline* is calculated using data from periods immediately preceding the Implementation Date, to a maximum duration of 5 years, and excluding any periods that are not representative of long term Site consumption due to factors including plant shutdown or major maintenance. Where this is not possible, due to data unavailability or other reasons, a baseline may be set using other periods acceptable to the Scheme Administrator.
- (c) Electricity Savings and Gas Savings are calculated for Implementations that increase either electricity consumption or Gas consumption.

8.6.2 The Implementation Date is the earlier of the start date of the first Measurement Period that occurs after the end of the last period T_b referred to in Method 2 or the date on which the reduction of energy consumption commenced due to the Implementation.

8.6.3 The Energy Saver is the person who is liable (contractually or otherwise) to pay for the energy consumption at the Site at the Implementation Date.

8.6.4 For the purposes of section 131 of the Act, Energy Savings calculated under this clause 8.6 are taken to have occurred on the last date of the Measurement Period.

Method 2 – Baseline unaffected by output

Step (1) Select a *Measurement Period* acceptable to the Scheme Administrator, that will be the duration of time over which all measurements in this method will be taken and that is:

- (a) a minimum of one day and a maximum of one year; and
- (b) if there is a regular cycle to the consumption of electricity or Gas on the Site, an integer multiple of the period of the respective cycle.

Step (2) Determine *Electricity Savings*, or *Gas Savings*, or both, by completing Steps (2A) to (2E) for each energy source, and for each time period T_a by reference to which the Accredited Certificate Provider seeks to create Energy Savings Certificates by repeating Steps (2C) to (3) for each energy source for each such period.

Step (2A) Calculate *Baseline* (in MWh) as follows:

$$\text{Baseline} = \left\{ \sum_{T=1}^n \text{Total Consumption}_{T_b} \right\} / n$$

Where:

- T_b denotes a time period, before the Implementation Date, the duration of which is equal to the Measurement Period, and where each time period is mutually exclusive with each other such time period
- $\text{Total Consumption}_{T_b}$ (in MWh) is the consumption of electricity or Gas for the Site measured by metering that consumption over each time period T_b ; and
- n is the number of time periods, T_b , where n must be at least 1.

Step (2B) Calculate *Baseline Variability* (in MWh), which is the variance in the baseline, as follows:

If $n > 1$:

$$\text{Baseline Variability} = (\text{maximum Total Consumption}_{T_b} - \text{minimum Total Consumption}_{T_b}) / 2$$

Where:

- *maximum Total Consumption* $_{T_b}$ is the maximum value of *Total Consumption* $_{T_b}$ over n time periods T_b ; and
- *minimum Total Consumption* $_{T_b}$ is the least value of *Total Consumption* $_{T_b}$ over n time periods

T_b If $n = 1$:*Baseline Variability* = 10% of *Baseline*

Step (2C) Calculate *Reduced Consumption* (in MWh) for the time period T_a (after the Implementation Date) for which the Accredited Certificate Provider seeks to create Energy Savings Certificates as follows:

$$\text{Reduced Consumption} = \text{Baseline} - \text{Total Consumption}_{T_a}$$

Where:

- T_a denotes a time period, after the Implementation Date, the duration of which is equal to the Measurement Period; and
- *Total Consumption* $_{T_a}$ (in MWh) is the consumption of electricity or Gas for the Site measured by metering that consumption over a time period T_a

Step (2D) Calculate *Confidence Factor* as follows:

$$\text{Confidence Factor} = 1 - (\text{Baseline Variability} / \text{Baseline})$$

Step (2E) If measuring electricity consumption, calculate *Electricity Savings* (in MWh) for the time period T_a for which the Accredited Certificate Provider seeks to create Energy Savings Certificates as follows:

- $\text{Electricity Savings} = \text{Reduced Consumption} \times \text{Confidence Factor} \times \text{Regional Network Factor}$

Where:

- *Regional Network Factor* is the value from **Table A24** of Schedule A corresponding to the postcode of the Address of the Site or Sites where the Implementation(s) took place.

If measuring Gas consumption, calculate *Gas Savings* (in MWh) for each time period T_a by reference to which the Accredited Certificate Provider seeks to create Energy Savings Certificates as follows:

$$\text{Gas Savings} = \text{Reduced Consumption} \times \text{Confidence Factor}$$

Step (3) Ensure net *Energy Savings* are non-negative.

If $\text{Electricity Savings} \times \text{Electricity Certificate Conversion Factor} + \text{Gas Savings} \times \text{Gas Certificate Conversion Factor} < 0$, then $\text{Electricity Savings} = 0$ and $\text{Gas Savings} = 0$

8.7 Normalised baseline

Note: This Metered Baseline Method normalises energy consumption for a Site to remove explainable variation from the baseline, for example, adjusting for variations in ambient conditions or variations in input characteristics. The factors chosen for the normalisation must cause the variability (that is the subject of removal) and not be the result of spurious correlations.

Option C of the IPMVP can be used for guidance as to the normalisation of baselines, particularly for complex cases.

8.7.1 The Energy Savings for an Implementation may be calculated using **Method 3**, provided that:

- the *Normalisation Variables* in respect of which the *Total Consumption* is normalised are variables corresponding to the specific activities that are a reason for change in *Total Consumption*; and
- the *Normalised Baseline* is calculated using data from periods immediately preceding the Implementation Date, to a maximum duration of 5 years, and excluding any periods that are not representative of long term Site consumption due to circumstances such as plant shutdown or major

maintenance. Where this is not possible, due to data unavailability or other reasons, a baseline may be set using other periods acceptable to the Scheme Administrator.

- (c) Electricity Savings and Gas Savings are calculated for Implementations that increase either electricity consumption or Gas consumption.

8.7.2 The Implementation Date is the earlier of the start date of the first Measurement Period that occurs after the end of the last period T_b referred to in Method 3 or the date on which the reduction of energy consumption commenced due to the Implementation.

8.7.3 The Energy Saver is the person who is liable (contractually or otherwise) to pay for the energy consumption at the Site at the Implementation Date.

8.7.4 For the purposes of section 131 of the Act, Energy Savings calculated under this clause 8.7 are taken to have occurred on the last date of the Measurement Period.

Method 3 – Normalised baseline

Step (1) Select a *Measurement Period* acceptable to the Scheme Administrator, that will be the duration of time over which all measurements in this method will be taken and that is:

- (a) a minimum of one day and a maximum of one year; and
- (b) if there is a regular cycle to the consumption of energy on the Site, an integer multiple of the period of that cycle.

Step (2) Determine Savings, or *Gas Savings*, or both, by completing Steps (2A) to (2F) for each energy source and for the time period T_a for which the Accredited Certificate Provider seeks to create Energy Savings Certificates, by repeating Steps (2D) to (3) for each energy source for each such period.

Step (2A) Calculate *Normalised Consumption $_{T_b}$* (in MWh) for n time periods T_b by normalising the *Total Consumption $_{T_b}$* to determine the consumption that would have occurred for period T_b had the conditions at time T_a existed, using:

- (a) a set of normalisation coefficients, which are one or more coefficients calculated to account for the variation in *Total Consumption $_{T_b}$* per unit of change for each corresponding normalisation variable used in Step(2A)(b); and
- (b) a set of values, which are the difference between the values of the normalisation variables for each time period T_b , and the values of the normalisation variables for one time period T_a , determined by measurements or other data sources.

Where:

- T_b denotes a time period, before the Implementation Date, the duration of which is equal to the Measurement Period, and where each time period is mutually exclusive with each other such time period
- T_a denotes a time period, after the Implementation Date, the duration of which is equal to the Measurement Period
- *Total Consumption $_{T_b}$* (in MWh) is the consumption of electricity or Gas for the Site measured by metering that consumption over each time period T_b
- n is the number of time periods, T_b , where n must be at least 1; and
- *Normalisation Variables* are the variables in respect of which the *Total Consumption $_{T_b}$* is normalised and must correspond to factors that are a reason for change in *Total Consumption $_{T_b}$*

Step (2B) Calculate *Normalised Baseline* (in MWh) as follows:

$$\text{Normalised Baseline} = \left\{ \sum_{T=1}^n \text{Normalised Consumption}_{Tb} \right\} / n$$

Step (2C) Calculate *Baseline Variability* (in MWh), which is the unexplained variance in the baseline, as follows:

If $n > 1$:

$$\text{Baseline Variability} = (\text{maximum Normalised Consumption}_{Tb} - \text{minimum Normalised Consumption}_{Tb}) / 2$$

Where:

- *maximum Normalised Consumption_{Tb}* is the maximum value of *Normalised Consumption_{Tb}* over n time periods Tb ; and
- *minimum Normalised Consumption_{Tb}* is the least value of *Normalised Consumption_{Tb}* over n time periods Tb

If $n = 1$:

$$\text{Baseline Variability} = 10\% \text{ of Normalised Baseline}$$

Step (2D) Calculate *Reduced Consumption* (in MWh) for the time period T_a (after the Implementation Date) for which the Accredited Certificate Provider seeks to create Energy Savings Certificates, as follows:

$$\text{Reduced Consumption} = \text{Normalised Baseline} - \text{Total Consumption}_{Ta}$$

Where:

- T_a denotes a time period, after the Implementation Date, the duration of which is equal to the Measurement Period; and
- *Total Consumption_{Ta}* (in MWh) is the consumption of electricity or Gas for the Site measured by metering that consumption over a time period T_a

Step (2E) Calculate *Confidence Factor*:

$$\text{Confidence Factor} = 1 - (\text{Baseline Variability} / \text{Normalised Baseline})$$

Step (2F) If measuring electricity consumption, calculate *Electricity Savings* (in MWh) for each time period T_a by reference to which the Accredited Certificate Provider seeks to create Energy Savings Certificates:

$$\text{Electricity Savings} = \text{Reduced Consumption} \times \text{Confidence Factor} \times \text{Regional Network Factor}$$

Where:

- *Regional Network Factor* is the value from **Table A24** of Schedule A corresponding to the postcode of the Address of the Site or Sites where the Implementation(s) took place.

If measuring Gas consumption, calculate *Gas Savings* (in MWh) for each time period T_a by reference to which the Accredited Certificate Provider seeks to create Energy Savings Certificates as follows:

$$\text{Gas Savings} = \text{Reduced Consumption} \times \text{Confidence Factor}$$

Step (3) Ensure net *Energy Savings* are non-negative:

If $\text{Electricity Savings} \times \text{Electricity Certificate Conversion Factor} + \text{Gas Savings} \times \text{Gas Certificate Conversion Factor} < 0$, then $\text{Electricity Savings} = 0$ and $\text{Gas Savings} = 0$

8.8 NABERS baseline

8.8.1 The Energy Savings for an Implementation may be calculated using **Method 4** for a NABERS Building, provided that:

- (a) the NABERS Rating is calculated using one of the following NABERS tools:

- (i) NABERS for Offices;
 - (ii) NABERS for Hotels;
 - (iii) NABERS for Shopping Centres;
 - (iv) NABERS for Data Centres; or
 - (v) NABERS for Hospitals;
- (b) the NABERS Rating excludes any GreenPower in accordance with clause 5.4(d);
 - (c) the NABERS Rating meets the eligibility criteria applied in clause 8.8.3;
 - (d) all sources of on-site electricity generation have been identified; and
 - (e) all electricity generated from sources of On-site Unaccounted Electricity (as referred to in Method 4) has been metered and recorded over the Rating Period.

8.8.2 For the purposes of this clause 8.8:

- (a) the NABERS Rating is a current NABERS rating that will be used to calculate Energy Savings;
- (b) the Historical Baseline NABERS Rating is a previous NABERS Rating for the same NABERS Building, and is used for Calculation Method 2 at Step 2 of Method 4;
- (c) the Rating Period is the time over which measurements were taken to establish the NABERS Rating or the Historical Baseline NABERS Rating for the NABERS Building;
- (d) the Current Rating Year is the year for which Energy Savings Certificates will be created, and is the year that the Rating Period ended for the NABERS Rating; and
- (e) the Baseline Rating Year is the year that the Rating Period ended for the Historical Baseline NABERS Rating.

8.8.3 The NABERS Rating must:

- (a) if using Calculation Method 1:
 - (i) for the first Rating Period for which Energy Savings will be calculated, exceed the Benchmark NABERS Rating from Table A20 of Schedule A by at least 0.5 stars; and
 - (ii) for subsequent Rating Periods for which Energy Savings will be calculated, exceed the Benchmark NABERS Rating from Table A20 used for the first Rating Period by at least 0.5 stars.
- (b) exceed the Historical Baseline NABERS Rating by at least 1 star if using Calculation Method 2.

8.8.4 When calculating a Benchmark NABERS Rating using Calculation Method 2 at step 2 of Method 4:

- (a) the Benchmark NABERS Rating can only be calculated using a fixed Historical Baseline NABERS Rating which was calculated no more than 7 years before the end date of the Current Rating Year; or
- (b) if this calculation method is to be used for Additional Energy Savings and the fixed Historical Baseline NABERS Rating does not meet the requirements of clause 8.8.4(a), it must be reset using a previous NABERS Rating that is at least 7 years later than the end date of the Rating Period for the previous fixed Historical Baseline NABERS Rating;
- (c) The Historical Baseline NABERS Rating must be based on a similar configuration (for example, metering arrangements and on-site energy generation), as determined by the Scheme Administrator.

8.8.5 The Implementation Date is the end date of the first Rating Period for which Energy Savings will be calculated under clause 8.8.7.

- 8.8.6 The Energy Saver is the person whose name is identified on the NABERS Rating certificate, as issued by the NABERS National Administrator, in respect of the NABERS Rating.
- 8.8.7 For the purposes of section 131 of the Act, Energy Savings are taken to occur on the date that the Scheme Administrator determines that the relevant NABERS Rating was completed.
- 8.8.8 Energy Savings Certificates cannot be created for a NABERS Rating more than twelve months after the end of the Measurement Period applicable to that NABERS Rating.
- 8.8.9 The requirements of clauses 6.8(h) and 6.8(i) do not apply in relation to Energy Savings Certificates for Energy Savings calculated in accordance with clause 8.8.

Method 4 – NABERS Benchmark

Step 1 – Calculate Measured Electricity Consumption and Measured Gas Consumption

Using the measurements taken to establish the NABERS Rating, and other measurements taken as necessary, calculate total energy consumption for the NABERS Building as follows:

$$\text{Measured Electricity Consumption (MWh)} = \text{NABERS Electricity} + \text{On-site Unaccounted Electricity}$$

$$\text{Measured Gas Consumption (MWh)} = \text{NABERS Gas}$$

Where:

- *NABERS Electricity*, in MWh, is the electricity purchased or imported from the Electricity Network and accounted for in the NABERS Rating, including electricity purchased as GreenPower; and
- *On-site Unaccounted Electricity*, in MWh, is electricity generated on-site from energy sources which have not been accounted for in the NABERS Rating, including electricity generated from photovoltaic cells or Gas generators fed from on-site biogas sources, but excluding Gas generators where the imported Gas has been accounted for in the NABERS Rating; and
- *NABERS Gas*, in MWh, is the total of the Gas accounted for in the NABERS Rating.

Step 2 – Calculate Benchmark NABERS Rating

Calculate the Benchmark NABERS Rating, by using either:

- (a) Calculation Method 1: Look up the Benchmark NABERS Rating in **Table A20** of Schedule A which corresponds to the relevant Current Rating Year, NABERS Rating tool and building category; or
- (b) Calculation Method 2: Calculate the Benchmark NABERS Rating based on a Historical Baseline NABERS Rating as follows:

$$\text{Benchmark NABERS Rating} = \text{Historical Baseline NABERS Rating} + \text{Annual Rating Adjustment} \times (\text{Current Rating Year} - \text{Baseline Rating Year})$$

Where:

- *Historical Baseline NABERS Rating* is as defined in clause 8.8.2 and meets the requirements set out in clause 8.8.4
- *Annual Rating Adjustment* is the amount by which average NABERS Ratings increase each year and is the value in **Table A21** of Schedule A which corresponds to the relevant NABERS Rating tool and building category; and
- *Baseline Rating Year* is as defined in clause 8.8.2(e)

Step 3 – Calculate Benchmark Electricity Consumption and Benchmark Gas Consumption

Benchmark Electricity Consumption is the electricity consumption that would be required for that same NABERS Building to achieve the *Benchmark NABERS Rating* over the Rating Period, assuming the same breakdown of energy consumption. It is the electricity component of maximum allowable energy consumption, converted to MWh.

Benchmark Gas Consumption is the Gas consumption that would be required for that same NABERS Building to achieve the *Benchmark NABERS Rating* over the Rating Period, assuming the same breakdown of energy consumption. It is the Gas component of maximum allowable energy consumption, converted to MWh.

Calculate the *Benchmark Electricity Consumption* and *Benchmark Gas Consumption* in MWh by using the NABERS Reverse Calculator for the relevant NABERS method, setting the target star rating to the *Benchmark NABERS Rating*, and giving all other input parameters the same value as for the actual NABERS Rating over that Rating Period, including:

- Rating type;
- Building information (e.g. Rated Area, number of computers); and
- Percentage breakdown of energy consumption (on an energy use basis in MWh).

If necessary for use with the relevant NABERS Reverse Calculator, round down the *Benchmark NABERS Rating* to the nearest half or whole star increment.

Step 4 – Calculate Energy Savings

Calculate *Electricity Savings* and *Gas Savings*, in MWh as follows:

$$\text{Electricity Savings} = (\text{Benchmark Electricity Consumption} - \text{Measured Electricity Consumption}) \times \text{Regional Network Factor}$$

$$\text{Gas Savings} = \text{Benchmark Gas Consumption} - \text{Measured Gas Consumption}$$

Where:

Regional Network Factor is the value from **Table A24** of Schedule A corresponding to the postcode of the Address of the Site or Sites where the Implementation(s) took place.

8.9 Aggregated Metered Baseline

Note: The Aggregated Metered Baseline sub-method allows for Energy Savings to be calculated on the basis of measured savings across a group of electricity and/or natural gas customers, using statistical techniques. To use this method, the Accredited Certificate Provider must engage an Accredited Statistician to perform the randomised Site allocation and validate the statistical methods prior to the Implementation Date. This method may be used for any Recognised Energy Saving Activity, but it is best suited to those activities where:

- Energy Savings are small on a Site by Site basis; and/or
- Energy Savings can vary greatly from Site to Site; and/or
- there is insufficient evidence that the Recognised Energy Saving Activity will not be reversed.

This method requires a group of energy customers (the Population) to be assigned without bias into a Treatment Group and a Control Group. The Treatment Group is offered goods or services that are designed to deliver Energy Savings over the Implementation Period. The Treatment is the offering of goods and services (and any subsequent provision, engagement and promotion activities) and is not just the provision of goods and services. The Control Group is not offered the Treatment, but instead is used to estimate what the energy consumption of the Treatment Group would have been in the absence of the Treatment.

- 8.9.1 The Energy Savings for an Implementation may be calculated using **Method 5.1** provided that all of the conditions in clauses 8.9.2 to 8.9.11 are met.
- 8.9.2 For each Implementation, a number of Sites must be identified and assigned to a Population, and every Site in that Population must be allocated to either a Treatment Group or a Control Group prior to the Implementation Date. Additionally:
- (a) a Site may choose to join the Population, but once in the Population, must be allocated to the Treatment Group or the Control Group using an Unbiased Selection Method;
 - (b) Prior to allocating the Site to the Treatment Group or the Control Group, the Accredited Certificate Provider must:
 - (i) choose for each Site that is or will be in the Population, whether to measure the consumption of electricity or natural gas (or both), subject to clause 8.9.2(f)(ii); and
 - (ii) not decide which energy source(s) are included for measurement based on whether the Site is subsequently allocated in the Treatment Group or the Control Group; and
 - (iii) where the Population includes Sites that have measurements of different energy source combinations, ensure that the Treatment Group size to Control Group size ratio is, as close as possible, the same for each of the energy source combinations (electricity only; natural gas only; both electricity and natural gas).
 - (c) persons at Sites must not be informed explicitly that they have been allocated to the Treatment Group or the Control Group;
 - (d) once a Site has been allocated to the Treatment Group and the Implementation Date has occurred, persons managing End-User Equipment at that Site may be offered a choice as to whether they wish to receive the goods and services component of the Treatment;
 - (e) if a Site chooses not to receive the goods and services component of the Treatment, that Site must be retained in the Treatment Group for measurement purposes, except where clauses 8.9.2(g) and 8.9.2(h) apply;
 - (f) the Population should not be targeted with the offer of goods and services that:
 - (i) are aimed at increasing electricity or natural gas use with the intent of creating a greater difference in electricity or natural gas use between the Control Group and Treatment Group; or
 - (ii) promote switching from using grid electricity to natural gas, or vice versa, if both grid electricity and natural gas consumptions is not measured at all Sites in the Population; or
 - (iii) promote switching to a non-renewable energy source other than grid electricity or natural gas.
 - (g) a Site must be removed from the Population, and hence Treatment Group or Control Group, if Measured Electricity Consumption or Measured Gas Consumption data or both, as per Clause 8.9.2(b)(i), are not available for that Site during the Implementation Period;
 - (h) all Sites with Measured Electricity Consumption or Measured Gas Consumption data or both, as per Clause 8.9.2(b)(i), for only part of an Implementation Period due to Attrition, must be:
 - (i) removed from the Population; or
 - (ii) included in the Population until the last date Measured Electricity Consumption or Measured Gas Consumption data or both, are available for a given Site; and
 - (i) if data for a Pre-Implementation Period are used, the Accredited Certificate Provider must specify prior to the Implementation Date a period for which the data are available for the total Population.

- 8.9.3 Measurements of electricity consumption under this method must use Measured Electricity Consumption data for each Site in the Population, where the Measured Electricity Consumption for a Measurement Period means the metered amount of electricity used by a Site:
- (a) as determined by the metering data held by the Electricity Retailer or Network Service Provider for that Site, pro-rated across the period, as measured and estimated in accordance with the provisions of the National Energy Retail Rules under the *National Energy Retail Law (NSW)*, and in accordance with the provisions of the *Electricity Supply (General) Regulation 2014*; or
 - (b) from a metering arrangement compliant with the accuracy requirements of National Measurement Institute document M6 (Electricity Meters), or another metering benchmark accepted by the Scheme Administrator, provided that:
 - (i) all metering devices are installed without bias as to whether that Site is in the Treatment Group or Control Group, and by parties who have no knowledge of whether each Site is part of the Treatment Group or Control Group; and
 - (ii) the reading of metering devices and checking, measurement, estimation and pro-rating of data is done without bias as to whether that Site is in the Treatment Group or Control Group, and by parties who have no knowledge of whether each Site is part of the Treatment Group or Control Group.
- 8.9.3A Measurements of natural gas consumption under this method must use Measured Gas Consumption data for each Site in the Population, where the Measured Gas Consumption for a Measurement Period means the metered amount of natural gas used by a Site:
- (a) as determined by the metering data held by the Gas Retailer or gas network operator for that Site, pro-rated across the period, as measured and estimated in accordance with the provisions of the National Energy Retail Rules under the *National Energy Retail Law (NSW)*, and in accordance with the provisions of the *Gas Supply (Consumer Safety) Regulation 2012* ; or
 - (b) from a metering arrangement compliant with the accuracy requirements of National Measurement Institute document R137 (Gas Meters), or another metering benchmark accepted by the Scheme Administrator, provided that:
 - (i) all metering devices are installed without bias as to whether that Site is in the Treatment Group or Control Group, and by parties who have no knowledge of whether each Site is part of the Treatment Group or Control Group; and
 - (ii) the reading of metering devices and checking, measurement, estimation and pro-rating of data is done without bias as to whether that Site is in the Treatment Group or Control Group, and by parties who have no knowledge of whether each Site is part of the Treatment Group or Control Group.
- 8.9.4 For the purposes of calculating Energy Savings, the Measured Electricity Consumption or Measured Gas Consumption data or both, for a given Population must be recorded over one or more Measurement Periods, where:
- (a) Implementation Periods and Pre-Implementation Periods are both Measurement Periods;
 - (b) the Implementation Period and the Pre-Implementation Period do not have to be immediately sequential in time;
 - (c) Measurement Periods must not overlap; and
 - (d) each Implementation Period must be at least 3 months and no more than 15 months in length.
- 8.9.4A Measured Energy Consumption is calculated for each Site in the Population in accordance with **Equation 8.9.1**.

Equation 8.9.1

$$\begin{aligned} \text{Measured Energy Consumption} \\ = \text{Measured Electricity Consumption} \times \text{Regional Network Factor} + \\ \text{Measured Gas Consumption} \times \frac{\text{Gas Certificate Conversion Factor}}{\text{Electricity Certificate Conversion Factor}} \end{aligned}$$

Where:

- *Regional Network Factor* is the value from **Table A24** of Schedule A corresponding to the postcode of the Address of the Site or Sites where the Implementation(s) took place
- *Electricity Certificate Conversion Factor* is 1.06, as specified the Act, or as amended by Regulation.
- *Gas Certificate Conversion Factor* is 0.39, as specified in the Act, or as amended by Regulation.

- 8.9.5 For the purposes of section 131 of the Act, Energy Savings for each Implementation are taken to have occurred on the last date of that Implementation Period.
- 8.9.6 Where required, the Energy Savings for the Implementation will be the sum of estimated Energy Savings for all Sites in a Treatment Group for each Implementation Period.
- 8.9.7 The records that must be kept of the method, data and assumptions used to calculate Energy Savings under Method 5.1 must include:
- (a) the Addresses of the Sites in the Population and whether they are allocated to the Treatment Group or the Control Group;
 - (b) evidence that Sites were assigned to the Population and were allocated to the Treatment Group and Control Group in accordance with clause 8.9.2;
 - (c) information on metering arrangements used according to clause 8.9.3 and 8.9.3A;
 - (d) information on the Treatment offered to the Treatment Group;
 - (e) confirmation in writing (together with reasoning) from an Accredited Statistician prior to the Implementation Date, that the:
 - (i) Accredited Statistician has randomly allocated Sites from the Population into the Control Group and the Treatment Group;
 - (ii) analysis method used to calculate the observed Energy Savings in Step 2 of Method 5.1 has been selected and is valid;
 - (iii) explanatory variables, including any interactions between them, have been documented if Method 5.4 is used;
 - (iv) lengths of the Implementation Period and the Pre-Implementation Period (if applicable) have been determined and documented;
 - (f) information on Sites removed from the Population in accordance with clauses 8.9.2(g) and 8.9.2(h), including reasoning for each Site's removal;
 - (g) documentation of reproducible steps and log files for the calculations performed; and
 - (h) any additional requirements as Published, from time to time, by the Scheme Administrator.
- 8.9.8 The Accredited Certificate Provider can only modify the methods in clause 8.9.7(e) for subsequent Implementation Periods. If modified, the Accredited Certificate Provider must obtain from an Accredited Statistician prior to the Implementation Date of the subsequent Implementation Periods, a new verification in writing.

- 8.9.9 The Implementation Date is the start date of the Implementation Period.
- 8.9.10 The Energy Saver is the person who holds the Measured Electricity Consumption or Measured Gas Consumption data or both, for all Sites in a Population in accordance with clause 8.9.3 or 8.9.3A.
- 8.9.11 For the purposes of this clause 8.9, the requirements under clause 6.8 are as Published by the Scheme Administrator for the purposes of this calculation method.

Method 5.1**Calculation of Energy Savings under the Aggregated Metered Baseline sub-method**

Step (1) For each Population, adjust the Control Group and the Treatment Group for Attrition at the end of each Implementation Period, in accordance with clause 8.9.2. The number of Sites in the Treatment and Control Groups will be designated N_T and N_C respectively.

Step (2) Calculate the *Observed Energy Savings*, $ES_{observed}$, in MWh, over the Implementation Period using one of the following methods:

- (a) Method 5.2 (Time-Aggregated Energy Consumption During the Implementation Period); or
- (b) Method 5.3 (Time-Aggregated Energy Consumption During the Implementation and Pre-Implementation Periods - Difference in Differences); or
- (c) Method 5.4 (Regression Modelling).

Step (3) The Scheme Administrator may provide the Accredited Certificate Provider with an estimate of *Uplift Energy Savings*, ES_{uplift} , over the Implementation Period using:

- (a) Method 5.5 (Estimation of Uplift Energy Savings); or
- (b) another method as Published by the Scheme Administrator.

If the Scheme Administrator does not provide an estimate of *Uplift Energy Savings*, the value of *Uplift Energy Savings* must be taken to be zero.

Unless otherwise notified by the Scheme Administrator, the Accredited Certificate Provider must provide the Scheme Administrator with data required to estimate *Uplift Energy Savings*, including the Addresses of Sites in the Treatment Group and Control Group; the Implementation Period data; and any other data, as requested by the Scheme Administrator.

For Sites with Measured Electricity Consumption or Measured Gas Consumption data or both, as per Clause 8.9.2(b)(i), for part of an Implementation Period due to Attrition, the date of Attrition is considered the last date of the Implementation Period for those given Sites.

Step (4) Calculate *Electricity Savings* in MWh, by subtracting the effect of *Uplift Energy Savings* from the *Observed Energy Savings*, ensuring the result is non-negative:

$$\text{Electricity Savings} = \max(0, ES_{observed} - ES_{uplift})$$

$$\text{Gas Savings} = 0$$

Method 5.2**Calculation of Observed Energy Savings from Time-Aggregated Energy Consumption During the Implementation Period**

Step (1) Calculate the mean daily energy use of the Treatment Group (E_T) over the Implementation Period:

$$E_T = \frac{(\sum_s E_s)}{(\sum_s D_s)}$$

where:

- s indexes over Sites in the Treatment Group
- E_s is the Measured Energy Consumption for Site (s) in the Treatment Group over the Implementation Period, calculated in accordance with clause 8.9.4A of this Rule; and
- D_s is number of days of Measured Energy Consumption at Site (s) in the Treatment Group over the Implementation Period

Step (2) Calculate the mean daily energy use of the Control Group (E_C) over the Implementation Period:

$$E_C = \frac{(\sum_s E_s)}{(\sum_s D_s)}$$

where:

- s indexes over Sites in the Control Group
- E_s is the Measured Energy Consumption for Site (s) in the Control Group over the Implementation Period, calculated in accordance with clause 8.9.4A of this Rule; and
- D_s is number of days of Measured Energy Consumption at Site (s) in the Control Group over the Implementation Period

Step (3) Using the Treatment Group measurements, the Control Group measurements and the standard error for the Control Group mean, perform the following hypothesis test:

$$H_0 : E_C \leq E_T$$

$$H_{alt} : E_C > E_T$$

$$\text{Calculate } t = (E_C - E_T) / \left(sd * \sqrt{\frac{f_{pcT}}{N_T} + \frac{f_{pcC}}{N_C}} \right)$$

$$\text{Reject } H_0 \text{ (and accept } H_{alt} \text{) if } t > T_{(p=0.95)}$$

where:

- sd is the standard deviation of mean daily energy use at Sites in the Control Group in the Implementation Period, weighted by the number of days in the Implementation Period for which there is data about Measured Energy Consumption at Sites in the Control Group, as worked out using the formula

$$sd = \sqrt{\left\{ \sum_s f_s * \left(\frac{E_s}{D_s} - E_C \right)^2 \right\} * \frac{N_C}{N_C - 1}}$$

where:

f_s means the number of days in the Implementation Period for which there is data about Measured Energy Consumption at Site (s), as a proportion of the sum of all the days in the Implementation Period for which there is data about Measured Energy Consumption at Sites in the Control Group, as follows:

$$f_s = \frac{D_s}{(\sum_s D_s)}$$

- N_C is the number of Sites in the Control Group and N_T is number of Sites in the Treatment Group;

- $T_{(p=0.95)}$ is the value from standard T tables with $(N_C - 1)$ degrees of freedom. For degrees of freedom exceeding 2400 use the value of 1.6449. Note that 0.95 values of the T statistic are from the upper 5% points of the distribution;
- fpc_C is an optional finite population correction for estimating the Population mean from the Control Group, $fpc_C = (N - N_C)/(N - 1)$; and
- fpc_T is an optional finite population correction when using the Population mean to predict the Treatment Group mean, $fpc_T = (N - N_T)/(N - 1)$.

If able to reject H_0 , proceed to step (4). Otherwise, E_C is taken to be less than or equal to E_T and $ES_{observed}$ is taken to be zero.

Step (4) Calculate the *Observed Energy Savings*, $ES_{observed}$, in MWh, over the Implementation Period:

$$ES_{observed} = (E_C - E_T) * \left(\sum_s D_s \right)$$

where:

- s indexes over Sites in the Treatment Group; and
- D_s is number of days of Measured Energy Consumption at Site (s) in the Treatment Group over the Implementation Period

Method 5.3

Calculation of *Observed Energy Savings* from Time-Aggregated Energy Consumption During the Implementation and Pre-Implementation Periods – Difference in Differences

Step (1) Calculate the change in mean daily energy use (C_s) between the Implementation Period and the Pre-Implementation Period for each Site in the Population:

$$C_s = E_{s,i} - E_{s,p} * \left(\frac{D_{s,i}}{D_{s,p}} \right)$$

where:

- $E_{s,i}$ is the Measured Energy Consumption at each Site (s) over the Implementation Period, calculated in accordance with clause 8.9.4A of this Rule;
- $E_{s,p}$ is the Measured Energy Consumption at Site (s) over the Pre-Implementation Period, calculated in accordance with clause 8.9.4A of this Rule;
- $\left(\frac{D_{s,i}}{D_{s,p}} \right)$ corrects for minor differences in length of Implementation Period compared to Pre-Implementation Period due to leap year;
- $D_{s,i}$ is the number of days of over the Implementation Period for which there is data about Measured Energy Consumption at Site (s); and
- $D_{s,p}$ is the number of days in the Pre-Implementation Period and must cover the same period of time in a previous year as $D_{s,i}$.

Step (2) Calculate the change in mean daily energy use of the Treatment Group (C_T) between the Implementation Period and the Pre-Implementation Period:

$$C_T = \frac{\sum_s C_s}{\sum_s D_{s,i}}$$

where:

- s indexes over Sites in the Treatment Group; and
- $D_{s,i}$ is the number of days over the Implementation Period for which there is data about Measured Energy Consumption at Site (s).

Step (3) Calculate the change in mean daily energy use of the Control Group (C_C) between the Implementation Period and the Pre-Implementation Period:

$$C_C = \frac{\sum_s C_s}{\sum_s D_{s,i}}$$

where:

- s indexes over Sites in the Control Group; and

$D_{s,i}$ is the number of days over the Implementation Period for which there is data about Measured Energy Consumption at Site (s).

Step (4) Using the Treatment Group measurements, the Control Group measurements and the standard error for the Control Group mean difference, perform the following hypothesis test:

$$H_0 : C_C \leq C_T$$

$$H_{alt} : C_C > C_T$$

$$\text{Calculate } t = (C_C - C_T) / \left(sd * \sqrt{\frac{fpc_T}{N_T} + \frac{fpc_C}{N_C}} \right)$$

Reject H_0 (and accept H_{alt}) if $t > T_{(p=0.95)}$

where:

- sd is the standard deviation of change, between the Pre-Implementation Period and Implementation Period, in the mean daily energy use at Sites in the Control Group, weighted by the number of days in the Implementation Period for which there is data about Measured Energy Consumption at Sites in the Control Group, as worked out using the formula

$$sd = \sqrt{\left\{ \sum_s f_s * \left(\frac{C_s}{D_{s,i}} - C_C \right)^2 \right\} * \frac{N_C}{N_C - 1}}$$

where:

f_s means the number of days in the Implementation Period for which there is data about Measured Energy Consumption at Site (s), as a proportion of the sum of all the days in the Implementation Period for which there is data about Measured Energy Consumption at Sites in the Control Group, as follows:

$$f_s = \frac{D_{s,i}}{(\sum_s D_{s,i})}$$

- N_C is number of Sites in the Control Group and N_T is number of Sites in the Treatment Group;
- $T_{(p=0.95)}$ is the value from standard T tables with $(N_C - 1)$ degrees of freedom. For degrees of freedom exceeding 2400 use the value of 1.6449. Note that 0.95 values of the T statistic are from the upper 5% points of the distribution;
- fpc_C is an optional finite population correction for estimating the Population mean from the Control Group, $fpc_C = (N - N_C)/(N - 1)$; and

- fpc_T is an optional finite population correction when using the Population mean to predict the Treatment Group mean, $fpc_T = (N - N_T)/(N - 1)$.

If able to reject H_0 , proceed to step (5). Otherwise, C_C is taken to be less than or equal to C_T and $ES_{observed}$ is taken to be zero

Step (5) Calculate the *Observed Energy Savings*, $ES_{observed}$, in MWh, over the Implementation Period:

$$ES_{observed} = (C_C - C_T) * \left(\sum_s D_s \right)$$

where:

- s indexes over Sites in the Treatment Group; and
- $D_{s,i}$ is the number of days over the Implementation Period for which there is data about Measured Energy Consumption at Site (s).

Method 5.4

Calculation of *Observed Energy Savings from Regression Modelling*

Step (1) Calculate the mean daily energy use ($DE_{s,i}$) for each Site in the Population for the Implementation Period:

$$DE_{s,i} = E_{s,i}/D_{s,i}$$

where:

- $E_{s,i}$ is the Measured Energy Consumption for Site (s) over the Implementation Period, calculated in accordance with clause 8.9.4A of this Rule; and
- $D_{s,i}$ is the number of days of Measured Energy Consumption at Site (s) over the Implementation Period

Step (2) Calculate the mean daily energy use ($DE_{s,p}$) for each Site in the Population for the Pre-Implementation Period:

$$DE_{s,p} = E_{s,p}/D_{s,p}$$

where:

- $E_{s,p}$ is the Measured Energy Consumption for each Site (s) over the Pre-Implementation Period, calculated in accordance with clause 8.9.4A of this Rule; and
- $D_{s,p}$ is the number of days of Measured Energy Consumption at Site (s) over the Pre-Implementation Period.

Step (3) Create the evaluation data set consisting of one observation for each Site in the Population containing $DE_{s,i}$, $DE_{s,p}$, T_s and other appropriate explanatory variables, where:

- T_s is a variable taking the value 1 if a Site (s) is in the Treatment Group and 0 if it is in the Control Group; and
- $OtherVariables_s$ is the vector of other appropriate explanatory variables.

Step (3B) For cases where there are Sites with Measured Energy Consumption data for part of an

Implementation Period due to Attrition, create another variable $W_{s,m}$, where:

- $W_{s,m}$ is a variable taking the value 1 if the Site (s) has Measured Energy Consumption during time period m and 0 otherwise. $m = 1 \dots NTP$; and
- NTP is the number of non-overlapping and exhaustive time periods for the implementation.
- The time periods are to be allocated so that each time period has (as close as is possible) the same number of Sites subject to Attrition during that period.

Step (4) Estimate the average treatment effect per day ($\hat{\beta}$) by estimating the following regression via Weighted Least Squares (WLS) and weighting by $D_{s,i}$:

$$DE_{s,i} = \alpha + \beta T_s + \delta DE_{s,p} + \sum \lambda_m W_{s,m} + \sum \gamma_k OtherVariables_{s,k} + \varepsilon_s$$

where:

- α is the intercept;
- β is the treatment effect;
- δ is the impact of Pre-Implementation Period energy consumption;
- λ_m accounts for time period (m) variation;
- γ_k is the effect of the kth other explanatory variable, $k=1 \dots K$ where K is the total number of other explanatory variables; and
- ε_s is the error term.

Step (5) Using the estimated treatment effect (denoted as $\hat{\beta}$) and its standard error perform the following hypothesis test:

$$H_0: \hat{\beta} \geq 0$$

$$H_{alt}: \hat{\beta} < 0$$

$$\text{Calculate } t = \hat{\beta} / se(\hat{\beta})$$

$$\text{Reject } H_0 \text{ (and accept } H_{alt}) \text{ if } t < T_{(p=0.05)}$$

where:

- $se(\hat{\beta})$ is the standard error of $\hat{\beta}$; and
- $T_{(p=0.05)}$ is the value from the standard T table with $N_T + N_C - (3 + K + NTP)$ degrees of freedom. For degrees of freedom exceeding 2400 use the value of -1.6449 . Note that 0.05 values of the T statistic are from the lower 5% points of the distribution.

A negative value for $\hat{\beta}$ indicates a reduction in energy usage. Therefore, if able to reject H_0 , proceed to step (6). Otherwise, $\hat{\beta}$ is taken to be non-negative and $ES_{observed}$ is taken to be zero.

Step (6) Calculate the *Observed Energy Savings*, $ES_{observed}$, in MWh, over the Implementation Period:

$$ES_{observed} = -\hat{\beta} * \left(\sum_s D_s \right)$$

where:

- s indexes over Sites in the Treatment Group; and
- D_s is the number of days of Measured Energy Consumption at Site (s) in the Treatment Group over the Implementation Period.

Method 5.5 - Estimation of Uplift Energy Savings

Step (1) Estimate the *Lifetime Energy Savings*, $LES_{s,a}$, from each *Other Activity (a)* implemented in each Site (s) in the Population, within the Implementation Period.

Where:

- *Other Activity (a)* means either:
 - any other Recognised Energy Saving Activity, apart from the Recognised Energy Saving Activity that is the subject of this calculation; or
 - an activity referred to in clauses 5.4(f) 5.4(g), or 5.4(i) of this Rule.

Step (2) Calculate the Energy Savings, $ES_{s,a}$, for each Site s due to each *Other Activity a* during the Implementation Period:

$$ES_{s,a} = LES_{s,a} * \left(\frac{Overlap_a}{Lifetime_a} \right)$$

where:

- $Lifetime_a$, in years, is the Lifetime of the Energy Savings for each *Other Activity (a)*, or 10 years if it is not defined in this Rule; and
- $Overlap_a$, in years, is the length of time of the Implementation Period that overlaps with the Lifetime of the Energy Savings for each *Other Activity (a)*.
- If the *Other Activity (a)* had one or more Energy Savings calculated using the Metered Baseline Method, then the Lifetime of the Energy Savings is the length of the Measurement Period of that calculation.
- The calculation of the duration of overlap must take account of Attrition of Sites.

Step (3) Calculate the average Energy Savings, $ES_{T,all Other Activities}$ and $ES_{C,all Other Activities}$, due to all *Other Activities (a)* for all Sites in the Treatment Group and Control Group respectively, over the Implementation Period:

$$ES_{T,all Other Activities} = \frac{\sum_{s \text{ in Treatment Group}, a} ES_{s,a}}{N_T}$$

and

$$ES_{C,all Other Activities} = \frac{\sum_{s \text{ in Control Group}, a} ES_{s,a}}{N_C}$$

where:

- The summation is over all Sites (s) in the Treatment Group (for $ES_{T,all Other Activities}$) and Control Group (for $ES_{C,all Other Activities}$), respectively, and all *Other Activities* that overlap with the Implementation Period; and
- The N_T and N_C are the number of Sites in the Treatment Group and Control Group respectively for Implementation Period.

Step (4) Calculate the *Uplift Energy Savings*, ES_{uplift} , from *Other Activities* due to participation in the program:

$$ES_{uplift} = (ES_{T,all Other Activities} - ES_{C,all Other Activities}) * N_T$$

Step (5) Ensure the *Uplift Energy Savings*, ES_{uplift} , are non-negative:

$$ES_{uplift} = \max(0, ES_{uplift})$$

9 Deemed Energy Savings Method

Note: The Deemed Energy Savings Method can be used for the replacement, installation and delivery of common End-User Equipment such as lighting, refrigerators and electric motors.

9.1 Energy Savings for Implementations may be calculated in accordance with:

- (a) clause 9.3 (Sale of New Appliances), for the Activity Definitions set out in Schedule B;
- (b) clause 9.4 (Commercial Lighting Energy Savings Formula);
- (c) clause 9.4A (Public Lighting Energy Savings Formula);
- (d) clause 9.5 (High Efficiency Motor Energy Savings Formula);
- (e) clause 9.6 (Power Factor Correction Energy Savings Formula);
- (f) clause 9.7 (Removal of Old Appliances), for the Activity Definitions set out in Schedule C;
- (g) clause 9.8 (Home Energy Efficiency Retrofits), for the Activity Definitions set out in Schedules D and E; or
- (h) clause 9.9 (High Efficiency Appliances for Businesses), for the Activity Definitions set out in Schedule F.
- (i) (deleted).

9.2 For the purposes of section 131 of the Act, where the Energy Savings for an Implementation are calculated using the Deemed Energy Savings Method in this clause 9, those Energy Savings are taken to occur on the Implementation Date.

9.2A Acceptable End-User Equipment

9.2A.1 Under the Deemed Energy Savings Method, Equipment Requirements apply to End-User Equipment. The Equipment Requirements are specified in clauses 9.3 to 9.9, and also include any additional Equipment Requirements (as Published from time to time by the Scheme Administrator) that apply to the relevant calculation method of this Rule.

9.2A.2 The Scheme Administrator may Publish, from time to time, a list of Products that are accepted by the Scheme Administrator as meeting the Equipment Requirements referred to in clause 9 by:

- (a) Publishing a detailed list identifying each Product;
- (b) Publishing a reference to a list from a certifying body, along with any restrictions on that list; and/or
- (c) Publishing a requirement for labelling in accordance with a labelling scheme, along with any restrictions on that labelling.

9.2A.3 Subject to clause 9.2A.4, any Accredited Certificate Provider (or other persons as Published by the Scheme Administrator), may apply to the Scheme Administrator to have a Product accepted as meeting the Equipment Requirements, provided that they:

- (a) apply in a form and manner required by the Scheme Administrator;

- (b) pay any fee required by the Scheme Administrator in respect of the investigation and determination of the application on a cost recovery basis and including an allowance for:
 - (i) the recovery by the Scheme Administrator of its costs in establishing, operating and maintaining the systems and databases required in connection with the assessment, acceptance and rejection of applications made under this clause 9.2A.3;
 - (ii) the exercise of the Scheme Administrator's powers under clauses 9.2A.2 and 9.2A.5; and
 - (iii) the payment and collection of fees under this clause 9.2A.3(b);
- (c) identify the Product; and
- (d) provide evidence that the Product meets all of the Equipment Requirements.

9.2A.4 The Scheme Administrator may limit the number of applications that may be made during a period under clause 9.2A.3, either in aggregate or by particular persons or classes of persons, by Publishing a notice that sets out that period and limit.

9.2A.5 The Scheme Administrator may, at any time, cease to accept a Product as meeting the Equipment Requirements, provided that it:

- (a) notifies all Accredited Certificate Providers accredited for the relevant Recognised Energy Saving Activity of the change and the reason for the change, prior to the Product ceasing to be accepted for this purpose; and
- (b) ensures that all Published lists reflect the change in a timely manner.

9.2A.5A The Scheme Administrator may accept or reject an application made under clause 9.2A.3.

9.2A.6 Without limiting clause 9.2A.5A, the Scheme Administrator may reject an application made under clause 9.2A.3 where the applicant has not provided additional information requested by the Scheme Administrator in support of that application within a timeframe Published by the Scheme Administrator.

9.3 Sale of New Appliances

9.3.1 The Energy Savings for an Implementation may be calculated using **Equation 5**, provided that:

- (a) each item of End-User Equipment meets the Equipment Requirements in one of the Activity Definitions set out in Schedule B;
- (b) each item of End-User Equipment was sold by an Appliance Retailer;
- (c) each item of End-User Equipment was new at the time it was sold by the Appliance Retailer;
- (d) each item of End-User Equipment was delivered to an Address, or was sold to a Purchaser with an Address recorded by the Appliance Retailer; and
- (e) compliance with the requirements in clauses (a) to (d) above is evidenced by a tax invoice and/or other evidence acceptable to the Scheme Administrator.

9.3.2 For the purposes of clause 5.3(a), End-User-Equipment under clause 9.3 is deemed to be installed upon its sale.

9.3.3 For the purposes of clause 6.8, the Site of the Implementation is the Address referred to in clause 9.3.1 (d) of this Rule.

9.3.4 The Implementation Date is the date that the End-User Equipment was sold.

9.3.5 The Energy Saver is the Appliance Retailer who sells the End-User Equipment to a Purchaser.

9.3.6 (deleted)

Equation 5

For each Implementation:

$$\text{Electricity Savings} = \sum \text{Deemed Equipment Electricity Savings} \times \text{Regional Network Factor}$$

Where:

- the summation is over all items of End-User Equipment that have been sold as part of the Implementation; and
- *Deemed Equipment Electricity Savings*, in MWh, for each item of End-User Equipment are calculated according to the respective **Activity Definition B1, B2, B3, B4, B5, B6, or B7** of Schedule B.
- *Regional Network Factor* is the value from **Table A24** of Schedule A corresponding to the postcode of the Address of the Site or Sites where the Implementation(s) took place.

9.4 Commercial Lighting Energy Savings Formula

9.4.1 The Energy Savings for an Implementation may be calculated using **Equations 6 and 9** and either **7 or 8**, provided that:

- (a) the activity is a Lighting Upgrade of:
 - (i) Lighting for Roads and Public Spaces;
 - (ii) Traffic Signals; or
 - (iii) Building Lighting;
- (b) the Lighting Upgrade meets or exceeds the relevant lighting standards for each upgrade, to the satisfaction of the Scheme Administrator;
- (c) if the Lighting Upgrade is of Building Lighting, then each space, after implementation of the Lighting Upgrade must, to the satisfaction of the Scheme Administrator, achieve:
 - (i) the relevant requirements of AS/NZS 1680, specifically including but not limited to maintained illuminance accounting for lumen depreciation, control of glare, and uniformity of illuminance, or another benchmark approved by the Scheme Administrator where the Lighting Upgrade is outside the scope of AS/NZS1680;
 - (ii) the requirements of the BCA section F4.4, Safe Movement (as updated from time to time);
 - (iii) an IPD that equals or is less than the maximum IPD for each space, as defined in Part J6 of the BCA; and
 - (iv) any other minimum performance requirements as Published by the Scheme Administrator;
- (d) the Lighting Upgrade is performed by appropriately trained persons, according to requirements Published by the Scheme Administrator, and is undertaken by or under the supervision of a Licensed electrician;
- (e) the Purchaser has paid a net amount of at least \$5 (excluding GST) per MWh of Electricity Savings, which must not be reimbursed, for the goods or services making up the Implementation, and which payment is evidenced to the satisfaction of the Scheme Administrator;
- (f) each item of End-User Equipment used in the Lighting Upgrade is either:

- (i) a Standard Equipment Class as listed in Table A9.1 of Schedule A or,
 - (ii) an Other Equipment Class as listed in Table A9.3 of Schedule A, provided that the item is accepted by the Scheme Administrator as meeting the Equipment Requirements specified in Table A9.4 of Schedule A.
- (g) if the Lighting Upgrade is of Lighting for Roads and Public Spaces, then the Lighting Upgrade, must, to the satisfaction of the Scheme Administrator, achieve:
- (i) the requirements of the AS/NZS 1158 series of standards; or
 - (ii) any other standard or benchmark specified by the Scheme Administrator.
- (h) if the Lighting Upgrade is of Traffic Signals, then the Lighting Upgrade must, to the satisfaction of the Scheme Administrator, achieve:
- (i) the relevant requirements of AS 2144:2014; or
 - (ii) any other standard or benchmark specified by the Scheme Administrator.

Note: In-kind payments are not an acceptable form of payment for the purposes of clause 9.4.1(e). For example, the purchaser cannot provide goods and services in exchange for goods and services that make up the Implementation for the purposes of clause 9.4.1(e).

9.4.2 The Implementation Date is the date when the Lighting Upgrade was completed.

9.4.3 The Energy Saver is the Purchaser.

9.4.4 (deleted).

Equation 6

For each Implementation:

$$\text{Electricity Savings} = [\text{Baseline Consumption} - \text{Upgrade Consumption}] \times \text{Regional Network Factor}$$

Where:

- *Baseline Consumption*, in MWh, is calculated:
 - using **Equation 7**, if the Lighting Upgrade is part of a refurbishment that would not have been required to comply with the BCA Part J6, had the Lighting Upgrade component of the refurbishment not occurred;
 - using **Equation 7** if the Lighting Upgrade is part of a refurbishment that would have been required to comply with the BCA Part J6, had the Lighting Upgrade component of the refurbishment not occurred and where the existing lighting meets or is below the maximum IPD requirements of the BCA Part J6; or
 - using **Equation 8** if the Lighting Upgrade is part of a refurbishment that would have been required to comply with the BCA Part J6, had the Lighting Upgrade component of the refurbishment not occurred, and where the existing lighting does not meet the IPD requirements of the BCA Part J6.
- *Upgrade Consumption*, in MWh, is calculated using **Equation 9**
- *Regional Network Factor* is the value from **Table A24** of Schedule A corresponding to the postcode of the Address of the Site or Sites where the Implementation(s) took place.

Equation 7

Baseline Consumption (MWh) =

$$\sum_{\text{Each Incumbent Lamp}} (LCP \times \text{Asset Lifetime} \times \text{Annual Operating Hours} \times CM \times AM) \div 10^6$$

Where:

- *Each Incumbent Lamp* means each Lamp and Control Gear in the pre-existing lighting system;
- *LCP*, in Watts, is the default lamp circuit power corresponding to that type of Lamp and Control Gear for that End-User Equipment as set out in **Table A9.2** or **Table A9.4** of Schedule A, representing the power drawn by the Lamp, plus the losses of its Control Gear;
- *Asset Lifetime*, in years, is the default lifetime of the Lighting Upgrade for the relevant End-User Equipment as used in **Equation 9**;
- *Annual Operating Hours*, in hours/year, is the default number of hours per annum that the upgraded lighting system is expected to operate for the relevant building and space type as set out in **Table A10.2** of Schedule A;
- *CM* is the control multiplier. If the Lamp is connected to a Control System, the factor for the control multiplier shall be applied for the relevant End-User Equipment or activity as set out in **Table A10.4** of Schedule A to this Rule, otherwise $CM = 1.0$; and
- *AM* is the air-conditioning multiplier for the space as used in **Equation 9**.

Equation 8

Baseline Consumption (MWh) =

$$\sum_{\text{Each Space}} (IPD \times \text{Area} \times \text{Asset Lifetime} \times \text{Annual Operating Hours} \times AM) \div 10^6$$

Where:

- *Each Space* means each portion of space within the Site requiring a different IPD as defined in Part J6 of the BCA;
- *IPD*, in Watts/m², is the maximum allowable IPD for each space, as required by Table J6.2a of the BCA. For simplicity, the Scheme Administrator may take a weighted average of similar IPDs in the Commercial Lighting Energy Savings Formula.
- *Area*, in m², is the area of Each Space;
- *Asset Lifetime*, in years, is the default lifetime of the Lighting Upgrade for the relevant End-User Equipment as used in **Equation 9**;
- *Annual Operating Hours*, in hours/year, is the default number of hours per annum that the upgraded lighting system is expected to operate for the relevant building and space type as set out in **Table A10.2** of Schedule A; and
- *AM* is the air-conditioning multiplier for the space as used in **Equation 9**.

Equation 9

Upgrade Consumption (MWh) =

$$\sum \text{Each Upgrade Lamp} (LCP \times \text{Asset Lifetime} \times \text{Annual Operating Hours} \times CM \times AM) \div 10^6$$

Where:

- *Each Upgrade Lamp* means each Lamp and Control Gear in the upgraded lighting system.
- *LCP*, in Watts, is the default lamp circuit power corresponding to that type of Lamp and Control Gear for that End-User Equipment as set out in **Table A9.2** or **Table A9.4** of Schedule A, representing the power drawn by the Lamp, plus the losses of its Control Gear;
- *Asset Lifetime*, in years, is the default lifetime of the Lighting Upgrade for the relevant End-User Equipment as set out in **Table A10.1** of Schedule A, or another value accepted by the Scheme Administrator;
- *Annual Operating Hours*, in hours/year, is the default number of hours per annum that the upgraded lighting system is expected to operate for the relevant building and space type as set out in **Table A10.2** of Schedule A.
- *CM* is the control multiplier. If the Lamp is connected to a Control System, the factor for the control multiplier shall be applied for the relevant End-User Equipment or activity as set out in **Table A10.4** of Schedule A, otherwise $CM = 1.0$; and
- *AM* is the air-conditioning multiplier for the space, after Implementation, as set out in **Table A10.5** of Schedule A.

9.4A Public Lighting Energy Savings Formula

9.4A.1 The Energy Savings for an Implementation may be calculated using **Equations 6, 7 and 9** of Clause 9.4, provided that:

- (a) the activity is a Lighting Upgrade of:
 - (i) Lighting for Roads and Public Spaces; or
 - (ii) Traffic Signals; and
- (b) the Luminaire is an asset owned and/or maintained by a Distributor or Roads and Maritime Services; and
- (c) each item of End-User Equipment used in the Lighting Upgrade is either:
 - (i) a Standard Equipment Class as listed in Table A9.1 of Schedule A or,
 - (ii) an Other Equipment Class as listed in Table A9.3 of Schedule A, provided that the item is accepted by the Scheme Administrator as meeting the Equipment Requirements specified in Table A9.4 of Schedule A.

9.4A.2 The Implementation Date is the date when the Lighting Upgrade was completed.

9.4A.3 The Energy Saver is:

- (a) the Distributor or Roads and Maritime Services that is the owner of the Luminaire; or
- (b) the Council or Roads and Maritime Services if they:
 - (i) are a public lighting customer, for billing, regulatory or management purposes, of the Distributor that owns the Luminaire, and
 - (ii) request the Lighting Upgrade from the Distributor that owns the Luminaire, in writing.

9.4A.4 If the Lighting Upgrade involves an existing or replacement Lamp or Luminaire that:

- (a) is registered on a national electricity market load table for unmetered connection points, the device load value listed in that load table must be used as the LCP in **Equations 7 and 9** of clause 9.4; or
- (b) is not registered on a national electricity market load table for unmetered connection points, the device load value as listed in a Public Lighting Inventory must be used as the LCP in **Equations 7 and 9** of clause 9.4.

9.4A.5 If the Lighting Upgrade involves the installation of a Control System the control multiplier *CM* when calculating Energy Savings using **Equations 6, 7 and 9** of Clause 9.4 must be set equal to 1.

9.5 High Efficiency Motor Energy Savings Formula

9.5.1 The Energy Savings may be calculated using **Equation 12**, provided that:

- (a) the End-User Equipment is a new High Efficiency Motor; and
- (b) the High Efficiency Motor is installed.

9.5.2 The Implementation Date is the date that the High Efficiency Motor was installed.

9.5.3 The Energy Saver is the Purchaser.

9.5.4 (deleted).

9.5.5 An Accredited Certificate Provider may only calculate Energy Savings for an Implementation using **Equation 12** if they were accredited by the Scheme Administrator to create Energy Savings Certificates using the High Efficiency Motor Energy Savings Formula on or before 15 April 2016.

Equation 12

For each Implementation:

$$\text{Electricity Savings} = P \times LUF \times DEI \times \text{Asset Life} \times 8760 \div 1000 \times \text{Regional Network Factor}$$

Where:

- *P*, in kW, is the rated output of the High Efficiency Motor
- *LUF* is the Default Load Utilisation Factors for the relevant High Efficiency Motor as set out in **Table A12** of Schedule A, where the Business Classification and End-Use Service relevant to the Energy Savings is known, or **Table A13** of Schedule A otherwise;
- *DEI* is the default efficiency improvement (as a fraction, not as a percentage) for the relevant High Efficiency Motor as set out in **Table A11** of Schedule A; and
- *Asset Life*, in years, of the High Efficiency Motor is set out in **Table A14** of Schedule A to this Rule for the corresponding rated output of the High Efficiency Motor.
- *Regional Network Factor* is the value from **Table A24** of Schedule A corresponding to the postcode of the Address of the Site or Sites where the Implementation(s) took place.

9.6 Power Factor Correction Energy Savings Formula

9.6.1 The Energy Savings may be calculated using **Equations 13 and 14**, provided that:

- (a) the capacitors to provide the power factor correction services are installed at a Site where electricity is supplied from the Electricity Network at less than 50 kilovolts (kV);
- (b) the capacitors improve the power factor of the Site to achieve a minimum of 0.9 lagging;
- (c) the capacitors are not installed as part of a mandatory program of installation;
- (d) the capacitors are installed at the main switchboard, where the Site is connected to the Electricity Network; and
- (e) the capacitors are new.

9.6.2 The Implementation Date is the date on which the capacitors were installed.

9.6.3 The Energy Saver is the Purchaser.

9.6.4 (deleted)

Equation 13

For each Implementation:

$$\text{Electricity Savings} = (\text{Power Savings}) / 1000 \times (\text{Annual operating hours}) \times (\text{Site Life}) \times \text{Regional Network Factor}$$

Where:

- *Power Savings*, in kW, is the line loss power savings, less capacitor losses, during operating hours, and is calculated according to **Equation 14**;
- *Annual operating hours*, in hours/year, is the number of hours per year that the Site is operating and equals 1750; and
- *Site Life*, in years, is the expected remaining lifetime of the Site and the capacitors and equals 10.
- *Regional Network Factor* is the value from **Table A24** of Schedule A corresponding to the postcode of the Address of the Site or Sites where the Implementation(s) took place.

Equation 14

$$\text{Power Savings (kW)} = \text{Real Power} \times 0.7 \times (\text{DLF} - 1) \times (1 - (\text{Initial power factor})^2 / (\text{Final power factor})^2) - 0.0039 \times (\text{Rating of installed capacitors})$$

Where:

- *Real Power*, in kW, is the real power component of the average Site load during operating hours;
- *DLF* is the distribution loss factor for the Distribution District that the Site is connected to, as detailed in **Table A19** of Schedule A;
- *Initial power factor* is the power factor of the load before the capacitors are installed, or 0.9, whichever is greater;
- *Final power factor* is the power factor of the load after the capacitors have been installed, or 0.98, whichever is lesser; and
- *Rating of installed capacitors*, in kvar, is the rated reactive power of the installed capacitors.

9.7 Removal of Old Appliances

9.7.1 The Energy Savings for an Implementation may be calculated using **Equation 15**, provided that:

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- (a) the Site is a Residential Building or a Small Business Building;
- (b) each item of End-User Equipment meets one of the Equipment Requirements in Activity Definition C1 or C2 of Schedule C;
- (c) each item of End-User Equipment is removed from the Site and disposed of; and
- (d) compliance with the requirements in clauses 9.7.1(a) to (c) above is evidenced by a copy of the disposal agent's refrigerant handling Licence, and/or other evidence acceptable to the Scheme Administrator.

9.7.2 The Implementation Date is the date that the End-User Equipment was removed from the Site.

9.7.3 The Energy Saver is the person who is contracted to remove the End-User Equipment.

Equation 15

For each Implementation:

$$\text{Electricity Savings} = \sum \text{Deemed Equipment Electricity Savings} \times \text{Regional Network Factor}$$

Where:

- the summation is over all items of End-User Equipment that have been removed as part of the Implementation; and
- *Deemed Equipment Electricity Savings*, in MWh, are calculated according to **Activity Definition C1 or C2** of Schedule C.
- *Regional Network Factor* is the value from **Table A24** of Schedule A corresponding to the postcode of the Address of the Site or Sites where the Implementation(s) took place.

9.8 Home Energy Efficiency Retrofits

9.8.1 The Energy Savings for an Implementation may be calculated using **Equation 16**, provided that:

- (a) the Site is a Residential Building or a Small Business Building;
- (b) a Site Assessment has been conducted on or before the Implementation Date;
- (c) the Eligibility Requirements for the relevant Activity Definition are met immediately prior to the Implementation Date;
- (d) installed End-User Equipment or Products that modify End-User Equipment meet all of the Equipment Requirements for the relevant Activity Definition;
- (e) the completed Implementation satisfies all of the relevant Implementation Requirements;
- (f) where the Implementation only consists of activities from Schedule E, sufficient activities are implemented to create a minimum of four Energy Savings Certificates, unless the activities are delivered through a Low-income Energy Program; and
- (g) the Purchaser has paid a net amount of at least \$30 (excluding GST) which must not be reimbursed, for the Implementation, assessment and other associated works carried out at the Site, and which payment is evidenced to the satisfaction of the Scheme Administrator, unless delivered through a Low-income Energy Program.

Note: In-kind payments are not an acceptable form of payment for the purposes of clause 9.8.1(g). For example, the purchaser cannot provide goods and services in exchange for goods and services that make up

the Implementation for the purposes of clause 9.8.1(g).

9.8.2 The Implementation Date is the earliest date that all of the conditions of clause 9.8.1 are met.

9.8.3 The Energy Saver is the Purchaser.

9.8.4 (deleted)

9.8.5 The activities that make up the Implementation must be identified, recorded and reported to the Scheme Administrator in a manner and form determined by the Scheme Administrator.

Equation 16

For each Implementation:

$$\text{Electricity Savings} = \sum \text{Deemed Activity Electricity Savings} \times \text{Regional Network Factor}$$

$$\text{Gas Savings} = \sum (\text{Deemed Activity Gas Savings})$$

Where:

- the summation is over all activities at the Site in accordance with this clause 9.8; and
- *Deemed Activity Electricity Savings*, in MWh, are calculated according to the Activity Energy Savings formula set out in the relevant **Activity Definition** in Schedule D or Schedule E for each Implementation at the Site.
- *Deemed Activity Gas Savings*, in MWh, are calculated according to the Activity Energy Savings formula set out in the relevant **Activity Definition** in Schedule D or Schedule E for each Implementation at the Site.
- *Regional Network Factor* is the value from **Table A24** of Schedule A corresponding to the postcode of the Address of the Site or Sites where the Implementation(s) took place.

9.9 Installation of High Efficiency Appliances for Businesses

9.9.1 The Energy Savings for an Implementation may be calculated using **Equation 17**, provided that:

- (a) each item of End-User Equipment meets the Equipment Requirements in an Activity Definition listed in Schedule F;
- (b) each item of End-User Equipment meets the Installation Requirements as specified in the relevant Activity Definition; and
- (c) each item of End-User Equipment is installed at an Address in an ESS Jurisdiction.

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

9.9.3 The Energy Saver is the Purchaser.

9.9.4 (deleted)

Equation 17

For each Implementation:

$$\text{Electricity Savings} = \sum \text{Deemed Equipment Electricity Savings} \times \text{Regional Network Factor}$$

$$\text{Gas Savings} = \sum \text{Deemed Equipment Gas Savings}$$

Where:

- the summation is over all items of End-User Equipment that have been installed as part of the Implementation; and
- *Deemed Equipment Electricity Savings*, in MWh, for each item of End-User Equipment are calculated according to the relevant **Activity Definition** in Schedule F.
- *Regional Network Factor* is the value from **Table A24** of Schedule A corresponding to the postcode of the Address of the Site or Sites where the Implementation(s) took place.
- *Deemed Equipment Gas Savings*, in MWh, for each item of End-User Equipment are calculated according to the relevant **Activity Definition** in Schedule F.

9.10 (deleted)

10 Definitions and Interpretation

10.1 In this Rule:

“**Accuracy Factor**” has the meaning given to that term in clause 7A.10.

“**Accreditation Date**” means, with respect to a Recognised Energy Saving Activity, the date on which the Scheme Administrator approves an Accredited Certificate Provider’s application:

- (a) for accreditation with respect to that activity; or
- (b) to amend its existing accreditation to add that activity.

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

“**Accredited Statistician**” means a person:

- (a) accredited by the Statistical Society of Australia Inc. at the time of carrying out the verification in accordance with clause 8.9.7(e); and
- (b) accepted by the Scheme Administrator for the purposes of this Rule.

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

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

“**Additional Energy Savings**” means, in respect of clauses 7, 7A and 8, Energy Savings for which no Energy Savings Certificates have been created, but which arise from an Implementation in relation to which Energy Savings Certificates have been created.

“**Address**” means a street address within an ESS Jurisdiction, in a format approved by the Scheme Administrator.

“**ANZSIC**” means the Australian and New Zealand Standard Industrial Classification developed by the Australian Bureau of Statistics and Statistics New Zealand.

“**Appliance Retailer**” means a person who has sold End-User Equipment which meets the Equipment Requirements of a Recognised Energy Saving Activity set out in Schedule B, in a new condition, to a Purchaser.

“**Approved Corresponding Scheme**” has the same meaning as it has in section 127 of the Act.

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

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

“**Attrition**” means, in relation to clause 8.9, the termination of the natural gas or electricity account in relation to a specific Site, for example, due to electricity customers switching retailers, relocating to a different Site, or disconnection from their electricity service.

“**Ballast EEI**” means the ballast energy efficiency index as defined in AS/NZS 4783.2 *Performance of electrical lighting equipment - Ballasts for fluorescent lamps - Energy labelling and minimum energy performance standards requirements*.

“**Baseline NABERS Rating**” has the meaning given in Step 2 of Method 4, under clause 8.8.

“**Baseline Energy Model**” is the model described in clause 7A.3.

“**BASIX**” means the NSW Building Sustainability Index established under the *Environmental Planning and Assessment Regulation 2000*.

“**BCA**” means the Building Code of Australia, forming part of the National Construction Code as updated from time to time.

“**Building Lighting**” means End-User-Equipment lighting affixed to a Commercial/Industrial premises which is classified under the BCA as Class 3, 5, 6, 7, 8, 9, or 10(b) buildings or the Common Area of a BCA Class 2 building.

“**Business Classification**” is the primary classification of the business making use of the End-Use Service for which energy was saved, detailed in Table A18 of Schedule A.

“**Certificate Conversion Factor**” has the same meaning as it has in the Act.

“**CFL**” means compact fluorescent Lamp.

“**CFLi**” means a compact fluorescent Lamp with integrated ballast.

“**CFLn**” means a compact fluorescent Lamp with non-integrated ballast.

“**Coefficient of Variation**” means, for the purposes of clause 7A, the sample standard deviation expressed as a percentage of the sample mean.

“**Common Areas**” means:

- (a) for buildings owned under strata title, the common property as defined in either the *Strata Schemes (Freehold Development) Act 1973*, or *Strata Schemes (Leasehold Development) Act 1986*; or
- (b) for buildings not owned under strata title (e.g. under company title), the non-residential property of BCA Class 2 buildings.

“**Computer Simulation**” means a method to establish an energy model that uses software to simulate energy consumption by End-User Equipment and can be tested against statistical requirements Published by the Scheme Administrator for the purposes of clause 7A of this Rule.

“**Control Gear**” means the lighting ballast, transformer or driver.

“**Control Group**” means, in relation to clause 8.9, the group of Sites selected to not be offered the Treatment.

“**Control Multiplier A**” is a factor from Table A10.4A of Schedule A for a control device that switches the luminaire on and off and must control a maximum of 6 luminaires (except Occupancy Sensor 1).

“**Control Multiplier B**” is a factor from Table A10.4A of Schedule A for a control device that reduces the luminaire’s power output and must control a maximum of 6 luminaires (except Occupancy Sensor 1). The luminaire must have at least two rated LCP modes that must not be adjusted after the Implementation.

“**Control System**” means a system for controlling the light output of a Luminaire, including:

- (a) Occupancy Sensor;
- (b) Daylight-Linked Control;
- (c) Programmable Dimming;
- (d) Manual Dimming; or
- (e) Voltage Reduction Unit.

“**Council**” means a Council as defined by the *Local Government Act 1993* or corresponding legislation in an approved corresponding scheme jurisdiction.

“**Decay Factor**” is a number between 0 and 1 which quantifies the decay of the Electricity Savings or Gas Savings due to equipment degradation over time, as determined in accordance with clauses 7 and 7A.

“**Deemed Energy Savings Method**” means the method in clause 9.

“**Default Load Utilisation Factor**” is a composite of a deemed load factor and a deemed utilisation factor for HEMs, as set out in Table A12 or Table A13 of Schedule A.

“**Distribution District**” has the same meaning as it has in the Act.

“**Distributor**” has the same meaning as it has in the Act.

“**Distribution Pipeline**” has the same meaning as it has in the *Gas Supply Act 1996*.

“**Distribution System**” has the same meaning as it has in the Act.

“**Downward Light Output**” means the luminous flux (measured in lumens) emitted in the downwards direction, equivalent to the Light Output from a Lamp or Luminaire when installed flush with a ceiling.

“**Effective Range**” means the range over which values of Independent Variables for which a Baseline Energy Model or Operating Energy model (as the case may be) is valid for the purposes of clause 7A of this Rule.

“**Electricity Network**” means all electricity Transmission Systems and Distribution Systems located in an ESS Jurisdiction.

“**Electricity Retailer**” has the same meaning as “retailer” in the *National Energy Retail Law (NSW)*.

“**Electricity Savings**” means the reduction of the amount or equivalent amount of electricity consumption (in MWh) arising from the Implementation as calculated by the approved calculation method in clauses 7, 7A, 8 or 9. Electricity Savings may be negative for fuel switching activities.

“**Eligibility Requirements**” means:

- (a) in relation to clause 7A, the set of defined requirements that a Site must meet to be included in the Population; or
- (b) in relation to the Deemed Energy Savings Method, the eligibility requirements specified in an Activity Definition in the Schedules to this Rule.

“**ELV**” means extra low voltage, not exceeding 50 volts alternating current (AC) or 120 volts ripple free direct current (DC), as defined in *AS/NZS 3000 Electrical installations (known as the Australian/New Zealand Wiring Rules)*.

“**End-Use Service**” is the primary service provided by End-User Equipment, such services being as detailed in Table A17 of Schedule A.

“**End-User Equipment**” means electricity or Gas consuming equipment or both, processes, or systems, including the equipment directly consuming electricity or Gas, or both, and other equipment or products that

cause, control or influence the consumption of electricity or Gas, or both, and includes (in the context of clause 8.8) a NABERS Building.

“Energy Saver” means the person who has the right to create Energy Savings Certificates for particular Energy Savings arising from an Implementation of a Recognised Energy Saving Activity at a Site, as defined in the relevant calculation method of this Rule.

“Energy Savings” means the Electricity Savings or Gas Savings or both.

“Energy Savings Certificate” has the same meaning as it has in the Act.

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

“Equipment Requirements” means the equipment requirements as specified in a Schedule in this Rule.

“ESS Jurisdiction” means the state of New South Wales, or a jurisdiction in which an Approved Corresponding Scheme is in operation in accordance with section 127 of the Act.

“Estimate of the Mean” means, for the purposes of clause 7A, a method to establish an energy model as described in clause 7A.2 (a)(i).

“Gas Retailer” has the same meaning as “retailer” in the *National Energy Retail Law (NSW)*.

“Gas Savings” means the reduction of the amount of Gas combusted for stationary energy (in MWh) arising from the Implementation as calculated by the approved calculation method in clauses 7, 7A, 8 or 9. Gas Savings may be negative for fuel switching activities.

“Gas” means any fuel listed in *National Greenhouse and Energy Reporting (Measurement) Determination 2008 (Cth) Schedule 1 Part 2—Fuel combustion—gaseous fuels* or liquefied petroleum gas.

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

“GreenPower” means renewable energy purchased in accordance with the National GreenPower Accreditation Program Rules.

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

“Guide” means a guidance document Published by the Scheme Administrator.

“High Efficiency Motor” (HEM) is an electric motor meeting the high efficiency requirements of AS/NZS 1359.5 (0.73 to <185kW).

“Implementation” means the delivery of a Recognised Energy Saving Activity at a Site, or for the purposes of clause 8.9, the delivery of a Recognised Energy Saving Activity across a Population.

“Implementation Date” is defined in each calculation method of this Rule.

“Implementation Period” means the Measurement Period for which Energy Savings Certificates may be created.

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

“Independent Variable” means a parameter that varies over time, can be measured, and affects the End-User Equipment’s energy consumption for the purposes of clause 7A of this Rule.

“Interactive Electricity Savings” means a change in a Site’s electricity consumption due to interactions with End-User Equipment for which energy consumption is not measured for the purposes of clause 7A.

“Interactive Energy Savings” refers to either the Interactive Electricity Savings or the Interactive Gas Savings for the purposes of **Equations 7A.2, 7A.4 or 7A.5** of this Rule.

“Interactive Gas Savings” means a change in a Site’s Gas consumption due to interactions with End-User Equipment for which energy consumption is not measured for the purposes of clause 7A.

- “Integrated Luminaire”** means a Luminaire that integrates Lamp and Control Gear into a single item of End-User Equipment and connects to 240V supply.
- “Installation Requirements”** means the installation requirements specified in an Activity Definition in the Schedules to this Rule.
- “IPD”** means the illumination power density as defined in the BCA part J6.
- “IPMVP”** means the International Performance Measurement and Verification Protocol, published by the Efficiency Valuation Organization.
- “kV”** means a kilovolt of electrical potential.
- “kvar”** means a kilovolt-amperes reactive of reactive power.
- “kW”** means a kilowatt of electrical power.
- “kWh”** means a kilowatt-hour of electrical energy.
- “Lamp”** means an artificial source of visible light.
- “Lamp Life”** means the expected operating lifetime of a Lamp, in hours, measured in accordance with Table A9.6 of Schedule A.
- “Lamp Only”** means the replacement of an existing Lamp with a Lamp that consumes less electricity, and could include the installation or replacement of a Control System.
- “LCP”** means lamp circuit power, which is the power drawn by a single Lamp and its associated Control Gear. If the Control Gear supplies multiple Lamps, then the Control Gear losses are assigned pro rata to each Lamp, according to power drawn by each Lamp.
- “LED”** means light emitting diode.
- “Licensed”** means a person that holds a current licence that covers activities in the ESS Jurisdiction in which the Recognised Energy Saving Activity is implemented for the duration of the Implementation.
- “Lifetime”** means the time period over which Energy Savings will be delivered and for the purposes of Schedules B, C, D, E, and G are for reference only, as the relevant time period is already taken into account in the savings factors in those Schedules.
- “Light Output”** means the luminous flux (measured in lumens) emitted by a Lamp or Luminaire.
- “Lighting for Roads and Public Spaces”** means lighting covered by *AS/NZS 1158: Lighting for roads and public spaces* or *AS/NZS 60598.2.3 Luminaires - Particular requirements - Luminaires for road and street lighting* or both, as applicable.
- “Lighting Upgrade”** means the replacement of existing lighting End-User Equipment with new lighting End-User Equipment that consumes less electricity, or the modification of existing lighting End-User Equipment resulting in a reduction in the consumption of electricity compared to what would have otherwise been consumed.
- “Low-income Energy Program”** means a New South Wales Government low income household energy initiative which has been notified to the Scheme Administrator by the New South Wales Government, and approved by the Minister for the Environment, as a Low-income Energy Program for the purposes of this Rule.
- “LUF”** means load utilisation factor.
- “Luminaire”** means the apparatus that distributes, filters or transforms the light emitted from a light source, including Lamps, Control Gear and all components necessary for fixing and protecting the Lamps, including the troffer.
- “Maintained Emergency Lighting”** means a Maintained illuminated emergency exit sign or always-on Maintained emergency luminaire as defined in *AS 2293.1: Emergency escape lighting and exit signs for buildings - System design, installation and operation*.

“**Maximum Time Period for Forward Creation**” is determined in accordance with clause 7A.12.

“**Measured Electricity Consumption**”: (a) for the purposes of clause 8.8 means the electricity consumption as determined in accordance with Method 4; and (b) for the purposes of clause 8.9 means the electricity consumption as determined in accordance with clause 8.9.3.

“**Measured Gas Consumption**”: (a) for the purposes of clause 8.8 means the Gas consumption as determined in accordance with Method 4; and (b) for the purposes of clause 8.9 means the natural gas consumption as determined in accordance with clause 8.9.3A.

“**Measurement and Verification Professional**” is defined in clause 7A.15 of this Rule.

“**Measurement Period**” means the duration of time over which measurement of energy consumption will be taken for the purposes of calculating the Energy Savings under clause 7, 7A or 8, and defined therein.

“**Metered Baseline Method**” means the method in clause 8.

“**MWh**” means a megawatt-hour of electrical energy.

“**NABERS**” means the National Australian Built Environment Rating System.

“**NABERS Building**” means a building that has been rated under NABERS.

“**NABERS Rating**” means a rating, expressed as a number, for a NABERS Building.

“**NABERS Reverse Calculator**” means the tool provided by the NABERS National Administrator.

“**National Greenhouse Accounts Factors**” means the factors published by the Australian Government's Department of the Environment designed for use by companies and individuals to estimate greenhouse gas emissions.

“**National GreenPower Accreditation Program Rules**” mean the terms and conditions of participation in the National GreenPower Accreditation Program, available on the GreenPower website at <http://www.greenpower.gov.au/Business-Centre/Rules-and-Accreditation/>

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

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

“**NLP**”, or Nominal Lamp Power, means the manufacturer's rated value (or tested value, as acceptable to the Scheme Administrator) for power drawn by a single Lamp.

“**Non-Habitable Building**” means a building built as a BCA Class 10a or Class 10b building.

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

“**Non-Routine Events**” means, for the purposes of clause 7A, events which affect energy use, within the chosen Measurement Period, that are not modelled by any Independent Variables or Site Constants. They are required to be removed from the Measurement Period to enable like-for-like comparison of before and after energy savings scenarios. They are typically due to static factors that may include fixed, environmental, operational and maintenance characteristics.

“**Normal Year**” is a typical year for the operation of the End-User Equipment at the Site after the Implementation Date for the purposes of clause 7A of this Rule.

“**Number of Certificates**” means the number of Energy Savings Certificates permitted to be created by an Accredited Certificate Provider for Energy Savings calculated in accordance with clause 6.5 and the methods set out in clause 7, 7A, 8 or 9.

“**Number of Model Parameters**” means, for the purposes of clause 7A:

(a) if the energy model is developed for a single Site, the number of Independent Variables; or

(b) if the energy model is developed for multiple Sites, the sum of the number of Independent Variables and Site Constants.

“Operating Energy Model” is the model established in accordance with the criteria in clause 7A.2 and described in clause 7A.4.

“Persistence Model” means a model that is able to forecast the continuation of Energy Savings from an Implementation over its useful lifetime.

“Population”

- (a) in relation to clause 8.9, means the set of all Sites in the Control Group and Treatment Group; or
- (b) in relation to Implementations under clause 7A using the Sampling Method, means the set of all Sites identified as meeting the Eligibility Requirements.

“Pre-Implementation Period” means the Measurement Period prior to the Implementation Period. If Method 5.3 is used, the Pre-Implementation Period must cover the same period of time in a previous year as the Implementation Period.

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

“Previous Rule” means the Energy Savings Scheme Rule of 2009 as in force immediately prior to the commencement of the Energy Savings Scheme (Amendment No. 1) Rule 2017.

“Prior Accreditation” means an accreditation with respect to a Recognised Energy Saving Activity where the Accreditation Date is on or before 30 June 2014 and that accreditation has not been cancelled, and includes the conditions to that accreditation.

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

“Product Stewardship Scheme” means a recycling program such as ‘Fluorocycle’ or equivalent.

“Project Impact Assessment Method” means the method in clause 7.

“Project Impact Assessment with Measurement and Verification Method” means the method in clause 7A.

“Public Lighting Inventory” means the inventory required to be maintained by the Distributor, in accordance with the NSW Public Lighting Code issued by the NSW Department of Industry, Resources and Energy Division.

“Publish” means to document and make publicly available, on the Energy Savings Scheme website, www.ess.nsw.gov.au.

“Purchaser” means, for the purposes of clause 7, 7A and 9, the person who purchases or leases the goods or services that enable the relevant Energy Savings to be made; except where

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

Note: Housing developers that bulk purchase and install appliances in their residential developments are defined as the purchaser if the appliances will be sold in the contract for the sale of the home (as opposed to display appliances only). This applies to both the sale of land, and covers strata apartments, involving the sale of lots.

“Rating Period” means the continuous 12-month period covered by the data used for a NABERS Rating.

“Recognised Energy Saving Activity” has the same meaning as it has in the Act.

“**Regression Analysis**” means a method to establish an energy model that determines a mathematical function for approximating the relationship between Energy Consumption and Independent Variables and / or Site Constants for the purposes of clause 7A of this Rule, and includes, but is not limited to, linear regression, and mixed models.

“**Regulations**” means regulations made for the purposes of Part 9 of the Act.

“**Representativeness Test**” means, for the purposes of clause 7A, a test that can be applied to the set of Site Constants across the Sample Sites to test whether they are distributed in a way that represents the expected distribution of those Site Constants across the Population.

“**Residential Building**” means a building classified as a BCA Class 1, 2 or 4 building, and may include any Non-Habitable Building on the same site.

“**Sample Site**” means, for the purposes of clause 7A, a Site in the Population where measurements are taken for inclusion in a multiple Site model.

“**Sampling Method**” means the statistical method for conducting measurements at Sample Sites in a Population to estimate the Energy Savings of the entire Population for the purposes of clause 7A of this Rule.

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

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

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

“**Site Assessment**” means identification of Energy Savings that may be generated at a Site using **Equation 16** with reference to activities identified in Schedule D and Schedule E.

“**Site Constant**” means a parameter that varies between Sites, does not vary over time under normal operating conditions, and affects the End-User Equipment’s energy consumption for the purposes of clause 7A of this Rule.

“**Small Business Building**” means a building comprising total floor space less than 200 square metres and classified as a BCA Class 5, 6, 7b, 8, 9 or 10 building.

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

“**Standard Luminaire**” means, in relation to Table A9.4 of Schedule A, a Luminaire that is listed on a Distributor’s current maintained list of standard luminaires, in accordance with the NSW Public Lighting Code.

“**System U-Value**” is a measure of the thermal transmittance, in W/m^2K , of a window system including glass, sash and frame, as registered under WERS.

“**Traffic Signals**” means lighting referred to in *AS 2144 Traffic signal lanterns* series of standards.

“**Transmission System**” has the same meaning as it has in the Act.

“**Treatment**” is the offering of goods and services (and any subsequent provision, engagement and promotion activities) to the Treatment Group to deliver Energy Savings.

“**Treatment Group**” means, in relation to clause 8.9, the group of Sites selected to be offered the Treatment.

“**Unbiased Selection Method**” means a randomisation technique which ensures that every Site in the Population has an equal chance of being selected into the Treatment Group. This does not require Treatment Group and Control Group to be of an equal size.

“**Uplift Energy Savings**” means, in relation to clause 8.9, is the difference in energy consumption between the Control Group and Treatment Group that is estimated to have taken place due to other Recognised Energy Saving Activities or activities excluded as ineligible under clause 5.4 of this Rule.

“**VEET**” means the Victorian Energy Efficiency Target Scheme established under the *Victorian Energy Efficiency Target Act 2007 (Victoria)*.

“**WERS**” means the Window Energy Rating Scheme managed by the Australian Window Association.

10.2 Simplified outlines and notes in this Rule do not form part of this Rule.

10.3 (deleted)

10.4 The terms and expressions used in this Rule have the same meaning as they have for the purposes of Part 9 of the Act, unless otherwise defined by this clause 10.

10.4A Any reference to “AS” or “AS/NZS” is a reference to that standard as amended from time to time.

10.5 A reference to accreditation with respect to a Recognised Energy Saving Activity means accreditation as an Accredited Certificate Provider in respect of that Recognised Energy Saving Activity.

11 Savings and Transitional Arrangements

General

11.1 An Accredited Certificate Provider may calculate Energy Savings pursuant to the Previous Rule for the calculation of Energy Savings used to create Energy Savings Certificates for which an application for registration is made after 28 April 2017 if all of the following criteria are satisfied:

- (a) the Implementation Date of the relevant Implementation is prior to 28 April 2017;
- (b) no previous applications to register Energy Savings Certificates in respect of that Implementation have been made prior to 28 April 2017; and
- (c) an application to register Energy Savings Certificates in respect of those Energy Savings is made on or before 30 June 2017.

Definitions of Energy Saver and Recognised Energy Saving Activity

11.2 Notwithstanding clause 5.2, an Accredited Certificate Provider may create Energy Savings Certificates in respect of the Additional Energy Savings of an Implementation for which they are the Energy Saver in accordance with their Prior Accreditation, if the initial Energy Savings Certificates for that Implementation were created on or before 30 June 2014.

(deleted)

Creation of Energy Savings Certificates

11.3 (deleted)

11.4 Clause 6.2 does not apply to Energy Savings Certificates created in respect of the Additional Energy Savings of an Implementation if the initial Energy Savings Certificates for that Implementation were created on or before 30 June 2014.

11.5 (deleted)

11.6 (deleted)

11.7 (deleted)

11.8 (deleted)

Schedule A – Default Factors and Classifications**Table A9.1: Standard Equipment Classes for Lighting Upgrades**

Equipment Class	Definition
T12 linear fluorescent Lamp	A double-capped fluorescent Lamp as defined by <i>AS/NZS 4782.1 Double-capped fluorescent lamps – Performance specifications</i> with a tube diameter of 38.1mm. These are also referred to as T38.
T8 linear fluorescent Lamp	A double-capped fluorescent Lamp as defined by <i>AS/NZS 4782.1 Double-capped fluorescent lamps – Performance specifications</i> with a tube diameter of 25.4mm. These are also referred to as T26.
T5 linear fluorescent Lamp	A double-capped fluorescent Lamp as defined by <i>AS/NZS 4782.1 Double-capped fluorescent lamps – Performance specifications</i> with a tube diameter of 15.9mm. These are also referred to as T16.
T5 or T8(T9) Circular fluorescent Lamp	A double-capped circular fluorescent Lamp with a typical tube diameter of 16mm or 29mm as defined by <i>AS/NZS 4782.1 Double-capped fluorescent lamps – Performance specifications</i> . These are also referred to as T9.
Compact fluorescent Lamp with non-integrated ballast (CFLn)	An externally ballasted single-capped fluorescent Lamp as defined by <i>AS/NZS 60901 Single-capped fluorescent lamps-Performance specifications</i> . The Lamp may include an internal means of starting and pre-heated cathodes.
Compact fluorescent Lamp with integrated ballast (CFLi)	A Self-ballasted compact fluorescent Lamp as defined by <i>AS/NZS 4847 Self-ballasted lamps for general lighting services</i> .
Tungsten halogen Lamp (240V)	A Tungsten halogen Lamp as defined in <i>AS 4934 Incandescent lamps for general lighting service</i> , with a rated voltage of 240V.
Tungsten halogen Lamp (ELV)	A Tungsten halogen Lamp as defined in <i>AS 4934 Incandescent lamps for general lighting service</i> , with an ELV rating, typically 12V. These Lamps run off an Extra-low voltage lighting converter (ELC) as defined in <i>AS 4879.1</i> .
Infrared coated (IRC) halogen Lamp (ELV)	An ELV Tungsten halogen Lamp as defined in <i>AS 4934</i> where the halogen globe is coated with a reflective infrared coating which improves the efficiency of the globe.
Metal halide Lamp	A discharge Lamp classified as a Metal halide Lamp as defined by <i>IEC 61167 Metal halide lamps – Performance specification</i> .
Mercury vapour Lamp	A discharge Lamp classified as a High-pressure mercury vapour Lamp as defined by <i>IEC 60188 High-pressure mercury vapour lamps – Performance specifications</i> .
High pressure sodium (HPS) Lamp	A discharge Lamp classified as a High pressure sodium vapour Lamp as defined by <i>IEC 60662 High-pressure sodium vapour lamps</i> .
Lighting for Roads and Public Spaces or Traffic Signals (other than LED lighting)	Lighting for Roads and Public spaces as defined by <i>AS 1158 Lighting for roads and public spaces</i> .

Table A9.2: Lamp Circuit Power (LCP) values for Standard Equipment Classes

Equipment Class	Control Gear	LCP (Watts)	Notes
T8 or T12 linear fluorescent Lamp or T8(T9) or T12 circular fluorescent Lamp	Ballast EEI = A1	NLP + 2	
	Ballast EEI = A2	NLP	
	Ballast EEI = A3	NLP + 2	
	Ballast EEI = B1	NLP + 6	
	Ballast EEI = B2	NLP + 8	
	Ballast EEI = C	NLP + 10	
	Ballast EEI = D	NLP + 12	
	EEI Unknown (Electronic ballast)	NLP + 2	

	EEI Unknown (Magnetic ballast)	NLP + 10	
T5 linear fluorescent Lamp or T5 circular fluorescent Lamp	Ballast EEI = A1	$1.13 \times \text{NLP} + 2.5$	
	Ballast EEI = A2	$1.08 \times \text{NLP} + 1.5$	
	Ballast EEI = A3	$1.13 \times \text{NLP} + 2.5$	
	EEI = Unknown (Electronic ballast)	$1.13 \times \text{NLP} + 2.5$	
Compact fluorescent Lamp with non-integrated ballast (CFLn)	Ballast EEI = A1	NLP + 3	
	Ballast EEI = A2	NLP + 1	
	Ballast EEI = A3	NLP + 3	
	Ballast EEI = B1	NLP + 5	
	Ballast EEI = B2	NLP + 7	
	Ballast EEI = C	NLP + 9	
	Ballast EEI = D	NLP + 11	
	EEI Unknown (Electronic ballast)	NLP + 3	
	EEI Unknown (Magnetic ballast)	NLP + 9	
Compact fluorescent Lamp with integrated ballast (CFLi)	Built In	NLP	
Tungsten halogen Lamp (240V)	Built In	NLP	
Tungsten halogen Lamp (ELV) or Infrared coated (IRC) halogen Lamp (ELV)	Magnetic transformer	$1.25 \times \text{NLP}$	Maximum NLP of removed Lamp = 35W
	Electronic transformer	$1.08 \times \text{NLP}$	
Metal halide Lamp	Magnetic ballast (reactor type)	$1.05 \times \text{NLP} + 14$	
	Magnetic ballast (constant wattage type)	$1.07 \times \text{NLP} + 22$	
	Electronic ballast	$1.10 \times \text{NLP} + 0.9$	
Mercury vapour Lamp	Magnetic ballast	$1.03 \times \text{NLP} + 11$	
High pressure sodium (HPS) Lamp	Magnetic ballast	$1.05 \times \text{NLP} + 13$	
Lighting for Roads and Public Spaces or Traffic Signals (other than LED lighting)	Built in or Independent	Lighting Load Table Published by AEMO or relevant regulator.	An entire traffic signal unit or Integrated Luminaire is used as the basis for calculation, rather than individual Lamps.

Table A9.3: Other Equipment Classes for Lighting Upgrades

Equipment Class	Definition
T5 adaptor kit	Any equipment that enables a T8 or T12 Luminaire to accommodate or provide physical support to a T5 Lamp or Luminaire.
Retrofit Luminaire - LED Linear Lamp	A T5, T8 or T12 Luminaire that has been retrofitted with an LED linear Lamp in place of the linear fluorescent Lamp. This cannot involve modification to the wiring of the Luminaire other than removal, replacement or modification of the starter.
LED Lamp Only – ELV	An LED Lamp that runs off an existing Extra-low voltage lighting converter (ELC) designed for retrofitting into an existing Luminaire or Lamp holder. These are typically used as a replacement for ELV Tungsten halogen Lamps.
LED Lamp Only – 240V Self Ballasted	A self-ballasted LED Lamp as defined by AS/NZS IEC 62560 Self-ballasted LED lamps for general lighting services by voltage > 50 V. These Lamps are connected directly to a 240V supply.
Induction Luminaire	A gas discharge Lamp in which the power required to generate light is transferred from outside the Lamp envelope to the gas via electromagnetic induction.
LED Lamp and Driver	A LED-reflector Lamp and matching LED Driver intended as an alternative to a Mirrored Reflector Halogen Lamp.
Modified Luminaire – LED Linear Lamp	A T5, T8 or T12 luminaire that has been modified for use with an LED linear Lamp. This involves modifying, removing or rendering redundant any wiring or structure of the Luminaire, beyond the replacement of a starter.
LED Luminaire – fixed type	An LED Luminaire intended for use as a fixed luminaire as defined in AS/NZS 60598.2.1 Luminaires – Particular requirements – Fixed general purpose luminaires.
LED Luminaire – Linear Lamp	An LED Luminaire intended for use as an alternative to a linear fluorescent Luminaire, where the Luminaire houses a matching Linear LED tube or a linear array of integrated LEDs. Where the Luminaire uses a Linear LED tube, the Luminaire must not be compatible with a linear fluorescent Lamp.
LED Luminaire – floodlight	An LED Luminaire intended for use as a floodlight as defined in AS/NZS 60598.2.5 Luminaires – Particular requirements – Floodlights.
LED Luminaire – recessed	An LED Luminaire intended for use as a recessed luminaire as defined in AS/NZS 60598.2.2 Luminaires – Particular requirements – Recessed luminaires.
LED Luminaire – high/lowbay	An LED Luminaire intended for use as high-bay or low-bay lighting.
LED Luminaire – streetlight	An LED Luminaire intended for use as a streetlight as defined in AS/NZS 60598.2.3 Particular requirements – Luminaires for road and street lighting.
LED Luminaire – emergency lighting	An LED Luminaire intended for use as an Emergency lighting luminaire as defined in AS/NZS 60598.2.22 Particular requirements – Luminaires for emergency lighting.
LED Luminaire – hospital use	An LED Luminaire intended for use in the clinical areas of a hospital or health care building as defined in AS/NZS 60958.2.25 Particular requirements – Luminaires for use in clinical areas of hospitals and health care buildings.
Other Emerging Lighting Technology	Any lighting equipment not defined above.

Table A9.4: Lamp Circuit Power (LCP) values and Equipment Requirements for other Equipment Classes for Lighting Upgrades

Equipment Class	Control Gear	LCP Value	Equipment Requirement (Equipment being installed)	Equipment Requirement (Equipment being removed)
T5 Adaptor Kit	Not Applicable (ineligible)	As Published by the Scheme Administrator	Ineligible	Must demonstrate the LCP to the satisfaction of the Scheme Administrator.
Retrofit Luminaire - LED Linear Lamp	Not Applicable (ineligible)	As Published by the Scheme Administrator	Ineligible	
LED Lamp Only – ELV	Built In + Existing Magnetic Transformer	1.25 × NLP as Published by Scheme Administrator	Must meet product requirements and minimum performance specifications for Lamp Life, electro-magnetic compatibility (where applicable), lumen efficacy, power factor and LCP as evidenced by:	
	Built In + Existing Electronic Transformer	1.08 × NLP as Published by Scheme Administrator		
LED Lamp Only – 240V Self Ballasted	Built In	As Published by the Scheme Administrator	(a) a certification scheme accepted by the Scheme Administrator, including but not limited to a Standard Luminaire list; and	
Induction Luminaire	Built In or Independent		(b) test reports from an accredited laboratory, in accordance with requirements Published by the Scheme Administrator; or	
LED Lamp and Driver			(c) compliance with a relevant AS/NZS standard for the relevant Equipment Class recognised by the Scheme Administrator; or	
Modified Luminaire- LED Linear Lamp			(d) demonstrated product acceptance under schedules of the VEET scheme recognised as relevant by the Scheme Administrator including compliance with any additional Equipment Requirements Published by the Scheme Administrator.	
LED Luminaire – fixed type				
LED Luminaire – Linear Lamp				
LED Luminaire – floodlight				
LED Luminaire – recessed				
LED Luminaire – high/lowbay				
LED Luminaire – streetlight				
LED Luminaire – emergency lighting				
LED Luminaire – hospital use				
Other Emerging Lighting Technology				

Table A9.5: Control gear for Lighting Upgrades

Control Gear	Definition
Magnetic ballast	A Ferromagnetic ballast as defined in <i>AS/NZS 4783 Performance of electrical lighting equipment – Ballasts for fluorescent lamps</i>
Electronic ballast	An A.C. supplied electronic ballast as defined in <i>AS/NZS 4783 Performance of electrical lighting equipment – Ballasts for fluorescent lamps</i>
Magnetic ballast (reactor type)	An electromagnetic ballast that use an inductor or autotransformer to limit the current and provide the voltage necessary to ignite the Lamp. These ballasts do not include any means of regulating the light output.
Magnetic ballast (constant wattage type)	An electromagnetic ballast that uses a combination of inductive and capacitive components to provide a regulated power output (constant wattage) to the Lamp
Magnetic transformer	A magnetic isolating transformer as defined in <i>AS/NZS 4879.1 Performance of transformers and electronic step-down convertors for ELV lamps - Test method - Energy performance.</i>
Electronic transformer	An electronic step-down convertor as defined in <i>AS/NZS 4879.1 Performance of transformers and electronic step-down convertors for ELV lamps - Test method - Energy performance.</i>

Table A9.6: Default Lamp Life for Lighting Upgrades

Type of Lamp	Lamp Life (hours)
Standard equipment classes defined in Table A9.1	As per product labelling.
Other equipment classes defined in Table A9.3	As Published by the Scheme Administrator.

Table A10.1: Asset Lifetimes for Lighting Upgrades

Activity	Asset Lifetime (years)
Replacement of: <ul style="list-style-type: none"> Luminaire, or Control Gear (not integrated into Lamp). 	Lighting for Roads and Public Spaces or Traffic Signals: 12 years All other lighting: 10 years
Replacement of: <ul style="list-style-type: none"> Lamp Only. 	Lamp Life ÷ Annual Operating Hours (Where Lamp Life is measured in accordance with Table A9.6 and is a maximum of 30,000 hours) Maximum Asset Lifetime = 10 years for Building Lighting and 12 years for Lighting for Roads and Public Spaces or Traffic Signals
Installation of: <ul style="list-style-type: none"> Control System as listed in Table A10.4 where the Lighting Upgrade only consists of the installation of a Control System 	Maximum Asset Lifetime = 5 years

Table A10.2: Operating Hours for Lighting Upgrades by space type

Space Type	Annual Operating Hours (hours per annum)
Auditorium, church and public hall	2,000
Board room and conference room	3,000
Carpark – general (undercover) and Car Park - entry zone (first 20 m of travel)	7,000
Carpark – general (open air)	4,500
Common rooms, spaces and corridors in a BCA Class 2 building	7,000
Control room, switch room, and the like	Value in Table A10.3 for BCA Classification of the surrounding space
Corridors	Value in Table A10.3 for BCA Classification of the surrounding space
Courtroom	2,000
Dormitory of a BCA Class 3 building used for sleeping only or sleeping and study	3,000

Space Type	Annual Operating Hours (hours per annum)
Entry lobby from outside the building	Value in Table A10.3 for BCA Classification of the surrounding space.
Health-care - children's ward, examination room, patient ward, all patient care areas including corridors where cyanosis lamps are used	6,000
Kitchen and food preparation area	Value in Table A10.3 for BCA Classification surrounding space
Laboratory - artificially lit to an ambient level of 400 lx or more	3,000
Library - stack and shelving area, reading room and general areas	3,000
Lounge area for communal use in a BCA Class 3 building or BCA Class 9c aged care building	7,000
Maintained Emergency Lighting	8,500
Museum and gallery - circulation, cleaning and service lighting	2,000
Office	3,000
Plant room	Value in Table A10.3 for BCA Classification of the surrounding space
Restaurant, café, bar, hotel lounge and a space for the serving and consumption of food or drinks	5,000
Retail space including a museum and gallery whose purpose is the sale of objects	5,000
School - general purpose learning areas and tutorial rooms	3,000
Sole-occupancy unit of a BCA Class 3 building	3,000
Sole-occupancy unit of a BCA Class 9c aged care building	6,000
Storage with shelving no higher than 75% of the height of the aisle lighting	5,000
Storage with shelving higher than 75% of the height of the aisle lighting	5,000
Service area, cleaner's room and the like	Value in Table A10.3 for BCA Classification of the surrounding space
Toilet, locker room, staff room, rest room and the like	Value in Table A10.3 for BCA Classification of the surrounding space
Wholesale storage and display area	5,000
Other spaces not defined above	Value in Table A10.3 for BCA Classification of space

Table A10.3: Annual Operating Hours for Lighting Upgrades by building type

Building Classification	Annual Operating Hours (hours per annum)
BCA Class 2 buildings (Common Areas)	7,000
BCA Class 3 buildings (Common Areas)	7,000
BCA Class 3 buildings (other than Common Areas)	3,000
BCA Class 5 buildings	3,000
BCA Class 6 buildings	5,000
BCA Class 7 buildings	5,000
BCA Class 7 (a) buildings (open air car parks)	4,500
BCA Class 7 (a) buildings (undercover car parks)	7,000
BCA Class 8 buildings (other than ANZSIC Division C, Manufacturing)	3,000
BCA Class 8 buildings (ANZSIC Division C, Manufacturing)	5,000
BCA Class 9a and 9c buildings	6,000
BCA Class 9b buildings	2,000
BCA Class 10b buildings	1,000
Roads and Public Spaces	4,500
Traffic Signals	8,760

Table A10.4: Control Systems and Control Multipliers for Lighting Upgrades

Control System	Definition	Control Multiplier (CM)
Occupancy Sensor	Control device that uses a motion sensor to detect the presence of people in the Space and adjusts the light output of the Luminaire. Each Occupancy Sensor must control a maximum of 6 Luminaires.	0.7
Daylight-Linked Control	Control device that uses a photoelectric cell to measure ambient daylight levels to automatically vary Luminaire light output. Each Luminaire must be located close to a significant source of daylight. (Not applicable to Carpark – general (open air) space type as referenced in Table A10.2 and BCA Class 7 (a) buildings (open air car parks) and Roads and Public Spaces building type as referenced in Table A10.3)	0.7
Programmable Dimming	Luminaire light output controlled by pre-selected light levels (scenes) which are automatically selected according to time of day, photoelectric cell and/or Occupancy Sensor. Scenes must reduce lighting power.	0.85
Manual Dimming	Control device that allows a user to control Luminaire light output using a knob, slider or other manual input mechanism or by manually selecting a pre-programmed light level (scene).	0.9
Multiple Control Systems	Programmable Dimming and Manual Dimming	0.76
	Any other combination of 2 or more control systems above.	0.6
Voltage Reduction Units (VRU)	A control device that reduces the voltage applied to the Luminaire after start-up, when used with appropriate Luminaires.	As approved by Scheme Administrator
Specialised Occupancy Sensor	An Occupancy Sensor defined in Table A10.4A	CM in Table A10.4A as applicable

Table A10.4A: Occupancy Sensor Control Multipliers for Lighting Upgrades

Control System	Definition	Control Multiplier (CM) A (See Definition in 10.1)	Control Multiplier (CM) B (See Definition in 10.1)
Occupancy Sensor 1	Control device that uses a motion sensor to detect the presence of people in the Space and adjusts the light output of the Luminaire. Each Occupancy Sensor must control a maximum of 2 Luminaires.	0.55	0.55 + 0.45 * (LCP _{low power} /LCP)
Occupancy Sensor 2 in a Carpark – general (undercover) of a BCA class 2, 5 and 7a building.	Control device that uses a motion sensor to detect the presence of people in the parking area of a BCA class 2, 5 or 7a building and adjusts the light output of the Luminaire.	0.3	0.3 + 0.7 * (LCP _{low power} /LCP)
Occupancy Sensor 3 in a fire stairs of a BCA class 2, 5 and 7a building.	Control device that uses a motion sensor to detect the presence of people in the fire stairs of a BCA class 2, 5 or 7a building and adjusts the light output of the Luminaire.	0.15	0.15 + 0.85 * (LCP _{low power} /LCP)
Occupancy Sensor 4 in a corridor of a BCA class 2 building.	Control device that uses a motion sensor to detect the presence of people in the corridor area of a BCA class 2 building and adjusts the light output of the Luminaire.	0.25	0.25 + 0.75 * (LCP _{low power} /LCP)

Table A10.5: Air-conditioning Multipliers for Lighting Upgrades

Space Air-conditioning system	Air-conditioning Multiplier (AM)
Space air-conditioned during normal operating hours by a refrigerant-based air-conditioner.	1.07
Data Centre spaces air-conditioned by a refrigerant-based air conditioner.	1.3
Refrigerated rooms	1.3
All other spaces	1

Table A11: Default Efficiency Improvement (DEI) for High Efficiency Motors

Rated output (kW)	DEI by number of poles			
	2 pole	4 pole	6 pole	8 pole
0.73 to < 2.6	0.033	0.030	0.039	0.047
2.6 to < 9.2	0.021	0.020	0.024	0.027
9.2 to < 41	0.014	0.014	0.016	0.017
41 to < 100	0.010	0.009	0.010	0.010
100 to < 185	0.008	0.007	0.008	0.008

Energy Savings Scheme Rule of 2009
Effective from 28 April 2017

Table A12: Default Load Utilisation Factor for High Efficiency Motors – Where Business Classification and End-Use Service are known

Load Utilisation Factor	Refrigeration and freezing	Water/liquid pumping	Air compression	Air handling, fans, ventilation	Process Drives	Milling, mixing, grinding	Material handling/ conveying
Division A Agriculture, Forestry and Fishing	0.14	0.32	0.27	0.28	0.32	0.2	0.2
Division B Mining	0.09	0.36	0.32	0.41	0.32	0.32	0.28
Division C Manufacturing	0.28	0.32	0.27	0.32	0.27	0.24	0.28
Division D Electricity, Gas, Water and Waste Services	0.11	0.32	0.24	0.28	0.28	0.12	0.17
Division E Construction	0.09	0.24	0.15	0.15	0.17	0.14	0.2
Division F Wholesale Trade	0.2	0.14	0.07	0.13	0.13	0.03	0.11
Division G Retail Trade	0.17	0.09	0.07	0.13	0.13	0.03	0.07
Division H Accommodation and Food Services	0.24	0.11	0.04	0.14	0.13	0.09	0.11
Division I Transport, Postal and Warehousing	0.17	0.11	0.08	0.13	0.17	0.03	0.16
Division J Information Media and Telecommunications	0.11	0.09	0.04	0.1	0.11	0.03	0.03
Division K Financial and Insurance Services	0.09	0.05	0.04	0.06	0.06	0.03	0.03
Division L Rental, Hiring and Real Estate Services	0.09	0.05	0.04	0.06	0.06	0.03	0.03
Division M Professional, Scientific and Technical Services	0.17	0.07	0.05	0.08	0.08	0.04	0.03
Division N Administrative and Support Services	0.11	0.05	0.04	0.06	0.04	0.03	0.03
Division O Public Administration and Safety	0.09	0.05	0.04	0.06	0.04	0.03	0.03
Division P Education and Training	0.11	0.05	0.04	0.06	0.04	0.03	0.03
Division Q Health Care and Social Assistance	0.11	0.08	0.11	0.06	0.06	0.03	0.03
Division R Arts and Recreation Services	0.09	0.05	0.04	0.06	0.04	0.03	0.03
Division S Other Services	0.07	0.05	0.04	0.06	0.04	0.03	0.03

Table A13: Default Load Utilisation Factor for High Efficiency Motors – Where Business Classification or End-Use Service are not known

Rated output (kW)	LUF
0.73 to < 2.6	0.09
2.6 to < 9.2	0.10
9.2 to < 41	0.11
41 to < 100	0.13
100 to < 185	0.15

Table A14: Asset Life for High Efficiency Motors (t)

Rated output (kW) of High Efficiency Motor	t (Asset life (years))
0.73 to < 2.6	12
2.6 to < 9.2	15
9.2 to < 41	20
41 to < 100	22
100 to < 185	25

Table A16: Decay Factors for calculating future Energy Savings under the Project Impact Assessment Method (clause 7) or the Project Impact Assessment with Measurement and Verification Method (clause 7A)

Year	Decay Factor	
	Energy Savings Calculated using clause 7	Default Decay Factor for Energy Savings calculated using clause 7A
1	1.00	1.00
2	0.80	0.80
3	0.60	0.64
4	0.40	0.51
5	0.20	0.41
6	Not applicable	0.33
7	Not applicable	0.26
8	Not applicable	0.21
9	Not applicable	0.17
10	Not applicable	0.13

Table A17: End-Use Services

End-Use Services
Air heating and cooling
Air handling, fans, ventilation
Water heating
Water/liquid pumping
Refrigeration and freezing
Lighting
Cooking
Home entertainment
Computers, office equipment
Communications
Cleaning, washing
Process heat
Air compression
Process drives
Milling, mixing, grinding
Transport
People movement, lifts, escalators

End-Use Services
Materials handling, conveying
Other machines
Electricity supply
Unknown
Other End-Use Services as Published by the Scheme Administrator

Table A18: Business Classifications

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

Table A19: Distribution Loss Factors (DLF) for losses between the Subtransmission network and Low Voltage connection points

Distributor	Distribution District	DLF
Endeavour Energy	Endeavour Energy	1.054
Essential Energy	Essential Energy	1.074
AusGrid	AusGrid	1.043

Table A20: Benchmark NABERS Ratings Index

NABERS Rating tool	Building category	Year of NABERS Rating End Date					
		2015	2016	2017	2018	2019	2020
Offices	Built prior to 1 November 2006	4.0	4.0	4.5	4.5	4.5	5.0
Offices	Built on or after 1 November 2006	5.0	5.0	5.5	5.5	5.5	6.0
Hotels	Built prior to 1 November 2006	3.0	3.5	3.5	3.5	3.5	4.0
Hotels	Built on or after 1 November 2006	4.0	4.5	4.5	4.5	4.5	5.0
Shopping Centres	Built prior to 1 November 2006	3.5	4.0	4.0	4.0	4.0	4.5
Shopping Centres	Built on or after 1 November 2006	4.5	5.0	5.0	5.0	5.0	5.5
Data Centres	Built prior to 1 November 2006	3.5	3.5	3.5	4.0	4.0	4.0
Data Centres	Built on or after 1 November 2006	4.5	4.5	4.5	5.0	5.0	5.0
Hospitals	Built prior to 1 November 2006	3	3	3.5	3.5	3.5	3.5
Hospitals	Built on or after 1 November 2006	4	4	4.5	4.5	4.5	4.5

Table A21: NABERS Annual Ratings Adjustment

NABERS Rating tool	Building category	Annual rating adjustment for Historical Baseline NABERS Rating that is 1 year old.	Annual ratings adjustment for Historical Baseline NABERS Rating that is 2 - 7 years old.
Offices	All	0	0.15
Hotels	All	0	0.15
Shopping Centres	All	0	0.15
Data Centres	All	0	0.15
Hospitals	All	0	0.15

Table A22: (deleted)

Table A23: Accuracy Factor according to energy model type and relative precision of Energy Savings estimate

Relative precision of Electricity Savings or Gas Savings estimate at a 90% confidence level	Accuracy Factor if an energy model developed under clause 7A.2 (a)(i) is used for the Baseline Energy Model or Operating Energy Model or both	Accuracy Factor for all other energy models
< 25%	0.9	1
25% - 50%	0.8	0.9
50% - 75%	0.7	0.8
75% - 100%	0.5	0.6
100% - 150%	0.3	0.4
150% - 200%	0.1	0.2
> 200%	0	0

Table A24: Regional Network Factors

Postcode of Site where Implementation occurred	Regional Network Factor
2311-2312	1.03
2321	1.03
2324	1.03
2329	1.03
2338-2490	1.03
2536-2537	1.03
2545-2551	1.03
2579-2599	1.03
2619-2739	1.03
2787	1.03
2791-2844	1.03

Postcode of Site where Implementation occurred	Regional Network Factor
2850-2880	1.03
3585	1.03
3644	1.03
4383	1.03
All other postcodes	1

Table A25: Metropolitan Levy Area by postcode

Metropolitan Levy Area postcodes
2000-2011
2015-2050
2052
2060-2077
2079-2090
2092-2097
2099-2122
2125-2148
2150-2168
2170-2179
2190-2200
2203-2214
2216-2234
2250-2251
2256-2265
2267
2278
2280-2287
2289-2300
2302-2308
2314-2327
2334-2335
2500
2502
2505-2506
2508
2515-2519
2525-2530
2533-2536
2538-2541
2555-2560
2563-2567
2570
2571
2575-2579
2622
2745
2747-2750
2753-2763
2765-2770
2775

Schedule B – Activity Definitions for the Sale of New Appliances (clause 9.3)

Activity Definition B1

Name of Activity
SELL A HIGH EFFICIENCY CLOTHES WASHING MACHINE

- Equipment Requirements**
1. The End-User Equipment must be a Clothes Washing Machine as defined in *AS/NZS 2040:2005 Performance of household electrical appliances—Clothes washing machines*.
 2. The Clothes Washing Machine must be registered for energy labelling.
 3. The Clothes Washing Machine must be either a top loader or a front loader.
 4. The Clothes Washing Machine must have a rated capacity, load in kilograms, recorded in the GEMS Registry.
 5. If the Clothes Washing Machine is a combination washer/dryer, only the Energy Star Rating and rated capacity for the wash cycle may be used to calculate the Deemed Equipment Electricity Savings.

Equipment Electricity Savings

Energy Star Rating	Deemed Equipment Electricity Savings (MWh per washing machine sold)			
	Rated capacity > 4kg to ≤ 6kg	Rated capacity > 6kg to ≤ 7kg	Rated capacity > 7kg to ≤ 8kg	Rated capacity > 8kg
2.5	1.3	-	-	-
3.0	1.9	-	-	-
3.5	2.4	-	-	-
4.0	2.8	1.5	1.1	1.5
4.5	3.1	2.1	1.7	2.3
5.0	3.4	2.6	2.2	3.0
5.5	3.7	3.0	2.7	3.5
≥6.0	3.9	3.4	3.1	4.0

Lifetime (for information purposes only)
Lifetime = 10 years.

Activity Definition B2**Name of Activity**

SELL A HIGH EFFICIENCY CLOTHES DRYER

Equipment Requirements

1. The End-User Equipment must be a Clothes Dryer as defined by “Rotary clothes dryer” in *AS/NZS 2442.1 and 2442.2 Performance of household electrical appliances—Rotary clothes dryers*.
2. The Clothes Dryer must be registered for energy labelling.
3. The Clothes Dryer must not form part of a combination washer/dryer.
4. The Clothes Dryer must have a rated capacity, load in kilograms, recorded in the GEMS registry.

Equipment Electricity Savings

Energy Star Rating	Deemed Equipment Electricity Savings (MWh per clothes dryer sold)		
	Rated capacity < 5kg	Rated capacity ≥ 5kg to <7kg	Rated capacity ≥ 7kg
2.0	0.2	-	-
2.5	0.3	0.2	-
3.0	0.4	0.3	-
3.5	0.5	0.5	-
4.0	0.7	0.7	0.2
4.5	0.8	0.8	0.4
5.0	0.8	0.9	0.6
5.5	0.9	1.0	0.8
6.0	1.0	1.1	0.9
7.0	1.2	1.3	1.2
8.0	1.3	1.5	1.4
9.0	1.4	1.6	1.6
10.0	1.5	1.8	1.8

Lifetime (for information purposes only)

Lifetime = 10 years.

Activity Definition B3

Name of Activity

SELL A HIGH EFFICIENCY DISHWASHER

Equipment Requirements

1. The End-User Equipment must be a Dishwasher as defined in *AS/NZS 2007 Performance of household electrical appliances—Dishwashers*.
2. The Dishwasher must be registered for energy labelling.
3. The Dishwasher must have a rated capacity, in number of place settings, recorded in the GEMS Registry.

Equipment Electricity Savings

Energy Star Rating	Deemed Equipment Electricity Savings (MWh per dishwasher sold)		
	Rated capacity < 9 place settings	Rated capacity ≥ 9 place settings to < 13 place settings	Rated capacity ≥ 13 place settings
3.5	0.4	0.6	-
4.0	0.6	0.9	-
4.5	0.8	1.3	0.8
5.0	1.0	1.5	1.2
5.5	1.1	1.7	1.4
≥6.0	1.2	1.9	1.6

Lifetime (for information purposes only)

Lifetime = 10 years.

Activity Definition B4

Name of Activity

SELL A HIGH EFFICIENCY 1-DOOR REFRIGERATOR

Equipment Requirements

1. The End-User Equipment must be a 1-door Refrigerator of Groups 1, 2, or 3 as defined in *AS/NZS 4474.1 and 4474.2 Performance of household electrical appliances—Refrigerating appliances*.
2. The Refrigerator must be registered for energy labelling.
3. The Refrigerator must have a rated capacity, volume in litres, recorded in the GEMS Registry.

Equipment Electricity Savings

Energy Star Rating	Deemed Equipment Electricity Savings (MWh per refrigerator sold)	
	Rated capacity < 300 litres	Rated capacity ≥ 300 litres
2.5	0.7	-
3.0	1.0	-
3.5	1.2	1.2
4.0	1.4	1.5
4.5	1.6	1.8
5.0	1.8	2.0
5.5	1.9	2.2
6.0	2.0	2.4
7.0	2.3	2.7
8.0	2.4	3.0
9.0	2.5	3.2
10.0	2.6	3.3

Lifetime (for information purposes only)

Lifetime = 12 years.

Activity Definition B5

Name of Activity

SELL A HIGH EFFICIENCY 2-DOOR REFRIGERATOR

Equipment Requirements

1. The End-User Equipment must be a 2-door Refrigerator of Groups 4, 5B, 5T or 5S as defined in *AS/NZS 4474.1 and 4474.2 Performance of household electrical appliances—Refrigerating appliances*.
2. The Refrigerator must be registered for energy labelling.
3. The Refrigerator must have a rated capacity, volume in litres, recorded in the GEMS Registry.

Equipment Electricity Savings

Energy Star Rating	Deemed Equipment Electricity Savings (MWh per refrigerator sold)		
	Rated capacity < 300 litres	Rated capacity ≥ 300 litres to < 500 litres	Rated capacity ≥ 500 litres
3.5	0.8	-	0.9
4.0	1.2	1.1	1.6
4.5	1.6	1.6	2.2
5.0	1.9	1.9	2.7
5.5	2.2	2.3	3.1
6.0	2.4	2.5	3.5
7.0	2.8	3.0	4.2
8.0	3.1	3.4	4.7
9.0	3.3	3.7	5.1
10.0	3.5	3.9	5.4

Lifetime (for information purposes only)

Lifetime = 12 years.

Activity Definition B6**Name of Activity****SELL A HIGH EFFICIENCY CHEST FREEZER OR UPRIGHT FREEZER****Equipment Requirements**

1. The End-User Equipment must be a Chest Freezer or Upright Freezer of Groups 6C, 6U or 7 as defined in *AS/NZS 4474.1 and 4474.2:2009 Performance of household electrical appliances—Refrigerating appliances*.
2. The Freezer must be registered for energy labelling.
3. The Freezer must have a rated capacity, volume in litres, recorded in the GEMS Registry.

Equipment Electricity Savings

Energy Star Rating	Deemed Equipment Electricity Savings (MWh per freezer sold)			
	Rated capacity < 150 litres	Rated capacity ≥ 150 litres to < 300 litres	Rated capacity ≥ 300 litres to < 500 litres	Rated capacity ≥ 500 litres
2.5	-	-	0.9	-
3.0	-	-	1.6	1.1
3.5	0.6	0.9	2.2	1.8
4.0	0.9	1.2	2.7	2.5
4.5	1.1	1.6	3.2	3.1
5.0	1.4	1.9	3.5	3.6
5.5	1.6	2.2	3.9	4.1
6.0	1.8	2.4	4.2	4.5
7.0	2.1	2.8	4.7	5.1
8.0	2.3	3.1	5.1	5.7
9.0	2.4	3.3	5.4	6.0
10.0	2.6	3.5	5.6	6.3

Lifetime (for information purposes only)

Lifetime = 12 years.

Activity Definition B7

Name of Activity

SELL A HIGH EFFICIENCY TELEVISION

Equipment Requirements

1. The End-User Equipment must be a Television as defined in *AS/NZS 62087.1 Power consumption of audio, video and related equipment; and 62087.2.2:2011 Power consumption of audio, video and related equipment—Minimum energy performance standards (MEPS) and energy rating label requirements for Television Sets.*
2. The Television must be registered for energy labelling.
3. The Television must have a rated capacity, diagonal screen size in centimetres, recorded in the GEMS Registry.

Equipment Electricity Savings

Energy Star Rating	Deemed Equipment Electricity Savings (MWh per television sold)		
	Rated capacity Diagonal screen size > 40cm to ≤ 80cm	Rated capacity Diagonal screen size > 80cm to ≤ 120cm	Rated capacity Diagonal screen size > 120cm
Tier 2 MEPS: 5.5	0.2	0.3	-
Tier 1 MEPS: 9 Tier 2 MEPS: 6	0.3	0.5	0.8
Tier 1 MEPS: 10 Tier 2 MEPS: 7	0.4	0.8	1.6
Tier 2 MEPS: 8	0.6	1.1	2.1
Tier 2 MEPS: 9	0.7	1.3	2.6
Tier 2 MEPS: 10	0.8	1.5	3.0

Lifetime (for information purposes only)

Lifetime = 10 years.

Schedule C – Activity Definitions for the Removal of Old Appliances (clause 9.7)

Activity Definition C1

Name of Activity

REMOVE A SPARE REFRIGERATOR OR FREEZER

Equipment Requirements

1. The Site where the End-User Equipment is located must be a Residential Building.
2. The End-User Equipment must be a Refrigerator or Freezer (or combination) that may be classified as Group 1, 2, 3, 4, 5T, 5B, 5S, 6C, 6U or 7 according to *AS/NZS 4474.1* and *4474.2 Performance of household electrical appliances—Refrigerating appliances*.
3. The Capacity of the Refrigerator or Freezer (as defined in AS/NZS 4474) must be 200 litres or more.
4. The Refrigerator or Freezer must be in working order.
5. There must be another Refrigerator or Freezer (as appropriate) at the Site that provides primary refrigeration or freezing services, located in, or closer to, the kitchen.
6. As a result of the activity there must be 1 fewer spare refrigerators and freezers at the Site.

Equipment Electricity Savings

Deemed Equipment Electricity Savings = 5.7 MWh per spare refrigerator or freezer removed

Lifetime (for information purposes only)

Lifetime = 7 years.

Activity Definition C2

Name of Activity

REMOVE A PRIMARY REFRIGERATOR OR FREEZER

Equipment Requirements

1. The Site where the End-User Equipment is located must be a Residential Building or Small Business Building.
2. The End-User Equipment must be a Refrigerator or Freezer (or combination) that may be classified as Group 1, 2, 3, 4, 5T, 5B, 5S, 6C, 6U or 7 according to *AS/NZS 4474.1* and *4474.2 Performance of household electrical appliances—Refrigerating appliances*.
3. The Capacity of the Refrigerator or Freezer (as defined in AS/NZS 4474) must be 200 litres or more.
4. The Refrigerator or Freezer must be in working order.
5. The activity may be carried out in combination with the delivery of a new refrigerator or freezer.

Equipment Electricity Savings

Deemed Equipment Electricity Savings = 2.4 MWh per primary refrigerator or freezer removed

Lifetime (for information purposes only)

Lifetime = 7 years.

Schedule D – Activity Definitions for General Activities for Home Energy Efficiency Retrofits (clause 9.8)**Activity Definition D1****Name of Activity****REPLACE AN EXTERNAL SINGLE GLAZED WINDOW OR DOOR WITH A THERMALLY EFFICIENT WINDOW OR DOOR****Eligibility Requirements**

1. The existing window must be single glazed.
2. The existing door must be a fully single glazed framed unit.
3. The existing window or door must be an external window or door of a Residential Building or Small Business Building.

Equipment Requirements

1. The new End-User Equipment must be a window or door product (glazing and frame) rated by WERS.
2. The new End-User Equipment can be either a single glazed or double glazed or triple glazed insulating glass unit.
3. The window or door must comply with AS 2047 and AS 1288.
4. The window or door must be rated as 6 Star by WERS in accordance with the minimum requirements for a thermally efficient window or door as detailed in Table D1.1.
5. The window or door must have a warranty of at least 5 years.

Table D1.1 – Minimum requirements for a thermally efficient window or door

Window/ door rating	Minimum WERS star rating in heating mode	Minimum WERS rating in cooling mode	Maximum System U-Value (W/m ² K)
6 Star Window or Door	6 stars	3.5 stars	2.3

Implementation Requirements

The window or door must be installed in compliance with of AS 2047 and AS 1288.

Activity Energy Savings*Deemed Activity Electricity Savings = Electricity Savings Factor × Glazing Unit Area**Deemed Activity Gas Savings = Gas Savings Factor × Glazing Unit Area*

Where:

- *Electricity Savings Factor* and *Gas Savings Factor*, in MWh per m², are the values from Tables D1.2 and D1.3, corresponding to the type of window or door and the Site's location.
- *Glazing Unit Area*, in m², is the total window or door area of the thermally efficient window or door installed.
- Implementation of the Activity allows both Electricity and Gas Savings Factors to be applied, regardless of fuel used for heating or cooling at the premises.

Table D1.2 – Electricity Savings Factors for thermally efficient windows or doors (MWh per m² of window or door replaced)

Window/ Door rating	BCA Climate Zones 2 and 3	BCA Climate Zones 4	BCA Climate Zones 5 and 6	BCA Climate Zones 7 and 8
6 Star Window or Door	0.24	0.41	0.22	0.59

Table D1.3 – Gas Savings Factors for thermally efficient windows or doors (MWh per m² of window or door replaced)

Window/ Door rating	BCA Climate Zones 2 and 3	BCA Climate Zones 4	BCA Climate Zones 5 and 6	BCA Climate Zones 7 and 8
6 Star Window or Door	0.09	0.23	0.13	0.38

Lifetime (for information purposes only)

Lifetime = 30 years.

Activity Definition D2**Name of Activity****MODIFY AN EXTERNAL WINDOW OR GLAZED DOOR BY INSTALLING SECONDARY GLAZING****Eligibility Requirements**

1. The existing window must be single glazed.
2. The existing door must be a fully single glazed framed unit.
3. The existing window or door must be an external window or door of a Residential Building or Small Business Building.

Equipment Requirements

1. The End-User Equipment must be a secondary glazing product that retrofits a second glazing sheet (e.g. glass or acrylic or polycarbonate) to an existing single glazed window or door so as to form a still air gap between the specified product and the existing glazing.
2. The secondary glazing product when retrofitted must produce a window or door that is a 6 Star Window or Door in accordance with the minimum requirements for a thermally efficient window or door as detailed in Table D2.1.
3. The secondary glazing product must have a warranty of at least 5 years.

Table D2.1 – Minimum requirements for a thermally efficient window or door fitted with secondary glazing

Window/ Door rating	Minimum WERS star rating in heating mode	Minimum WERS rating in cooling mode	Maximum System U-Value (W/m ² K)
6 Star Window or Door	6 stars	3.5 stars	2.3

Implementation Requirements

The secondary glazing product must be fitted in compliance with AS 2047 and AS 1288 and in accordance with the manufacturer's instructions.

Activity Energy Savings

Deemed Activity Electricity Savings = Electricity Savings Factor × Glazing Unit Area

Deemed Activity Gas Savings = Gas Savings Factor × Glazing Unit Area

Where:

- *Electricity Savings Factor* and *Gas Savings Factor*, in MWh per m², are the values from Tables D2.2 and D2.3 corresponding to the type of window or door and the Site's location.
- *Glazing Unit Area*, in m², is the total window or door area of the thermally efficient window or door installed.
- Implementation of the Activity allows both Electricity and Gas Savings Factors to be applied, regardless of fuel used for heating or cooling at the premises.

Table D2.2 – Electricity Savings Factors for secondary glazing products (MWh per m² of window or door modified)

Window/ Door rating	BCA Climate Zones 2 and 3	BCA Climate Zones 4	BCA Climate Zones 5 and 6	BCA Climate Zones 7 and 8
6 Star Window or Door	0.08	0.14	0.07	0.20

Table D2.3 – Gas Savings Factors for secondary glazing products (MWh per m² of window or door modified)

Window/ Door rating	BCA Climate Zones 2 and 3	BCA Climate Zones 4	BCA Climate Zones 5 and 6	BCA Climate Zones 7 and 8
6 Star Window or Door	0.03	0.08	0.04	0.13

Lifetime (for information purposes only)

Lifetime = 10 years.

Activity Definition D3

Name of Activity

REPLACE AN EXISTING AIR CONDITIONER WITH A HIGH EFFICIENCY AIR CONDITIONER

Eligibility Requirements

The existing air conditioner must be in working order at time of replacement.

Equipment Requirements

1. The new End-User Equipment must be an air conditioner as defined in AS/NZS 3823.2.
2. The unit must be assigned a minimum star rating for cooling, as outlined in Table D3.1, and heating, if relevant under Table D3.2, under AS/NZS 3823.2.
3. The replacement unit must have a cooling capacity the same as or smaller than the unit that it replaces.
4. Where the unit being replaced has a star rating, the replacement unit must be assessed under the AS/NZS 3823.2 as having a higher star energy rating than the unit it replaces.
5. The new End-User Equipment must have a warranty of at least 5 years.

Implementation Requirements

1. The new air conditioner must be installed.
2. The existing air conditioner must be removed.
3. The activity must be performed or supervised by a suitably qualified licence holder in compliance with the relevant installation standards and legislation as outlined by NSW Fair Trading.

Activity Energy Savings

Deemed Activity Electricity Savings = Cooling Capacity × Cooling Energy Savings Factor + Heating Capacity × Heating Energy Savings Factor

Where:

- *Cooling Capacity*, in kW, is the rated cooling capacity of the system from the GEMS Registry;
- *Cooling Energy Savings Factor*, in MWh/kW, is the lifetime energy savings per unit of capacity in cooling mode, as specified in Table D3.1, according to the type of system, climate zone, and rated cooling capacity (kW);
- *Heating Capacity*, in kW, is the rated heating capacity of the system from the GEMS Registry; and
- *Heating Energy Savings Factor*, in MWh/kW, is the lifetime energy savings per unit of capacity in heating mode as specified in Table D3.2, according to the type of system, climate zone, and rated heating capacity (kW).

Table D3.1 – Cooling Energy Savings Factors (MWh per kW of cooling capacity replaced)

Product category	Star Rating	BCA Climate Zones 2 & 3	BCA Climate Zone 4	BCA Climate Zones 5 & 6	BCA Climate Zones 7 & 8
Non ducted split systems – all types, <4kW, all phases	4.0 Stars	0.30	0.18	0.16	0.14
	4.5 Stars	0.36	0.22	0.19	0.17
	5.0 Stars	0.42	0.25	0.22	0.19
	5.5 Stars	0.47	0.28	0.25	0.21
	6.0 Stars	0.51	0.31	0.27	0.23
	7.0 Stars	0.59	0.36	0.32	0.27
	8.0 Stars	0.65	0.40	0.35	0.30
	9.0 Stars	0.71	0.43	0.38	0.32
Non ducted split systems – all types, 4kW to <10kW all phases	10.0 Stars	0.76	0.46	0.41	0.34
	3.0 Stars	0.35	0.21	0.19	0.16
	3.5 Stars	0.43	0.26	0.23	0.19
	4.0 Stars	0.49	0.30	0.26	0.22
	4.5 Stars	0.55	0.34	0.30	0.25
	5.0 Stars	0.61	0.37	0.33	0.28
5.5 Stars	0.66	0.40	0.35	0.30	

	6.0 Stars	0.70	0.43	0.38	0.32
	7.0 Stars	0.78	0.47	0.42	0.35
	8.0 Stars	0.84	0.51	0.45	0.38
	9.0 Stars	0.90	0.55	0.48	0.41
	10.0 Stars	0.95	0.58	0.51	0.43
All other product description in AS/NZS 3823.2	2.5 Stars	0.36	0.22	0.19	0.16
	3.0 Stars	0.45	0.27	0.24	0.21
	3.5 Stars	0.53	0.32	0.28	0.24
	4.0 Stars	0.60	0.36	0.32	0.27
	4.5 Stars	0.66	0.40	0.35	0.30
	5.0 Stars	0.71	0.43	0.38	0.32
	5.5 Stars	0.76	0.46	0.41	0.35
	6.0 Stars	0.81	0.49	0.43	0.37
	7.0 Stars	0.88	0.54	0.47	0.40
	8.0 Stars	0.95	0.58	0.51	0.43
9.0 Stars	1.00	0.61	0.54	0.46	
10.0 Stars	1.05	0.64	0.56	0.48	

Table D3.2 – Heating Energy Savings Factors (MWh per kW of heating capacity replaced)

Product category	Star Rating	BCA Climate Zones 2 & 3	BCA Climate Zone 4	BCA Climate Zones 5 & 6	BCA Climate Zones 7 & 8
Non ducted split systems – all types, <4kW, all phases	4.0 Stars	0.10	0.45	0.16	1.37
	4.5 Stars	0.13	0.54	0.19	1.64
	5.0 Stars	0.14	0.62	0.22	1.89
	5.5 Stars	0.16	0.69	0.24	2.11
	6.0 Stars	0.18	0.76	0.27	2.31
	7.0 Stars	0.20	0.88	0.31	2.66
	8.0 Stars	0.23	0.97	0.34	2.95
	9.0 Stars	0.24	1.05	0.37	3.20
	10.0 Stars	0.26	1.12	0.39	3.41
Non ducted split systems – all types, 4kW to <10kW all phases	3.0 Stars	0.12	0.52	0.18	1.57
	3.5 Stars	0.15	0.63	0.22	1.92
	4.0 Stars	0.17	0.73	0.26	2.23
	4.5 Stars	0.19	0.82	0.29	2.50
	5.0 Stars	0.21	0.91	0.32	2.75
	5.5 Stars	0.23	0.98	0.34	2.97
	6.0 Stars	0.24	1.04	0.37	3.17
	7.0 Stars	0.27	1.16	0.41	3.52
	8.0 Stars	0.29	1.26	0.44	3.81
	9.0 Stars	0.31	1.34	0.47	4.06
10.0 Stars	0.33	1.41	0.49	4.27	
All other product description in AS/NZS 3823.2	2.5 Stars	0.13	0.54	0.19	1.64
	3.0 Stars	0.16	0.67	0.24	2.04
	3.5 Stars	0.18	0.79	0.28	2.39
	4.0 Stars	0.21	0.89	0.31	2.70
	4.5 Stars	0.23	0.98	0.34	2.97
	5.0 Stars	0.25	1.06	0.37	3.22
	5.5 Stars	0.26	1.13	0.40	3.44
6.0 Stars	0.28	1.20	0.42	3.64	

	7.0 Stars	0.30	1.31	0.46	3.99
	8.0 Stars	0.33	1.41	0.49	4.28
	9.0 Stars	0.35	1.49	0.52	4.53
	10.0 Stars	0.36	1.56	0.55	4.74

Lifetime (for information purposes only)
Lifetime = 10 years.

Activity Definition D4**Name of Activity****INSTALL A HIGH EFFICIENCY AIR CONDITIONER****Eligibility Requirements**

1. No existing air conditioner is fixed in place that provides cooling and/or heating to the conditioned space.

Equipment Requirements

1. The new End-User Equipment must be an air conditioner as defined in AS/NZS 3823.2.
2. The unit must be assigned a minimum star rating for cooling, as outlined in Table D4.1, and heating, if relevant under Table D4.2, under AS/NZS 3823.2.
3. The new End-User Equipment must have a warranty of at least 5 years.

Implementation Requirements

1. The new air conditioner must be installed.
2. The activity must be performed or supervised by a suitably qualified licence holder in compliance with the relevant installation standards and legislation as outlined by NSW Fair Trading.

Activity Energy Savings

Deemed Activity Electricity Savings = Cooling Capacity × Cooling Energy Savings Factor + Heating Capacity × Heating Energy Savings Factor

Where:

- *Cooling Capacity*, in kW, is the rated cooling capacity of the system from the GEMS Registry;
- *Cooling Energy Savings Factor*, in MWh/kW, is the lifetime energy savings per unit of capacity in cooling mode, as specified in Table D4.1, according to the type of system, climate zone, and rated cooling capacity (kW);
- *Heating Capacity*, in kW, is the rated heating capacity of the system from the GEMS Registry; and
- *Heating Energy Savings Factor*, in MWh/kW, is the lifetime energy savings per unit of capacity in heating mode as specified in Table D4.2, according to the type of system, climate zone, and rated heating capacity (kW).

Table D4.1 – Cooling Energy Savings Factors (MWh per kW of cooling capacity installed)

Product category	Star Rating	BCA Climate Zones 2 & 3	BCA Climate Zone 4	BCA Climate Zones 5 & 6	BCA Climate Zones 7 & 8
Non ducted split systems – all types, <4kW, all phases	4.0 Stars	0.08	0.05	0.04	0.04
	4.5 Stars	0.14	0.08	0.07	0.06
	5.0 Stars	0.19	0.12	0.10	0.09
	5.5 Stars	0.24	0.15	0.13	0.11
	6.0 Stars	0.29	0.17	0.15	0.13
	7.0 Stars	0.36	0.22	0.19	0.16
	8.0 Stars	0.43	0.26	0.23	0.19
	9.0 Stars	0.48	0.29	0.26	0.22
Non ducted split systems – all types, 4kW to <10kW all phases	10.0 Stars	0.53	0.32	0.28	0.24
	3.0 Stars	0.11	0.07	0.06	0.05
	3.5 Stars	0.19	0.11	0.10	0.08
	4.0 Stars	0.25	0.15	0.14	0.12
	4.5 Stars	0.31	0.19	0.17	0.14
	5.0 Stars	0.37	0.22	0.20	0.17
	5.5 Stars	0.42	0.25	0.22	0.19

	6.0 Stars	0.46	0.28	0.25	0.21
	7.0 Stars	0.54	0.33	0.29	0.25
	8.0 Stars	0.60	0.37	0.32	0.27
	9.0 Stars	0.66	0.40	0.35	0.30
	10.0 Stars	0.71	0.43	0.38	0.32
All other product description in AS/NZS 3823.2	2.5 Stars	0.12	0.08	0.07	0.06
	3.0 Stars	0.21	0.13	0.11	0.10
	3.5 Stars	0.29	0.18	0.16	0.13
	4.0 Stars	0.36	0.22	0.19	0.16
	4.5 Stars	0.42	0.26	0.23	0.19
	5.0 Stars	0.47	0.29	0.25	0.22
	5.5 Stars	0.52	0.32	0.28	0.24
	6.0 Stars	0.57	0.35	0.30	0.26
	7.0 Stars	0.65	0.39	0.35	0.29
	8.0 Stars	0.71	0.43	0.38	0.32
	9.0 Stars	0.77	0.47	0.41	0.35
10.0 Stars	0.81	0.49	0.44	0.37	

Table D4.2 – Heating Energy Savings Factors (MWh per kW of heating capacity installed)

Product category	Star Rating	BCA Climate Zones 2 & 3	BCA Climate Zone 4	BCA Climate Zones 5 & 6	BCA Climate Zones 7 & 8
Non ducted split systems – all types, <4kW, all phases	4.0 Stars	0.27	1.16	0.40	0.55
	4.5 Stars	0.29	1.25	0.44	0.83
	5.0 Stars	0.31	1.33	0.46	1.07
	5.5 Stars	0.32	1.40	0.49	1.29
	6.0 Stars	0.34	1.47	0.51	1.49
	7.0 Stars	0.37	1.58	0.55	1.84
	8.0 Stars	0.39	1.68	0.59	2.13
	9.0 Stars	0.41	1.76	0.62	2.38
	10.0 Stars	0.42	1.83	0.64	2.60
Non ducted split systems – all types, 4kW to <10kW all phases	3.0 Stars	0.29	1.27	0.44	0.54
	3.5 Stars	0.32	1.38	0.48	0.89
	4.0 Stars	0.34	1.48	0.52	1.19
	4.5 Stars	0.36	1.57	0.55	1.47
	5.0 Stars	0.38	1.65	0.58	1.72
	5.5 Stars	0.40	1.73	0.60	1.94
	6.0 Stars	0.42	1.79	0.63	2.14
	7.0 Stars	0.44	1.91	0.67	2.48
	8.0 Stars	0.46	2.00	0.70	2.78
	9.0 Stars	0.48	2.09	0.73	3.03
	10.0 Stars	0.50	2.16	0.76	3.24
All other product description in AS/NZS 3823.2	2.5 Stars	0.31	1.32	0.46	0.50
	3.0 Stars	0.34	1.45	0.51	0.90
	3.5 Stars	0.36	1.57	0.55	1.25
	4.0 Stars	0.39	1.67	0.58	1.56
	4.5 Stars	0.41	1.76	0.62	1.83

	5.0 Stars	0.43	1.84	0.64	2.08
	5.5 Stars	0.44	1.91	0.67	2.30
	6.0 Stars	0.46	1.98	0.69	2.50
	7.0 Stars	0.49	2.09	0.73	2.85
	8.0 Stars	0.51	2.19	0.77	3.14
	9.0 Stars	0.53	2.27	0.80	3.39
	10.0 Stars	0.54	2.34	0.82	3.61

Lifetime (for information purposes only)
Lifetime = 10 years.

Activity Definition D5

Name of Activity

REPLACE AN EXISTING POOL PUMP WITH A HIGH EFFICIENCY POOL PUMP

Eligibility Requirements

1. The existing pool pump must be in working order at time of replacement.

Equipment Requirements

1. The new End-User Equipment must be a product for use with a domestic pool or spa that is a single phase, single speed, dual speed, multiple speed or variable speed pump unit with an input power of not less than 300W and not more than 2500W when tested in accordance with AS 5102.1.
2. The new End-User Equipment must be listed as part of a labelling scheme determined in accordance with the Equipment Energy Efficiency (E3) Committee's Voluntary Energy Rating Labelling Program for Swimming Pool Pump-units: Rules for Participation, April 2010, and achieve a minimum 5.5 star rating when determined in accordance with AS 5102.2.
3. The new End-User Equipment must have a warranty of at least 5 years.

Implementation Requirements

1. The pool pump must be installed by a Licensed plumber and/or electrician, where required by relevant legislation.
2. The decommissioned pool pump must be removed in accordance with relevant safety standards and legislation.

Activity Energy Savings

Deemed Activity Electricity Savings = Savings Factor

Where:

- *Savings Factor*, in MWh, is the value from Table D5.1 corresponding to the pool pump's flow rate (in L/min) and energy star rating.

Table D5.1 – Savings Factors (MWh per pool pump installed)

Energy Star Rating	Pump flow rate > 120 to < 200 L/min	Pump flow rate ≥ 200 to < 275 L/min	Pump flow rate ≥ 275 to < 350 L/min
5.5	0.7	1.1	1.4
6	1.4	2.1	2.7
7	2.4	3.6	4.7
8	3.2	4.7	6.2
9	3.7	5.6	7.4
10	4.2	6.3	8.2

Lifetime (for information purposes only)

Lifetime = 12 years.

Activity Definition D6**Name of Activity****INSTALL CEILING INSULATION IN AN UNINSULATED CEILING SPACE****Eligibility Requirements**

1. There must be no existing roof or ceiling insulation present in the ceiling space.
2. For the purposes of this Activity, ceiling spaces with single sheet reflective foil insulation hung below the roofing material are deemed to be uninsulated ceiling spaces.

Equipment Requirements

1. The insulation product used must comply with the performance requirements of AS/NZS 4859.1, as evidenced by test reports from an accredited NATA laboratory.
2. The insulation product must achieve a minimum winter R-value, when measured in accordance with AS/NZS 4859.1, of:
 - R3.0 if the Site is in BCA Climate Zone 2 or 3;
 - R3.5 if the Site is in BCA Climate Zone 4, 5 or 6;
 - R5.0 if the Site is in BCA Climate Zone 7 or 8
 after being adjusted for perimeter insulation in accordance with AS 3999.
3. The insulation product must have a warranty of at least 25 years.
4. Foil insulation products are not eligible to be used in this activity.

Implementation Requirements

1. The insulation product used must be installed in compliance with AS 3999 and the National Construction Code BCA Section J1.
2. Installers are required to have completed training courses CPCCOHS1001A; CPCCCM2010A; CPCCOHS2001A; CPCCPB3027A; CPCCPB3014A and other training requirements as Published by the Scheme Administrator.
3. Insulation must only be installed in ceiling spaces with an exposed roof.
4. Insulation must be installed in at least 95% of the ceiling area able to have insulation installed, after being adjusted for perimeter insulation in accordance with AS 3999.
5. Cut outs around ceiling penetrations such as downlights must be kept to the minimum permitted by regulation.

Activity Energy Savings

$$\text{Deemed Activity Electricity Savings} = \text{Electricity Savings Factor} \times \text{Insulation Area}$$

$$\text{Deemed Activity Gas Savings} = \text{Gas Savings Factor} \times \text{Insulation Area}$$

Where:

- *Electricity Savings Factor* and *Gas Savings Factor*, in MWh per m², are the values from Tables D6.1 and D6.2 corresponding to the Site's building construction and location.
- *Insulation Area*, in m², is the total ceiling area that has had insulation product installed.
- Implementation of the Activity allows both Electricity and Gas Savings Factors to be applied, regardless of fuel used for heating or cooling at the premises.

Table D6.1 – Electricity Savings Factors (MWh per m² of ceiling insulation installed)

Climate zone	BCA Climate Zones 2 and 3 Minimum R3.0	BCA Climate Zones 4 Minimum R3.5	BCA Climate Zones 5 and 6 Minimum R3.5	BCA Climate Zones 7 and 8 Minimum R5.0
MWh per m ²	0.16	0.29	0.17	0.47

Table D6.2 – Gas Savings Factor (MWh per m² of ceiling insulation installed)

Climate zone	BCA Climate Zones 2 and 3 Minimum R3.0	BCA Climate Zone 4 Minimum R3.5	BCA Climate Zones 5 and 6 Minimum R3.5	BCA Climate Zones 7 and 8 Minimum R5.0
MWh per m ²	0.09	0.18	0.11	0.30

Lifetime (for information purposes only)

Lifetime = 25 years.

Activity Definition D7**Name of Activity****INSTALL CEILING INSULATION IN AN UNDER-INSULATED CEILING SPACE****Eligibility Requirements**

1. There must be existing roof or ceiling insulation present in the ceiling space.
2. For the purposes of this Activity, ceiling spaces with single sheet reflective foil insulation hung below the roofing material are deemed to be uninsulated ceiling spaces.
3. The R-value of existing roof or ceiling insulation must be below 3.0 when measured in accordance with AS/NZS 4859.1.

Equipment Requirements

1. The insulation product used must comply with the performance requirements of AS/NZS 4859.1, as evidenced by test reports from an accredited NATA laboratory.
2. The insulation product must achieve a minimum winter R-value, when measured in accordance with AS/NZS 4859.1, of:
 - o R3.0 if the Site is in BCA Climate Zone 2 or 3;
 - o R3.5 if the Site is in BCA Climate Zone 4, 5 or 6;
 - o R5.0 if the Site is in BCA Climate Zone 7 or 8
 after being adjusted for perimeter insulation in accordance with AS 3999.
3. The insulation product must have a warranty of at least 25 years.
4. Foil insulation products are not eligible to be used in this activity.

Implementation Requirements

1. The insulation product used must be installed in compliance with AS 3999 and the National Construction Code BCA Section J1.
2. Installers are required to have completed training courses CPCCOHS1001A; CPCCCM2010A; CPCCOHS2001A; CPCCPB3027A; CPCCPB3014A and other training requirements as Published by the Scheme Administrator.
3. Insulation must only be installed in ceiling spaces with an exposed roof.
4. Insulation must be installed in at least 95% of the ceiling area able to have insulation installed, after being adjusted for perimeter insulation in accordance with AS 3999.
5. Cut outs around ceiling penetrations such as downlights must be consistent with regulation requirements.

Activity Energy Savings

Deemed Activity Electricity Savings = Electricity Savings Factor × Insulation Area

Deemed Activity Gas Savings = Gas Savings Factor × Insulation Area

Where:

- *Electricity Savings Factor* and *Gas Savings Factor*, in MWh per m², are the values from Tables D7.1 and D7.2 corresponding to the Site's building construction and location.
- *Insulation Area*, in m², is the total ceiling area that has had insulation product installed.
- Implementation of the Activity allows both Electricity and Gas Savings Factors to be applied, regardless of fuel used for heating or cooling at the premises.

Table D7.1 – Electricity Savings Factors (MWh per m² of ceiling insulation installed)

Climate zone	BCA Climate Zones 2 and 3 Minimum R3.0	BCA Climate Zones 4 Minimum R3.5	BCA Climate Zones 5 and 6 Minimum R3.5	BCA Climate Zones 7 and 8 Minimum R5.0
MWh per m ²	0.01	0.03	0.02	0.04

Table D7.2 – Gas Savings Factors (MWh per m² of ceiling insulation installed)

Climate zone	BCA Climate Zones 2 and 3 Minimum R3.0	BCA Climate Zones 4 Minimum R3.5	BCA Climate Zones 5 and 6 Minimum R3.5	BCA Climate Zones 7 and 8 Minimum R5.0
MWh per m ²	0.01	0.02	0.01	0.03

Lifetime (for information purposes only)

Lifetime = 25 years.

Activity Definition D8**Name of Activity****INSTALL UNDER-FLOOR INSULATION****Eligibility Requirements**

1. There must be no existing ground floor insulation present.
2. The Site must have a suspended timber floor.

Equipment Requirements

1. The insulation product used must comply with the performance requirements of AS/NZS 4859.1 and achieve a minimum winter R-value of R2.5 when measured in accordance with AS/NZS 4859.1, as evidenced by test reports from an accredited NATA laboratory.
2. The insulation product must have a warranty of at least 25 years.
3. Foil insulation products are not eligible to be used in this activity.

Implementation Requirements

1. The Activity is restricted to ground floor suspended timber floor spaces.
2. Installers are required to have completed training courses CPCCOHS1001A; CPCCCM2010A; CPCCOHS2001A; CPCCPB3014A; and other training requirements as Published by the Scheme Administrator.
3. The insulation product must be installed in accordance with AS 3999 and the National Construction Code BCA Section J1.
4. Insulation must be installed in at least 95% of the ground floor area able to have insulation installed.
5. Insulation may only be applied to areas that have not been previously insulated.

Activity Energy Savings

Deemed Activity Electricity Savings = Electricity Savings Factor × Insulation Area

Deemed Activity Gas Savings = Gas Savings Factor × Insulation Area

Where:

- *Electricity Savings Factor* and *Gas Savings Factor*, in MWh per m², are the values from Tables D8.1 and D8.2 corresponding to the Site's building construction and location.
- *Insulation Area*, in m², is the total ground floor area that has had insulation product installed.
- Implementation of the Activity allows both Electricity and Gas Savings Factors to be applied, regardless of fuel used for heating or cooling at the premises.

Table D8.1 – Electricity Savings Factor (MWh per m² of under -floor insulation installed)

Climate zone	BCA Climate Zones 2 and 3 Minimum R2.5	BCA Climate Zones 4 Minimum R2.5	BCA Climate Zones 5 and 6 Minimum R2.5	BCA Climate Zones 7 and 8 Minimum R2.5
MWh per m ²	n/a	0.02	0.01	0.05

Table D8.2 – Gas Savings Factor (MWh per m² of under -floor insulation installed)

Climate zone	BCA Climate Zones 2 and 3 Minimum R2.5	BCA Climate Zones 4 Minimum R2.5	BCA Climate Zones 5 and 6 Minimum R2.5	BCA Climate Zones 7 and 8 Minimum R2.5
MWh per m ²	0.01	0.02	0.01	0.04

Lifetime (for information purposes only)

Lifetime = 25 years.

Activity Definition D9**Name of Activity**

INSTALL WALL INSULATION

Eligibility Requirements

1. There must be no existing wall insulation present.
2. For the purposes of this activity, wall cavities that contain reflective foil sarking only shall be deemed to be uninsulated spaces.

Equipment Requirements

1. The insulation product used must comply with the performance requirements of AS/NZS 4859.1 and achieve a minimum winter R-value of 2.0 when measured in accordance with AS/NZS 4859.1, as evidenced by test reports from an accredited NATA laboratory.
2. The insulation product used must have a warranty of at least 25 years.
3. Foil insulation products are not eligible to be used in this activity.

Implementation Requirements

1. The insulation product used must be installed in accordance with AS 3999 and the National Construction Code BCA Section J1.
2. Installers are required to have completed training courses CPCCOHS1001A; CPCCCM2010A; CPCCOHS2001A; CPCCPB3014A; and other training requirements as Published by the Scheme Administrator.
3. The insulation product must be installed in an external wall space (or part of an external wall space) but not in any common walls (as defined by the National Construction Code).
4. Insulation must be installed in at least 95% of the wall area able to have insulation installed.

Activity Energy Savings

Deemed Activity Electricity Savings = Electricity Savings Factor × Insulation Area

Deemed Activity Gas Savings = Gas Savings Factor × Insulation Area

Where:

- *Electricity Savings Factor* and *Gas Savings Factor*, in MWh per m², are the values from Tables D9.1 and D9.2 corresponding to the Site's building construction and location.
- *Insulation Area*, in m², is the total wall area that has had insulation product installed.
- Implementation of the Activity allows both Electricity and Gas Savings Factors to be applied, regardless of fuel used for heating or cooling at the premises.

Table D9.1 – Electricity Savings Factor (MWh per m² of wall insulation installed)

Climate zone	BCA Climate Zones 2 and 3 Minimum R2.0	BCA Climate Zones 4 Minimum R2.0	BCA Climate Zones 5 and 6 Minimum R2.0	BCA Climate Zones 7 and 8 Minimum R2.0
MWh per m ²	0.05	0.09	0.05	0.15

Table D9.2 – Gas Savings Factor (MWh per m² of wall insulation installed)

Climate zone	BCA Climate Zones 2 and 3 Minimum R2.0	BCA Climate Zones 4 Minimum R2.0	BCA Climate Zones 5 and 6 Minimum R2.0	BCA Climate Zones 7 and 8 Minimum R2.0
MWh per m ²	0.02	0.06	0.03	0.10

Lifetime (for information purposes only)

Lifetime = 25 years.

Activity Definition D10**Name of Activity****REPLACE AN EXISTING ELECTRIC WATER HEATER WITH A HIGH EFFICIENCY GAS FIRED WATER HEATER****Eligibility Requirements**

1. The existing electric water heater is an electric resistance storage or instantaneous water heater.
2. The existing electric water heater does not have to be in working order at time of replacement.
3. The existing electric water heater is not on a controlled load tariff (commonly known as 'off peak').

Equipment Requirements

1. The installed End-User Equipment must be a Gas fired storage or instantaneous water heater as defined in AS4552 or AS/NZS 5263.1.2.
2. The installed End-User Equipment must be listed as certified in the Gas Technical Regulators Committee (GTRC) National Certification Database and be certified for the fuel to which it will be connected.
3. The capacity of the installed End-User Equipment in Table D10.1 can be either a stored volume for a Gas fired storage water heater or a heated flow rate for a Gas fired instantaneous water heater.
4. The installed End-User Equipment must be rated at an Annual Energy Consumption of ≤ 20302 MJ (equal to 5.25 stars) in accordance with AS4552 or AS/NZS 5263.1.2, unless one or more of the following conditions are met, in which case installed End-User Equipment must be rated an Annual Energy Consumption of ≤ 18279 MJ (equivalent to 6.25 stars):
 - a. the Site does not have an existing connection to a Distribution Pipeline;
 - b. it will be connected to a Gas cylinder, including but not limited to liquefied petroleum gas cylinders;
 - c. it is a Gas fired instantaneous water heater.
5. The installed End-User Equipment must have a capacity the same or smaller than the existing End-User Equipment it replaces.
6. The installed End-User Equipment must have a warranty of at least 10 years for the cylinder or tank of a Gas fired storage water heater, or the heat exchanger of a Gas fired instantaneous water heater.

Implementation Requirements

1. The existing End-User Equipment must be disconnected and removed; these tasks must be performed or supervised by a qualified person in accordance with relevant standards and legislation.
2. The End-User Equipment must be installed.
3. The activity must be performed or supervised by a qualified person in accordance with the End-User Equipment installation instructions and in compliance with plumbing, Gas work, electrical work and permanent wiring standards; and as required by other relevant legislation, local regulations, and all local codes and regulatory authority requirements.

Activity Energy Savings

Deemed Activity Electricity Savings = Electricity Savings Factor

Deemed Activity Gas Savings = Gas Savings Factor

Where:

- *Electricity Savings Factor* and *Gas Savings Factor*, in MWh per installed End-User Equipment, are the values from Table D10.1 corresponding to the capacity and Annual Energy Consumption of the installed End-User Equipment.
- Capacity of installed End-User Equipment is available from Gas fired water heater specifications.
- Annual Energy Consumption of the installed End-User Equipment is the value listed for the equipment in the GTRC National Certification Database.

Table D10.1 – Electricity and Gas Savings Factor (MWh per installed End-User Equipment)

Capacity of installed End-User Equipment	Annual Energy Consumption (MJ)	Electricity Savings Factor (MWh)	Gas Savings Factor (MWh)
Gas fired storage water heater: < 95 L Gas fired instantaneous water heater: < 18 L/min at 25°C rise	> 19797 and ≤ 20302	22.39	-25.38
	> 19291 and ≤ 19797	22.39	-24.75
	> 18785 and ≤ 19291	22.39	-24.11
	> 18279 and ≤ 18785	22.39	-23.48
	> 17774 and ≤ 18279	22.39	-22.85
	> 17268 and ≤ 17774	22.39	-22.22
	> 16762 and ≤ 17268	22.39	-21.58
	≤ 16762	22.39	-20.95
Gas fired storage water heater: 95 to 140 L Gas fired instantaneous water heater: 18 to 22 L/min at 25°C rise	> 19797 and ≤ 20302	34.09	-42.30
	> 19291 and ≤ 19797	34.09	-41.24
	> 18785 and ≤ 19291	34.09	-40.19
	> 18279 and ≤ 18785	34.09	-39.14
	> 17774 and ≤ 18279	34.09	-38.08
	> 17268 and ≤ 17774	34.09	-37.03
	> 16762 and ≤ 17268	34.09	-35.97
	≤ 16762	34.09	-34.92
Gas fired storage water heater: > 140 L Gas fired instantaneous water heater: > 22 L/min at 25°C rise	> 19797 and ≤ 20302	45.78	-59.21
	> 19291 and ≤ 19797	45.78	-57.74
	> 18785 and ≤ 19291	45.78	-56.26
	> 18279 and ≤ 18785	45.78	-54.79
	> 17774 and ≤ 18279	45.78	-53.31
	> 17268 and ≤ 17774	45.78	-51.84
	> 16762 and ≤ 17268	45.78	-50.36
	≤ 16762	45.78	-48.89

Lifetime (for information purposes only)

Lifetime = 10 years.

Activity Definition D11**Name of Activity****REPLACE AN EXISTING GAS FIRED WATER HEATER WITH A HIGH EFFICIENCY GAS FIRED WATER HEATER****Eligibility Requirements**

1. The existing Gas fired water heater is a Gas fired storage water heater.
2. The existing Gas fired water heater does not have to be in working order at time of replacement.

Equipment Requirements

1. The installed End-User Equipment must be a Gas fired water heater as defined in AS4552 or AS/NZS 5263.1.2.
2. The installed End-User Equipment must be listed as certified in the Gas Technical Regulators Committee (GTRC) National Certification Database and be certified for the fuel to which it will be connected.
3. The capacity of the installed End-User Equipment in Table D11.1 can be either a stored volume for a Gas fired storage water heater or a heated flow rate for a Gas fired instantaneous water heater.
4. The installed End-User Equipment must be rated at an Annual Energy Consumption of ≤ 18279 MJ (equivalent to 6.25 stars) in accordance with AS4552 or AS/NZS 5263.1.2 if it is a Gas fired instantaneous water heater.
5. The installed End-User Equipment must be rated at an Annual Energy Consumption of ≤ 20302 MJ (equal to 5.25 stars) in accordance with AS4552 or AS/NZS 5263.1.2 if it is a Gas fired storage water heater.
6. The installed End-User Equipment must have a capacity the same or smaller than the existing End-User Equipment it replaces.
7. The installed End-User Equipment must have a warranty of at least 10 years for the cylinder or tank of a Gas fired storage water heater, or the heat exchanger of a Gas fired instantaneous water heater.

Implementation Requirements

1. The existing End-User Equipment must be disconnected and removed; these tasks must be performed or supervised by a qualified person in accordance with relevant standards and legislation.
2. The End-User Equipment must be installed.
3. The activity must be performed or supervised by a qualified person in accordance with the End-User Equipment installation instructions and in compliance with plumbing, Gas work, electrical work and permanent wiring standards; and as required by other relevant legislation, local regulations, and all local codes and regulatory authority requirements.

Activity Energy Savings

Deemed Activity Gas Savings = Gas Savings Factor

Where:

- *Gas Savings Factor*, in MWh per installed End-User Equipment, is the value from Table D11.1 corresponding to the capacity and Annual Energy Consumption of the installed End-User Equipment.
- Capacity of installed End-User Equipment is available from Gas fired water heater specifications.
- Annual Energy Consumption of the installed End-User Equipment is the value listed for the equipment in the GTRC National Certification Database.

Table D11.1 – Gas Savings Factor (MWh per installed End-User Equipment)

Capacity of installed End-User Equipment	Annual Energy Consumption (MJ)	Gas Savings Factor (MWh)
Gas fired storage water heater: < 95 L Gas fired instantaneous water heater: < 18 L/min at 25°C rise	> 19797 and ≤ 20302	4.43
	> 19291 and ≤ 19797	5.06
	> 18785 and ≤ 19291	5.69
	> 18279 and ≤ 18785	6.32
	> 17774 and ≤ 18279	6.95
	> 17268 and ≤ 17774	7.59
	> 16762 and ≤ 17268	8.22
	≤ 16762	8.85
Gas fired storage water heater: 95 to 140 L Gas fired instantaneous water heater: 18 to 22 L/min at 25°C rise	> 19797 and ≤ 20302	7.38
	> 19291 and ≤ 19797	8.43
	> 18785 and ≤ 19291	9.48
	> 18279 and ≤ 18785	10.54
	> 17774 and ≤ 18279	11.59
	> 17268 and ≤ 17774	12.64
	> 16762 and ≤ 17268	13.70
	≤ 16762	14.75
Gas fired storage water heater: > 140 L Gas fired instantaneous water heater: > 22 L/min at 25°C rise	> 19797 and ≤ 20302	10.33
	> 19291 and ≤ 19797	11.80
	> 18785 and ≤ 19291	13.28
	> 18279 and ≤ 18785	14.75
	> 17774 and ≤ 18279	16.23
	> 17268 and ≤ 17774	17.70
	> 16762 and ≤ 17268	19.18
	≤ 16762	20.65

Lifetime (for information purposes only)

Lifetime = 10 years.

Activity Definition D12

Name of Activity

INSTALL A HIGH EFFICIENCY GAS SPACE HEATER OR REPLACE AN EXISTING GAS SPACE HEATER WITH A HIGH EFFICIENCY GAS SPACE HEATER

Eligibility Requirements

1. This activity must be an installation of a high efficiency Gas space heater or a replacement of an existing Gas space heater with a high efficiency Gas space heater.

Equipment Requirements

1. The installed End-User Equipment must be a Gas space heating appliance as defined in AS4553 or AS/NZS 5263.1.3.
2. The installed End-User Equipment must be rated at a minimum of 5 stars in accordance with AS4553 or AS/NZS 5263.1.3, listed in the Directory of Australian Gas Association (AGA) Certified Products and be certified for the fuel to which it will be connected.
3. The installed End-User Equipment can be a Flued Radiant/Convection Heater, a Balanced Flue Convection Heater or a Wall Furnace, as listed in the Directory of AGA Certified Products.
4. The installed End-User Equipment must have a capacity the same or smaller than the existing End-User Equipment it replaces, in the case of replacement of a Gas space heater.
5. The installed End-User Equipment must have a warranty of at least 10 years for the heat exchanger.

Implementation Requirements

1. If there is any existing End-User Equipment, it must be disconnected and removed; these tasks must be performed or supervised by a qualified person in accordance with relevant standards and legislation.
2. The End-User Equipment must be installed.
3. The activity must be performed or supervised by a qualified person in accordance with the End-User Equipment installation instructions and in compliance with Gas work, electrical work and permanent wiring standards; and as required by other relevant legislation, local regulations, and all local codes and regulatory authority requirements.

Activity Energy Savings

Deemed Activity Gas Savings = Gas Savings Factor

Where:

- *Gas Savings Factor*, in MWh per installed End-User Equipment, is the value from Table D12.1 corresponding to the installed End-User Equipment Annual Energy Consumption and Star Rating; as well as the BCA climate zone where the Site is situated.
- Annual Energy Consumption and Star Rating of the installed End-User Equipment are the values listed for the equipment in the most recent version of Directory of AGA Certified Products.
- In cases where the Star Rating for the installed End-User Equipment is between increments, or above 5.50, it is rounded down to the closest Star Rating.

Table D12.1 – Gas Savings Factor (MWh per installed End-User Equipment)

Annual Energy Consumption (MJ/y)	Star Rating	BCA Climate Zones 2 & 3	BCA Climate Zone 4	BCA Climate Zones 5 & 6	BCA Climate Zones 7 & 8
< 9000	5.00 Stars	0.19	0.52	0.28	0.95
	5.25 Stars	0.20	0.57	0.31	1.05
	5.50 Stars	0.21	0.63	0.33	1.16
9000 to 13000	5.00 Stars	0.39	1.45	0.68	2.83
	5.25 Stars	0.42	1.62	0.75	3.18
	5.50 Stars	0.46	1.79	0.82	3.52
> 13000	5.00 Stars	0.48	1.90	0.87	3.75
	5.25 Stars	0.53	2.13	0.97	4.22
	5.50 Stars	0.58	2.36	1.07	4.68

Lifetime (for information purposes only)

Lifetime = 10 years.

Schedule E – Activity Definitions for Low Cost Activities for Home Energy Efficiency Retrofits (clause 9.8)**Activity Definition E1****Name of Activity****REPLACE HALOGEN DOWNLIGHT WITH AN LED LUMINAIRE AND/OR LAMP****Eligibility Requirements**

1. The existing Lamp must be a Tungsten halogen Lamp (240V), Tungsten halogen Lamp (ELV), or Infrared coated (IRC) halogen Lamp (ELV) as defined in Table A9.1 of Schedule A.
2. The existing Lamp must be a multifaceted reflector Lamp.
3. The existing Lamp must be rated at either 35W or 50W.
4. The existing Lamp and Luminaire must be in working order.

Equipment Requirements

1. The new End-User Equipment must be a LED Lamp only – ELV, LED Lamp and Driver, LED Luminaire-recessed, or an LED Lamp Only – 240V Self Ballasted, as defined in Table A9.1 or Table A9.3 of Schedule A.
2. Any End-User Equipment classified under Table A9.3 must be accepted by the Scheme Administrator as meeting the requirements of Table A9.4 of Schedule A.
3. The new End-User Equipment must have an initial Downward Light Output of ≥ 462 lumens.
4. The new End-User Equipment must have a beam angle consistent with the original Lamp being replaced.
5. The new End-User Equipment must be compatible with any dimmer installed on the same circuit as the new End-User Equipment.

Implementation Requirements

1. The activity must be performed or supervised by a Licensed electrician.
2. When installing a LED Lamp only – 240V Self Ballasted Lamp the existing ELV halogen Control Gear must be removed and not used as part of the Lighting Upgrade.
3. When installing a LED Lamp only – ELV the new End-User Equipment must be compatible with the existing transformer.

Activity Energy Savings

Deemed Activity Electricity Savings = Electricity Savings Factor

Where:

- *Electricity Savings Factor*, in MWh, is the value from Table E1.1 or Table E1.2, corresponding to the existing Lamp or Luminaire where the Lamp Circuit Power of the replacement Lamp being installed (in Watts); and
- Lamp Circuit Power is the Lamp Circuit Power of the replacement Lamp being installed (in Watts) and is measured in accordance with Table A9.4 of Schedule A.

Table E1.1 Residential Building Electricity Savings Factor (MWh per Lamp replaced)

Existing Lamp and/or Luminaire	New Lamp and/or Luminaire	New Lamp Circuit Power (Watts)		
		≤5 W	≤10 W	≤15 W
Tungsten halogen Lamp (ELV) with Electronic Transformer or Infrared coated (IRC) halogen Lamp (ELV) with Electronic Transformer, with or without Luminaire.	LED Lamp only - ELV	0.49	0.41	0.32
	LED Lamp and Driver or LED Luminaire - recessed	0.49	0.42	0.34
	LED Lamp only – 240V Self Ballasted			
Tungsten halogen Lamp (ELV) with Magnetic Transformer or Infrared coated (IRC) halogen Lamp (ELV) with Magnetic Transformer, with or without Luminaire.	LED Lamp only - ELV	0.56	0.47	0.38

	LED Lamp and Driver or LED Luminaire - recessed	0.58	0.51	0.43
	LED Lamp only – 240V Self Ballasted			
Tungsten halogen Lamp (240V), with or without Luminaire.	LED Lamp only – 240V Self Ballasted	0.68	0.60	0.53
	LED Lamp and Driver or LED Luminaire - recessed			

Table E1.2 Small Business Building Electricity Savings Factor (MWh per Lamp replaced)

Existing Lamp and/or Luminaire	New Lamp and/or Luminaire	New Lamp Circuit Power (Watts)		
		≤5 W	≤10 W	≤15 W
Tungsten halogen Lamp (ELV) with Electronic Transformer or Infrared coated (IRC) halogen Lamp (ELV) with Electronic Transformer, with or without Luminaire.	LED Lamp only - ELV	0.97	0.81	0.65
	LED Lamp and Driver or LED Luminaire - recessed	1.38	1.17	0.96
	LED Lamp only – 240V Self Ballasted			
Tungsten halogen Lamp (ELV) with Magnetic Transformer or Infrared coated (IRC) halogen Lamp (ELV) with Magnetic Transformer, with or without Luminaire.	LED Lamp only - ELV	0.95	0.76	0.57
	LED Lamp and Driver or LED Luminaire - recessed	1.63	1.42	1.21
	LED Lamp only – 240V Self Ballasted			
Tungsten halogen Lamp (240V), with or without Luminaire.	LED Lamp only – 240V Self Ballasted	1.35	1.20	1.05
	LED Lamp and Driver or LED Luminaire – recessed	1.89	1.68	1.47

Lifetime (for information purposes only)

Residential Building Lifetime = 15 years.
Small Business Building Lifetime = 10 years.

Activity Definition E2**Name of Activity****REPLACE A LINEAR HALOGEN FLOODLIGHT WITH A HIGH EFFICIENCY LAMP****Eligibility Requirements**

1. The existing Lamp must be a linear halogen floodlight.
2. The existing Lamp must be rated at more than 100W.
3. Existing equipment must be in working order at time of replacement.

Equipment Requirements

1. The new End-User Equipment must be a CFLi or an LED Luminaire – Floodlight, as defined in Table A9.1 or Table A9.3 of Schedule A.
2. Any End-User Equipment classified under Table A9.3 must be accepted by the Scheme Administrator as meeting the requirements of Table A9.4 of Schedule A.
3. CFLs must have a Lamp Life of at least 10,000 hours when measured in accordance with Table A9.6 of Schedule A.
4. The new End-User Equipment must have a beam angle consistent with that of the original Lamp being replaced.

Implementation Requirements

1. The activity must be performed or supervised by a Licensed electrician.

Activity Energy Savings

Deemed Activity Electricity Savings = Electricity Savings Factor

Where:

- *Electricity Savings Factor*, in MWh, is the value from Table E2.1 or Table E2.2 corresponding to the Lamp Circuit Power of the existing Lamp and the replacement Lamp being installed (in Watts); and
- *Lamp Circuit Power* is measured in Accordance with Table A9.2 of Schedule A.

Table E2.1 – Residential Building Electricity Savings Factor (MWh per linear halogen floodlight replaced)

Lamp Circuit Power of existing Lamp	New End-User Equipment	Initial Light Output of new End-User Equipment (lm)	Lamp Circuit Power of replacement Lamp (W)				
			≤30W	≤45W	≤60W	≤90W	≤150W
100W ≤ LCP < 150W	LED Luminaire – Floodlight or CFLi	≥1,500	0.27				
150W ≤ LCP < 200W	LED Luminaire – Floodlight or CFLi	≥2,500	0.46	0.38			
200W ≤ LCP < 300W	LED Luminaire – Floodlight or CFLi	≥3,500		0.57	0.51		
300W ≤ LCP < 500W	LED Luminaire – Floodlight or CFLi	≥5,700			0.88	0.73	
500W ≤ LCP	LED Luminaire – Floodlight or CFLi	≥10,000				1.46	1.17

Table E2.2 – Small Business Building Electricity Savings Factor (MWh per linear halogen floodlight replaced)

Lamp Circuit Power of existing Lamp	New End-User Equipment	Initial Light Output of new End-User Equipment (lm)	Lamp Circuit Power of replacement Lamp (W)				
			≤30W	≤45W	≤60W	≤90W	≤150W
100W ≤ LCP < 150W	LED Luminaire – Floodlight or CFLi	≥1,500	0.75				
150W ≤ LCP < 200W	LED Luminaire – Floodlight or CFLi	≥2,500	1.25	1.05			
200W ≤ LCP < 300W	LED Luminaire – Floodlight or CFLi	≥3,500		1.55	1.40		

300W ≤ LCP < 500W	LED Luminaire – Floodlight or CFLi	≥5,700			2.40	2.00	
500W ≤ LCP	LED Luminaire – Floodlight or CFLi	≥10,000				4.00	3.20

Lifetime (for information purposes only)
 Residential Building Lifetime = 10 years.
 Small Business Building Lifetime = 10 years.

Activity Definition E3**Name of Activity****REPLACE PARABOLIC ALUMINISED REFLECTOR (PAR) LAMP WITH EFFICIENT LUMINAIRE AND/OR LAMP****Eligibility Requirements**

1. The existing Lamp must be a 240V parabolic aluminised reflector (PAR) Lamp.
2. The existing Lamp must be rated at between 80W and 160W.
3. Existing lighting equipment must be in working order at time of replacement.

Equipment Requirements

1. The new End-User Equipment must be a LED Lamp Only – 240V Self Ballasted, CFLi or LED Luminaire – Floodlight as defined in Table A.9.1 or Table A9.3 of Schedule A.
2. Any End-User Equipment classified under Table A9.3 must be accepted by the Scheme Administrator as meeting the requirements of Table A9.4 of Schedule A.
3. CFL Lamps must have a Lamp Life of at least 10,000 hours when measured in accordance with Table A9.6 of Schedule A.
4. The new End-User Equipment must have a beam angle consistent with that of the original Lamp being replaced.

Implementation Requirements

1. The activity must be performed or supervised by a Licensed electrician.

Activity Energy Savings

Deemed Activity Electricity Savings = Electricity Savings Factor

Where:

- *Electricity Savings Factor*, in MWh, is the value from Table E3.1 or Table E3.2 corresponding to the lighting retrofit activity and the Lamp Circuit Power of the replacement lamp being installed (in Watts); and
- Lamp Circuit Power is measured in accordance with Table A9.2 of Schedule A.

Table E3.1 Residential Building Electricity Savings Factor (MWh per PAR lamp replaced)

LCP of Existing Lamp	Initial Light output of new End-User Equipment	Lamp Circuit Power of the replacement lamp (Watts)			
		≤15 W	≤25 W	≤30 W	≤40 W
80W ≤ LCP < 100W	≥ 1200 lm	0.60	-	-	-
100W ≤ LCP < 120W	≥ 1500 lm	0.80	0.75	-	-
120W ≤ LCP < 140W	≥ 1900 lm	1.00	0.95	0.90	-
140W ≤ LCP < 160W	≥ 2300 lm	1.20	1.15	1.10	1.00

Table E3.2 Small Business Building Electricity Savings Factor (MWh per PAR lamp replaced)

LCP of Existing Lamp	Initial Light output of new End-User Equipment	Lamp Circuit Power of the replacement lamp (Watts)			
		≤15 W	≤25 W	≤30 W	≤40 W
80W ≤ LCP < 100W	≥ 1200 lm	1.80	-	-	-
100W ≤ LCP < 120W	≥ 1500 lm	2.40	2.25	-	-
120W ≤ LCP < 140W	≥ 1900 lm	3.00	2.85	2.70	-
140W ≤ LCP < 160W	≥ 2300 lm	3.60	3.45	3.30	3.00

Lifetime (for information purposes only)

Residential Building Lifetime = 10 years.
Small Business Building Lifetime = 10 years.

Activity Definition E4**Name of Activity****REPLACE A T8 OR T12 LUMINAIRE WITH A T5 LUMINAIRE****Eligibility Requirements**

1. Must be an existing 2 foot, 3 foot, 4 foot, or 5 foot T8 or T12 Luminaire.
2. Existing lighting equipment must be in working order at time of replacement.

Equipment Requirements

1. The new End-User equipment must be a T5 linear fluorescent Luminaire.
2. The new End-User Equipment must not be a T5 Adaptor kit.
3. The new Luminaire must have a length consistent with the existing Luminaire.
4. Lamp Life must be at least 20,000 hours when measured in accordance with Table A9.6 of Schedule A.

Implementation Requirements

1. The activity must be performed or supervised by a Licensed electrician.

Activity Energy Savings

Deemed Activity Electricity Savings = Electricity Savings Factor

Where:

- *Electricity Savings Factor*, in MWh, is the value from Table E4.1 or Table E4.2 corresponding to the Lamp size.

Table E4.1 – Residential Building Electricity Savings Factor (MWh per T8 or T12 Luminaire replaced)

Luminaire and Lamp size	Electricity Savings Factor (MWh)
2 foot (600mm)	0.10
3 foot (900mm)	0.12
4-foot (1200mm)	0.14
5-foot (1500mm)	0.16

Table E4.2 – Small Business Building Electricity Savings Factor (MWh per T8 or T12 Luminaire replaced)

Luminaire and Lamp size	Electricity Savings Factor (MWh)
2 foot (600mm)	0.42
3 foot (900mm)	0.50
4-foot (1200mm)	0.59
5-foot (1500mm)	0.67

Lifetime (for information purposes only)

Residential Building Lifetime = 10 years.

Small Business Building Lifetime = 10 years.

Activity Definition E5**Name of Activity****REPLACE A T8 OR T12 LUMINAIRE WITH A LED LUMINAIRE****Eligibility Requirements**

1. Must be an existing 2 foot, 3 foot, 4 foot or 5 foot T8 or T12 Luminaire.
2. Existing lighting equipment must be in working order at time of replacement.

Equipment Requirements

1. The new End-User Equipment must be a LED Luminaire – Linear Lamp as defined in Table A9.3 of Schedule A.
2. The new End-User Equipment must not be a Retrofit Luminaire – LED Linear Lamp or Modified Luminaire – LED Linear Lamp as defined in Table A9.3 of Schedule A.
3. Any End-User Equipment classified under Table A9.3 must be accepted by the Scheme Administrator as meeting the requirements of Table A9.4 of Schedule A.
4. Lamp Life must be at least 20,000 hours when measured in accordance with Table A9.6.
5. The new End-User Equipment must be compatible with any dimmer installed on the same circuit as the new End-User Equipment.

Implementation Requirements

1. The activity must be performed or supervised by a Licensed electrician.

Activity Energy Savings

Deemed Activity Electricity Savings = Electricity Savings Factor

Where:

- *Electricity Savings Factor*, in MWh, is the value from Table E5.1 or Table E5.2 corresponding to the Lamp Circuit Power (LCP) specified in Table A9.2 of Schedule A.

Table E5.1 – Residential Building Electricity Savings Factor (MWh per T8 or T12 Luminaire replaced)

Lamp type	Initial Light Output of new End-User Equipment (lm)	Lamp Circuit Power of the replacement lamp (Watts)								
		≤10W	≤15W	≤20W	≤25W	≤30W	≤35W	≤40W	≤45W	≤50W
2 foot (600mm)	≥ 1000	0.24	0.17	-	-	-	-	-	-	-
3 foot (900mm)	≥ 1600	-	0.35	0.27	0.20	0.12	-	-	-	-
4 foot (1200mm)	≥ 2500	-	-	0.36	0.29	0.21	0.14	0.06	-	-
5 foot (1500mm)	≥ 3200	-	-	-	-	0.54	0.47	0.39	0.32	0.24

Table E5.2 – Small Business Building Electricity Savings Factor (MWh per T8 or T12 Luminaire replaced)

Lamp type	Initial Light Output of new End-User Equipment (lm)	Lamp Circuit Power of the replacement lamp (Watts)								
		≤10W	≤15W	≤20W	≤25W	≤30W	≤35W	≤40W	≤45W	≤50W
2 foot (600mm)	≥ 1000	0.67	0.46	-	-	-	-	-	-	-
3 foot (900mm)	≥ 1600	-	0.97	0.76	0.55	0.34	-	-	-	-
4 foot (1200mm)	≥ 2500	-	-	1.01	0.80	0.59	0.38	0.17	-	-
5 foot (1500mm)	≥ 3200	-	-	-	-	1.51	1.30	1.09	0.88	0.67

Lifetime (for information purposes only)

Residential Building Lifetime = 15 years.

Small Business Building Lifetime = 10 years.

Activity Definition E6**Name of Activity****REPLACE AN EXISTING SHOWERHEAD WITH AN ULTRA LOW FLOW SHOWERHEAD****Eligibility Requirements**

1. The hot water service supplying the shower must be provided by an electric resistance water heater, an electrically boosted solar water heater or an electric heat pump water heater (for electricity savings); or by a Gas fired storage water heater, Gas fired instantaneous water heater or a Gas boosted solar water heater (for Gas savings).
2. There must be an existing showerhead on each shower.

Equipment Requirements

1. The End-User Equipment must be a showerhead as defined in *AS/NZS 3662– Performance of showers for bathing*.
2. The showerhead must be assigned a minimum 3 Star WELS Rating with a nominal flow rate of ≤ 6 litres/minute when tested according to *AS/NZS 6400 – Water efficient products*.
3. The showerhead must have a warranty of at least 2 years.

Implementation Requirements

1. The replacement of the showerhead must be performed or supervised by a Licensed plumber in accordance with the Plumbing Code of Australia.
2. A maximum of one showerhead per shower can be replaced.
3. The showerhead must be compatible with the installed water heating system.

Activity Energy Savings

Deemed Activity Electricity Savings = Electricity Savings Factor

Deemed Activity Gas Savings = Gas Savings Factor

Where:

- *Electricity Savings Factor* and *Gas Savings Factor*, in MWh per showerhead, are the values from Tables E6.1 and E6.2 corresponding to the type of water heating system servicing the shower.
- The Electricity Savings Factor and Gas Savings Factor that are applied must match the type of water heating system.
- In the case where showerhead replacement occurs in conjunction with a water heating system replacement, the Electricity Savings Factor and Gas Savings Factor that are applied must match the new installed water heating system.

Table E6.1 – Electricity Savings Factor (MWh per showerhead replaced)

Electric water heating system	Electricity Savings Factor (MWh)
Electric resistance water heater	1.9
Electrically boosted solar water heater	1.1
Electric heat pump water heater	1.1

Table E6.2 – Gas Savings Factor (MWh per showerhead replaced)

Gas fired water heating system	Gas Savings Factor (MWh)
Gas fired storage water heater	3.4
Gas fired instantaneous water heater	3.1
Gas boosted solar water heater	1.2

Lifetime (for information purposes only)

Lifetime = 7 years.

Activity Definition E7**Name of Activity****MODIFY AN EXTERNAL DOOR WITH DRAUGHT-PROOFING****Eligibility Requirements**

1. Doors to be draught-proofed must have gaps between the door and frame and/or threshold that permit the infiltration of air into or out of the Site.
2. Only external doors may be draught-proofed.

Equipment Requirements

1. The equipment to be applied must be a retail door bottom sealing product or door perimeter weather-stripping product or a combination of the two.
2. The product must be fit for purpose.
3. The product's sealing surface must be made of a durable compressible material such as foam, polypropylene pile, flexible plastic, rubber compressible strip, fibrous seal or similar.
4. The product must not impair the proper operation of the door.
5. The product must have a warranty of at least 2 years.

Implementation Requirements

1. The product must be applied to a door bottom seal or a set of door jamb and head seals or a combination of both.
2. The product, once applied, must effectively restrict the airflow into or out of the Site around the perimeter of the door.
3. The product must be installed in strict accordance with the manufacturer's instructions.
4. All external doors (excluding sliding doors) at the Site that meet the Eligibility Requirements must be draught-proofed.
5. The product must be installed in accordance with the National Construction Code BCA Section J3 and any relevant AS/NZS as required by the Scheme Administrator.

Activity Energy Savings

Deemed Activity Electricity Savings = Electricity Savings Factor

Deemed Activity Gas Savings = Gas Savings Factor

Where:

- *Electricity Savings Factor* and *Gas Savings Factor*, in MWh per door, are the values from Tables E7.1 and E7.2 corresponding to the type of building construction and the BCA Climate Zone of the Site.
- Implementation of the Activity allows both Electricity and Gas Savings Factors to be applied, regardless of fuel used for heating or cooling at the premises.

Table E7.1 – Electricity Savings Factor (MWh per door modified)

Climate zone	BCA Climate Zones 2 and 3	BCA Climate Zones 4	BCA Climate Zones 5 and 6	BCA Climate Zones 7 and 8
MWh per door	0.14	0.12	0.09	0.22

Table E7.2 – Gas Savings Factor (MWh per door modified)

Climate zone	BCA Climate Zones 2 and 3	BCA Climate Zones 4	BCA Climate Zones 5 and 6	BCA Climate Zones 7 and 8
MWh per door	0.04	0.11	0.06	0.16

Lifetime (for information purposes only)

Lifetime = 5 years.

Activity Definition E8**Name of Activity****MODIFY AN EXTERNAL WINDOW WITH DRAUGHT-PROOFING****Eligibility Requirements**

1. Windows to be draught-proofed must present with gaps between the sash and frame that permit the infiltration of air into or out of the Site.
2. Only external windows may be draught-proofed.

Equipment Requirements

1. The equipment to be applied must be a retail window sealing or weather stripping product or a combination of the two.
2. The product must be fit for purpose.
3. The product's sealing surface must be made of a durable compressible material such as foam, polypropylene pile, flexible plastic, rubber compressible strip, fibrous seal or similar.
4. The product must not impair the proper operation of the window.
5. The product must have a warranty of at least 2 years.

Implementation Requirements

1. The product must be applied to the perimeter of the window sash.
2. The product, once applied, must effectively restrict the airflow into or out of the Site around the perimeter of the window.
3. The product must be installed in strict accordance with the manufacturer's instructions.
4. All external windows at the Site that meet the Eligibility Requirements must be draught-proofed.
5. The draught-proofing product (or products) must be installed in accordance with the National Construction Code BCA Section J3 and any relevant AS/NZS as required by the Scheme Administrator.

Activity Energy Savings

$$\text{Deemed Activity Electricity Savings} = \text{Electricity Savings Factor} \times \text{Length}$$

$$\text{Deemed Activity Gas Savings} = \text{Gas Savings Factor} \times \text{Length}$$

Where:

- *Electricity Savings Factor* and *Gas Savings Factor*, in MWh per metre, are the values from Tables E8.1 and E8.2 corresponding to the type of building construction and the BCA Climate Zone of the Site.
- *Length*, in metres, is the length of window perimeter to which the product has been applied.
- Implementation of the Activity allows both Electricity and Gas Savings Factors to be applied, regardless of fuel used for heating or cooling at the premises.

Table E8.1 – Electricity Savings Factor (MWh per metre of window perimeter modified)

Climate zone	BCA Climate Zones 2 and 3	BCA Climate Zones 4	BCA Climate Zones 5 and 6	BCA Climate Zones 7 and 8
MWh per metre of window perimeter	0.02	0.03	0.02	0.05

Table E8.2 – Gas Savings Factor (MWh per metre of window perimeter modified)

Climate zone	BCA Climate Zones 2 and 3	BCA Climate Zones 4	BCA Climate Zones 5 and 6	BCA Climate Zones 7 and 8
MWh per metre of window perimeter	0.01	0.02	0.01	0.03

Lifetime (for information purposes only)

Lifetime = 5 years.

Activity Definition E9**Name of Activity****MODIFY A FIREPLACE CHIMNEY BY SEALING WITH A DAMPER****Eligibility Requirements**

1. The fireplace that the damper is to be installed in must be within a Residential Building or Small Business Building.
2. The fireplace must be an open fireplace; and not have an existing damper.

Equipment Requirements

1. The damper must be fit for purpose and capable of effectively sealing the flue or chimney of an open fireplace.
2. If the damper is designed to be used in an operable fireplace then it must be of a durable construction such that its operation is not adversely affected by the heat of a fire and when open it must not adversely affect the operation of the fireplace, in particular the chimney/flue's capacity to "draw" smoke out of the firebox.
3. The chimney damper must, to the satisfaction of the Scheme Administrator, be a durable product that will deliver long-lasting energy savings.
4. The damper installed must have a warranty of at least 5 years

Implementation Requirements

1. The damper must be installed in accordance with the manufacturer's instructions.
2. If the damper is not designed to be used in an operable fireplace (i.e. permanent sealing) the fireplace must be sealed such that access to the combustion chamber is also permanently sealed or if the firebox is not to be sealed then the fuel burning device must be clearly tagged as having been sealed.
3. If the damper is designed to be used in an operable fireplace it must be installed in a manner that ensures that the safe operation of the fireplace is not compromised.
4. Works must be carried out in accordance with the National Construction Code BCA Section J3 and any relevant AS/NZS as required by the Scheme Administrator.
5. All fireplaces at the Site that meet the Eligibility Requirements must be sealed.

Activity Energy Savings

$$\text{Deemed Activity Electricity Savings} = \text{Electricity Savings Factor}$$

$$\text{Deemed Activity Gas Savings} = \text{Gas Savings Factor}$$

Where:

- *Electricity Savings Factor* and *Gas Savings Factor*, in MWh per fireplace, are the values from Tables E9.1 and E9.2 corresponding to the type of building construction and the BCA Climate Zone of the Site.
- Implementation of the Activity allows both Electricity and Gas Savings Factors to be applied, regardless of fuel used for heating or cooling at the premises.

Table E9.1 – Electricity Savings Factor (MWh per fireplace modified)

Climate zone	BCA Climate Zones 2 and 3	BCA Climate Zones 4	BCA Climate Zones 5 and 6	BCA Climate Zones 7 and 8
MWh per fireplace	1.4	2.4	1.3	2.5

Table E9.2 – Gas Savings Factor (MWh per fireplace modified)

Climate zone	BCA Climate Zones 2 and 3	BCA Climate Zones 4	BCA Climate Zones 5 and 6	BCA Climate Zones 7 and 8
MWh per fireplace	0.7	1.7	0.9	1.7

Lifetime (for information purposes only)

Lifetime = 5 years.

Activity Definition E10**Name of Activity****MODIFY A SINGLE GLAZED WINDOW OR DOOR BY APPLYING A FILM****Eligibility Requirements**

1. The Site must be a Residential Building or Small Business Building.
2. The window must be an external window.
3. The existing door must be external and a fully single glazed framed unit.
4. The window or door must not face south (between 135° and 225° of true north).
5. The window or door must not be shaded by any existing external shading device (including, but not limited to, window or door film, roller blinds, awnings or louvres, but excluding roof eaves).

Equipment Requirements

1. The End-User Equipment to be applied to the window or door must be a film product certified under WERS for Film.
2. The film product must, as registered with WERS, when applied to a single clear glazed window or door that is set within a standard aluminium frame deliver a thermal efficiency equivalent to a minimum 3 star WERS rating in cooling mode.
3. The product must have a warranty of at least 10 years.

Implementation Requirements

1. The window or door insulating film must be applied according to the manufacturer's instructions.
2. The window or door film must be applied by a person holding a WERS for Film Licence or equivalent accreditation as accepted by the Scheme Administrator.

Activity Energy Savings

Deemed Activity Electricity Savings = Electricity Savings Factor × Area

Deemed Activity Gas Savings = Gas Savings Factor × Area

Where:

- *Electricity Savings Factor* and *Gas Savings Factor*, in MWh per m², are the values from Tables E10.1 and E10.2 corresponding to the BCA Climate Zone of the Site.
- *Area*, in m², is the area of window or door glazing to which insulating film is applied.
- Implementation of the Activity allows both Electricity and Gas Savings Factors to be applied, regardless of fuel used for heating or cooling at the premises. However, Gas Savings Factors equal zero (0.00).

Table E10.1 – Electricity Savings Factor (MWh per m² of window or door film applied)

Climate zone	BCA Climate Zones 2 and 3	BCA Climate Zones 4	BCA Climate Zones 5 and 6	BCA Climate Zones 7 and 8
MWh per m ²	0.10	0.10	0.06	0.04

Table E10.2 – Gas Savings Factor (MWh per m² of window or door film applied). Note: Figures are all zero (0.00).

Climate zone	BCA Climate Zones 2 and 3	BCA Climate Zones 4	BCA Climate Zones 5 and 6	BCA Climate Zones 7 and 8
MWh per m ²	0.00	0.00	0.00	0.00

Lifetime (for information purposes only)

Lifetime = 10 years.

Activity Definition E11**Name of Activity****REPLACE AN EDISON SCREW OR BAYONET LAMP WITH AN LED LAMP FOR GENERAL LIGHTING PURPOSES****Eligibility Requirements**

1. The existing Lamp must be a 240V fixed ceiling or wall mounted luminaire fixture.
2. The existing Lamp must be an Edison screw or Bayonet Lamp.
3. The existing Lamp must be an Incandescent, halogen or CFL Lamp.
4. The existing Lamp and Luminaire must be in working order.
5. Must be a Lamp only replacement.

Equipment Requirements

1. The new End-User Equipment must be a 240V Edison screw or Bayonet self-ballasted LED Lamp.
2. Any End-User Equipment classified under Table A9.3 of Schedule A must be accepted by the Scheme Administrator as meeting the requirements of Table A9.4 of Schedule A.
3. The new End-User Equipment must be compatible with any dimmer installed on the same circuit as the new End-User Equipment.
4. The new End-User Equipment must have a lumen output the same or higher than the replaced Lamp.

Implementation Requirements

1. The activity must be performed or supervised by a Licensed electrician

Residential Building Activity Energy Savings

$$\text{Deemed Activity Electricity Savings} = \text{LCP of new Lamp} \times (\text{lumen efficacy of new Lamp} / 33.9 - 1) \times 840 \times 10 / 10^6$$

Where:

- *Lamp Circuit Power*, is the wattage of the replacement Lamp being installed and is measured in accordance with Table A9.4 of Schedule A.
- *Lumen efficacy of the new Lamp*, is the rated lumens divided by the Lamp Circuit Power of the new Lamp being installed.

Small Business Building Activity Energy Savings

$$\text{Deemed Activity Electricity Savings} = \text{LCP of new Lamp} \times (\text{lumen efficacy of new Lamp} / 33.9 - 1) \times 3000 \times 10 / 10^6$$

Where:

- *Lamp Circuit Power*, is the wattage of the replacement Lamp being installed and is measured in accordance with Table A9.4 of Schedule A.
- *Lumen efficacy of the new Lamp*, is the rated lumens divided by the Lamp Circuit Power of the new Lamp being installed.

Lifetime (for information purposes only)

Residential Building Lifetime = 10 years.

Small Business Building Lifetime = 10 years.

Schedule F – Activity Definitions for Installation of High Efficiency Appliances for Businesses (clause 9.9)**Activity Definition F1****Name of Activity****INSTALL A NEW HIGH EFFICIENCY REFRIGERATED DISPLAY CABINET****Equipment Requirements**

1. The End-User Equipment must be a Refrigerated Display Cabinet (RDC) rated 'high efficiency' within the meaning of AS1731.14 when tested in accordance with AS 1731.9-2003 and AS 1731.12.
2. The RDC must be a registered product under GEMS and comply with the Greenhouse and Energy Minimum Standards (Refrigerated Display Cabinets) Determination 2012.

Installation Requirements

1. The RDC must be installed.

Equipment Energy Savings

Deemed Equipment Electricity Savings = (Baseline Efficiency × TDA – TEC) × 365.24 × Lifetime / 1000

Where:

- TEC, in kWh/day, is the daily Total Energy Consumption of the new RDC model as determined using AS1731.9 and AS1731.12 (as applicable) and recorded in the GEMS Registry;
- Baseline Efficiency, in kWh/day/m², is the corresponding figure for the type and temperature class of the new RDC model as determined by AS1731.14 in Table F1.1.
- TDA, in m², is the Total Display Area of the new RDC model as determined using AS1731.14 and recorded in the GEMS Registry;
- Lifetime, in years, is the expected lifetime of the new RDC model, and is the corresponding figure for the type and temperature class of the new RDC model in Table F1.2.

Table F1.1

Refrigerated Display Cabinet Type	Temperature class	Baseline efficiency (kWh/day/m ²)
RS1 - Unlit shelves	all	8.37
RS1 - Lit shelves	all	10.66
RS2 - Unlit shelves	all	8.49
RS2 - Lit shelves	all	11.32
RS3 - Unlit shelves	all	10.32
RS3 - Lit shelves	all	12.26
RS4 - Glass door	all	6.48
RS6 - Gravity coil	all	7.62
RS6 - Fan coil	all	6.19
RS7 - Fan coil	all	6.68
RS8 - Gravity coil	all	8.52
RS8 - Fan coil	all	6.26
RS9 - Fan coil	all	6.03
RS10 - Low	all	10.80
RS11	all	26.52
RS12	all	46.14
RS13 - Solid sided	all	12.99
RS13 - Glass sided	all	12.47
RS14 - Solid sided	all	11.45
RS14 - Glass sided	all	12.59
RS15 - Glass door	all	20.22

RS16 - Glass door	all	20.12
RS18	all	29.92
RS19	all	29.57
HC1	M1	7.86
HC1	M2	8.50
HC4	M1	10.47
HC4	M2	11.40
HF4	L1	19.50
HF4	L2	19.50
HF6	L1	5.90
HF6	L2	5.46
VC1	M1	24.24
VC1	M2	14.22
VC2	M1	15.97
VC2	M2	14.72
VC4 (a) - Solid Door	M1	5.37
VC4 (a) - Solid Door	M2	7.30
VC4 (b) - Glass Door	M1	8.37
VC4 (b) - Glass Door	M2	9.70
VF4 (b) - Solid Door	L1	32.40
VF4 (b) - Solid Door	L2	28.70
VF4 (b) - Glass Door	L1	23.94
VF4 (b) - Glass Door	L2	28.70

Lifetime

The Energy Savings from the installation of a new Refrigerated Display Cabinet are assumed to persist at a constant level for the expected lifetime of the RDC. The Lifetime, in years, is the figure corresponding to the display type and temperature class in Table F1.2.

Table F1.2

Refrigerated Display Cabinet Type	Temperature class	Lifetime (years)
all	all	8

Activity Definition F2

Name of Activity

INSTALL A NEW HIGH EFFICIENCY LIQUID CHILLING PACKAGE

Equipment Requirements

1. The End User Equipment must be a Liquid Chilling Package (LCP) registered under GEMS and comply with the Greenhouse and Energy Minimum Standards (Liquid-chilling Packages Using the Vapour Compression Cycle) Determination 2012.
2. The LCP must have an IPLV at least 10% greater than the *Baseline* for the corresponding figure for the type and cooling capacity in Table F2.1.

Installation Requirements

1. The LCP must be installed.

Equipment Energy savings

$$\text{Deemed Equipment Electricity Savings} = (\text{Capacity} \div \text{Baseline} - \text{Capacity} \div \text{IPLV}) \times \text{EFLH} \times \text{Lifetime} / 1000$$

Where:

- *Capacity*, in kWR, is the total rated cooling capacity of the new Liquid Chilling Package as determined using AS/NZS 4776 Series of Standards and recorded in the GEMS Registry.
- *Baseline* is the corresponding figure for the cooling capacity class and type of the new Liquid Chilling Package as determined by AS/NZS 4776 Series of Standards in Table F2.1. The *Baseline* has been determined using the lower value of either the minimum standard using AS/NZS 4776 or the average efficiency of registered products on the GEMS Registry.
- IPLV is the Integrated Part Load Value of the new Liquid Chilling Package as determined using AS/NZS 4776 and recorded in the GEMS Registry.
- *EFLH* is the Equivalent Full Load Hours and is the corresponding figure for the cooling capacity class and type of the new Liquid Chilling Package in Table F2.1. The EFLH has been estimated using the low estimate of operating hours in the *Decision Regulation Impact Statement: Minimum Energy Performance Standards and Alternative Strategies for Chillers, July 2008*.
- *Lifetime*, in years, is the corresponding figure for the cooling capacity class and type of the new Liquid Chilling Package as determined by AS/NZS 4776 in Table F2.2.

Table F2.1

LCP type	Cooling capacity	Baseline (IPLV)	EFLH (hours)
Air cooled	350 to 499 kWR	4.6	2323
Air cooled	500 to 699 kWR	4.7	2323
Air cooled	700 to 999 kWR	4.7	2323
Air cooled	1000 to 1499 kWR	4.5	2323
Air cooled	Greater than 1500 kWR	4.1	2323
Water cooled	350 to 499 kWR	9.0	2323
Water cooled	500 to 699 kWR	8.6	2323
Water cooled	700 to 999 kWR	9.7	2323
Water cooled	1000 to 1499 kWR	9.0	2323
Water cooled	Greater than 1500 kWR	9.9	2323

Lifetime

The Energy Savings from the installation of a new Liquid Chilling Package are assumed to persist at a constant level for the expected lifetime of the LCP. The Lifetime, in years, is the figure corresponding to the type and capacity class in Table F2.2.

Table F2.2

LCP Type	Capacity class	Lifetime (years)
all	all	10

Activity Definition F3

Name of Activity

INSTALL A NEW HIGH EFFICIENCY CLOSE CONTROL AIR CONDITIONER

Equipment Requirements

1. The End User Equipment must be a Close Control Air Conditioner (CCAC) registered under GEMS and comply with the Greenhouse and Energy Minimum Standards (Close Control Air Conditioner) Determination 2012.
2. The CCAC must have an EER at least 20% greater than the *Baseline* for the corresponding figure for the type and cooling capacity in Table F3.1.

Installation Requirements

1. The CCAC must be installed.

Equipment Energy savings

$$\text{Deemed Equipment Electricity Savings} = (\text{Capacity} \div \text{Baseline} - \text{Capacity} \div \text{EER}) \times \text{Hours} \times \text{Lifetime} / 1000$$

Where:

- *Capacity*, in kW, is the total cooling capacity of the new CCAC as determined using AS/NZS 4965.1 and recorded in the GEMS Registry.
- *Baseline* is the corresponding figure for the cooling capacity class of the new CCAC as determined by AS/NZS 4965.1 in Table F3.1. The *Baseline* has been determined using the lower value of either the minimum standard using AS/NZS 4965.2 or the average efficiency of registered products on the GEMS registered products for sale in Australia.
- *EER* is the Energy Efficiency Ratio as determined using AS/NZS 4965.1 and recorded in the GEMS Registry.
- *Hours* is the annual operating hours and is the corresponding figure for the cooling capacity class of the new CCAC. The *Hours* has been estimated using the estimate of operating hours in the *Decision Regulation Impact Statement: Minimum Energy Performance Standards and Alternative Strategies for Close Control Air Conditioners, December 2008*.
- *Lifetime*, in years, is the corresponding figure for the cooling capacity class of the new CCAC as determined by AS/NZS 4965.1 in Table F3.2.

Table F3.1

CCAC cooling capacity class	Baseline (EER)	Hours (hours p.a.)
Less than 19.05 kW	3.21	5694
19.05 to less than 39.5 kW	3.18	5694
39.5 to less than 70.0 kW	3.20	5694
Greater than or equal to 70.0 kW	3.18	5694

Lifetime

The Energy Savings from the installation of a new CCAC are assumed to persist at a constant level for the expected lifetime of the CCAC. The Lifetime, in years, is the figure corresponding to the type and capacity class in Table F3.2.

Table F3.2

CCAC capacity class	Capacity class	Lifetime (years)
all	all	10

Activity Definition F4**Name of Activity****INSTALL A NEW HIGH EFFICIENCY AIR CONDITIONER****Equipment Requirements**

1. The End User Equipment must be an Air to Air Heat Pump or Air Conditioner (AC) registered under GEMS and comply with the Greenhouse and Energy Minimum Standards (Air to Air Heat Pump or Air Conditioner) Determination 2012
2. The AC must have an AEER at least 20% greater than the *Baseline Cooling AEER* for the corresponding figure for the type and cooling capacity in Table F4.1.
3. If the AC has a Heating Capacity registered in the GEMS Registry, the AC must have an AEER at least 20% greater than the *Baseline Heating AEER* for the corresponding figure for the type and heating capacity in Table F4.2.
4. The AC must have a Cooling Capacity less than or equal to 65kW to be eligible to calculate Cooling Energy Savings
5. The AC must have a Heating Capacity less than or equal to 65kW to be eligible to calculate Heating Energy Savings

Installation Requirements

1. The AC must not be installed in a Residential Building.

Equipment Energy savings**Equation F4.1**

$$\text{Deemed Equipment Electricity Savings} = \text{Cooling Energy Savings} + \text{Heating Energy Savings}$$

Where:

- *Cooling Energy Savings Capacity*, in MWh, is the lifetime energy savings in cooling mode, as calculated in **Equation F4.2** below; and
- *Heating Energy Savings Capacity*, in MWh, is the lifetime energy savings in heating mode:
- as calculated in **Equation F4.3**; or
- is 0 MWh if the AC does not have a Heating Capacity registered in the GEMS Registry.

Equation F4.2

$$\text{Cooling Electricity Savings} = (\text{Cooling Capacity} \div \text{Baseline Cooling AEER} - \text{Cooling Capacity} \div \text{AEER}) \times \text{Cooling Hours} \times \text{Lifetime} / 1000$$

Where:

- *Cooling Capacity*, in kW, is the total cooling capacity of the new AC as determined using AS/NZS 3823.1.1, AS/NZS 3823.1.2, AS/NZS 3823.1.4, or as determined in accordance with AS/NZS 3823.2, and recorded in the GEMS Registry;
- *Baseline Cooling AEER* is Annual Energy Efficiency Ratio and is the corresponding figure for the cooling capacity of the new AC as determined by AS/NZS 3823.1.1, AS/NZS 3823.1.2, AS/NZS 3823.1.4, or as determined in accordance with AS/NZS 3823.2 in Table F4.1 or F4.2. The *Baseline Cooling AEER* has been determined using the lower value of either the minimum standard using AS/NZS 3823.2 or the average efficiency of GEMS registered products for sale in Australia.
- *AEER* is the Annual Energy Efficiency Ratio for cooling as determined using AS/NZS 3823.1.1, AS/NZS 3823.1.2, AS/NZS 3823.1.4, or as determined in accordance with AS/NZS 3823.2, and recorded in the GEMS Registry
- *Cooling Hours*, in hours per annum, is the annual operating hours and is the corresponding figure for the cooling capacity of the new AC. *Cooling Hours* has been estimated using the estimate of operating hours in the *Decision Regulation Impact Statement: Minimum Energy Performance Standards for Air Conditioners, December 2010*.
- *Lifetime*, in years, is the figure in Table F4.3.

Table F4.1

AC type	Cooling capacity (kW)	Baseline Cooling AEER	Cooling Hours (hours p.a.)
Non ducted unitary	Less than 10kW	3.2	628
Non ducted unitary	10kW to <19kW	3.1	628
Non ducted split systems	Less than 4kW	3.7	628
Non ducted split systems	4kW to <10kW	3.2	628
Non ducted split systems	10kW to <19kW	3.1	628
Ducted systems	Less than 10kW	3.1	628

Ducted systems,	10kW to <19kW	3.1	628
All configurations,	19kW to <39kW	3.1	628
All configurations	39kW to 65kW	3.0	628

Equation F4.3

$$\text{Heating Electricity Savings} = (\text{Heating Capacity} \div \text{Baseline Heating ACOP} - \text{Heating Capacity} \div \text{ACOP}) \times \text{Heating Hours} \times \text{Lifetime} / 1000$$

Where:

- *Heating Capacity*, in kW, is the total heating capacity of the new AC as determined using AS/NZS 3823.1.1, AS/NZS 3823.1.2, AS/NZS 3823.1.4, or as determined in accordance with AS/NZS 3823.2, and recorded in the GEMS Registry;
- *Baseline Heating ACOP* is Annual Coefficient of Performance and is the corresponding figure for the heating capacity of the new AC as determined by AS/NZS 3823.1.1, AS/NZS 3823.1.2, AS/NZS 3823.1.4, or as determined in accordance with AS/NZS 3823.2, in Table F4.1 or F4.2. The *Baseline Heating ACOP* has been determined using the lower value of either the minimum standard using AS/NZS 3823.2 or the average efficiency of GEMS registered products for sale in Australia.
- *ACOP* is the Annual Coefficient of Performance for heating as determined using AS/NZS 3823.1.1, AS/NZS 3823.1.2, AS/NZS 3823.1.4, or as determined in accordance with AS/NZS 3823.2, and recorded in the GEMS Registry
- *Heating Hours*, in hours per annum, is the annual operating hours and is the corresponding figure for the heating capacity of the new AC. *Heating Hours* has been estimated using the estimate of operating hours in the *Decision Regulation Impact Statement: Minimum Energy Performance Standards for Air Conditioners, December 2010*.
- *Lifetime*, in years, is the figure in Table F4.3.

Table F4.2

AC type	Heating Capacity (kW)	Baseline Heating ACOP	Heating Hours (hours p.a.)
Non ducted unitary	Less than 10kW	3.2	157
Non ducted unitary	10kW to <19kW	3.1	157
Non ducted split systems	Less than 4kW	3.7	157
Non ducted split systems	4kW to <10kW	3.2	157
Non ducted split systems	10kW to <19kW	3.1	157
Ducted systems	Less than 10kW	3.1	157
Ducted systems,	10kW to <19kW	3.1	157
All configurations,	19kW to <39kW	3.1	157
All configurations	39kW to 65kW	3.0	157

Lifetime

The Energy Savings from the installation of a new AC are assumed to persist at a constant level for the expected lifetime of the AC. The Lifetime, in years, is the figure corresponding to the phase and capacity class in Table F4.3.

Table F4.3

Phase	Cooling Capacity or Heating Capacity	Lifetime (years)
all	all	10

Activity Definition F5**Name of Activity****INSTALL AN ELECTRONICALLY COMMUTATED MOTOR TO POWER A FAN IN AN INSTALLED REFRIGERATED DISPLAY CABINET, FREEZER OR COOL ROOM****Equipment Requirements**

1. The End-User Equipment must be an electronically commutated (brushless DC) motor.
2. The nominal input power (W) of the End-User Equipment as declared by the manufacturer must be less than or equal to 500 W at full capacity with the impeller fitted.
3. The output power (W) or airflow volume (m³/hour) of the End-User Equipment as declared by the manufacturer must be equal to or greater than the existing refrigeration fan it replaces.
4. The End-User Equipment must meet any other requirements specified by the Scheme Administrator, including the suitability of the impeller for the motor.

Installation Requirements

1. The End-User Equipment must be installed into a refrigerated display cabinet or reach in freezer as defined by AS1731.1, or a cool room evaporator unit that is in use (i.e. not a new refrigeration system).
2. The End-User Equipment must replace an equivalent shaded pole motor or a permanent split capacitor motor as identified by the manufacturer of the End-User Equipment and accepted by the Scheme Administrator.
3. The installation must be according to manufacturer guidelines and any requirements specified by the Scheme Administrator.

Equipment Energy savings

$$\text{Deemed Equipment Electricity Savings} = (\text{Input Power} \times (a - \text{Average Power}) + b) \times (1 + (1 \div \text{COP})) \times \text{Hours} \times \text{Lifetime} / 10^6$$

Where:

- *Input Power*, in Watts, is the nominal input power of the new End User-Equipment at full throttle with the impeller fitted.
- *a* is the regression coefficient and *b* is the error in Regression Analysis between the nominal input power of a sample of fans powered by an electronically commutated motor and fans powered by a shaded pole motor or a permanent split capacitor motor and are the corresponding figures for the End-User Equipment nominal power consumption in Table F5.1.
- *Average Power* is the average input power of the new End-User Equipment over a year compared to its nominal input power and is the corresponding figure the End-User Equipment's control system in Table F5.2.
- *COP* is the co-efficient of performance of the refrigeration system and is the corresponding figure for the refrigeration system in Table F5.3.
- *Hours* is the number of hours the fan is active per year and is the corresponding figure for the refrigeration system in Table F5.3.
- *Lifetime*, in years, is the useful life of the End-User Equipment and is the corresponding figure for the refrigeration system in Table F5.4.

Table F5.1

End-User Equipment nominal input power	<i>a</i>	<i>b</i>
Less than or equal to 34 W	1.7692	19.385
Greater than 34W and less than or equal to 500 W	1.2698	6.453

Table F5.2

Control system	<i>Average Power</i>
No control system in place	1
Temperature or pressure dependent speed control	0.8
Timer speed control (with low speed setting at least 8 hours per day)	0.8

Table F5.3

Refrigerator system type	<i>COP</i>	<i>Hours</i>
Refrigerated display cabinet	2.8	8000
Reach in freezer	1.8	8000
Cool room	2.6	8000

Lifetime

The energy savings from the new End User Equipment are assumed to persist at a constant level for the expected lifetime of the equipment. The Lifetime, in years, is the corresponding figure for the refrigerator system type in Table F5.4.

Table F5.4

Refrigerator type	Years
Refrigerated display cabinet	4
Reach in freezer	4
Cool room	7

Activity Definition F6**Name of Activity****INSTALL AN ELECTRONICALLY COMMUTATED MOTOR TO POWER A VENTILATION FAN****Equipment Requirements**

1. The End-User Equipment must be an electronically commutated (brushless DC) motor.
2. The nominal input power (W) of the End-User Equipment as declared by the manufacturer must be less than or equal to 500 W at full capacity with the impeller fitted.
3. The output power (W) or airflow volume (m³/hour) of the End-User Equipment as declared by the manufacturer must be equal to or greater than the existing ventilation fan it replaces.
4. The End-User Equipment must meet any other requirements specified by the Scheme Administrator, including the suitability of the impeller for the motor.

Installation Requirements

1. The End-User Equipment must be part of a ducted fan or partition fan in an air-handling system, as defined in ISO 13349:2010.
2. The End-User Equipment must replace an equivalent shaded pole motor or a permanent split capacitor motor as identified by the manufacturer of the End-User Equipment.
3. The installation must be according to manufacturer guidelines and any requirements specified by the Scheme Administrator.

Equipment Energy savings

$$\text{Deemed Equipment Electricity Savings} = (\text{Input Power} \times (a - \text{Average Power}) + b) \times \text{Hours} \times \text{Lifetime} / 10^6$$

Where:

- *Input Power*, in Watts, is the nominal input power of the new End User-Equipment at full throttle with the impeller fitted.
- *a* is the regression coefficient and *b* is the error in regression analysis between the nominal input power of a sample of fans powered by an electronically commutated motor and fans powered by a shaded pole motor or a permanent split capacitor motor and are the corresponding figures for the End-User Equipment nominal power consumption in Table F6.1.
- *Average Power* is the average input power of the new End-User Equipment over a year compared to its nominal input power and is the corresponding figure the End-User Equipment's control system in Table F6.2.
- *Hours* is the number of hours the fan is active per year and is the corresponding figure in Table F6.3 for the BCA building classification and Business Classification of the entity utilising the End-Use Service.
- *Lifetime*, in years, is the useful life of the End-User Equipment and is the corresponding figure for the ventilation system in Table F6.4.

Table F6.1

End-User Equipment nominal input power	<i>a</i>	<i>b</i>
Less than or equal to 34 W	1.7692	19.385
Greater than 34W and less than or equal to 500 W	1.2698	6.453

Table F6.2

Control system	<i>Average Power</i>
No control system in place	1
Temperature or pressure dependent speed control	0.8
Timer speed control (with low speed setting at least 8 hours per day)	0.8

Table F6.3

Building classification	Business Classification	Annual operating hours
BCA Class 2 (multi-unit dwellings)	Services provided by the body corporate or building owner	6300
BCA Class 3 (hotels)	All	6300
BCA Class 5 (offices)	All	2800
BCA Class 6 (shops or shopping centres)	All	4000
BCA Class 6 (restaurants or cafes)	All	5200
BCA Class 7a (car parks)	All	6900

BCA Class 7b (warehouses)	ANZSIC Division A (Agriculture, Forestry and Fishing)	8760
BCA Class 7b (warehouses)	Other than ANZSIC Division A	5100
BCA Class 8 (factories)	ANZSIC Division A (Agriculture, Forestry and Fishing)	5100
BCA Class 8 (factories)	ANZSIC Division C (Manufacturing)	5100
BCA Class 8 (factories)	Other than ANZSIC Division A or ANZSIC Division C	2800
BCA Class 9a (clinics)	All	2800
BCA Class 9a (hospitals)	All	8760
BCA Class 9b (theatres)	All	5200
BCA Class 9b (schools)	All	2000
BCA Class 9c (aged care)	All	6300

Lifetime

The energy savings from the new End User Equipment are assumed to persist at a constant level for the expected lifetime of the equipment. The Lifetime, in years, is the corresponding figure for the fan type in Table F6.4.

Table F6.4

Fan type	Years
Ducted fan	7
Partition fan	7

Activity Definition F7**Name of Activity****INSTALL A NEW HIGH EFFICIENCY MOTOR****Equipment Requirements**

1. The End-User Equipment must be a 3 phase electric motor rated 'high efficiency' within the meaning of AS1359.5 when tested in accordance with AS 1359.102.1 and AS 1359.102.3.
2. The electric motor must be a registered product under GEMS and comply with the Greenhouse and Energy Minimum Standards (Three Phase Cage Induction Motors) Determination 2012.

Installation Requirements

1. The electric motor must be installed.
2. The electric motor must have a rated output from 0.73kW to <185kW.

Equipment Energy Savings

Deemed Equipment Electricity Savings = $P \times LUF \times ((New\ Efficiency - Baseline\ Efficiency) \div 100) \times Asset\ Life \times 8760 \div 1000$

Where:

- *P* is the rated output of the new electric motor as recorded in the GEMS Registry.
- *LUF* is the Default Load Utilisation Factors for the relevant High Efficiency Motor as set out in Table F7.1 (where the Business Classification and End-Use Service relevant to the Energy Savings are known), or otherwise Table F7.2
- *New Efficiency*, in %, is the Full Load Efficiency of the new electric motor as determined using AS1359.5 and recorded in the GEMS Registry.
- *Baseline Efficiency*, in %, is:
 - the Full Load Efficiency of the existing motor as determined using AS1359.5 and recorded in the GEMS Registry; or
 - the corresponding value for the number of poles and rated output of the new electric motor from Table F7.3, if the existing motor is not listed in the GEMS Registry or if the new electric motor is New End User Equipment. For intermediate values of rated output, the efficiency shall be determined by linear interpolation
- *Asset Life*, in years, of the High Efficiency Motor is set out in Table F7.4 for the corresponding rated output of the High Efficiency Motor.

Table F7.1 Default Load Utilisation Factor for High Efficiency Motors – Where Business Classification and End-Use Service are known

Load Utilisation Factor	Refrigeration and freezing	Water/liquid pumping	Air compression	Air handling, fans, ventilation	Process Drives	Milling, mixing, grinding	Material handling/ conveying
Division A Agriculture, Forestry and Fishing	0.14	0.32	0.27	0.28	0.32	0.2	0.2
Division B Mining	0.09	0.36	0.32	0.41	0.32	0.32	0.28
Division C Manufacturing	0.28	0.32	0.27	0.32	0.27	0.24	0.28
Division D Electricity, Gas, Water and Waste Services	0.11	0.32	0.24	0.28	0.28	0.12	0.17
Division E Construction	0.09	0.24	0.15	0.15	0.17	0.14	0.2
Division F Wholesale Trade	0.2	0.14	0.07	0.13	0.13	0.03	0.11
Division G Retail Trade	0.17	0.09	0.07	0.13	0.13	0.03	0.07
Division H Accommodation and Food Services	0.24	0.11	0.04	0.14	0.13	0.09	0.11
Division I Transport, Postal and Warehousing	0.17	0.11	0.08	0.13	0.17	0.03	0.16
Division J Information Media and Telecommunications	0.11	0.09	0.04	0.1	0.11	0.03	0.03
Division K Financial and Insurance Services	0.09	0.05	0.04	0.06	0.06	0.03	0.03
Division L Rental, Hiring and Real Estate Services	0.09	0.05	0.04	0.06	0.06	0.03	0.03
Division M Professional, Scientific and Technical Services	0.17	0.07	0.05	0.08	0.08	0.04	0.03
Division N Administrative and Support Services	0.11	0.05	0.04	0.06	0.04	0.03	0.03
Division O Public Administration and Safety	0.09	0.05	0.04	0.06	0.04	0.03	0.03
Division P Education and Training	0.11	0.05	0.04	0.06	0.04	0.03	0.03
Division Q Health Care and Social Assistance	0.11	0.08	0.11	0.06	0.06	0.03	0.03
Division R Arts and Recreation Services	0.09	0.05	0.04	0.06	0.04	0.03	0.03
Division S Other Services	0.07	0.05	0.04	0.06	0.04	0.03	0.03

Table F7.2 Default Load Utilisation Factor for High Efficiency Motors – Where Business Classification or End-Use Service are not known

Rated output (kW)	LUF
0.73 to < 2.6	0.09
2.6 to < 9.2	0.10
9.2 to < 41	0.11
41 to < 100	0.13
100 to < 185	0.15

Table F7.3

Rated Output (kW)	Baseline efficiency (%)			
	2 pole	4 pole	6 pole	8 pole
0.73	78.8	80.5	76.0	71.8
0.75	78.8	80.5	76.0	71.8
1.1	80.6	82.2	78.3	74.7
1.5	82.6	83.5	79.9	76.8
2.2	84.1	84.9	81.9	79.4
3	85.3	86.0	83.5	81.3
4	86.3	87.0	84.7	82.8
5.5	87.2	87.9	86.1	84.5
7.5	88.3	88.9	87.3	86.0
11	89.5	89.9	88.7	87.7
15	90.3	90.8	89.6	88.9
18.5	90.8	91.2	90.3	89.7
22	91.2	91.6	90.8	90.2
30	92.0	92.3	91.6	91.2
37	92.5	92.8	92.2	91.8
45	92.9	93.1	92.7	92.4
55	93.2	93.5	93.1	92.9
75	93.9	94.0	93.7	93.7
90	94.2	94.4	94.2	94.1
110	94.5	94.7	94.5	94.5
132	94.8	94.9	94.8	94.8
150	95.0	95.2	95.1	95.2
>150 < 185	95.0	95.2	95.1	95.2

Table F7.4 Asset Life for High Efficiency Motors (t)

Rated output (kW) of High Efficiency Motor	t (Asset life (years))
0.73 to < 2.6	12
2.6 to < 9.2	15
9.2 to < 41	20
41 to < 100	22
100 to < 185	25

Activity Definition F8

Name of Activity
REPLACE EXISTING GAS FIRED STEAM BOILER WITH HIGH EFFICIENCY GAS FIRED STEAM BOILER

- Eligibility Requirements**
1. The existing End-User Equipment must be a single, or multiple, Gas fired steam boiler(s) as defined in AS/NZS 3814.
 2. The existing End-User Equipment is installed at a Site classified under the BCA as one or more of the following: Class 2, 3, 5, 6, 7, 8, 9 and 10 buildings.
 3. The existing End-User Equipment must be:
 - a. more than 10 years old; and
 - b. be in working order at the time of replacement.

- Equipment Requirements**
1. The replacement End-User Equipment must be a single, or multiple, Gas fired steam boiler(s) as defined in AS/NZS 3814.
 2. The replacement End-User Equipment must have a nameplate capacity of 200 kW or higher.
 3. Replacement End-User Equipment with a nameplate capacity of 1000 kW or above must have a linkageless (two service/stepper motors) burner with a turn-down ratio of at least 4:1.
 4. Replacement End-User Equipment with a nameplate capacity of 2000 kW or above must include an oxygen trim system and have a linkageless (two service/stepper motors) burner with a turn-down ratio of at least 4:1.
 5. The replacement End-User Equipment must have a fuel-to-fluid efficiency of at least 80% when at high fire conditions.
 6. The replacement End-User Equipment must meet any relevant standards and legislation.

- Implementation Requirements**
1. The existing End-User Equipment must be disconnected and removed; these tasks must be performed or supervised by a qualified person in accordance with relevant standards and legislation.
 2. The installation must be in accordance with manufacturer guidelines, relevant standards and legislation and any requirements specified by the Scheme Administrator.

Activity Energy Savings
For each Implementation:

$$Deemed\ Equipment\ Gas\ Savings = P \times DEI \times LUF \times Lifetime \times 8760 \div 1000$$

Where:

- *P*, in kW, is the lower of the nameplate capacity of the replacement or existing End-User Equipment.
- *DEI* is the Default Efficiency Improvement (as a fraction, not as a percentage) for replacing existing End-User Equipment with replacement End-User Equipment as specified in Table F8.1.
- *LUF* is the assigned Load Utilisation Factor for all Gas fired steam boilers as specified in Table F8.2.
- *Lifetime* is the number of years that savings will be deemed as specified in Table F8.3.

Table F8.1 Default Efficiency Improvement (DEI) for replacing existing End-User Equipment

Existing End-User Equipment installation year	DEI for replacing existing End-User Equipment	
	Steam boiler with a burner that is >10 years old	Steam boiler with burner replaced ≤ 10 years ago
Pre 1990	0.064	0.053
1990 and after	0.059	0.048

Table F8.2 Load Utilisation Factor (LUF) for Gas fired steam boilers

Business classification	LUF

All	0.206
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Lifetime
Table F8.3 End-User Equipment Lifetime

End-User Equipment type	Years
All	10

Activity Definition F9

Name of Activity
REPLACE EXISTING GAS FIRED HOT WATER BOILER OR GAS FIRED WATER HEATER WITH A HIGH EFFICIENCY GAS FIRED HOT WATER BOILER OR GAS FIRED WATER HEATER

Eligibility Requirements

1. The existing End-User Equipment must be a single, or multiple, Gas fired hot water boiler(s), or Gas fired water heater(s) as defined in AS/NZS 3814.
2. The existing End-User Equipment is installed at a Site classified under the BCA as one or more of the following: Class 2, 3, 5, 6, 7, 8, 9 and 10 buildings.
3. The existing End-User Equipment must be:
 - c. more than 10 years old; and
 - d. be in working order at the time of replacement.

Equipment Requirements

1. The replacement End-User Equipment must be a single, or multiple, Gas fired hot water boiler(s), or Gas fired water heater(s) as defined in AS/NZS 3814.
2. The replacement End-User Equipment must not be a Gas fired storage water heater or a Gas fired instantaneous water heater as defined in AS4552 or AS/NZS 5263.1.2.
3. The replacement End-User Equipment must have a nameplate capacity of 200 kW or higher.
4. Replacement End-User Equipment with a nameplate capacity of 1000 kW or above must have a linkageless (two service/stepper motors) burner with a turn-down ratio of at least 4:1.
5. Replacement End-User Equipment with a nameplate capacity of 2000 kW or above must include an oxygen trim system and have a linkageless (two service/stepper motors) burner with a turn-down ratio of at least 4:1.
6. The replacement End-User Equipment must have a fuel-to-fluid efficiency of at least 85% at a return water temperature of 60°C when at high fire conditions.
7. The replacement End-User Equipment must meet any relevant standards and legislation.

Implementation Requirements

1. The existing End-User Equipment must be disconnected and removed; these tasks must be performed or supervised by a qualified person in accordance with relevant standards and legislation.
2. The installation must be in accordance with manufacturer guidelines, relevant standards and legislation and any requirements specified by the Scheme Administrator.

Activity Energy Savings
For each Implementation:

Deemed Equipment Gas Savings = P × DEI × LUF × Lifetime × 8760 ÷ 1000

Where:

- *P*, in kW, is the lower of the nameplate capacity of the replacement or existing End-User Equipment.
- *DEI* is the Default Efficiency Improvement (as a fraction, not as a percentage) for replacing existing End-User Equipment with replacement End-User Equipment as specified in Table F9.1.
- *LUF* is the assigned Load Utilisation Factor for all Gas fired hot water boilers or water heaters as specified in Table F9.2.
- *Lifetime* is the number of years that savings will be deemed as specified in Table F9.3.

Table F9.1 Default Efficiency Improvement (DEI) for replacing existing End-User Equipment

Existing End-User Equipment installation year	DEI for replacing existing End-User Equipment	
	Hot water boiler or water heater with a burner that is >10 years old	Hot water boiler or water heater with burner replaced ≤ 10 years ago
Pre 1990	0.059	0.048
1990 and after	0.053	0.042

Table F9.2 Load Utilisation Factor (LUF) for Gas fired hot water boilers and water heaters

Business classification	LUF
All	0.206

Lifetime

Table F9.3 End-User Equipment Lifetime

End-User Equipment type	Years
All	10

Activity Definition F10**Name of Activity****INSTALL AN OXYGEN TRIM SYSTEM ON A GAS FIRED STEAM BOILER, HOT WATER BOILER OR WATER HEATER****Eligibility Requirements**

1. The End-User Equipment must be installed on a Gas fired steam boiler, hot water boiler, or water heater as defined in AS/NZS 3814.
2. The Gas fired steam boiler, hot water boiler, or water heater on which the End-User Equipment is installed must be located at a Site classified under the BCA as one or more of the following: Class 2, 3, 5, 6, 7, 8, 9 and 10 buildings.
3. The End-User Equipment cannot replace existing End-User Equipment regardless of its condition.
4. The Gas fired steam boiler, hot water boiler, or water heater on which the End-User Equipment is installed must have an existing digital burner control system capable of receiving a signal from a flue gas sensor for oxygen trim purposes, or have one installed at the time of commissioning of the End-User Equipment.

Equipment Requirements

1. The End-User Equipment must be an oxygen trim system including a flue gas sensor connected to a control panel, capable of sending a signal to a control damper on the burner air supply or variable speed drive on the fan motor.

Implementation Requirements

1. The installation must be in accordance with manufacturer guidelines, relevant standards and legislation and any requirements specified by the Scheme Administrator.

Activity Energy Savings

For each Implementation:

$$\text{Deemed Equipment Gas Savings} = P \times \text{DEI} \times \text{LUF} \times \text{Lifetime} \times 8760 \div 1000$$

Where:

- *P*, in kW, is the current nameplate capacity of the Gas fired steam boiler, hot water boiler, or water heater on which the End-User Equipment is installed. The nameplate capacity that can be used is capped at 3000kW. An Installation on a larger Gas fired steam boiler, hot water boiler, or water heater must use this capped figure.
- *DEI* is the Default Efficiency Improvement (as a fraction, not as a percentage) for installing the End-User Equipment as specified in Table F10.1.
- *LUF* is the assigned Load Utilisation Factor for all Gas fired steam boilers, hot water boilers, or water heaters as specified in Table F10.2.
- *Lifetime*, is the number of years that savings will be deemed as specified in Table F10.3.

Table F10.1 – Default Efficiency Improvement (DEI) for installing End-User Equipment

Activity	DEI
Install End-User Equipment on a steam boiler	0.018
Install End-User Equipment on a hot water boiler or water heater	0.015

Table F10.2 Load Utilisation Factor (LUF) for Gas fired steam boilers, hot water boilers, and water heaters

Business classification	LUF
All	0.206

Lifetime

Table F10.3 End-User Equipment Lifetime

End-User Equipment type	Years
All	10

Activity Definition F11

Name of Activity

REPLACE BURNER ON A GAS FIRED STEAM BOILER, HOT WATER BOILER, OR WATER HEATER

Eligibility Requirements

1. The existing End-User Equipment must be a Gas fired burner as defined in AS/NZS 3814.
2. The existing End-User Equipment must be installed on a Gas fired steam boiler, hot water boiler, or water heater as defined in AS/NZS 3814.
3. The Gas fired steam boiler, hot water boiler, or water heater on which the End-User Equipment is installed must be located at a Site classified under the BCA as one or more of the following: Class 2, 3, 5, 6, 7, 8, 9 and 10 buildings.
4. The existing End-User Equipment must be:
 - a. in working order at the time of replacement;
 - b. more than 10 years old; and
 - c. have an air/fuel ratio that is controlled via a mechanical linkage.

Equipment Requirements

1. The replacement End-User Equipment must be a Gas fired burner as defined in AS/NZS 3814.
2. Replacement End-User Equipment that has a nameplate capacity of 1000 kW or more must:
 - a. be of the linkageless (two service/stepper motors) type;
 - b. have a turn-down ratio of at least 4:1; and
 - c. be capable of receiving a signal from a flue gas sensor for oxygen trim purposes.

Implementation Requirements

1. Existing End-User Equipment that is replaced must be disconnected and removed; these tasks must be performed or supervised by a qualified person in accordance with relevant standards and legislation.
2. The installation must be in accordance with manufacturer guidelines, relevant standards and legislation and any requirements specified by the Scheme Administrator.

Activity Energy Savings

For each Implementation:

$$\text{Deemed Equipment Gas Savings} = P \times \text{DEI} \times \text{LUF} \times \text{Lifetime} \times 8760 \div 1000$$

Where:

- *P*, in kW, is the current nameplate capacity of the Gas fired steam boiler, hot water boiler, or water heater on which the End-User Equipment is installed. The nameplate capacity that can be used is capped at 3000kW. Installation on a larger Gas fired steam boiler, hot water boiler, or water heater must use this capped figure.
- *DEI* is the Default Efficiency Improvement (as a fraction, not as a percentage) for replacing the End-User Equipment as specified in Table F11.1.
- *LUF* is the assigned Load Utilisation Factor for all Gas fired steam boilers, hot water boilers, or water heaters as specified in Table F11.2.
- *Lifetime*, is the number of years that savings will be deemed as specified in Table F11.3.

Table F11.1 – Default Efficiency Improvement (DEI) for replacing End-User Equipment

Activity	DEI
Replace End-User Equipment	0.027

Table F11.2 Load Utilisation Factor (LUF) for Gas fired steam boilers, hot water boilers, and water heaters

Business classification	LUF
All	0.206

Lifetime

Table F11.3 End-User Equipment Lifetime

End-User Equipment type	Years
All	10

Activity Definition F12**Name of Activity****INSTALL AN ECONOMISER ON A GAS FIRED STEAM BOILER, HOT WATER BOILER, OR WATER HEATER****Eligibility Requirements**

1. The End-User Equipment must be installed on a Gas fired steam boiler, hot water boiler, or water heater as defined in AS/NZS 3814.
2. The Gas fired steam boiler, hot water boiler, or water heater on which the End-User Equipment is installed must be located at a Site classified under the BCA as one or more of the following: Class 2, 3, 5, 6, 7, 8, 9 and 10 buildings.
3. The End-User Equipment cannot replace existing End-User Equipment regardless of its condition.
4. The End-User Equipment cannot be installed on a condensing Gas fired steam boiler, hot water boiler or water heater.
5. In cases where the End-User Equipment will be pre-heating a stream other than feedwater, a heat rejection stream must be available to run through the End-User Equipment at least 80% of the operating time of the Gas fired steam boiler, hot water boiler, or water heater.

Equipment Requirements

1. The End-User Equipment must be a heat exchanger that uses the products of combustion from a Gas fired steam boiler, hot water boiler, or water heater, to heat a fluid stream such as boiler feedwater.
2. The End-User Equipment must be of the condensing kind if it is installed on a Gas fired hot water boiler or water heater. The Gas fired hot water boiler or water heater stack must be constructed of stainless steel.
3. The End-User Equipment can be of the condensing or non-condensing kind if it is installed on a Gas fired steam boiler. The steam boiler stack can be constructed of carbon steel only if the End-User Equipment is of the non-condensing kind and the exhaust temperature can be maintained above dewpoint at all points in the stack.
4. The End-User Equipment must be fitted with a control system with minimum flow rates such that manual intervention is not required for operation, unless the End-User Equipment is specifically designed to run dry.

Implementation Requirements

1. At the time of commissioning, the exhaust temperature exiting the End-User Equipment whilst at high firing must be below 180°C for steam boilers, or below 100°C for condensing steam boilers, hot water boilers and water heaters.
2. The installation must be in accordance with manufacturer guidelines, relevant standards and legislation and any requirements specified by the Scheme Administrator.

Activity Energy Savings

For each Implementation:

$$\text{Deemed Equipment Gas Savings} = P \times DEI \times LUF \times \text{Lifetime} \times 8760 \div 1000$$

Where:

- *P* is the current nameplate capacity of the Gas fired steam boiler, hot water boiler, or water heater on which the End-User Equipment is installed, in kW.
- *DEI* is the Default Efficiency Improvement (as a fraction, not as a percentage) for installing the End-User Equipment as specified in Table F12.1.
- *LUF* is the assigned Load Utilisation Factor for all Gas fired steam boilers, hot water boilers, or water heaters as specified in Table F12.2.
- *Lifetime* is the number of years that savings will be deemed as specified in Table F12.3.

Table F12.1 – Default Efficiency Improvement (DEI) for installing End-User Equipment

Activity	DEI
Install End-User Equipment on a steam boiler	0.041
Install End-User Equipment on a hot water boiler or water heater	0.030

Table F12.2 Load Utilisation Factor (LUF) for Gas fired steam boilers, hot water boilers, and water heaters

Business classification	LUF
All	0.206

Lifetime

Table F12.3 End-User Equipment Lifetime

End-User Equipment type	Years
All	10

Activity Definition F13**Name of Activity****INSTALL A SENSOR BASED BLOWDOWN CONTROL ON A GAS FIRED STEAM BOILER****Eligibility Requirements**

1. The End-User Equipment must be installed on a Gas fired steam boiler as defined in AS/NZS 3814.
2. The Gas fired steam boiler on which the End-User Equipment is installed must be located at a Site classified under the BCA as one or more of the following: Class 2, 3, 5, 6, 7, 8, 9 and 10 buildings.
3. The End-User Equipment cannot replace existing End-User Equipment regardless of its condition.

Equipment Requirements

1. The End-User Equipment must be a sensor based blowdown control, capable of automatically blowing down based on a sensor reading of the concentration of total dissolved solids (TDS) in the steam boiler.

Implementation Requirements

1. The installation must be in accordance with manufacturer guidelines, relevant standards and legislation and any requirements specified by the Scheme Administrator.

Activity Energy Savings

For each Implementation:

$$\text{Deemed Equipment Gas Savings} = P \times \text{DEI} \times \text{LUF} \times \text{Lifetime} \times 8760 \div 1000$$

Where:

- *P* is the current nameplate capacity of the Gas fired steam boiler on which the End-User Equipment is installed, in kW.
- *DEI* is the Default Efficiency Improvement (as a fraction, not as a percentage) for installing the End-User Equipment as specified in Table F13.1. Use your average operating pressure as defined in AS/NZS 3814, or the next lowest pressure in this table. If your average operating pressure is less than 8 bar, use 8 bar.
- *LUF* is the assigned Load Utilisation Factor for all Gas fired steam boilers as specified in Table F13.2.
- *Lifetime* is the number of years that savings will be deemed as specified in Table F13.3.

Table F13.1 – Default Efficiency Improvement (DEI) for installing End-User Equipment

Activity type	Steam boiler operating pressure (bar)			
	8	10	12	15
Installation of a sensor based blowdown control	0.0032	0.0034	0.0036	0.0038

Table F13.2 Load Utilisation Factor (LUF) for Gas fired steam boilers

Business classification	LUF
All	0.206

Lifetime

Table F13.3 End-User Equipment Lifetime

End-User Equipment type	Years
All	10

Activity Definition F14

Name of Activity

INSTALL A BLOWDOWN FLASH STEAM HEAT RECOVERY SYSTEM ON GAS FIRED STEAM BOILER

Eligibility Requirements

1. The End-User Equipment must be installed on a single, or multiple, Gas fired steam boiler(s) as defined in AS/NZS 3814.
2. The Gas fired steam boiler on which the End-User Equipment is installed must be located at a Site classified under the BCA as one or more of the following: Class 2, 3, 5, 6, 7, 8, 9 and 10 buildings.
3. The Gas fired steam boiler on which the End-User Equipment is installed must have an existing sensor based blowdown control, or have a sensor based blowdown control installed at the time of commissioning of the End-User Equipment.
4. The End-User Equipment cannot replace existing End-User Equipment regardless of its condition.

Equipment Requirements

1. The End-User Equipment must be a blowdown flash steam heat recovery system that injects flash steam from boiler blowdown into the boiler feed water tank via a sub-surface sparge line.

Implementation Requirements

1. The installation must be in accordance with manufacturer guidelines, relevant standards and legislation and any requirements specified by the Scheme Administrator.

Activity Energy Savings

For each Implementation:

$$Deemed\ Equipment\ Gas\ Savings = P \times DEI \times LUF \times Lifetime \times 8760 \div 1000$$

Where:

- *P* is the current nameplate capacity of the Gas fired steam boiler on which the End-User Equipment is installed, in kW. For End-User Equipment that recovers flash steam from blowdown from multiple steam boilers, the combined nameplate capacity of the steam boilers can be used.
- *DEI* is the Default Efficiency Improvement (as a fraction, not as a percentage) for installing the End-User Equipment as specified in Table F14.1. Use your average operating pressure as defined in AS/NZS 3814, or the next lowest pressure in this table. If your average operating pressure is less than 8 bar, use 8 bar.
- *LUF* is the assigned Load Utilisation Factor for all Gas fired steam boilers as specified in Table F14.2.
- *Lifetime* is the number of years that savings will be deemed as specified in Table F14.3.

Table F14.1 – Default Efficiency Improvement (DEI) for installing End-User Equipment

Activity type	Steam boiler average operating pressure (bar)			
	8	10	12	15
Installation of a blowdown flash steam heat recovery system	0.0052	0.0059	0.0065	0.0072

Table F14.2 Load Utilisation Factor (LUF) for Gas fired steam boilers

Business classification	LUF
All	0.206

Lifetime

Table F14.3 End-User Equipment Lifetime

End-User Equipment type	Years
All	10

Activity Definition F15**Name of Activity****INSTALL A RESIDUAL BLOWDOWN HEAT EXCHANGER ON GAS FIRED STEAM BOILER****Eligibility Requirements**

1. The End-User Equipment must be installed on single, or multiple, Gas fired steam boiler(s) as defined in /NZS 3814.
2. The Gas fired steam boiler on which the End-User Equipment is installed must be located at a Site classified under the BCA as one or more of the following: Class 2, 3, 5, 6, 7, 8, 9 and 10 buildings.
3. The Gas fired steam boiler on which the End-User Equipment is installed must have an existing sensor based blowdown control, or have a sensor based blowdown control installed at the time of commissioning of the End-User Equipment.
4. The End-User Equipment cannot replace existing End-User Equipment regardless of its condition.
5. A fluid stream below 40°C, such as boiler makeup water, must be available at all times to transfer heat from the boiler blowdown.

Equipment Requirements

1. The End-User Equipment must be a residual blowdown heat exchanger; such that it transfers heat from the steam boiler's blowdown fluid to a fluid stream with a temperature not exceeding 40°C, such as steam boiler makeup water.

Implementation Requirements

1. The installation must be in accordance with manufacturer guidelines, relevant standards and legislation and any requirements specified by the Scheme Administrator.

Activity Energy Savings

For each Implementation:

$$\text{Deemed Equipment Gas Savings} = P \times DEI \times LUF \times Lifetime \times 8760 \div 1000$$

Where:

- *P* is the current nameplate capacity of the Gas fired steam boiler on which the End-User Equipment is installed, in kW. For End-User Equipment that recovers heat from blowdown from multiple steam boilers, the combined nameplate capacity of the steam boilers can be used.
- *DEI* is the Default Efficiency Improvement (as a fraction, not as a percentage) for installing the End-User Equipment as specified in Table F15.1. Use your average operating pressure as defined in AS/NZS 3814, or the next lowest pressure in this table. If your average operating pressure is less than 8 bar, use 8 bar.
- *LUF* is the assigned Load Utilisation Factor for all Gas fired steam boilers as specified in Table F15.2.
- *Lifetime* is the number of years that savings will be deemed as specified in Table F15.3.

Table F15.1 – Default Efficiency Improvement (DEI) for installing End-User Equipment

Activity type	Steam boiler operating pressure (bar)			
	8	10	12	15
Installation of a residual blowdown heat exchanger	0.0038	0.0037	0.0036	0.0035

Table F15.2 Load Utilisation Factor (LUF) for Gas fired steam boilers

Business classification	LUF
All	0.206

Lifetime

Table F15.3 End-User Equipment Lifetime

End-User Equipment type	Years
All	10

Schedule G – (deleted)

Appointments

EXHIBITED ANIMALS PROTECTION ACT 1986

Appointment of Inspectors

I, PETER DAY, Director, Biosecurity & Food Safety Compliance, Department of Primary Industries with the delegated authority of the Secretary of the Department of Industry, Skills and Regional Development pursuant to section 38 of the *Exhibited Animals Protection Act 1986* (“the Act”), hereby appoint GREGORY VAKACI as an inspector for the purposes of the Act.

Dated this 26th day of March 2017

PETER DAY
Director, Biosecurity & Food Safety Compliance
Department of Primary Industries
(an office within the Department of Industry)

FISHERIES MANAGEMENT ACT 1994

Commercial Fishing NSW Advisory Council

Instrument of Appointment

Appointment of Chair

I, NIALL BLAIR MLC, Minister for Primary Industries, pursuant to section 229 of the *Fisheries Management Act 1994* and Divisions 2 and 3 of Part 17 of the *Fisheries Management (General) Regulation 2010*, appoint Mr Stuart Richey AM as the Chair of the Commercial Fishing NSW Advisory Council (CommFish NSW), for a period of 3 years commencing from the date of this appointment.

Dated this 22nd day of March 2017

NIALL BLAIR MLC
Minister for Primary Industries

Planning and Environment Notices

NATIONAL PARKS AND WILDLIFE ACT 1974

Horton Falls National Park CCA Zone 1

Draft Plan of Management
on exhibition until 3 July 2017: comments sought

The *Horton Falls National Park CCA Zone 1 Draft Plan of Management* is on exhibition until 3 July 2017.

The plan may be viewed at:

- National Parks and Wildlife Service (NPWS) Glen Innes Area Office, 68 Church Street, Glen Innes
- NPWS Northern Tablelands Regional Office, 1st Floor, 85 Faulkner Street, Armidale
- Barraba Library, 118 Queen Street, Barraba. Bingara Library, 39 Maitland Street, Bingara
- Office of Environment and Heritage (OEH) Customer Centre (Level 14, 59–61 Goulburn St, Sydney)
- Tamworth Regional Council Offices, 437 Peel Street, Tamworth and Barraba Branch Office, 27 Alice Street, Barraba
- OEH 'Have your say' website <https://engage.environment.nsw.gov.au>.

Submissions on the plan must be received by 3 July 2017 by:

- email to npws.parkplanning@environment.nsw.gov.au; or
- mail to The Planner, NPWS, PO Box 144, Sutherland NSW 1499 or
- using the online form on the OEH 'Have your say' website.

Your comments on the draft plan may include 'personal information'. OEH complies with the NSW *Privacy and Personal Information Protection Act 1998* which regulates the collection, storage, quality, use and disclosure of personal information. For details see OEH and your privacy (<http://www.environment.nsw.gov.au/help/privacy.htm>). Information that in some way identifies you may be gathered when you use our website or send us an email.

Roads and Maritime Notices

MARINE SAFETY ACT 1998

MARINE NOTICE

Section 12(2)

REGULATION OF VESSELS – EXCLUSION ZONE

Location

Tasman Sea – near the township of Shellharbour and comprising waters within the area defined by:

- the entrance of the Shellharbour Boat Harbour, and
- seaward along the harbour navigation leads, to
- the intersection with an imaginary line due east from eastern extent of Cowrie Island, and
- in a southerly – then westerly direction – along the shoreline of Cowrie Island to the harbour entrance.

Duration

10am to 1pm Sunday 9 April 2017.

Detail

A swim event will be held at the location specified between the above times.

An **EXCLUSION ZONE** is specified during the event within the location described above. The exclusion zone will remain in place until the last swimmer has departed the Zone and once control vessels have notified the all-clear.

Buoys will be in place to indicate the location at the intersection between the line along the navigation leads and the line due east from Cowrie Island. The Zone will be monitored by control vessels.

Unauthorised vessels and persons are strictly prohibited from entering the exclusion zone.

All vessel operators and persons using waters in the vicinity of the event should keep a proper lookout, keep well clear of competing and support vessels, and exercise extreme caution.

Penalties may apply (section 12(5) – *Marine Safety Act 1998*)

For full details visit the Roads and Maritime Services website – www.rms.nsw.gov.au/maritime

Marine Notice: SO1733

Date: 27 March 2017

Mike Hammond
Delegate

ROADS ACT 1993

Order – Sections 46, 49, 54 and 67

Albury City and Greater Hume Council areas

Dedication of Land as Public Road and Declaration as a Controlled Access Road
of part of the Hume Highway at Table Top

I, the Minister for Roads, Maritime and Freight pursuant to Sections 46, 49, 54 and 67 of the *Roads Act 1993*, by this order -

1. dedicate as public road the land described in Schedules 1 and 2 under;
2. declare to be a main road the said public road described in Schedule 2 and the public road described in Schedule 3 under;
3. declare to be a controlled access road the said main road described in Schedules 2 and 3;
4. declare that access to the said controlled access road is restricted; and
5. specify in Schedule 4 under, the points along the controlled access road at which access may be gained to or from other public roads.

The Hon MELINDA PAVEY MP
Minister for Roads, Maritime and Freight

Schedule 1

All those pieces or parcels of land situated in the Albury City and Greater Hume Council areas, Parish of Yambula and County of Goulburn, shown as:

Lot 91 Deposited Plan 1163496;
Lots 69, 70 and 72 Deposited Plan 1160619;
Lots 84, 85 and 86 Deposited Plan 1160669; and
Lot 912 Deposited Plan 1134239.

The above Lots are all shown in RMS Plan 0002 186 AC 4028.

Schedule 2

All those pieces or parcels of land situated in the Albury City and Greater Hume Council areas, Parishes of Mungabarina, Jindera, Bowna and Yambula and County of Goulburn, shown as:

Lot 89 Deposited Plan 1166823;
Lots 105, 106 and Lot 107 Deposited Plan 1000761;
Lots 17 and 18 Deposited Plan 813569;
Lots 5, 6, 7 and 8 Deposited Plan 1001318;
Lots 58, 59, 60, 62, 64 65 and 67 Deposited Plan 1125663;
Lot 28 Deposited Plan 1004101;
Lots 94, 96, 103 and 104 Deposited Plan 1163496;
Lot 44 Deposited Plan 1004275;
Lots 64, 65 and 68 Deposited Plan 1160619;
Lots 73, 74 and 75 Deposited Plan 1083844;
Lots 5, 6, 7, 9 and 10 Deposited Plan 846534;
Lots 80, 81 and 82 Deposited Plan 1160669;
Lot 913 Deposited Plan 1134239;
Lot 14 Deposited Plan 1127906; and
Lot 102 Deposited Plan 1175796.

The above Lots are all shown in RMS Plan 0002 186 AC 4028.

Schedule 3

All those pieces or parcels of land situated in the Albury City and Greater Hume Council areas, Parishes of Mungabarina, Jindera, Bowna and Yambula and County of Goulburn, shown as:

Lots 101 to 104 inclusive RMS Plan 0002 186 AC 4028;
Lots 90 and 91 Deposited Plan 1166823;
Lot B Deposited Plan 182304;
Lots 6 and 7 Deposited Plan 748406;
Lot 1 Deposited Plan 552989;
Lots 2 and 3 Deposited Plan 551510;
Lot 19 Deposited Plan 813569;
Lot 9 Deposited Plan 1001318;
Lots 3, 4 and 7 Deposited Plan 183325;
Lot 5 Deposited Plan 1198825;
Lots 63 and 66 Deposited Plan 1125663;
Lot 27 Deposited Plan 1004101;
Lots 1 and 2 Deposited Plan 232064;

Lot 1 Deposited Plan 430992;
Lots 92, 93, 95, 97 to 102 inclusive, 105, 106 and 107 Deposited Plan 1163496;
Lots 59 to 63 inclusive, 66 and 67 Deposited Plan 1160619;
Lot 2 Deposited Plan 820812;
Lot 8 Deposited Plan 846534; and
Lots 73 to 77 inclusive and 79 Deposited Plan 1160669.
The above Lots are all shown in RMS Plan 0002 186 AC 4028.

Schedule 4

Between the points A and B;
between the points C and D;
between the points E and F;
between the points G and H;
between the points J and K;
between the points L and M;
between the points N and P; and
between the points Q and R;
all shown in RMS Plan 0002 186 AC 4028.
(RMS Papers: SF2017/033095)

ROADS ACT 1993

Order – Sections 46, 49, 54 and 67
Greater Hume Shire Council Area

Dedication of Land as Public Road and Declaration as a Controlled Access Road
of part of the Hume Highway at Holbrook

I, the Minister for Roads, Maritime and Freight pursuant to Sections 46, 49, 54 and 67 of the *Roads Act 1993*,
by this order -

1. dedicate as public road the land described in Schedules 1 and 2 under;
2. declare to be a main road the said public road described in Schedule 2 and the public road described in Schedule 3 under;
3. declare to be a controlled access road the said main road described in Schedules 2 and 3;
4. declare that access to the said controlled access road is restricted; and
5. specify in Schedule 4 under, the points along the controlled access road at which access may be gained to or from other public roads.

The Hon MELINDA PAVEY MP
Minister for Roads, Maritime and Freight

Schedule 1

All those pieces or parcels of land situated in the Greater Hume Shire Council area, Parish of Holbrook and County of Goulburn, shown as:

Lots 53 to 58 inclusive Deposited Plan 1158310;
Lots 104 and 105 Deposited Plan 1179640;
Lots 26 and 27 Deposited Plan 1157532;
Lots 36 to 50 inclusive Deposited Plan 1156130.
The above Lots are shown in RMS Plan 0002 186 AC 4032.

Schedule 2

All those pieces or parcels of land situated in the Greater Hume Shire Council area, Parish of Holbrook, County of Goulburn, shown as:

Lots 65, 66, 67, 68 and 70 Deposited Plan 1200983;

Lots 25, 27, 29, 30, 32, 33, 34, 36, 37, 38, 42, 43, 44, 47, 49 and 50 Deposited Plan 1158310;

Lots 11 to 20 inclusive Deposited Plan 1157532;

Lot 296 Deposited Plan 753340;

Lots 21, 22, 23 and 25 to 32 inclusive Deposited Plan 1156130;

Lots 11 to 20 inclusive Section B Deposited Plan 5540; and

Lot 2 Deposited Plan 1198264.

The above Lots are shown in RMS Plan 0002 186 AC 4032.

Schedule 3

All those pieces or parcels of land situated in the Greater Hume Shire Council area, Parish of Holbrook, County of Goulburn, shown as:

Lot 69 Deposited Plan 1200983;

Lots 26, 28, 31, 46, 48 and 51 Deposited Plan 1158310;

Lots 22 to 25 inclusive Deposited Plan 1157532; and

Lots 33 to 35 inclusive Deposited Plan 1156130.

The above Lots are all shown in RMS Plan 0002 186 AC 4032.

Schedule 4

Between the points A and B;

between the points C and D; and

between the points E and F.

all shown in RMS Plan 0002 186 AC 4032.

(RMS Papers: SF2017/004009; RO SF2013/021989)

ROADS ACT 1993

LAND ACQUISITION (JUST TERMS COMPENSATION) ACT 1991

Notice of Compulsory Acquisition of Land at Epping in the Parramatta City Council Area

Roads and Maritime Services by its delegate declares, with the approval of His Excellency the Governor, that the land described in the schedule below is acquired by compulsory process under the provisions of the *Land Acquisition (Just Terms Compensation) Act 1991* for the purposes of the *Roads Act 1993*.

K DURIE

Manager, Compulsory Acquisition & Road Dedication
Roads and Maritime Services

Schedule

All that piece or parcel of land situated in the Parramatta City Council area, Parish of Field of Mars and County of Cumberland, shown as Lot 19 Deposited Plan 1204063, being part of the land in Certificate of Title 9/10385.

The land is said to be in the possession of Antoinette Farris.

(RMS Papers: SF2016/032984)

ROADS ACT 1993

LAND ACQUISITION (JUST TERMS COMPENSATION) ACT 1991

Notice of Compulsory Acquisition of Land at South Penrith in the Penrith City Council Area

Roads and Maritime Services by its delegate declares, with the approval of His Excellency the Governor, that the land described in the schedule below is acquired by compulsory process under the provisions of the *Land Acquisition (Just Terms Compensation) Act 1991* for the purposes of the *Roads Act 1993*.

K DURIE

Manager, Compulsory Acquisition & Road Dedication
Roads and Maritime Services

Schedule

All that piece or parcel of land situated in the Penrith City Council area, Parish of Mulgoa and County of Cumberland, shown as Lot 8 Deposited Plan 1224249, being part of the land in Certificate of Title 8/264332; excluding any existing easements from the acquisition of the said Lot 8 Deposited Plan 1224249.

The land is said to be in the possession of Kentucky Fried Chicken Pty Limited.

(RMS Papers: SF2016/155597)

Mining and Petroleum Notices

NOTICE is given that the following applications have been received:

EXPLORATION LICENCE APPLICATIONS

(T17-1062)

No. 5475, BALDOCK FE PTY LTD (ACN 152 114 371), area of 25 units, for Group 1, dated 21 March, 2017. (Coffs Harbour Mining Division).

(T17-1063)

No. 5476, PROVIDENCE METALS PTY LTD (ACN 612933981), area of 56 units, for Group 1, dated 22 March, 2017. (Orange Mining Division).

The Hon Donald Harwin MLC
Minister for Resources

NOTICE is given that the following applications have been granted:

EXPLORATION LICENCE APPLICATIONS

(T16-1117)

No. 5358, now Exploration Licence No. 8537, P W ENGLISH AND ASSOCIATES PTY LTD (ACN 002 052 913), Counties of Clarke and Gresham, Map Sheet (9337, 9338), area of 9 units, for Group 1, dated 10 March, 2017, for a term until 10 March, 2020.

The Hon Donald Harwin MLC
Minister for Resources

NOTICE is given that the following applications for renewal have been received:

(V17-2651)

Exploration Licence No. 6554, GOLD FIELDS AUSTRALASIA PTY LTD (ACN 087 624 600), area of 12 units. Application for renewal received 24 March, 2017.

(V17-2534)

Exploration Licence No. 7504, CARPENTARIA EXPLORATION LIMITED (ACN 095 117 981), area of 14 units. Application for renewal received 22 March, 2017.

(T13-1177)

Exploration Licence No. 8258, TORRINGTON MINERALS PTY LTD (ACN 604 431 370), area of 4 units. Application for renewal received 24 March, 2017.

The Hon Donald Harwin MLC
Minister for Resources

RENEWAL OF CERTAIN AUTHORITIES

Notice is given that the following authorities have been renewed:

(13-3517)

Exploration Licence No. 4616, NEWCREST MINING LIMITED (ACN 005 683 625), Counties of Ashburnham and Bathurst, Map Sheet (8631), area of 4 units, for a further term until 8 November, 2021. Renewal effective on and from 10 March, 2017.

(16-1529)

Exploration Licence No. 6629, NEO RESOURCES LIMITED (ACN 007 708 429), County of Roxburgh, Map Sheet (8831, 8832), area of 5 units, for a further term until 5 September, 2018. Renewal effective on and from 10 March, 2017.

(T13-1113)

Exploration Licence No. 8194, ALKANE RESOURCES LTD (ACN 000 689 216), Counties of Georgiana and Westmoreland, Map Sheet (8830), area of 11 units, for a further term until 31 October, 2022. Renewal effective on and from 10 March, 2017.

(T13-1109)

Exploration Licence No. 8195, SANDFIRE RESOURCES NL (ACN 105154185), Counties of Kennedy and Narromine, Map Sheet (8433), area of 26 units, for a further term until 31 October, 2022. Renewal effective on and from 10 March, 2017.

(T13-1108)

Exploration Licence No. 8196, SANDFIRE RESOURCES NL (ACN 105154185), Counties of Kennedy and Narromine, Map Sheet (8432, 8532, 8533), area of 52 units, for a further term until 31 October, 2022. Renewal effective on and from 10 March, 2017.

(T14-1104)

Exploration Licence No. 8320, ILUKA RESOURCES LIMITED (ACN 008 675 018), County of Caira, Map Sheet (7528, 7529), area of 15 units, for a further term until 12 November, 2019. Renewal effective on and from 10 March, 2017.

The Hon Donald Harwin MLC
Minister for Resources

REQUEST FOR CANCELLATION OF AUTHORITY AT REQUEST OF HOLDER

Notice is given that the following application has been received:

(T10-0213)

Exploration Licence No. 7597, ABX1 PTY LTD (ACN 139 790 364), County of Bligh and County of Brisbane, Map Sheet (8834, 8933), area of 53 units. Application for Cancellation was received on 16 September, 2016.

The Hon Donald Harwin MLC
Minister for Resources

CANCELLATION OF AUTHORITY AT REQUEST OF HOLDER

Notice is given that the following authority has been cancelled:

(T10-0213)

Exploration Licence No. 7597, ABX1 PTY LTD (ACN 139 790 364), County of Bligh and County of Brisbane, Map Sheet (8834, 8933), area of 53 units. Cancellation took effect on 27 March, 2017.

The Hon Donald Harwin MLC
Minister for Resources

TRANSFERS

(15-2054)

Exploration Licence No. 5524, formerly held by NEWCREST OPERATIONS LIMITED (ACN 009 221 505) has been transferred to EVOLUTION MINING (COWAL) PTY LIMITED (ACN 007 857 598). The transfer was registered on 23 March, 2017.

(15-2054)

Exploration Licence No. 6593, formerly held by NEWCREST OPERATIONS LIMITED (ACN 009 221 505) has been transferred to EVOLUTION MINING (COWAL) PTY LIMITED (ACN 007 857 598). The transfer was registered on 23 March, 2017.

(V17-1442)

Exploration Licence No. 8199, formerly held by ANNE CHRISTINE CRAWFORD AND ANTHONY JAMES CRAWFORD has been transferred to SAN ANTONIO EXPLORATION PTY LTD (ACN 614 670 281). The transfer was registered on 27 March, 2017.

(V17-1444)

Exploration Licence No. 8200, formerly held by ANNE CHRISTINE CRAWFORD AND ANTHONY JAMES CRAWFORD has been transferred to SAN ANTONIO EXPLORATION PTY LTD (ACN 614 670 281). The transfer was registered on 27 March, 2017.

The Hon Donald Harwin MLC
Minister for Resources

Primary Industries Notices

FISHERIES MANAGEMENT ACT 1994

FISHERIES MANAGEMENT (AQUACULTURE) REGULATION 2012

Clause 31 (3) – Notice of Granting of Class 1 Aquaculture Lease

The Minister has granted the following Class 1 Aquaculture Lease:

OL70/163 within the estuary of Port Stephens, having an area of 0.6163 hectares to Michael O'Connor of Karuah, NSW, for a term of 15 years expiring on 27 June 2031.

DAVID MCPHERSON

Group Director Commercial Fisheries & Aquaculture
Fisheries Division
NSW Department of Primary Industries

FISHERIES MANAGEMENT ACT 1994

FISHERIES MANAGEMENT (AQUACULTURE) REGULATION 2012

Clause 33 (4) – Notice of Aquaculture Lease Renewal

The Minister has renewed the following class 1 Aquaculture Leases:

OL71/238 within Merimbula Lake, having an area of 2.0679 hectares to Una Winifred Smith of Millingandi, NSW, for a term of 15 years expiring on 05 October 2031.

OL71/054 within the estuary of Port Stephens, having an area of 0.6352 hectares to Richard Leslie Farley of Karuah, NSW, for a term of 15 years expiring on 31 December 2031.

OL71/188 within the estuary of the Hastings River, having an area of 0.5094 hectares to Robert Lachlan Herbert of Telegraph Point, NSW, for a term of 15 years expiring on 28 October 2031.

OL85/155 within the estuary of the Moruya River, having an area of 0.9402 hectares to Anita Saeck and Nicholas Thorne of Moruya Heads, NSW, for a term of 15 years expiring on 14 January 2032.

OL71/173 within the estuary of the Manning River, having an area of 3.1292 hectares to Timothy Hill of Mitchells Island, NSW, for a term of 15 years expiring on 31 October 2031.

OL71/408 within the estuary of Port Stephens, having an area of 0.3761 hectares to Dean Michael Johnson of Karuah, NSW, for a term of 15 years expiring on 31 December 2031.

OL71/302 within the estuary of the Crookhaven River, having an area of 1.9224 hectares to Marc Newnham and Steven Newnham of Greenwell Point, NSW, for a term of 15 years expiring on 15 April 2032.

AL00/038 within the estuary of the Macleay River, having an area of 0.3109 hectares to Gregory James Bridge of Jerseyville, NSW, for a term of 15 years expiring on 10 October 2031.

OL71/275 within the estuary of the Wonboyn River, having an area of 0.1976 hectares to Ross Loftus, Margaret Loftus, Trevor Loftus and Andrew Loftus of Wonboyn Lake, NSW, for a term of 15 years expiring on 10 December 2031.

OL87/031 within the estuary of Wallis Lake, having an area of 0.6220 hectares to Tadeven Pty Ltd of Tuncurry, NSW, for a term of 15 years expiring on 02 March 2032.

OL96/028 within the estuary of Clyde River, having an area of 0.2261 hectares to Rick & Catherine Christensen of Nelligen, NSW, for a term of 15 years expiring on 09 March 2032.

OL85/148 within the estuary of Hastings River, having an area of 0.6334 hectares to Graham Trevor & Jennifer Doreen Labone of Port Macquarie, NSW, for a term of 15 years expiring on 06 January 2032.

OL89/007 within the estuary of Port Stephens, having an area of 1.7366 hectares to George Frederick Brown of Karuah, NSW, for a term of 15 years expiring on 04 March 2032.

OL72/212 within the estuary of Camden Haven, having an area of 0.3656 hectares to Drew Bartlett and Mitchell O'Neill of Laurieton, NSW, for a term of 15 years expiring on 15 January 2032.

OL87/019 within the estuary of Wallis Lake, having an area of 1.8494 hectares to Clarence & Laurence Coombes of Forster, NSW, for a term of 15 years expiring on 27 November 2031.

OL86/086 within the estuary of Wallis Lake, having an area of 0.8809 hectares to Clarence Coombes of Forster, NSW, for a term of 15 years expiring on 02 December 2031.

DAVID MCPHERSON
Group Director Commercial Fisheries & Aquaculture
Fisheries Division
NSW Department of Primary Industries

Crown Lands Notices

1300 886 235 www.crownland.nsw.gov.au

ARMIDALE OFFICE

APPOINTMENT OF TRUST BOARD MEMBERS

Pursuant to section 93 of the *Crown Lands Act 1989*, the persons whose names are specified in Column 1 of the Schedule hereunder are appointed, for the terms of office specified in that Column, as members of the trust board for the reserve trust specified opposite thereto in Column 2, which has been established and appointed as trustee of the reserve referred to opposite thereto in Column 3 of the Schedule.

The Hon Paul Toole, MP
Minister for Lands and Forestry

Schedule

Column 1	Column 2	Column 3
John Tesoriero (re-appointment) For a term commencing the date of this notice and expiring 31 December 2021.	Myall Creek Public Hall And Recreation Reserve Trust	Reserve No. 54198 Public Purpose: public recreation Notified: 1 October 1920 Reserve No. 55752 Public Purpose: public hall Notified: 20 October 1922 File Reference: AE80R55

DUBBO OFFICE

NOTICE OF PURPOSE OTHER THAN THE DECLARED PURPOSE PURSUANT TO SECTION 34A(2)(b) OF THE CROWN LANDS ACT 1989

Pursuant to section 34A(2)(b) of the *Crown Lands Act 1989*, the Crown reserve(s) specified in Column 2 of the Schedule is to be used or occupied under a relevant interest granted for the purpose(s) specified in Column 1 of the Schedule where such use or occupation is other than the declared purpose of the reserve

The Hon Paul Toole, MP
Minister for Lands and Forestry

Schedule

Column 1	Column 2
Grazing Dam	Reserve No. 752582 Public Purpose: future public requirements Notified: 29 June 2007 File Reference: 16/10841

GRAFTON OFFICE

NOTIFICATION OF CLOSING OF A ROAD

In pursuance of the provisions of the *Roads Act 1993*, the road hereunder described is closed and the lands comprised therein cease to be public road and the rights of passage and access that previously existed in relation to the road is extinguished. Upon closing, title to the land, comprising the former public road, vests in the body specified in the Schedule hereunder.

The Hon Paul Toole, MP
Minister for Lands and Forestry

DESCRIPTION

Parish – Gregado; County – Wynyard

Land District – Wagga Wagga; LGA – Wagga Wagga

Road Closed: Lot 2 DP 1228341

File No: 16/07366

SCHEDULE

On closing, the land within Lot 2 DP 1228341 remains vested in the State of New South Wales as Crown land.

NOTIFICATION OF CLOSING OF A ROAD

In pursuance of the provisions of the *Roads Act 1993*, the road hereunder described is closed and the lands comprised therein cease to be public road and the rights of passage and access that previously existed in relation to the road is extinguished. Upon closing, title to the land, comprising the former public road, vests in the body specified in the Schedule hereunder.

The Hon Paul Toole, MP
Minister for Lands and Forestry

DESCRIPTION

Parish – Boranel; County – Gloucester
Land District – Gloucester; LGA – Mid-Coast

Road Closed: Lot 1 DP 1224581

File No: 08/5676

SCHEDULE

On closing, the land within Lot 1 DP 1224581 remains vested in the State of New South Wales as Crown land.

NOTIFICATION OF CLOSING OF A ROAD

In pursuance of the provisions of the *Roads Act 1993*, the road hereunder described is closed and the lands comprised therein cease to be public road and the rights of passage and access that previously existed in relation to the road is extinguished. Upon closing, title to the land, comprising the former public road, vests in the body specified in the Schedule hereunder.

The Hon Paul Toole, MP
Minister for Lands and Forestry

DESCRIPTION

Parish – Currah; County – Benarba
Land District – Moree; LGA – Moree Plains

Road Closed: Lot 1 DP 1221938

File No: 16/02007

SCHEDULE

On closing, the land within Lot 1 DP 1221938 remains vested in the State of New South Wales as Crown land.

NOTIFICATION OF CLOSING OF A ROAD

In pursuance of the provisions of the *Roads Act 1993*, the road hereunder described is closed and the lands comprised therein cease to be public road and the rights of passage and access that previously existed in relation to the road is extinguished. Upon closing, title to the land, comprising the former public road, vests in the body specified in the Schedule hereunder.

The Hon Paul Toole, MP
Minister for Lands and Forestry

DESCRIPTION

Parish – Tenterden; County – Hardinge
Land District – Inverell; LGA – Armidale Regional

Road Closed: Lot 5 DP 1221945

File No: 15/10576

SCHEDULE

On closing, the land within Lot 5 DP 1221945 remains vested in the State of New South Wales as Crown land.

NOTIFICATION OF CLOSING OF A ROAD

In pursuance of the provisions of the *Roads Act 1993*, the road hereunder described is closed and the lands comprised therein cease to be public road and the rights of passage and access that previously existed in relation to the road is extinguished. Upon closing, title to the land, comprising the former public road, vests in the body specified in the Schedule hereunder.

The Hon Paul Toole, MP
Minister for Lands and Forestry

DESCRIPTION

*Parish – Capel; County – Murchison
Land District – Bingara; LGA – Gwydir*

Road Closed: Lots 1-2 DP 1224903

File No: 16/06264

SCHEDULE

On closing, the land within Lots 1-2 DP 1224903 remains vested in the State of New South Wales as Crown land.

NOTIFICATION OF CLOSING OF A ROAD

In pursuance of the provisions of the *Roads Act 1993*, the road hereunder described is closed and the lands comprised therein cease to be public road and the rights of passage and access that previously existed in relation to the road is extinguished. Upon closing, title to the land, comprising the former public road, vests in the body specified in the Schedule hereunder.

The Hon Paul Toole, MP
Minister for Lands and Forestry

DESCRIPTION

*Parish – Tuckombil; County – Rous
Land District – Lismore; LGA – Ballina*

Road Closed: Lot 4 DP 1223734

File No: 08/0840

SCHEDULE

On closing, the land within Lot 4 DP 1223734 remains vested in the State of New South Wales as Crown land.

ROADS ACT 1993

ORDER

NOTIFICATION OF CLOSING OF ROAD

IN pursuance of the provisions of the *Roads Act 1993*, the road hereunder described is closed and the land comprised therein ceases to be a public road and the rights of passage and access that previously existed in relation to the road are extinguished. On road closing, title to the land comprising the former public road vests in the body specified in the Schedule hereunder.

The Hon PAUL TOOLE, MP
Minister for Lands and Forestry

Description

*Parish – Meerschaum; County – Rous
Land District – Lismore; LGA – Ballina*

Roads Closed: Lot 1 DP 1229059 at Rous Mill

DPI File Reference: 13/13605

Schedule

On closing, the land within Lot 1 DP 1229059 remains vested in Ballina Shire Council as operational land for the purposes of the *Local Government Act 1993*.

Councils reference: Hewetsons Lane.

NOTIFICATION OF CLOSING OF A ROAD

In pursuance of the provisions of the *Roads Act 1993*, the road hereunder described is closed and the lands comprised therein cease to be public road and the rights of passage and access that previously existed in relation to the road is extinguished. Upon closing, title to the land, comprising the former public road, vests in the body specified in the Schedule hereunder.

The Hon Paul Toole, MP
Minister for Lands and Forestry

DESCRIPTION

*Parish – Ulmarra; County – Clarence
Land District – Grafton; LGA – Clarence Valley*

Road Closed: Lot 3 DP 1190804

File No: GF05H320

SCHEDULE

On closing, the land within Lot 3 DP 1190804 remains vested in the State of New South Wales as Crown land.

NOTIFICATION OF CLOSING OF A ROAD

In pursuance of the provisions of the *Roads Act 1993*, the road hereunder described is closed and the lands comprised therein cease to be public road and the rights of passage and access that previously existed in relation to the road is extinguished. Upon closing, title to the land, comprising the former public road, vests in the body specified in the Schedule hereunder.

The Hon Paul Toole, MP
Minister for Lands and Forestry

DESCRIPTION

*Parishes – Wallace, Blanch, Ellerslie; County – Wynyard
Land District – Wagga Wagga; LGA – Snowy Valleys*

Road Closed: Lots 1-2 DP 1226794

File No: 14/02455

SCHEDULE

On closing, the land within Lots 1-2 DP 1226794 remains vested in the State of New South Wales as Crown land.

ROADS ACT 1993

ORDER

NOTIFICATION OF CLOSING OF ROAD

IN pursuance of the provisions of the *Roads Act 1993*, the road hereunder described is closed and the land comprised therein ceases to be a public road and the rights of passage and access that previously existed in

relation to the road are extinguished. On road closing, title to the land comprising the former public road vests in the body specified in the Schedule hereunder.

The Hon PAUL TOOLE, MP
Minister for Lands and Forestry

Description

*Parish – Ballina; County – Rous
Land District – Lismore ; LGA – Ballina Shire*

Roads Closed: Lot 1 DP1228200 at Lennox Head & Skennars Head,
DPI File Reference: 15/05077

Schedule

On closing, the land within Lot 1 DP1228200 vests in the State of New South Wales as operational land for the purposes of the *Local Government Act 1993*.

Councils reference: Rocky Creek Dam

NOTIFICATION OF CLOSING OF A ROAD

In pursuance of the provisions of the *Roads Act 1993*, the road hereunder described is closed and the lands comprised therein cease to be public road and the rights of passage and access that previously existed in relation to the road is extinguished. Upon closing, title to the land, comprising the former public road, vests in the body specified in the Schedule hereunder.

The Hon Paul Toole, MP
Minister for Lands and Forestry

DESCRIPTION

*Parish – Nullum; County – Rous
Land District – Murwillumbah; LGA – Tweed*

Road Closed: Lot 2 DP 1190507
File No: 07/5167

SCHEDULE

On closing, the land within Lot 2 DP 1190507 remains vested in the State of New South Wales as Crown land.

ADDITION TO RESERVED CROWN LAND

Pursuant to section 88 of the *Crown Lands Act 1989*, the Crown land specified in Column 1 of the Schedule hereunder is added to the reserved land specified opposite thereto in Column 2 of the Schedule.

The Hon Paul Toole, MP
Minister for Lands and Forestry

Schedule

Column 1	Column 2
Land District: Lismore Local Government Area: Ballina Shire Council Locality: Ballina To Seven Mile Beach Lot 1 DP 1228200 Parish Ballina County Rous Area: about 13.87 hectares File Reference: 09/01645-04	Reserve No. 1010068 Public Purpose: public recreation and coastal environmental protection Notified: 13 August 2004 New Area: about 250.47 hectares

NOTICE OF PURPOSE OTHER THAN THE DECLARED PURPOSE PURSUANT TO SECTION 34A(2)(b) OF THE CROWN LANDS ACT 1989

Pursuant to section 34A(2)(b) of the *Crown Lands Act 1989*, the Crown reserve(s) specified in Column 2 of the Schedule is to be used or occupied under a relevant interest granted for the purpose(s) specified in Column 1 of the Schedule where such use or occupation is other than the declared purpose of the reserve

The Hon Paul Toole, MP
Minister for Lands and Forestry

Schedule

Column 1	Column 2
Electricity supply	Reserve No. 88164 Public Purpose: public recreation Notified: 12 March 1971 File Reference: 16/07917

GRIFFITH OFFICE

ESTABLISHMENT OF RESERVE TRUST

Pursuant to section 92(1) of the *Crown Lands Act 1989*, the reserve trust specified in Column 1 of the Schedule hereunder is established under the name stated in that Column and is appointed as trustee of the reserve specified opposite thereto in Column 2 of the Schedule.

The Hon Paul Toole, MP
Minister for Lands and Forestry

Schedule

Column 1	Column 2
Robinson Crusoe Island Reserve Trust	Part Reserve No. 2419 Public Purpose: water Notified: 25 July 1881 Part Reserve 1032388 Lot 108 DP 752329 Public Purpose: environmental protection, public recreation Notified: 21 April 2011 File Reference: 16/10952

APPOINTMENT OF CORPORATION TO MANAGE RESERVE TRUST

Pursuant to section 95 of the *Crown Lands Act 1989*, the corporation specified in Column 1 of the Schedule hereunder is appointed to manage the affairs of the reserve trust specified opposite thereto in Column 2, which is trustee of the reserves referred to in Column 3 of the Schedule.

The Hon Paul Toole, MP
Minister for Lands and Forestry

Schedule

Column 1	Column 2	Column 3
Cargelligo Wetlands & Lakes Council Inc For a term commencing the date of this notice	Robinson Crusoe Island Reserve Trust	Part Reserve No. 2419 Public Purpose: water Notified: 25 July 1881 Part Reserve 1032388 Lot 108 DP 752329 Public Purpose: environmental protection, public recreation Notified: 21 April 2011 File Reference: 16/10952

NOTICE OF PURPOSE OTHER THAN THE DECLARED PURPOSE PURSUANT TO SECTION 34A(2)(b) OF THE CROWN LANDS ACT 1989

Pursuant to section 34A(2)(b) of the *Crown Lands Act 1989*, the Crown reserve(s) specified in Column 2 of the Schedule is to be used or occupied under a relevant interest granted for the purpose(s) specified in Column 1 of the Schedule where such use or occupation is other than the declared purpose of the reserve

The Hon Paul Toole, MP
Minister for Lands and Forestry

Schedule

Column 1	Column 2
Community purposes	Reserve No. 1030008 Public Purpose: environmental protection, public recreation Notified: 3 December 2010 File Reference: 17/02496

NEWCASTLE OFFICE

NOTIFICATION OF CLOSING OF A ROAD

In pursuance of the provisions of the *Roads Act 1993*, the road hereunder described is closed and the lands comprised therein cease to be public road and the rights of passage and access that previously existed in relation to the road is extinguished. Upon closing, title to the land, comprising the former public road, vests in the body specified in the Schedule hereunder.

The Hon Paul Toole, MP
Minister for Lands and Forestry

DESCRIPTION

*Parish – Breelong; County – Gowen
Land District – Coonamble; LGA – Gilgandra*

Road Closed: Lots 1-3 DP 1179048
File No: 11/06490

SCHEDULE

On closing, the land within Lots 1-3 DP 1179048 remains vested in the Gilgandra Shire Council as operational land for the purposes of the *Local Government Act 1993*.

Council Ref: DA52/10

NOTIFICATION OF CLOSING OF A ROAD

In pursuance of the provisions of the *Roads Act 1993*, the road hereunder described is closed and the lands comprised therein cease to be public road and the rights of passage and access that previously existed in relation to the road is extinguished. Upon closing, title to the land, comprising the former public road, vests in the body specified in the Schedule hereunder.

The Hon Paul Toole, MP
Minister for Lands and Forestry

DESCRIPTION

*Parish – Gulargambone; County – Ewenmar
Land District – Coonamble; LGA – Coonamble & Gilgandra*

Road Closed: Lot 2 DP 1228767
File No: 10/06404

SCHEDULE

On closing, the land within Lot 2 DP 1228767 remains vested in the State of New South Wales as Crown land.

NOTIFICATION OF CLOSING OF A ROAD

In pursuance of the provisions of the *Roads Act 1993*, the road hereunder described is closed and the lands comprised therein cease to be public road and the rights of passage and access that previously existed in relation to the road is extinguished. Upon closing, title to the land, comprising the former public road, vests in the body specified in the Schedule hereunder.

The Hon Paul Toole, MP
Minister for Lands and Forestry

DESCRIPTION

Parishes – Piper & Freemantle; County – Roxburgh & Bathurst

Land District – Bathurst; LGA – Bathurst Regional

Road Closed: Lots 3, 7, 8, 10, 15, 22, 23, 24 & 25 DP 1218703

File No: 08/11482

SCHEDULE

On closing, the land within Lots 3, 7, 8, 10, 15, 22, 23, 24 DP 1218703 remains vested in Bathurst Regional Council as operational land for the purposes of the *Local Government Act 1993*

On closing, the land within Lot 25 DP 1218703 becomes vested in the State of New South Wales as Crown land.

NOTIFICATION OF CLOSING OF A ROAD

In pursuance of the provisions of the *Roads Act 1993*, the road hereunder described is closed and the lands comprised therein cease to be public road and the rights of passage and access that previously existed in relation to the road is extinguished. Upon closing, title to the land, comprising the former public road, vests in the body specified in the Schedule hereunder.

The Hon Paul Toole, MP
Minister for Lands and Forestry

DESCRIPTION

Parish – Carroll; County – Buckland

Land District – Gunnedah; LGA – Gunnedah

Road Closed: Lot 1 DP 1223414

File No: 15/01510

SCHEDULE

On closing, the land within Lot 1 DP 1223414 remains vested in the State of New South Wales as Crown land.

NOTIFICATION OF CLOSING OF A ROAD

In pursuance of the provisions of the *Roads Act 1993*, the road hereunder described is closed and the lands comprised therein cease to be public road and the rights of passage and access that previously existed in relation to the road is extinguished. Upon closing, title to the land, comprising the former public road, vests in the body specified in the Schedule hereunder.

The Hon Paul Toole, MP
Minister for Lands and Forestry

DESCRIPTION

Parish – Pulletop; County – Mitchell

Land District – Wagga Wagga; LGA – Wagga Wagga

Road Closed: Lot 2 DP 1224577

File No: 16/02742

SCHEDULE

On closing, the land within Lot 2 DP 1224577 remains vested in the State of New South Wales as Crown land.

NOTIFICATION OF CLOSING OF A ROAD

In pursuance of the provisions of the *Roads Act 1993*, the road hereunder described is closed and the lands comprised therein cease to be public road and the rights of passage and access that previously existed in relation to the road is extinguished. Upon closing, title to the land, comprising the former public road, vests in the body specified in the Schedule hereunder.

The Hon Paul Toole, MP
Minister for Lands and Forestry

DESCRIPTION

*Parish – Hyandra; County – Gordon
Land District – Molong; LGA – Cabonne*

Road Closed: Lot 1 DP 1223824
File No: 08/2996

SCHEDULE

On closing, the land within Lot 1 DP 1223824 remains vested in the State of New South Wales as Crown land.

NOTIFICATION OF CLOSING OF A ROAD

In pursuance of the provisions of the *Roads Act 1993*, the road hereunder described is closed and the lands comprised therein cease to be public road and the rights of passage and access that previously existed in relation to the road is extinguished. Upon closing, title to the land, comprising the former public road, vests in the body specified in the Schedule hereunder.

The Hon Paul Toole, MP
Minister for Lands and Forestry

DESCRIPTION

*Parish – Hyandra; County – Gordon
Land District – Molong; LGA – Cabonne*

Road Closed: Lot 2 DP 1224867
File No: 08/2996

SCHEDULE

On closing, the land within Lot 2 DP 1224867 remains vested in the State of New South Wales as Crown land.

ROADS ACT 1993

Section 257

ORDER

Correction of Defective Instrument

As per the “Notification of Closing of a Road” (file no. 16/04604) which appeared in Government Gazette No 30 dated 03 March 2017, folio 570, part of the description is hereby amended. Under heading of “description and schedule” the words “Lots 1-2 DP1227314”; are deleted and replaced with “Lots 200-201 DP1227314”.

NOTIFICATION OF CLOSING OF A ROAD

In pursuance of the provisions of the *Roads Act 1993*, the road hereunder described is closed and the lands comprised therein cease to be public road and the rights of passage and access that previously existed in relation to the road is extinguished. Upon closing, title to the land, comprising the former public road, vests in the body specified in the Schedule hereunder.

The Hon Paul Toole, MP
Minister for Lands and Forestry

DESCRIPTION

*Parishes – Goodiman, Rouse, Yarrow; Counties – Bligh, Lincoln
Land District – Dunedoo Central; LGA – Mid-Western Regional & Warrumbungle*

Road Closed: Lots 1-2 DP 1222357

File No: 16/00970

SCHEDULE

On closing, the land within Lots 1-2 DP 1222357 remains vested in the State of New South Wales as Crown land.

NOTIFICATION OF CLOSING OF A ROAD

In pursuance of the provisions of the *Roads Act 1993*, the road hereunder described is closed and the lands comprised therein cease to be public road and the rights of passage and access that previously existed in relation to the road is extinguished. Upon closing, title to the land, comprising the former public road, vests in the body specified in the Schedule hereunder.

The Hon Paul Toole, MP
Minister for Lands and Forestry

DESCRIPTION

*Parish – Stewart; County – Roxburgh
Land District – Rylstone; LGA – Mid-Western Regional*

Road Closed: Lot 1 DP 1227218

File No: CL/00081

SCHEDULE

On closing, the land within Lot 1 DP 1227218 remains vested in the State of New South Wales as Crown land.

NOTIFICATION OF CLOSING OF A ROAD

In pursuance of the provisions of the *Roads Act 1993*, the road hereunder described is closed and the lands comprised therein cease to be public road and the rights of passage and access that previously existed in relation to the road is extinguished. Upon closing, title to the land, comprising the former public road, vests in the body specified in the Schedule hereunder.

The Hon Paul Toole, MP
Minister for Lands and Forestry

DESCRIPTION

*Parish – Gumly Gumly; County – Wynyard
Land District – Wagga Wagga; LGA – Wagga Wagga*

Road Closed: Lots 1 – 4 DP 1220149

File No: 15/08524

SCHEDULE

On closing, the land within Lots 1- 4 DP 1220149 becomes vested in the State of New South Wales as Crown land.

Council Ref: Resolution No. 15/200 13.7.15

NOTIFICATION OF CLOSING OF A ROAD

In pursuance of the provisions of the *Roads Act 1993*, the road hereunder described is closed and the lands comprised therein cease to be public road and the rights of passage and access that previously existed in relation to the road is extinguished. Upon closing, title to the land, comprising the former public road, vests in the body specified in the Schedule hereunder.

The Hon Paul Toole, MP
Minister for Lands and Forestry

DESCRIPTION

*Parish – Curryall; County – Bligh
Land District – Mudgee; LGA – Mid-Western Regional*

Road Closed: Lot 1 DP 1228299

File No: 09/10160

SCHEDULE

On closing, the land within Lot 1 DP 1228299 remains vested in the State of New South Wales as Crown land.

NOTIFICATION OF CLOSING OF A ROAD

In pursuance of the provisions of the *Roads Act 1993*, the road hereunder described is closed and the lands comprised therein cease to be public road and the rights of passage and access that previously existed in relation to the road is extinguished. Upon closing, title to the land, comprising the former public road, vests in the body specified in the Schedule hereunder.

The Hon Paul Toole, MP
Minister for Lands and Forestry

DESCRIPTION

*Parish – Budawang; County – St Vincent
Land District – Braidwood; LGA – Queanbeyan-Palerang Regional*

Road Closed: Lot 1 DP 1180254

File No: GB06H637

SCHEDULE

On closing, the land within Lot 1 DP 1180254 remains vested in the State of New South Wales as Crown land.

REVOCATION OF RESERVATION OF CROWN LAND

Pursuant to section 90 of the *Crown Lands Act 1989*, the reservation of Crown land specified in Column 1 of the Schedule hereunder is revoked to the extent specified opposite thereto in Column 2 of the Schedule.

The Hon Paul Toole, MP
Minister for Lands and Forestry

SCHEDULE

Column 1	Column 2
Parish: Budawang County: St Vincent Land District: Braidwood Local Government Area: Queanbeyan-Palerang Regional Locality: Budawang Reserve No. 755918 Public Purpose: Future public requirements Notified: Added to reserve 18 July 2008 Folio 7215 File Reference: GB06H637 Notes: For the purpose of sale of Lot 2 DP1180254 – closed Crown road (notified in Government Gazette 21 March 1969 Folio 1120) to an adjoining owner.	The part being: Lot 2 DP1180254 of an area of 1.148 ha

NOWRA OFFICE

ROADS ACT 1993

ORDER

Transfer of a Crown Road to a Council

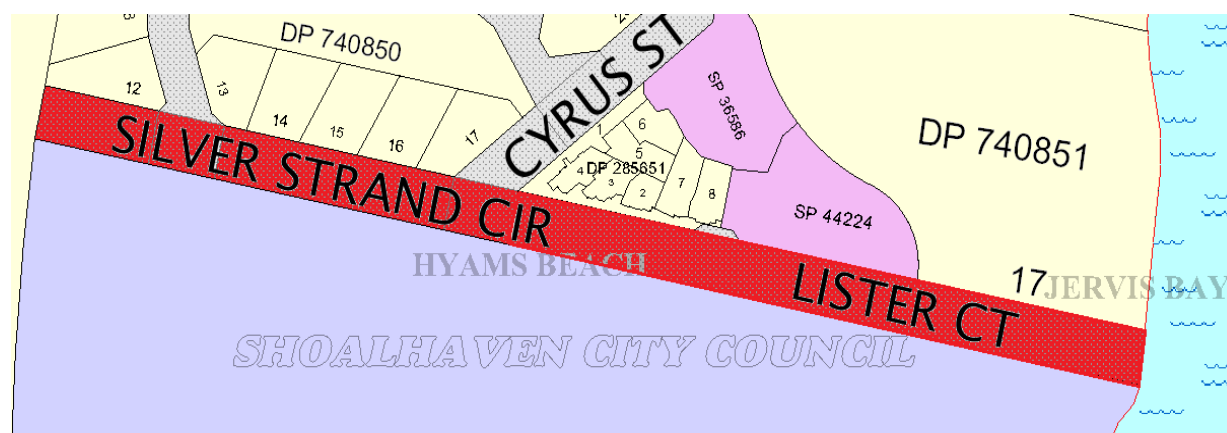
IN pursuance of the provisions of section 151, *Roads Act 1993*, the Crown roads specified in Schedule 1 is transferred to the Roads Authority specified in Schedule 2 hereunder, as from the date of publication of this notice and as from that date the roads specified in Schedule 1 cease to be a Crown road.

The Hon PAUL TOOLE, MP
Minister for Lands and Forestry

Schedule 1

*Parish – Bherwerre; County – St Vincent
Land District – Nowra; LGA – Shoalhaven*

Description: Crown road (shown by red colour in diagram hereunder) located at Hyams Beach.



Schedule 2

Road Authority: Shoalhaven City Council
Crown Lands File Ref: 16/00148 – W562578
Council Ref: 29219E (D15/246553)

ORANGE OFFICE

REVOCATION OF RESERVATION OF CROWN LAND

Pursuant to section 90 of the *Crown Lands Act 1989*, the reservation of Crown land specified in Column 1 of the Schedule hereunder is revoked to the extent specified opposite thereto in Column 2 of the Schedule.

The Hon Paul Toole, MP
Minister for Lands and Forestry

Schedule

Column 1	Column 2
Land District: Rylstone Local Government Area: Mid-Western Regional Council Locality: Kandos Reserve No. 89768 Public Purpose: future public requirements Notified: 2 April 1976 File Reference: 16/00866	The whole being Whole Lots: Lot 265 DP 755789 Parish Rylstone County Roxburgh Area: about 1.362 hectares

APPOINTMENT OF TRUST BOARD MEMBERS

Pursuant to section 93 of the *Crown Lands Act 1989*, the persons whose names are specified in Column 1 of the Schedule hereunder are appointed, for the terms of office specified in that Column, as members of the trust board for the reserve trust specified opposite thereto in Column 2, which has been established and appointed as trustee of the reserve referred to opposite thereto in Column 3 of the Schedule.

The Hon Paul Toole, MP
Minister for Lands and Forestry

Schedule

Column 1	Column 2	Column 3
Larry Walsh (new member) Ian John Packer (new member) Steven James Mason (new member) For a term commencing the date of this notice and expiring 04 April 2018.	Cowra Showground, Racecourse And Paceway Trust	Dedication No. 590004 Public Purpose: addition, racecourse, showground Notified: 17 February 1909 File Reference: OE80R276-009

ERRATUM

In the Government Gazette of 24 February 2017, Folio 526, under the heading “Order – Authorisation of Additional Purpose under Section 121A” regarding Reserve 755790 was published in error and hereby withdrawn.

The Hon Paul Toole, MP
Minister for Lands and Forestry

ERRATUM

In the Government Gazette of 24 February 2017, Folio 526, under the heading “Appointment of Reserve Trust as Trustee of a Reserve” Column 2 is amended to read as follows

Part Reserve 11705
Public Purpose: Public Buildings
Notified: 28 June 1890
File Reference: 16/06476

Note: Reserve 755790 should not have been included in Gazette 28 of 24 February 2017.

The Hon Paul Toole, MP
Minister for Lands and Forestry

NOTICE OF PURPOSE OTHER THAN THE DECLARED PURPOSE PURSUANT TO SECTION 34A(2)(b) OF THE CROWN LANDS ACT 1989

Pursuant to section 34A(2)(b) of the *Crown Lands Act 1989*, the Crown reserve(s) specified in Column 2 of the Schedule is to be used or occupied under a relevant interest granted for the purpose(s) specified in Column 1 of the Schedule where such use or occupation is other than the declared purpose of the reserve

The Hon Paul Toole, MP
Minister for Lands and Forestry

Schedule

Column 1	Column 2
Conservation	Reserve No. 58609 Public Purpose: generally Notified: 26 February 1926 File Reference: 16/08441

Column 1	Column 2
	Reserve No. 62688 Public Purpose: generally Notified: 15 May 1931 File Reference: 16/08441 Reserve No. 78613 Public Purpose: future public requirements Notified: 25 May 1956 File Reference: 16/08441 Reserve No. 80281 Public Purpose: generally Notified: 17 January 1958 File Reference: 16/08441 Reserve No. 89682 Public Purpose: future public requirements Notified: 12 December 1975 File Reference: 16/08441 Reserve No. 190027 Public Purpose: public recreation Notified: 30 January 1987 File Reference: 16/08441 Reserve No. 755757 Public Purpose: future public requirements Notified: 29 June 2007 File Reference: 16/08441 Reserve No. 755766 Public Purpose: future public requirements Notified: 29 June 2007 File Reference: 16/08441 Reserve No. 1012828 Public Purpose: future public requirements Notified: 8 December 2006 File Reference: 16/08441

SYDNEY METROPOLITAN OFFICE

NOTICE OF PURPOSE OTHER THAN THE DECLARED PURPOSE PURSUANT TO SECTION 34A(2)(b) OF THE CROWN LANDS ACT 1989

Pursuant to section 34A(2)(b) of the *Crown Lands Act 1989*, the Crown reserve(s) specified in Column 2 of the Schedule is to be used or occupied under a relevant interest granted for the purpose(s) specified in Column 1 of the Schedule where such use or occupation is other than the declared purpose of the reserve

The Hon Paul Toole, MP
Minister for Lands and Forestry

Schedule

Column 1	Column 2
Access	Reserve No. 85244 Public Purpose: public recreation Notified: 26 February 1965 File Reference: 17/00114

TAMWORTH OFFICE

NOTIFICATION OF VESTING OF LANDS UNDER THE CROWN LANDS ACT 1989

IN pursuance of the provisions of section 76 of the *Crown Lands Act 1989*, I, PAUL TOOLE, Minister for Lands and Forestry, do by this notification, vest the estate in fee simple of the lands described in the Schedule hereto as Community land in Tamworth Regional Council subject to the reservation to the Crown of all minerals which said land contain.

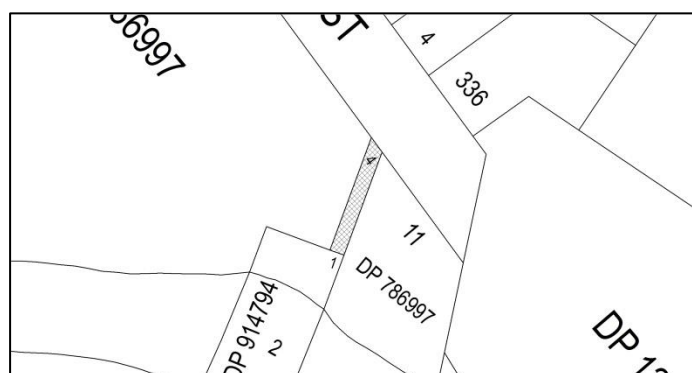
This vesting shall take effect on and from the date of publication of this notification.

The Hon Paul Toole, MP
Minister for Lands and Forestry

SCHEDULE

Land District – Tamworth; LGA – Tamworth Regional; Parish – Tamworth; County – Inglis

Approximately 101.2 square metres comprising Lot 4 DP 914794 located at Tamworth and shown by hatching on the diagram hereunder.



File Ref: 14/06379

NOTIFICATION OF CLOSING OF A ROAD

IN pursuance of the provisions of the *Roads Act 1993*, the road hereunder described is closed and the lands comprised therein cease to be public road and the rights of passage and access that previously existed in relation to the road is extinguished. Upon closing, title to the land, comprising the former public road, vests in the body specified in the Schedule hereunder.

The Hon Paul Toole, MP
Minister for Lands and Forestry

DESCRIPTION

Parish – Grenfell; County – Buckland

Land District – Tamworth; LGA – Liverpool Plains

Road Closed: Lots 1-2 DP 1207490

File No: 09/18383

SCHEDULE

On closing, the land within Lots 1-2 DP 1207490 remains vested in the State of New South Wales as Crown land.

ERRATUM

In the notification appearing in the New South Wales Government Gazette of 9 August 2013, Folio 3682, under the heading of “ADDITION TO RESERVED CROWN LAND”, the description of the land added to reserve R88668 and described in Column 1 should have read “part of Lot 7001 DP1059621 being the area shown as Lot 1 in DP1088159”.

ALTERATION OF CORPORATE NAME OF RESERVE TRUST

Pursuant to section 92(3) of the *Crown Lands Act 1989*, the corporate name of the reserve trust specified in Column 1 hereunder, which is trustee of the reserve referred to in Column 2, is altered to the corporate name specified in Column 3.

The Hon Paul Toole, MP
Minister for Lands and Forestry

Schedule

Column 1	Column 2	Column 3
Tamworth Police Boys Club (R600019) Reserve Trust	Dedication No. 600019 Public Purpose: police boys' club Notified: 30 August 1974 File Reference: 15/00840	Tamworth Police Citizens Youth Club (R600019) Reserve Trust

TAREE OFFICE

APPOINTMENT OF TRUST BOARD MEMBERS

Pursuant to section 93 of the *Crown Lands Act 1989*, the persons whose names are specified in Column 1 of the Schedule hereunder are appointed, for the terms of office specified in that Column, as members of the trust board for the reserve trust specified opposite thereto in Column 2, which has been established and appointed as trustee of the reserve referred to opposite thereto in Column 3 of the Schedule.

The Hon Paul Toole, MP
Minister for Lands and Forestry

Schedule

Column 1	Column 2	Column 3
Leigh Teresa Vaughan (new member) For a term commencing the date of this notice and expiring 19 April 2020.	Tuncurry Public Hall Reserve Trust	Reserve No. 54151 Public Purpose: public hall Notified: 10 September 1920 File Reference: TE80R193-002

NOTICE OF PURPOSE OTHER THAN THE DECLARED PURPOSE PURSUANT TO SECTION 34A(2)(b) OF THE CROWN LANDS ACT 1989

Pursuant to section 34A(2)(b) of the *Crown Lands Act 1989*, the Crown reserve(s) specified in Column 2 of the Schedule is to be used or occupied under a relevant interest granted for the purpose(s) specified in Column 1 of the Schedule where such use or occupation is other than the declared purpose of the reserve

The Hon Paul Toole, MP
Minister for Lands and Forestry

Schedule

Column 1	Column 2
Recreation Conservation Building	Reserve No. 754396 Public Purpose: future public requirements Notified: 29 June 2007 File Reference: 16/04832

WESTERN REGION OFFICE

NOTICE OF PURPOSE OTHER THAN THE DECLARED PURPOSE PURSUANT TO SECTION 34A(2)(b) OF THE CROWN LANDS ACT 1989

Pursuant to section 34A(2)(b) of the *Crown Lands Act 1989*, the Crown reserve(s) specified in Column 2 of the Schedule is to be used or occupied under a relevant interest granted for the purpose(s) specified in Column 1 of the Schedule where such use or occupation is other than the declared purpose of the reserve

The Hon Paul Toole, MP
Minister for Lands and Forestry

Schedule

Column 1	Column 2
Environmental protection Environmental rehabilitation	Reserve No. 37586 Public Purpose: temporary common Notified: 23 April 1904 File Reference: 17/01589 Reserve No. 37587 Public Purpose: temporary common Notified: 23 April 1904 File Reference: 17/01589 Reserve No. 38562 Public Purpose: water supply Notified: 19 November 1904 File Reference: 17/01589 Reserve No. 81797 Public Purpose: regeneration area Notified: 24 July 1959 File Reference: 17/01589 Reserve No. 81808 Public Purpose: travelling stock Notified: 24 July 1959 File Reference: 17/01589 Reserve No. 86587 Public Purpose: public recreation Notified: 19 January 1968 File Reference: 17/01589 Reserve No. 751322 Public Purpose: future public requirements Notified: 29 June 2007 File Reference: 17/01589

Schedule

Column 1	Column 2
Pipeline Pump site	Reserve No. 1013808 Public Purpose: future public requirements Notified: 29 June 2007 File Reference: 17/01710

Schedule

Column 1	Column 2
Storage area	Reserve No. 1031488 Public Purpose: environmental protection, future public requirements, public recreation, rural services Notified: 18 February 2011 File Reference: 16/05325

Schedule

Column 1	Column 2
Environmental rehabilitation	Reserve No. 3080 Public Purpose: tramway Notified: 12 February 1887 File Reference: 17/02699 Reserve No. 30905 Public Purpose: quarry Notified: 28 April 1900 File Reference: 17/02699

Other Government Notices

ASSOCIATIONS INCORPORATION ACT 2009

NOTICE UNDER SECTION 509(5) OF THE CORPORATIONS ACT 2001 AS APPLIED BY SECTION 64
OF THE ASSOCIATIONS INCORPORATION ACT 2009

Notice is hereby given that the Incorporated Association mentioned below will be deregistered when three months have passed after 01 March 2017.

OUTBACK AEROMEDICAL SERVICES INCORPORATED
INC9878374

Dated this 24th day of March 2017

C Gowland
Delegate of the Secretary
& Director Registry Services

ASSOCIATIONS INCORPORATION ACT 2009

Cancellation of incorporation pursuant to section 74

TAKE NOTICE that the incorporation of the following associations is cancelled by this notice pursuant to section 74 of the *Associations Incorporation Act 2009*.

BALLINA COASTAL QUILTERS INCORPORATED	INC9877655
CAPITAL COUNTRY INDUSTRY EDUCATION PARTNERSHIP INCORPORATED	INC9879228
IMPRO AUSTRALIA INCORPORATED	Y2978428
INTERNATIONAL ASSOCIATION OF PUBLIC PARTICIPATION – AUSTRALASIAN CHAPTER INCORPORATED	Y3012509
STOCKTON COMMUNITY ACTION GROUP INCORPORATED	INC9896388

Cancellation is effective as at the date of gazettal.

Dated this 29th day of March 2017.

Robyne Lunney
Delegate of the Commissioner
NSW Fair Trading

ASSOCIATIONS INCORPORATION ACT 2009

Cancellation of Registration pursuant to Section 76

TAKE NOTICE that the registration of the following associations is cancelled by this notice pursuant to section 76 of the *Associations Incorporation Act 2009*.

AHADI INCORPORATED	INC1300204
AUSTRALIAN BURUNDIAN COMMUNITY ORGANISATION (NSW) INCORPORATED	INC9891256
AUSTRALIAN DOWSERS SOCIETY INCORPORATED	INC9896440
BAY & BASIN UNITED RUGBY LEAGUES CLUB INCORPORATED	INC9890532
BEDGERABONG FISHING CLUB INCORPORATED	INC1400588
CARING FOR PEOPLE INCORPORATED	Y2687834
CLASSIC RIDE MOTORCYCLE CLUB INCORPORATED	INC9891330
COONAMBLE EQUESTRIAN CLUB INC	Y0331801
DUSTAN INCORPORATED	INC9892616
EAST ARMIDALE SOCCER CLUB INCORPORATED	INC9876236
FLEMINGTON CHAMBER OF COMMERCE INCORPORATED	INC9877978
G.R.A.S. LANDCARE GROUP INCORPORATED	Y1291335
GLOUCESTER RUGBY UNION CLUB INC.	Y0853419
HUNTER REGIONAL AECG TRAINING & DEVELOPMENT COMMITTEE INCORPORATED	INC9892603

LIONS CLUB OF PARKES INC.	Y0953218
LOVEHOPEFAITH INCORPORATED	INC1600804
MODERN AND CLASSICAL ARABIC MUSIC GROUP INCORPORATED	INC1500473
NICE LEARNING EDUCATION ASSOCIATION INCORPORATED	INC9892705
NICE LEARNING EDUCATION ASSOCIATION INCORPORATED	INC9892705
NORTH COAST CHEFS ASSOCIATION INCORPORATED	INC1301566
OCEAN SHORES BASKETBALL ASSOCIATION INCORPORATED	Y2114847
ORCHARD HILLS COMMUNITY ASSOCIATION INCORPORATED	INC9893301
PNG COMMUNITY GROUP SYDNEY & WOLLONGONG AREA INCORPORATED	INC9890732
RISE AND WALK FAITH MINISTRIES WORLD WIDE INCORPORATED	INC9889660
RIVERINA LIGHTHOUSE FAMILY WORSHIP CENTRE INCORPORATED	INC9887561
RYDE CITY AND DISTRICTS VVAA NSW BRANCH INCORPORATED	INC9897440
SEVEN HILLS UNITED SOCCER SPORTING CLUB INCORPORATED	Y2152347
SHIN SEN TRADITIONAL ARTS ASSN INCORPORATED	INC9893908
SOMERTON COMMUNITY STEERING COMMITTEE INCORPORATED	INC1300635
STARS TV INCORPORATED	INC1300601
THE COWRA POULTRY CLUB INCORPORATED	INC9880858
TRANSGRID ACTION GROUP (T.A.G.) INCORPORATED	INC9892586
TURILL COMMUNITY GROUP INCORPORATED	INC1300606
VALLEY RIDERS INCORPORATED	INC9891770
YASS JUNIOR ROOS AUSTRALIAN FOOTBALL CLUB INCORPORATED	INC9882639

Cancellation is effective as at the date of gazettal.

Dated this 31st day of March 2017.

Christine Gowland
 Delegate of the Commissioner
 NSW Fair Trading

ASSOCIATIONS INCORPORATION ACT 2009

Cancellation of registration pursuant to section 80

TAKE NOTICE that DESTINATION TWEED INC Y1751816 became registered under the *Corporations Act 2001* as DESTINATION TWEED LTD ACN 616 468 181, a company limited by guarantee, on the 10th day of FEBRUARY 2017, and accordingly its registration under the *Associations Incorporation Act 2009* is cancelled as of that date.

Robyne Lunney
 Delegate of the Commissioner
 NSW Fair Trading
 27th March 2017

ASSOCIATIONS INCORPORATION ACT 2009

Cancellation of registration pursuant to section 80

TAKE NOTICE that FAMILY RESOURCE AND NETWORK SUPPORT INC Y0129203 became registered under the *Corporations Act 2001* as FAMILY RESOURCE AND NETWORK SUPPORT INC ACN 613 814 654, a company limited by guarantee, on the 10th day of MARCH 2017, and accordingly its registration under the *Associations Incorporation Act 2009* is cancelled as of that date.

Robyne Lunney
 Delegate of the Commissioner
 NSW Fair Trading
 27th March 2017

DISTRICT COURT ACT 1973

District Court of New South Wales

Direction

Pursuant to section 32 of the *District Court Act 1973*, I direct that the District Court shall sit in its civil jurisdiction at the place and time shown as follows:

Griffith	10.00am	27 March 2017 (1 week) Sittings Cancelled
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Dated this 23th day of March 2017.

Justice D Price AM
Chief Judge

GEOGRAPHICAL NAMES ACT 1966

PURSUANT to the provisions of Section 10 of the *Geographical Names Act 1966*, the Geographical Names Board has this day assigned the name listed hereunder as a geographical name.

Wayne Game Reserve for a reserve adjacent to Fairwater Boulevard in the locality of Blacktown.

The position and extent for this feature is recorded and shown within the Geographical Names Register of New South Wales. This information can be accessed through the Board's website at www.gnb.nsw.gov.au

NARELLE UNDERWOOD
Chair
Geographical Names Board
PO Box 143
BATHURST NSW 2795

GROWTH CENTRES (DEVELOPMENT CORPORATIONS) ACT 1974

LAND ACQUISITION (JUST TERMS COMPENSATION) ACT 1991

NOTICE OF COMPULSORY ACQUISITION OF LAND
IN THE LOCAL GOVERNMENT AREA OF NEWCASTLE

Hunter Development Corporation, with the approval of His Excellency the Governor with the advice of the Executive Council, declares that the land described in the Schedules hereto are acquired by compulsory process under the provisions of the *Land Acquisition (Just Terms Compensation) Act 1991* and s9 of the *Growth Centres (Development Corporations) Act 1974*, for the purposes of the *Growth Centres (Development Corporations) Act 1974*.

Dated this 24 day of March 2017

Michael Cassel, CEO
Hunter Development Corporation

SCHEDULE 1

All that piece or parcel of land situated at Newcastle in the Local Government Area of Newcastle, Parish of Newcastle, County of Northumberland and State of New South Wales being that part of Lot 22 in Deposited Plan 1165985 shown as Lot 2 in Deposited Plan 1226145 held in the offices of Hunter Development Corporation in Newcastle and said to be in the ownership of Rail Corporation New South Wales but excluding from the compulsory acquisition: 09.2722 – Licence for passive recreation and car parking (to Newcastle City Council), AG591302 – Lease to Thi Kim Nga To (Civic Kiosk), 90.0257 – Lease for car parking and access purposes and DP1193695 – Right of carriageway 8 wide (Appurtenant).

SCHEDULE 2

All that piece or parcel of land situated at Newcastle in the Local Government Area of Newcastle, Parish of Newcastle, County of Northumberland and State of New South Wales being that part of Lot 1001 in Deposited Plan 1095836 shown as Lot 2 in Deposited Plan 1226551 held in the offices of Hunter Development Corporation in Newcastle and said to be in the ownership of Rail Corporation New South Wales but excluding from the compulsory acquisition: Licence for site works compound (to Downer EDI Works Pty Ltd) and with Hunter Development Corporation) a party to the Licence.

SCHEDULE 3

All that piece or parcel of land situated at Newcastle in the Local Government Area of Newcastle, Parish of Newcastle, County of Northumberland and State of New South Wales described as Lot 1000 in Deposited Plan 1095836 held in the offices of Hunter Development Corporation in Newcastle and said to be in the ownership of Rail Corporation New South Wales but excluding from the compulsory acquisition: DP1113767 – Proposed easement (Appurtenant) and Licence for site works compound (to Downer EDI Works Pty Ltd) and with Hunter Development Corporation) a party to the Licence.

SCHEDULE 4

All that piece or parcel of land situated at Newcastle in the Local Government Area of Newcastle, Parish of Newcastle, County of Northumberland and State of New South Wales being that part of Lot 21 in Deposited Plan 1009735 shown as Lot 4 in Deposited Plan 1226551 held in the offices of Hunter Development Corporation in Newcastle and said to be in the ownership of Rail Corporation New South Wales.

SCHEDULE 5

All that piece or parcel of land situated at Newcastle in the Local Government Area of Newcastle, Parish of Newcastle, County of Northumberland and State of New South Wales being that part of Lot 22 in Deposited Plan 1009735 shown as Lot 6 in Deposited Plan 1226551 held in the offices of Hunter Development Corporation in Newcastle and said to be in the ownership of Rail Corporation New South Wales but excluding from the compulsory acquisition: B23844 – the occupation rights pertaining to 69/643662 W&M 91cm water pipeline formalised 1-3-1970 and 87.0272 – Lease for pumping station and carrier main (to Hunter Water).

HEALTH ADMINISTRATION ACT 1982

Order Repealing Status of an Approved Quality Assurance Committee

I, BRAD HAZZARD, Minister for Health, pursuant to section 20E(1) of the *Health Administration Act 1982* and section 43 of the *Interpretation Act 1987*, do hereby repeal the Order published in the NSW Government Gazette No. 128 of 12 November 1999 declaring the Illawarra Area Health Service's Northern Illawarra Quality Committee and associated:

- Neurosciences Peer Review Group
- Gastroenterology Peer Review Group
- Cancer Services Peer Review Group
- Nephrology and Urology Peer Review Group
- Internal Medicine Peer Review Group
- Maternal Peer Review Group
- Paediatrics Peer Review Group
- Intensive Care Peer Review Group
- Emergency Medicine Peer Review Group
- Anaesthetics Peer Review Group
- Orthopaedics, Plastics and Faciomaxillary Peer Review Group
- Surgical Peer Review Group
- Ear, Nose and Throat Ophthalmology Peer Review Group
- Nuclear Medicine, Pathology and Imaging Peer Review Group
- Rehabilitation Peer Review Group
- Psychiatry Peer Review Group

to be approved quality assurance committees for the purposes of Division 6B of *Health Administration Act 1982*.

Signed, this 23 day of March 2017

Brad Hazzard MP
Minister for Health

LOCAL GOVERNMENT ACT 1993

PROPOSAL TO DISSOLVE SOUTHERN SLOPES COUNTY COUNCIL

A proposal, made pursuant to section 383(1) of the *Local Government Act 1993*, has been received from Hilltops Council to dissolve Southern Slopes County Council and transfer its assets, liabilities and staff to Hilltops Council.

The proposal has the support of Southern Slopes County Council.

Southern Slopes County Council, which trades under the name of Southern Slopes Noxious Plants Authority, is the local control authority under the *Noxious Weeds Act 1993* for the local government areas of Hilltops Council and Yass Valley Council.

Information concerning the proposal can be obtained from the offices of Hilltops Council, Yass Valley Council and Southern Slopes County Council during business hours from Friday 31 March 2017 until Monday 1 May 2017. That information may also be found on the website of Hilltops Council at www.hilltops.nsw.gov.au

Anyone affected by the proposal may make submissions or comments on the proposal to the Minister for Local Government, C/- Office of Local Government, Locked Bag 3015, Nowra, NSW 2541 or by fax to (02) 4428 4199 or by email to olg@olg.nsw.gov.au

Any submissions or comments must be lodged by Monday 1 May 2017.

The Hon Gabrielle Upton MP
Minister for the Environment
Minister for Local Government
Minister for Heritage

MOUNT PANORAMA MOTOR RACING ACT 1989

CONDUCT OF MOTOR RACING AND ASSOCIATED EVENTS

MOUNT PANORAMA

In pursuance of the provisions of Section 4 of the *Mount Panorama Motor Racing Act 1989*, I declare that the lands, as shown by hatching on the diagram hereunder, shall constitute the Mount Panorama Circuit for the purpose of motor racing, practice and associated events during the period 14 April to 16 April 2017, both dates inclusive.

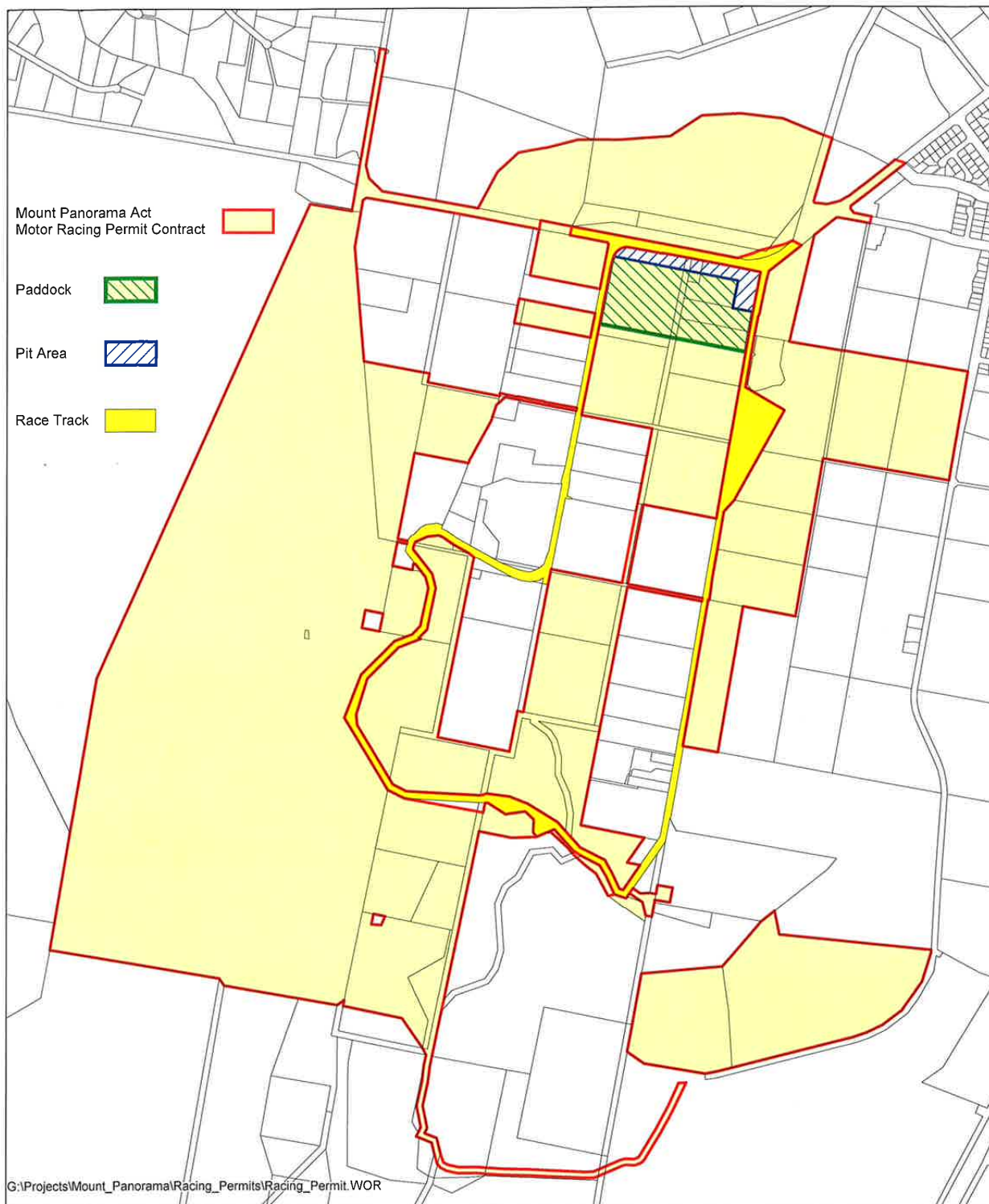
Stuart Ayres MP
Minister for Sport and Recreation

BATHURST REGIONAL COUNCIL

Mt Panorama Circuit

Hi Tec Oils 6 Hour

14-16 April 2017



Bathurst Regional Council expressly disclaims all liability for errors or omissions of any kind whatsoever, or any loss, damage or of consequence which may arise from any person relying on information in this Plan.

Department of Lands

Date 10/10/2012

Note: The colours on this Plan do not indicate zones under the Bathurst Local Environmental Plan 1997.

Home Building Act 1989

Section 33D(1)

INSTRUMENT

Qualification requirements for an endorsed contractor licence or supervisor certificate for residential building work in various categories

I, Rod Stowe, Commissioner for Fair Trading, Department of Finance, and Services and Innovation, as the "Secretary" under the *Home Building Act 1989* ("the Act"):

1. revoke all previous Instruments in so far as they deal with the same matters as this Instrument; and
2. determine,
 - (a) pursuant to section 33D(1)(a) of the Act, the possession of qualifications and the passing of examinations and practical tests, and;
 - (b) pursuant to section 33D(1)(b) of the Act, the possession of experience of such a kind and for such a period,

as specified in the Table necessary for an applicant for the issue of a supervisor certificate or endorsed contractor licence in the following categories of residential building work:

- (a) Bricklaying;
- (b) Carpentry;
- (c) Decorating;
- (d) Dry plastering;
- (e) Erection of pre-fabricated metal-framed home additions and structures;
- (f) Excavating;
- (g) Fencing;
- (h) General concreting;
- (i) Glazing;
- (j) Joinery;
- (k) Kitchen, bathroom and laundry renovation;
- (l) Metal fabrication;
- (m) Minor maintenance and cleaning;
- (n) Minor tradework;
- (o) Painting;
- (p) Roof plumbing;
- (q) Roof slating;
- (r) Roof tiling;
- (s) Stonemasonry;
- (t) Structural landscaping;
- (u) Swimming pool building;

- (v) Swimming pool repair and servicing;
- (w) Underpinning or piling
- (x) Wall and floor tiling;
- (y) Waterproofing;
- (z) Wet plastering.

This Instrument commences on the date on which it is signed (“the Commencement Date”).

Dated this 6th day of March 2017.

Rod Stowe
 Commissioner for Fair Trading
 Department of Finance, Services and Innovation

Explanation

The Commissioner for Fair Trading, Department of Finance, Services and Innovation is at the date of this Instrument the “Secretary” under the *Home Building Act 1989* and the *Home Building Regulation 2014*. See paragraph (a) of the definition of “Secretary” in clause 1(1) of Schedule 1 to the *Home Building Act 1989*.

Interpretation

In this Instrument:

“**Relevant Application Form**” means the relevant application form for the Licence or Certificate that is being applied for, which is published on the NSW Fair Trading website, including the required attachments to that form. (*Note – Applications are to be made in accordance with section 12 of the Licensing and Registration (Uniform Procedures) Act 2002*);

“**TAFE**” means the New South Wales Technical and Further Education Commission.

Table

Category of residential building work	Qualification, examination, or experience
Bricklaying	Completion of: <ol style="list-style-type: none"> (1) CPC30111/ CPC30108/ BCG30103 Certificate III in Bricklaying/Blocklaying; or (2) BCG30698 Certificate III in General Construction (Bricklaying/Blocklaying), TAFE course #8064; or (3) Qualification 4640 Certificate III in Bricklaying Trade TAFE course #2160; or (4) Certificate III in Bricklaying Trade TAFE course #5159.

Carpentry	<p>Completion of:</p> <ul style="list-style-type: none"> (1) CPC30211/ CPC30208/ BCG30203 Certificate III in Carpentry; or (2) CPC32011/ CPC32008 Certificate III in Carpentry and Joinery; or (3) BCG30798 Certificate III in General Construction (Carpentry – Framework/Formwork/Finishing), TAFE course #7078; or (4) Qualification 10888 Certificate III in General Construction (Carpentry)- Housing – Trade TAFE Course #2192; or (5) Certificate III in Carpentry and Joinery Trade TAFE Course #2149; or (6) Certificate III in Carpentry and Joinery Trade TAFE Course #5158.
Decorating	<p>Completion of:</p> <ul style="list-style-type: none"> (1) CPC30611/ CPC30608/ BCG30603 Certificate III in Painting and Decorating; or (2) BCG30498 Certificate III in General Construction (Painting & Decorating), TAFE course #8063; or (3) Qualification 11766 Certificate III in Painting and Decorating TAFE course #2155; or (4) Certificate III in Painting and Decorating Trade TAFE course #5129.
Dry plastering	<p>Completion of:</p> <ul style="list-style-type: none"> (1) CPC31211/ CPC31208/ BCG31203 Certificate III in Wall and Ceiling Lining; or (2) BCG30298 Certificate III in General Construction (Wall and Ceiling Lining) TAFE course #8062; or (3) Qualification 11764 Certificate III in Plastering Fibrous and Plasterboard – Trade TAFE course #2153; or (4) Certificate III in Fibrous Plaster and Plasterboard – Trade TAFE course #0115.
Erection of pre-fabricated metal-framed home additions and structures	<ul style="list-style-type: none"> (1) Completion of the following units of competency: <ul style="list-style-type: none"> (a) CPCCOHS1011A/ CPCCOHS1001A Work safely in the construction industry; and (b) CPCCCM1012A/ CPCCCM1002A Work effectively and sustainably in the construction industry; and (c) CPCCCM1013A/ CPCCCM1003A Plan and organise work; and (d) CPCCCM1014A/ CPCCCM1004A Conduct workplace communication; and (e) CPCCCM1015A/ CPCCCM1005A Carry out measurements and calculations; and (f) CPCCCM2001A Read and interpret plans and specifications; and (g) CPCPRF3023A/ CPCPRF3013A/ CPCPRF3003A Fabricate and install external flashings; and (h) CPCCCM1011A/ CPCCCM1001A Undertake basic estimation and costing; and (i) CPCPCM3021A/ CPCPCM3011A/ CPCPCM3001A Flash penetrations through roofs and walls; and (j) either:

	<ul style="list-style-type: none"> (i) CPCCCM2005A or B Use construction tools and equipment; or (ii) MEM18001C – Hand Tools and MEM18002B – Use power tools/hand held operations and MEM05005B – Carry out mechanical cutting; and (k) CPCBC4008A/ CPCBC4008B Conduct on-site supervision of the building and construction projects; and (l) either: <ul style="list-style-type: none"> (i) BSBCM209A Provide information to clients; or (ii) BSBCUS201/ BSBCUS201A or B Deliver a service to customers; and (m) CPCCA3002A Carry out setting out; and (n) CPCPCM2048A/ CPCPCM2028A/ CPCPCM2008A Cut and join sheet metal; and (o) CPCPRF2022A/ CPCPRF2012A/ CPCPRF2002A Select and install roof sheeting and wall cladding; and (p) CPCCCO2013A/ CPCCCO2003A Carry out concreting to simple forms; and (q) CPCCA3010A Install and replace windows and doors; and (r) either: <ul style="list-style-type: none"> (i) BSBSMB405 BSBSMB405A/ BSBSMB405B Monitor and manage business operations; or (ii) or BSBM406, BSBSMB406A Manage small business finances; <p>OR</p> <p>(2) Completion of the following units of competency:</p> <ul style="list-style-type: none"> (a) BCGCM1001B Follow OH&S policies and procedures; and (b) BCGCM1002B Work effectively in the general construction industry; and (c) BCGCM1003B Plan and organise work; and (d) BCGCM1004B Conduct workplace communication; and (e) BCGCM1005B Carry out measurements and calculations; and (f) BCGCM2001B Read and interpret plans and specifications; and (g) BCPRF3003A Fabricate and install external flashings; and (h) BCGVE1004B Undertake basic estimation and costing; and (i) BCPCM3001A Flash penetrations through roofs and walls; and (j) BCGCM2005B Use construction tools; and (k) either: <ul style="list-style-type: none"> (i) BCGBC4008A Conduct on-site supervision of the building and construction project; or (ii) ABC082 Building Site Supervision; and (l) BSBCM209A Provide information to clients; and (m) BCGCA3002B Carry out setting out; and (n) BCGVE2001B Produce construction drawings; and (o) BCPCM2008A Cut and join sheet metal; and (p) BCPRF2002A Select and install roof sheeting and wall cladding; and (q) BCGCO2003B Carry out concreting to simple forms; and (r) BCGCA3010B Install and replace windows and doors; and (s) BSBSBM405A Monitor and manage business operations.
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<p>Excavating</p>	<p>Completion of:</p> <ol style="list-style-type: none"> (1) RII30815/ RII30813/ RII30809 Certificate III in Civil Construction Plant Operations; or (2) BCC30607 Certificate III in Civil Construction (Plant Operation) TAFE Course #17702; or (3) BCC30603 Certificate III in Civil Construction (Plant Operation) TAFE Course #4885; or (4) BCC30198 Certificate III in Civil Construction (Plant) TAFE course #8085; or (5) Qualification 2555 Certificate III in Civil Construction (Plant Operator), TAFE course #7983.
<p>Fencing</p>	<ol style="list-style-type: none"> (1) Completion of CPC10111 Certificate 1 in Construction with the following electives and additional units: <ol style="list-style-type: none"> (a) CPCCCM1015A Carry out measurements and calculations; and (b) either: <ol style="list-style-type: none"> (i) CPCCCM2004A Handle construction materials; or (ii) MEM05005B Carry out mechanical cutting; and (c) CPCCCM2006A or B Apply basic leveling procedures; and (d) CPCCCM2009A Carry out basic demolition; and (e) CPCCJN2001A Assemble components; and (f) CPCCOHS2001A Apply OHS requirements, policies and procedures in the construction industry; <p>OR</p> (2) Completion of CPC10108 Certificate 1 in Construction with the following electives and additional units: <ol style="list-style-type: none"> (a) CPCCCM1005A Carry out measurements and calculations; and (b) CPCCCM2004A Handle construction materials or MEM05005B Carry out mechanical cutting; and (c) CPCCCM2006A Apply basic leveling procedures; and (d) CPCCCM2009A Carry out basic demolition; and (e) CPCCJN2001A Assemble components; and (f) CPCCOHS2001A Apply OHS requirements, policies and procedures in the construction industry; <p>OR</p> (3) Completion of the following units of competency: <ol style="list-style-type: none"> (a) BCGCM1001B Follow OH&S policies and procedures; and (b) BCGCM1002B Work effectively in the General Construction industry; and (c) BCGCM1003B Plan and organise work; and (d) BCGCM1004B Conduct workplace communication; and (e) BCGCM1005B Carry out measurements and calculations; and (f) BCGCM2001B Read and interpret plans and specifications; and (g) BCGCM2004B Handle construction materials; and (h) BCGCM2005B Use construction tools and equipment; and (i) BCGCM2006B Apply basic levelling procedures; and (j) BCCCM3001B Construct and dismantle fences and gates; and (k) BCGCM2009B Carry out basic demolition.

<p>General concreting</p>	<p>Completion of:</p> <ul style="list-style-type: none"> (1) CPC30313/ CPC30311/ CPC30308/ BCG30303 Certificate III in Concreting; or (2) CPC31511/ CPC31508 Certificate III in Formwork/Falsework; or (3) TAFE course 4428 Certificate III in Construction Carpentry; or (4) Qualification 90203 Certificate III in Construction Carpentry Trade TAFE course #8044; or (5) Qualification 11770 Certificate III in Construction Carpentry, Trade TAFE course #7906.
<p>Glazing</p>	<p>Completion of:</p> <ul style="list-style-type: none"> (1) MSF30413 or LMF30611 Certificate III in Glass and Glazing (specialising in Glazing); or (2) LMF30602 Certificate III in Glass & Glazing; or (3) TAFE Qualification 5792 Certificate III in Glass and Glazing Trade TAFE course #7958; or (4) Certificate III in Glass and Glazing TAFE course #2135; or (5) Certificate III in Glass Flat TAFE course #0109.
<p>Joinery</p>	<p>Completion of:</p> <ul style="list-style-type: none"> (1) CPC31912/ CPC31911/ CPC31908 Certificate III in Joinery; or (2) CPC32011/ CPC32008 Certificate III in Carpentry and Joinery; or (3) CPC30116/ CPC31812/ CPC31811/ CPC31808 Certificate III in Shopfitting; or (4) MSF31113/ LMF32109 Certificate III in Cabinet Making; or (5) MSF31113/ LMF32109 Certificate III in Cabinet Making (Furniture); or (6) MSF31113/ LMF32109 Certificate III in Cabinet Making (Kitchens and Bathrooms); or (7) BCF30100 Certificate III in Off Site Construction (Shop fitting); or (8) BCF30200 Certificate III in Off Site Construction (Joinery – Timber/Aluminium/Glass); or (9) MSF30213/LMF30302 Certificate III in Furniture Making; or (10) LMF30402 Certificate III in Furniture Making (Cabinet Making); or (11) LMF30502 Certificate III in Furniture Making (Wood Machinery); or (12) MEM30705/ MEM30603 Certificate III in Marine Craft Construction; or (13) Qualification 11760 Certificate III in Shopfitting Kitchen and Detailed Joinery, Trade TAFE course #2147; or (14) Certificate III in Shopfitting and Detailed Joinery Trade TAFE course #5122; or (15) Qualification 90604 Certificate III in Furnishing (Cabinetmaking), TAFE course #8182; or (16) Qualification 1323 Certificate III in Furnishing (Cabinetmaking), TAFE course #2189; or (17) Qualification 90605 Certificate III in Woodmachining, TAFE course #8183; or (18) Qualification 1323 Certificate III in Woodmachining, TAFE course #2190; or

	(19) Qualification 11756 Certificate III in Boat and Shipbuilding, TAFE course #3181.
Kitchen, bathroom and laundry renovation	<p>Applicants must hold one qualification from Group A and one from Group B, listed below.</p> <p><u>Group A</u></p> <p>An endorsed contractor licence or supervisor certificate held under the Act for:</p> <ul style="list-style-type: none"> (a) Carpentry; or (b) Joinery; or (c) Plumbing; or (d) Wall and floor tiling; <p>which is current at the date on which the application is made or a qualification approved for the time being under section 33D(1) of the Act for such a licence or certificate.</p> <p><u>Group B</u></p> <p>Applicants must also hold one of the following six Group B qualifications:</p> <p>(1) Completion of the following units of competency:</p> <ul style="list-style-type: none"> (a) CPCCBC4001A/ BCGBC4001A Apply building codes and standards to the construction process for low-rise building projects; and (b) CPCCBC4002A/ BCGBC4002A Manage occupational health and safety in the building and construction workplace; and (c) CPCCBC4003A/ BCGBC4003A Select and prepare a construction contract; and (d) CPCCBC4004A/ BCGBC4004A Identify and produce estimated costs for building and construction projects; and (e) CPCCBC4005A/ BCGBC4005A Produce labour and material schedules for ordering; and (f) CPCCBC4006A/ CPCCBC4006B/ BCGBC4006A Select, procure and store construction materials for low-rise projects; and (g) CPCCBC4007A/ BCGBC4007A Plan building or construction work; and (h) CPCCBC4008A/ CPCCBC4008B/ BCGBC4008A Conduct on-site supervision of the building and construction project; and (i) CPCCBC4009A/ CPCCBC4009B/ BCGBC4009A Apply legal requirements to building and construction projects; <p>OR</p> <p>(2) Completion of the following units of competency:</p> <ul style="list-style-type: none"> (a) MSFFT4001/ LMFFT4001A/ LMFFT4001B Coordinate on-site installation of furnishing products; and (b) MSFFT4009/ LMFFT4009A/ LMFFT4009B Match furnishing style/materials to customer requirements; and (c) MSFGN3002/ LMFGN3002A/ LMFGN3002B or Estimate

	<p>and cost job; and</p> <p>(d) MSFFM3011/ LMFFM3013A/ LMFFM3013B or Measure and draw site layout for manufactured furniture products; and</p> <p>(e) MSFFM3005/ LMFFM3005A/ LMFFM3005B or Fabricate custom furniture; and</p> <p>(f) MSFFM3006/ LMFFM3006A/ LMFFM3006B or Install furnishing products;</p> <p>OR</p> <p>(3) Completion of the following modules from Course 3477 Certificate IV in Building:</p> <p>(a) ABC005 Materials 1; and</p> <p>(b) ABC069 Cost Control and Planning 1; and</p> <p>(c) ABC077 Building Quantities and Estimating 1B; and</p> <p>(d) ABC082 Building Site Supervision; and</p> <p>(e) ABC091 Business Management for Building Industry 1A; and</p> <p>(f) ABC092 Business Management for Building Industry 1B; and</p> <p>(g) ABC102 Residential Site Safety; and</p> <p>(h) ABC088 Building Technology 1;</p> <p>OR</p> <p>(4) Completion of the following modules from the TAFE Certificate IV in Building Studies (1261):</p> <p>(a) 2182L Cost Control and Planning 1; and</p> <p>(b) 2182F Building Quantities and Estimating 1B; and</p> <p>(c) 2182H Building Site Supervision; and</p> <p>(d) 2182G Business Management for Building Industry 1A; and</p> <p>(e) 2182GG Business Management for Building Industry 1B; and</p> <p>(f) 2182J Residential Site Safety; and</p> <p>(g) 2182C Building Technology 1; and</p> <p>(h) 2182B Construction 1;</p> <p>OR</p> <p>(5) Completion of the following module from the TAFE Certificate IV in Plumbing Technology (8081) with the following units:</p> <p>(a) 1496A Plumbing contracting principles; and</p> <p>(b) BCGBC4001A / CPCCBC4001A Apply building codes and standards to the construction process for low-rise building projects; and</p> <p>(c) BCGBC4004A / CPCCBC4004A Identify and produce estimated costs for building and construction projects; and</p> <p>(d) BCGBC4006A / CPCCBC4006A or B Select, procure and store construction materials for low-rise projects; and</p> <p>(e) BCGBC4007A / CPCCBC4007A Plan building or construction work;</p> <p>OR</p> <p>(6) Completion of the following modules from the TAFE Certificate IV in Plumbing Technology (8081) and course 3477 Certificate IV in Building or TAFE Certificate IV in Building Studies (1261):</p> <p>(a) 1496A Plumbing contracting principles; and</p> <p>(b) ABC005 Materials 1 or 2182A Materials 1; and</p> <p>(c) ABC077 Building Quantities and Estimating 1B or 2182F Building Quantities and Estimating 1B; and</p> <p>(d) ABC088 Building Technology 1 or 2182C Building</p>
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	Technology 1.
Metal fabrication	<p>Completion of:</p> <ul style="list-style-type: none"> (1) CPC31111/ CPC31108 Certificate III in Steelfixing; or (2) CPC30711 Certificate III in Rigging, including CPCCRI3014A Perform advanced structural steel erection; or (3) CPC30708 Certificate III in Rigging, including CPCCRI3004A Perform advanced structural steel erection; or (4) BCG31103 Certificate III in Steel Fixing; or (5) MEM30305/ MEM30398 Certificate III in Engineering – Fabrication Trade; or (6) MEM30305 Certificate III in Engineering – Fabrication Trade/ Fabrication Trade (Boilermaker/Welding); or (7) BCG30703 Certificate III in Rigging, including BCGR13004B Perform advanced structural steel erection; or (8) BCG30998 Certificate III in General Construction (Materials Handling) TAFE course #8058; or (9) BCG31298 Certificate III in General Construction (Concreting/Steelfixing).
Minor maintenance and cleaning	<p>For the endorsement of Non-structural repair work:</p> <p>Completion of:</p> <ul style="list-style-type: none"> (1) CPC10111 Certificate I in Construction with the following electives and additional units: <ul style="list-style-type: none"> (a) CPCCCM2004A Handle construction materials; and (b) CPCCCM1011A Undertake basic estimation and costing; and (c) CPCCPD2013A Remove and replace doors and door and window components. <p>OR</p> <ul style="list-style-type: none"> (2) CPC10108 Certificate I in General Construction, with the following electives and additional units: <ul style="list-style-type: none"> (a) CPCCCM2004A Handle construction materials; and (b) CPCCCM1001A Undertake basic estimation and costing; and (c) CPCCPD2003A Remove and replace doors and door and window components; <p>OR</p> <ul style="list-style-type: none"> (1) BCG10103 Certificate I in General Construction with the following electives and additional units: <ul style="list-style-type: none"> (a) BCGVE1001B Handle construction materials; and (b) BCGVE1002B Undertake a basic construction project; and (c) BCGVE1004B Undertake basic estimation and costing; and (d) BCGCA2001B Handle carpentry materials; and (e) BCGCA2002B Use carpentry tools and equipment; and (f) BCGPD2003B Remove and replace doors and door and window furniture;

	<p>OR</p> <p>(3) BCG10198 Certificate I in Construction TAFE course #1206.</p> <p>For the endorsement of Pressure washing / graffiti removal / brick cleaning work:</p> <p>Completion of:</p> <p>(1) CPC10111 Certificate I in Construction with the following electives and additional units:</p> <ul style="list-style-type: none">(a) CPCCCM2004A Handle construction materials; and(b) CPCCCM1011A Undertake basic estimation and costing; and(c) CPCCPD3029A Remove graffiti and apply protective coatings; <p>OR</p> <p>(2) CPC10108 Certificate I in General Construction, with the following electives and additional units:</p> <ul style="list-style-type: none">(a) CPCCCM2004A Handle construction materials; and(b) CPCCCM1001A Undertake basic estimation and costing; and(c) CPCCPD3009A Remove graffiti and apply protective coatings; <p>OR</p> <p>(1) BCG10103 Certificate I in General Construction with the following electives and additional units:</p> <ul style="list-style-type: none">(a) BCGVE1001B Handle construction materials; and(b) BCGVE1002B Undertake a basic construction project; and(c) BCGVE1004B Undertake basic estimation and costing; and(d) BCGPD3009B Remove graffiti and apply protective coatings; <p>OR</p> <p>(3) BCG10198 Certificate I in Construction TAFE course #1206.</p> <p>For the endorsement of Repair, resurfacing or application of a protective coating to bathroom tiles, baths, etc:</p> <p>Completion of:</p> <p>(1) CPC10111 Certificate I in Construction with the following electives and additional units:</p> <ul style="list-style-type: none">(a) CPCCCM2004A Handle construction materials; and(b) CPCCCM1011A Undertake basic estimation and costing; and(c) either:<ul style="list-style-type: none">(i) CPCCPD3030A/ CPCCPD3030B Apply protective paint
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	<p>coating systems; or (ii) CPCCWF3004A Repair wall and floor tiles;</p> <p>OR</p> <p>(2) CPC10108 Certificate I in General Construction, with the following electives and additional units: (a) CPCCCM2004A Handle construction materials; and (b) CPCCCM1001A Undertake basic estimation and costing; and (c) either: (i) CPCCPD3010A Apply protective paint coating systems; or (ii) CPCCWF3004A Repair wall and floor tiles;</p> <p>OR</p> <p>(3) BCG10103 Certificate I in General Construction with the following electives and additional units: (a) BCGVE1001B Handle construction materials; and (b) BCGVE1002B Undertake a basic construction project; and (c) BCGVE1004B Undertake basic estimation and costing; and (d) either: (i) BCGPD3010B Apply protective paint coating systems; or (ii) BCGWF3004B Repair wall and floor tiles;</p> <p>OR</p> <p>(4) MSM30216/ MSA30309 Certificate III in Surface Preparation and Coating Application</p> <p>OR</p> <p>(5) BCG10198 Certificate I in Construction TAFE course #1206.</p>
<p>Minor tradework</p>	<p>For the endorsement of Bitumen surfacing:</p> <p>Completion of: (1) RII20815/ RII20813/ RII20809 Certificate II in Bituminous Surfacing; or (2) RII30913/ RII30912 Certificate III in Civil Construction, including the Bituminous Surfacing stream; or (3) RII31009 Certificate III in Bituminous Surfacing; or (4) BCG10103 Certificate I in General Construction with the following electives and additional units: (a) BCGVE1001B Handle construction materials; and (b) BCGVE1002B Undertake a basic construction project; and (c) BCGVE1004B Undertake basic estimation and costing; and (d) BCCCM2002B Use small plant and equipment; and (e) BCCCM2007B Spread and compact materials manually; and (f) BCCBS2001B Conduct tack coat spraying operations; and (g) BCCBS2003B Safely handle bituminous materials; and (h) BCCBS2002B Hand spread asphalt.</p> <p>For the endorsement of Ducting / Mechanical ventilation:</p> <p>Applicants are required to:</p>

	<p>(1) A minimum of two years acceptable practical experience in carrying out ducting or mechanical ventilation work verified in the Relevant Application Form; and</p> <p>(2) Undertake a Licence Skills Assessment conducted by the Building Industry Skills Centre.</p> <p>For the endorsement of Kitchen/bathroom bench installation:</p> <p>Completion of:</p> <p>(1) MSF20313/ LMF20309 Certificate II in Furniture Making;</p> <p>OR</p> <p>(2) CPC10111 Certificate I in Construction with the following electives and additional units:</p> <p>(a) CPCCCM2004A Handle construction materials; and</p> <p>(b) CPCCCM1011A Undertake basic estimation and costing; and</p> <p>(c) CPCCST2001A Prepare for stonemasonry construction process; and</p> <p>(d) CPCCCA2011A Handle carpentry materials; and</p> <p>(e) CPCCCA2002A or B Use carpentry tools and equipment;</p> <p>OR</p> <p>(3) CPC10108 Certificate I in Construction with the following electives and additional units:</p> <p>(a) CPCCCM2004A Handle construction materials; and</p> <p>(b) CPCCCM1001A Undertake basic estimation and costing; and</p> <p>(c) CPCCST2001A Prepare for stonemasonry construction process; and</p> <p>(d) CPCCCA2001A Handle carpentry materials; and</p> <p>(e) CPCCCA2002B/ CPCCCA2002A Use carpentry tools and equipment;</p> <p>OR</p> <p>(4) BCG10103 Certificate I in General Construction with the following electives and additional units:</p> <p>(a) BCGVE1001B Handle construction materials; and</p> <p>(b) BCGVE1002B Undertake a basic construction project; and</p> <p>(c) BCGVE1004B Undertake basic estimation and costing; and</p> <p>(d) BCF1000A Prepare for construction process stonemasonry; and</p> <p>(e) BCGCA2001B Handle carpentry materials; and</p> <p>(f) BCGCA2002B Use carpentry tools and equipment.</p> <p>For the endorsement of Other (including installation of solid fuel heaters):</p> <p>(1) Completion of CPC10111 Certificate I in Construction, including:</p>
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	<p>(a) CPCCCM2004A Handle construction materials; and</p> <p>(b) CPCCCM1011A Undertake basic estimation and costing; and</p> <p>(c) either:</p> <p>(i) For installation of solid fuel heaters (fireplaces) the additional units are CPCPCM2043A Carry out WHS requirements and CPCPMS3041A Install domestic solid fuel burning appliances; or</p> <p>(ii) Additional units must be completed to support the type of minor trade work to be undertaken; or</p> <p>(iii) Where there are no relevant units, training by the relevant manufacturer, industry or supplier, must be completed.</p> <p>For the endorsement of Paving:</p> <p>(1) Completion of CPC31611/ CPC31608 Certificate III in Paving;</p> <p>For the endorsement of Shade sails and shade systems installation:</p> <p>Completion of:</p> <p>(1) CPC10111 Certificate I in Construction with the following electives and additional units:</p> <p>(a) CPCCCM2004A Handle construction materials; and</p> <p>(b) CPCCCM1011A Undertake basic estimation and costing; and</p> <p>(c) CPCCCO2013A Carry out concreting to simple forms; and</p> <p>(d) either:</p> <p>(i) CPCCCM3003A Work safely around power sources, services and assets; or</p> <p>(ii) CPCCCM3003 – Work safely around electrical sources, services and assets;</p> <p>OR</p> <p>(2) Completion of MSF30913 Certificate III in Blinds, Awnings, Security Screens and Grilles</p> <p>OR</p> <p>(3) Completion of LMF21108 Certificate II in Blind and Awnings.</p> <p>For the endorsement of Shower screen enclosure installation:</p> <p>Completion of:</p> <p>(1) MSF10113 Certificate I in Furnishing including the following electives and additional units:</p> <p>(a) MSFGG2005 Apply basic glass handling; and</p> <p>(b) MSFGG2001 Use glass and glazing sector hand and power tools;</p>
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	<p>(c) MSFGG3015 Fabricate and install shower screens and wardrobe doors;</p> <p>OR</p> <p>(2) CPC10111 Certificate I in Construction with the following electives and additional units:</p> <p>(a) CPCCCM2004A Handle construction materials; and</p> <p>(b) CPCCCM1011A Undertake basic estimation and costing; and</p> <p>(c) CPCCSH2003A Apply and install sealant and sealant devices; and</p> <p>(d) CPCCJN2001A Assemble components; and</p> <p>(e) MSFGG3015/ LMFGG3015A/ LMFGG3015B/ LMFGG3015C Fabricate and install shower screens and wardrobe doors;</p> <p>OR</p> <p>(3) LMF10108 Certificate I in Furnishing including the following electives and additional units:</p> <p>(a) LMFGG2005C Move glass sheets by hand, and</p> <p>(b) LMFGG2001C Use glass and glazing sector hand and power tools;</p> <p>(c) LMFGG3015C Fabricate and install shower screens and wardrobe doors;</p> <p>OR</p> <p>(4) CPC10108 Certificate I in Construction with the following electives and additional units:</p> <p>(a) CPCCCM2004A Handle construction materials; and</p> <p>(b) CPCCCM1001A Undertake basic estimation and costing; and</p> <p>(c) CPCCSH2003A Apply and install sealant and sealant devices; and</p> <p>(d) CPCCJN2001A Assemble components; and</p> <p>(e) LMFGG1001B Complete a basic glass and glazing project; and</p> <p>(f) LMFGG3015B Fabricate and install shower screen and wardrobe doors;</p> <p>OR</p> <p>(5) BCG10103 Certificate I in General Construction with the following electives and additional units:</p> <p>(a) BCGVE1001B Handle construction materials; and</p> <p>(b) BCGVE1002B Undertake a basic construction project; and</p> <p>(c) BCGVE1004B Undertake basic estimation and costing; and</p> <p>(d) BCF2018A Apply and install sealant and sealant devices; and</p> <p>(e) BCF2013A Assemble components; and</p> <p>(f) LMFGG1001A Complete a basic glass and glazing project; and</p> <p>(g) LMFGG3015A Fabricate and install shower screen and wardrobe doors.</p>
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	<p>For the endorsement of Splash-backs:</p> <p>Completion of:</p> <p>(1) MSF10113 Certificate I in Furnishing including the following electives and additional units:</p> <p>(a) MSFGG2005 Apply basic glass handling; and</p> <p>(b) MSFGG2001 Use glass and glazing sector hand and power tools;</p> <p>OR</p> <p>(2) LMF10108 Certificate I in Furnishing including the following electives and additional units:</p> <p>(a) LMFGG2005C Move glass sheets by hand, and</p> <p>(b) LMFGG2001C Use glass and glazing sector hand and power tools;</p> <p>OR</p> <p>(3) of LMF10102 Certificate I in Furnishing including:</p> <p>(a) LMFGG2001B Use glass and glazing sector hand and power tools.</p>
Painting	<p>Completion of:</p> <p>(1) CPC30611/ CPC30608/ BCG30603 Certificate III in Painting and Decorating; or</p> <p>(2) BCG30498 Certificate III in General Construction (Painting & Decorating) TAFE course #8063; or</p> <p>(3) Qualification 11766 Certificate III in Painting and Decorating TAFE course #2155; or</p> <p>(4) Certificate III in Painting and Decorating, Trade TAFE course #5129.</p>
Roof plumbing	<p>Completion of one of the following:</p> <p>(1) CPC32612/ CPC32611/ CPC32608/ BCP30303 Certificate III in Roof Plumbing; or</p> <p>(2) CPC32413/ CPC32412/ CPC32411/ CPC32408/ BCP30103 Certificate III in Plumbing including the roofing stream; or</p> <p>(3) Certificate III in Plumbing TAFE course 1270; or</p> <p>(4) Qualification 90119 Certificate III in Metal Roofing Trade TAFE course #7997; or</p> <p>(5) Qualification Certificate in Metal Roofing Trade TAFE course #1424.</p>
Roof slating	<p>Completion of:</p> <p>(1) CPC30812/ CPC30811/ CPC30808/ BCG30803 Certificate III in Roof Tiling including CPCR3005A or B/ BCGRT3005B Slate a roof; or</p> <p>(2) BCG30898 Certificate III in General Construction (Roof Tiling) TAFE course #7074; or</p> <p>(3) Qualification 5688 Certificate III in Roof Tiling Trade TAFE course #7948.</p>
Roof tiling	<p>Completion of:</p> <p>(1) CPC30812/ CPC30811/ CPC30808/ BCG30803 Certificate III in Roof Tiling; or</p>

	<p>(2) BCG30898 Certificate III in General Construction (Roof Tiling) TAFE course #7074; or</p> <p>(3) Qualification 5688 Certificate III in Roof Tiling Trade TAFE course #7948.</p>
Stonemasonry	<p>Completion of:</p> <p>(1) CPC32313/ CPC32311/ CPC32308/ BCF30600 Certificate III in Stonemasonry (Monumental/Installation); or</p> <p>(2) Completion of Qualification 15765 Certificate III in Stonemasonry TAFE course #8032; or</p> <p>(3) Qualification Certificate III in Stonemasonry TAFE course #2109; or</p> <p>(4) Certificate III in Stonemasonry, Trade TAFE course #5138.</p>
Structural Landscaping	<p>Completion of:</p> <p>(1) AHC30916/ AHC30910 Certificate III in Landscape Construction; or</p> <p>(2) RTF30403 Certificate III in Horticulture (Landscape); or</p> <p>(3) RUH30498 Certificate III in Horticulture (Landscape) TAFE course #0672; or</p> <p>(4) Certificate III in Landscaping TAFE course #1581.</p>
Swimming pool building	<p>Completion of:</p> <p>(1) CPC40808 Certificate IV In Swimming Pool and Spa Building OR</p> <p>(2) A Licence Skills Assessment conducted by the Building Industry Skills Centre and a minimum of four years acceptable practical experience is approved for the grant of a supervisor certificate or endorsed contractor licence if commenced or completed prior to 29 March 2010</p>
Swimming pool repairs and servicing	<p>Completion of:</p> <p>(1) CPP31212 Certificate III Swimming Pool and Spa Service; OR</p> <p>(2) 91520NSW Certificate III in Swimming Pool Repairs, Servicing and Interior Finishes; OR</p> <p>(3) A minimum of 12 months acceptable practical experience in carrying out swimming pool repairs and servicing work verified in the Relevant Application Form by the holder or an endorsed contractor licence or qualified supervisor certificate in the categories of Swimming Pool Repairs and Servicing; Swimming Pool Building; Building; and</p> <p>(a) one of the following that was commenced or completed prior to 15 August 2011:</p> <p>(i) A Licence Skills Assessment conducted by the Building Industry Skills Centre; or</p> <p>(ii) The Basic Swimming Pool Repairs and Maintenance training program conducted by the Swimming Pool and Spa Alliance.</p>

Underpinning or piercing	Completion of : (1) RII31215/ RII31213/ RII31209 Certificate III in Civil Foundations.
Wall and floor tiling	Completion of: (1) CPC31311/ CPC31308/ BCG31303 Certificate III in Wall and Floor Tiling; or (2) BCG30198 Certificate III in Wall and Floor Tiling TAFE course #8061; or (3) Qualification 11768 Certificate III in Tiling Wall and Floor TAFE course #2157; or (4) Certificate III in Tiling Wall and Floor Trade TAFE course #5123.
Waterproofing	Completion of: (1) CPC31411/ CPC31408 Certificate III in Construction Waterproofing; or (2) BCG31403 Certificate III in Waterproofing (General Construction); or (3) Qualification 90464 Certificate III in General Construction (Waterproofing) TAFE course #8126.
Wet plastering	Completion of: (1) CPC31011/ CPC31008/ BCG31003 Certificate III in Solid Plastering; or (2) BCG30398 Certificate III in General Construction (Solid Plastering) TAFE course #8065; or (3) Qualification 11762 Certificate III in Plastering Solid Trade TAFE course #2154; or (4) Certificate III in Solid Plastering, Trade TAFE course #0114.
Any of the above categories	Existing supervisor certificate or endorsed contractor licence held immediately before the Commencement Date A New South Wales supervisor certificate or endorsed contractor licence in the same category held immediately before the Commencement Date.
Any of the above categories	Supervisor certificate or endorsed contractor licence with restrictions or conditions held before the Commencement Date but not at the Commencement Date A New South Wales supervisor certificate or endorsed contractor licence in the same category with restrictions or conditions held within five years of the date on which the application for a new Licence or Certificate is made. Where it is deemed that a previously held certificate or licence falls within the scope of work of any of the above categories in this Instrument, the Secretary will issue the current equivalent category with or without conditions to carry out the same scope of work.
Any of the above categories	Supervisor certificate or endorsed contractor licence held before the Commencement Date but not at the Commencement Date

	A New South Wales supervisor certificate or endorsed contractor licence in the same category ever held before the Commencement Date but not at the Commencement Date, will meet the requirement for issue of an equivalent authority.
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PRACTICE NOTE
CLASS 1 DEVELOPMENT APPEALS

Name and commencement

1. This Practice Note is to be known as Practice Note – Class 1 Development Appeals. It commences on 27 March 2017. It replaces the Practice Note – Class 1 Development Appeals made on 30 April 2007.

Application of Practice Note

2. This practice note applies to appeals under ss 96A, 97, 97AA and 98 and applications under s 96(8) of the *Environmental Planning and Assessment Act 1979* in Class 1 of the Court’s jurisdiction (“development appeals”).

Purpose of Practice Note

3. The purpose of this practice note is to set out the case management procedures for the just, quick and cheap resolution of development appeals.

Responsibility of parties, legal practitioners and agents

4. It is the responsibility of each party, its legal representatives and agents (as applicable) to consider the directions appropriate to be made in the particular case to facilitate the just, quick and cheap resolution of the real issues in the proceedings.
5. If a party reasonably considers that compliance with this practice note will not be possible, or will not be conducive to the just, quick and cheap resolution of the proceedings, the party should apply to be relieved from compliance on the basis that an alternative proposed regime will be more conducive to such resolution. In that event, the party is to notify other parties of the proposed

alternative regime as soon as practicable and is to provide the Court with short minutes of proposed directions reflecting that alternative regime.

6. Parties are to ensure that all directions which they seek with respect to development appeals will assist in enabling such appeals to be dealt with at the hearing with as little formality and technicality, and with as much expedition, as the requirements of this Act and of every other relevant enactment and as the proper consideration of the matters before the Court permits (see s 38 of the *Land and Environment Court Act 1979*).

Legal practitioners and agents of parties to be prepared

7. Each party not appearing in person shall be represented before the Court by a legal practitioner (or an agent authorised by the party in writing to whom leave of the Court has been granted to appear for the party) familiar with the subject matter of the proceedings and with instructions sufficient to enable all appropriate orders and directions to be made.
8. Any person seeking to perform the role of an agent should make themselves aware of the obligations of an agent and the requirement to obtain the leave of the Court to appear on someone's behalf in the proceedings. An application for leave to appear as an agent in the proceedings may be made at the time of commencing the proceedings by letter to the Registrar, or orally at the first directions hearing. The application must be supported by evidence that rule 7.7 of the *Land and Environment Court Rules 2007* has been complied with.

Note: More information regarding the obligations of agents in development appeals can be found on the Court's website (<http://www.lec.justice.nsw.gov.au>) and then accessed through "Coming to the Court" and then "Having someone represent you."

9. Legal practitioners and agents for each party should communicate prior to any attendance before the Court with a view to reaching agreement on directions to propose to the Court and on preparation of short minutes recording the directions

Commencing a development appeal

10. A development appeal is to be commenced by filing in the Registry of the Court, by mail, over the counter or through the NSW Online Registry a completed Class 1 Application Form (Form B).

Note: the application form for development appeals can be found on the Court's website (<http://www.lec.justice.nsw.gov.au>) and then accessed through "Forms & Fees" on the right hand menu.

11. Any plans accompanying the development appeal application are to satisfy the requirements in **Schedule A**. If leave is granted by the Court to amend the plans, any amended plans are also to meet those requirements.
12. If the plans the subject of the determination of a consent authority in respect of which a development appeal application is to be made do not satisfy the requirements in Schedule A, the applicant, before lodging the development appeal application, may amend the plans without seeking leave of the Court, but only to the extent necessary to cause the plans to satisfy the requirements in Schedule A. Any other amendment is to be by leave of the Court.

Service of the development appeal application

13. Development appeal applications are to be served within 7 days of filing.

The return date of the development appeal

14. Development appeals will usually be given a return date before the Court 28 days after the date on which they are filed. On the return date, the first directions hearing will occur. The first directions hearing will usually be before the Registrar on a weekday from Tuesday to Friday.
15. If the development appeal concerns a site that is located outside of metropolitan Sydney, the first directions hearing will occur by telephone in the telephone directions hearing list conducted before the Registrar on Mondays.
16. Applications to extend the period for the return of the application before the Court may be granted if the applicant demonstrates that service cannot be achieved within the time required. The Registrar may also extend the period if

circumstances, such as public holidays, make it appropriate that a longer period be allowed for parties to take the action required by this practice note before or by the return of the proceedings.

Access to documents

17. On request, a respondent who is a public authority or public official is to provide the other party with access to the documents relevant to the development application or modification application and its decision (if any), within 14 days of the request.

Identifying the issues in dispute

18. The respondent consent authority is to file and serve a statement of facts and contentions in accordance with **Schedule B** before 4.00pm on the third last working day before the first directions hearing unless the proceedings involve:
 - (a) an appeal against a determination to grant consent subject to conditions, or
 - (b) an appeal by an objector to the application under s 98 of the *Environmental Planning and Assessment Act 1979*.
19. If the proceedings involve an appeal against a determination to grant consent subject to conditions or an appeal by an objector, then the applicant for consent or objector is to file and serve a statement of facts and contentions in accordance with **Schedule C** before 4.00pm on the third last working day before the first return of the proceedings.
20. If any party seeks to raise an issue of fact or law that it contends precludes the grant of consent or approval to the application, then the party raising that issue is to identify it in its statement of facts and contentions.

Number of pre-hearing attendances

21. Unless there are interlocutory applications, a development appeal is normally in court before the hearing on no more than three occasions:

- (a) at the first directions hearing,
- (b) at the conciliation conference, and
- (c) at the second directions hearing.

Before the first directions hearing

22. Before the first directions hearing, the parties are to discuss and endeavour to agree upon:
- (a) whether the proceedings are suitable for a conciliation conference;
 - (b) the directions that the Court should make at the first directions hearing;
 - (c) the proposed dates for hearing or conciliation conference, being usually the dates in the range of available dates published at the top of the court list; and
 - (d) if any party intends to adduce expert evidence at a hearing of the proceedings, a statement of the disciplines in respect of which they propose to call expert evidence, the names of the experts, the issues to which the proposed expert evidence relates, and the reasons why the proposed expert evidence is reasonably required to resolve the proceedings having regard to the requirement for the just, quick and cheap resolution of the issues in dispute.
23. If the parties do not agree, each party should prepare their own written version of the directions they propose.

Parties to seek directions before adducing expert evidence

24. Parties are encouraged to consider whether expert evidence is genuinely necessary to resolve the issues in dispute in development appeals. Unnecessary expert evidence substantially increases the time and cost of appeals. Parties are encouraged to consider whether the proceedings can appropriately be fixed for hearing before a Commissioner or Commissioners with special knowledge and experience in relation to the issues in dispute.

25. A party intending to adduce expert evidence at the hearing of any development appeal must apply for directions from the Court under Pt 31 r 31.19 of the Uniform Civil Procedure Rules 2005 permitting the adducing of expert evidence.
26. The application for directions is to be made at a directions hearing at which the development appeal is listed for hearing. The application is to be supported by a completed information sheet in the form of **Schedule F**, outlining the issues in the proceedings, the experts whose opinion is sought to be adduced as evidence in the proceedings, and the areas of expertise of each expert. The application is also to be accompanied by the proposed directions under r 31.20 of the Uniform Civil Procedure Rules 2005.
27. If practicable, the Court will determine the application for directions at the directions hearing or otherwise it will fix a date for hearing the application. At the hearing of the application for directions, the party seeking directions is to explain the expert evidence sought to be adduced and why the use of that expert evidence should be permitted, including why that expert evidence relates to a real issue in the proceedings and is reasonably required to resolve that issue.
28. A party may not adduce expert evidence at the hearing of any development appeal unless the Court has given directions permitting the adducing of that expert evidence and the adducing of that expert evidence is in accordance with those directions (see r 31.19(3) of the Uniform Civil Procedure Rules 2005).
29. Any directions for the filing of experts' reports and joint expert reports made by the Court will specify the name of each expert required to comply with the directions.
30. If either party seeks to adduce the evidence of any expert not named in the directions made, that party is required to seek additional directions for the filing of evidence by that expert, either through Online Court or by exercising liberty to restore. Any application for additional directions is to be supported by an updated hearing information sheet in the form of Schedule F and provide the information and explanation referred to in paragraphs 26 and 27 of this practice note.

At directions hearings

31. Unless good reason is demonstrated, the parties are to be sufficiently prepared at the first directions hearing to assist the Court in making and to accept a timetable up to and including the conciliation conference or hearing date. Legal practitioners and other representatives of the parties are to advise the parties of their obligation to be ready to agree to a timetable up to and including the hearing date and are to obtain full and timely instructions to ensure the parties comply with this obligation.
32. At the first directions hearing, the parties are to inform the Court if there is any reason for the development appeal not to be fixed for a conciliation conference under s 34 of the *Land and Environment Court Act 1979*. If the development appeal is fixed for a conciliation conference, then the parties should expect that the usual directions in **Schedule D** be made.
33. If the parties do not satisfy the Court that there is a good reason the development appeal should not be fixed for a conciliation conference under s 34 of the *Land and Environment Court Act 1979*, then, in the ordinary course, the development appeal will be fixed for a conciliation conference as follows:
 - (a) for short matters not requiring a site view, before the Duty Commissioner on the next available Friday; or
 - (b) for other matters, within 28 days, subject to the availability of the Court.
34. If the parties satisfy the Court that there is a good reason why the development appeal should not be fixed for a conciliation conference but instead should be fixed for a hearing, the parties should expect that the usual directions set out in **Schedule E** will be made and should have either agreed or competing proposed short minutes to hand to the Court.
35. Following any termination of a conciliation conference, the parties are to be sufficiently prepared at the second directions hearing to assist the Court in making and to accept a timetable up to and including the hearing date, and to make any application for directions to adduce expert evidence in accordance with paragraphs 25 and 26 of this practice note. The parties should expect that

the usual directions set out in Schedule E will be made and should have either agreed or competing proposed short minutes to hand to the Court.

36. In preparing the short minutes, parties may delete, amend or abridge any part of the usual directions to facilitate the just, quick and cheap resolution of the proceedings.
37. Parties may also propose alternative directions if they have a reasonable basis for considering that alternative directions will better facilitate the just, quick and cheap resolution of the proceedings. If alternative directions are proposed, the party seeking those directions is to notify the other party before the directions hearing and ensure that proposed short minutes are available to be handed to the Court.
38. To enable the usual directions in Schedule E to be made, when the development appeal is to be fixed for hearing, the parties are to hand to the Court at the directions hearing a completed information sheet in the form of **Schedule F**.
39. In the ordinary course, a development appeal will not be adjourned at the first directions hearing because it is against a deemed refusal of the development application or modification application by a consent authority unless:
 - (a) the parties agree and satisfy the Court that there is a reasonable likelihood that the development application or modification application the subject of the appeal will be determined on a date able to be identified, being a date not more than 4 weeks away; or
 - (b) the party seeking the adjournment otherwise satisfies the Court that not to adjourn the development appeal would result in an undue waste of resources.

Use of Online Court

40. Online Court allows parties to seek directions online rather than appearing at a directions hearing in court. Any of the usual directions, including fixing a date for a hearing or conciliation conference and the making of directions for expert evidence, can be made through Online Court.

41. Any application by Online Court to adduce expert evidence must be supported by a completed hearing information sheet (Schedule F) as well as the information and explanation referred to in paragraphs 26 and 27 of this practice note.
42. Parties can apply for directions to be made online by submitting an Online Court request before 12noon on the day prior to the directions hearing. The Court will endeavour to respond to the request by 4:30pm. If the parties do not receive a response there must be an appearance on their behalf at the directions hearing.
43. Any party seeking to make an application using Online Court must first contact the other parties in an attempt to provide the Court with a consent position. If the parties reach consent as to the appropriate directions to be made and the date for a hearing or conciliation conference, the party lodging the request may mention the appearance of the other party and indicate that the directions are sought by consent.
44. If a party makes a request for orders through the Online Court without the consent of the other side, the Online Court system gives the other party an opportunity to respond by either consenting to the request or offering a 'counter' request. The other party is required to respond to the request by 2pm. If no response is received, appearances are required on behalf of all parties at the directions hearing.
45. If, by reason of a party's failure to respond to an Online Court request, another party is unnecessarily put to the cost of attending a directions hearing, the Court may make a costs order against that party for the cost of the other party's appearance in court unless there is some reasonable excuse for the failure to respond.

Conduct of conciliation conference

46. A conciliation conference arranged by the Court will be conducted in accordance with the Conciliation Conference Policy.

Note: the Conciliation Conference Policy can be found on the Court's website (<http://www.lec.justice.nsw.gov.au>) and then accessed through "Practice and Procedure" on the top menu.

47. The parties are to participate, in good faith, in the conciliation conference (see s 34(1A) of the *Land and Environment Court Act 1979*), including preparing to be able to fully and meaningfully participate, having authority or the ready means of obtaining authority to reach agreement and genuinely endeavouring to reach agreement at the conciliation conference.
48. Any amended plans or additional information proposed by the applicant to be the subject of without prejudice discussions at a conciliation conference are to be provided to the respondent 14 days before the conciliation conference.
49. The respondent is to provide to the applicant any response to the amended plans or additional information, as well as draft without prejudice conditions of consent, 7 days before the conciliation conference.
50. The conciliation conference will not be adjourned to another time and place (fixed in consultation with the Registrar) by the Commissioner presiding over the conciliation conference unless the Commissioner is satisfied that there is good reason to do so (see s 34(6) of the *Land and Environment Court Act 1979*).
51. The failure of a party to attend with adequate instructions (such as not having authority to reach agreement or the ability to respond to a proposed outcome), or the failure of a party to be sufficiently prepared to negotiate an outcome (for example, by reliance on inadequate plans or supporting material or by not having experts in attendance to assist in negotiations) will not generally be a good reason for the adjournment of a conciliation conference.
52. In general, the conciliation conference will be adjourned only in circumstances where the parties have reached an agreement in principle as to the terms of a decision in the proceedings that would be acceptable to the parties and the adjournment is required to finalise that agreement.
53. If an adjournment is given, the conciliation may be listed before the Commissioner after 4pm on a future date not more than 3 weeks after the conciliation conference. The Commissioner may conduct the adjourned

conciliation by telephone or by requiring the parties to attend in person. If the time or date of the listing changes due to other duties of the Commissioner, the parties will be notified in writing by email.

54. If a conciliation conference is terminated, the development appeal will be listed for a second directions hearing 7 days after the conciliation conference is terminated. At the second directions hearing following the termination of the conciliation conference, the parties are expected to be in a position to take a date for the final hearing of the proceedings and for the usual directions in Schedule E to be made.
55. If any application is sought to be made to amend the development appeal application (see paragraphs 88 and 91 of this practice note), the notice of motion should be filed in sufficient time to be returnable at the second directions hearing. If further time to apply to amend the development appeal application is required, the proceedings will be listed for hearing with a timetable that allows sufficient time for an application to amend the development appeal application to be made.

Conduct of hearing

56. Generally, development appeals should commence at 9.30am on site for the hearing view unless, in the particular circumstances of the case, it would be inappropriate to do so.
57. The hearing view will be conducted in accordance with the Site Inspections Policy.

Note: the Site Inspections Policy can be found on the Court's website (<http://www.lec.justice.nsw.gov.au>) and then accessed through "Practice and Procedure" on the top menu.

Expert evidence

58. Any directions made concerning the filing of expert evidence must be provided to the experts within 3 business days of being made, together with the statements of facts and contentions, Division 2 of Pt 31 of the Uniform Civil

Procedure Rules, the Expert Witness Code of Conduct in Schedule 7 of the Uniform Civil Procedure Rules, and the Court policies on Joint Reports and on Conference of Expert Witnesses.

59. An expert (including a parties' single expert) and the expert's report are to comply with the requirements of Division 2 of Pt 31 of the Uniform Civil Procedure Rules and the Expert Witness Code of Conduct in Schedule 7 of the Uniform Civil Procedure Rules.
60. An expert witness should identify any pre-existing relationship between the expert witness, or their firm or company, and a party to the litigation.
61. It is not the role of any expert to opine whether a development appeal should be upheld or dismissed. That is the role of the consent authority and, on appeal, the Court exercising the functions of the consent authority. Expert opinions in reports and joint reports are to deal with the contentions raised by the parties. Any other matter relevant to the expert's expertise, which the expert feels obliged to draw to the attention of the parties and the Court, may also be noted.
62. Experts' reports are not to repeat matters in Part A Facts of the statements of facts and contentions. Wherever possible, an expert should state that Part A Facts has been adopted as correct. If this cannot be stated, the expert should identify the matters which are disputed and state his or her position in relation to those matters.
63. If experts are directed by the Court to confer, experts are to ensure that their joint conference is a genuine dialogue between experts in a common effort to reach agreement with the other expert witness about the relevant facts and issues. Any joint report is to be a product of this genuine dialogue and is not to be a mere summary or compilation of the pre-existing positions of the experts.
64. Legal representatives are not to attend joint conferences of experts or be involved in the preparation of joint reports without the leave of the Court.
65. Where expert evidence from more than one expert in the same discipline is to be given in Court, the experts will give such evidence concurrently (subject to any order by the hearing Judge or Commissioner to the contrary).

66. If a party requires any expert for cross-examination, notice is to be given at least 7 days before the hearing.

Parties' single expert

67. Where expert evidence is necessary to be called in relation to an issue, the Court encourages parties to use a parties' single expert. The use of a parties' single expert in an appropriate case can reduce costs and ensure the Court has the benefit of evidence from a person who is not engaged by only one party. In determining whether a parties' single expert might be appropriate in a particular case, consideration should be given to:

- (a) the importance and complexity of the subject matter in dispute in the proceedings;
- (b) the likely cost of obtaining expert evidence from a parties' single expert compared to the alternative of obtaining expert evidence from individual experts engaged by each of the parties;
- (c) the proportionality of the cost in (b) to the importance and complexity of the subject matter in (a);
- (d) whether the use of a parties' single expert in relation to an issue is reasonably likely either to narrow the scope of the issue or resolve the issue;
- (e) the nature of the issue, including:
 - (i) whether the issue is capable of being answered in an objectively verifiable manner;
 - (ii) whether the issue involves the application of accepted criteria (such as Australian Standards) to ascertainable facts;
 - (iii) whether the issue is likely to involve a genuine division of expert opinion on methodology, or schools of thought in the discipline; and
 - (iv) whether the issue relates to the adequacy or sufficiency of information provided in the development appeal application;

- (f) whether the evidence of the parties' single expert involves the provision of aids to assist in the assessment of a development appeal application (such as shadow diagrams, view lines or photo montages).
 - (g) whether the parties' single expert would be required independently to obtain further information or to undertake monitoring, surveys or other means of obtaining data before being able to provide expert evidence;
 - (h) whether the parties are prepared at the time to proceed to hearing on the basis of a parties' single expert report about the issue and no other expert evidence about that issue;
 - (i) whether the integrity of expert evidence on the issue is likely to be enhanced by evidence being provided by a parties' single expert instead of by individual experts engaged by the parties; and
 - (j) whether the Court is likely to be better assisted by expert evidence on the issue being provided by a parties' single expert instead of by individual experts engaged by the parties.
68. The Court will not usually accept the appointment of a parties' single expert if that expert is unable to provide a report within 5 weeks of receiving the brief or is unable to attend a hearing within a further 28 days thereafter.
69. The usual directions in **Schedule G** provide for a parties' single expert to file and serve one expert report only. Without leave of the Court, a parties' single expert is not to provide parties with preliminary reports or opinions.
- Note: Under Pt 31.41 of the Uniform Civil Procedure Rules a party may seek clarification of the report of a parties' single expert on one occasion only.
70. The parties' are not to provide a parties' single expert with any expert report brought into existence for the purpose of the proceedings addressing any matter the subject of instructions to the parties' single expert, without leave of the Court.
71. Where a parties' single expert has been appointed to give evidence in relation to any issue, the parties may not rely on any other expert evidence about that

issue without leave. Any application for leave is to be made as soon as reasonably possible and usually no later than five days after receiving the report of the parties' single expert.

72. Leave is to be sought by notice of motion, with an affidavit in support explaining:
- (a) the name, qualifications and expertise of the expert proposed to be called;
 - (b) the matters proposed to be addressed by the expert;
 - (c) the date on which the expert was first retained and the date or dates of any expert report the expert has already prepared;
 - (d) the reasons for the need to call an additional expert to give that evidence, rather than having the parties' single expert address the matters further or in cross examination;
 - (e) how calling the additional expert at all, or at the particular stage in the preparation of the proceedings, promotes the just, quick and cheap resolution of the proceedings; and
 - (f) the party's position in relation to any additional costs that might be caused by the calling of the expert.

If practicable, the affidavit should not exceed three pages in length (excluding annexures).

73. It is the responsibility of the parties to agree the remuneration to be paid to a parties' single expert. This includes making provision with respect to the amount of the expert's fees and the frequency with which the expert renders accounts. The Court will fix the remuneration of a parties' single expert only where the parties are unable to agree that remuneration.

Note: See Pt 31.45 of the Uniform Civil Procedure Rules.

Short matters

74. Parties may request short matters (less than 2 hours) to be fixed for hearing before a Duty Commissioner or Duty Judge on a Friday.

75. If the request is by consent, the parties may lodge the request using Online Court before the first directions hearing. Parties will be notified if the hearing can be listed on a Friday before the first directions hearing, in which event the first directions hearing will be vacated and the hearing date listed.

Application for separate determination of an issue

76. In the ordinary course, all issues (including issues requiring findings on questions of law) should be heard together unless an issue genuinely capable of separate determination is likely to be determinative of the appeal.

Note: A Judge or a Commissioner who is an Australian Lawyer may be appointed to conduct the final hearing to facilitate the objective of having all issues heard together.

77. If any party seeks to raise an issue of fact or law that the party contends precludes or demands the determination of the development appeal application in a particular way or otherwise seeks to have an issue dealt with separately before the final hearing in accordance with Part 28 Division 2 of the Uniform Civil Procedure Rules 2005, the party must apply to do so by notice of motion supported by a short affidavit setting out the issue and the reasons why it should be dealt with separately. If possible, the notice of motion is to be returnable at the first directions hearing.

78. If an order is made for a separate hearing:

(a) short matters (less than 2 hours) may be listed on the first available Friday before the Duty Judge or Duty Commissioner for issues of law or fact respectively; and

(b) other matters will be listed for hearing in the ordinary course,

and the usual directions in **Schedule H** will apply.

Expedition

79. Any party may seek expedition of a development appeal by notice of motion, with a short affidavit in support setting out the reasons in support of expedition.

Breach of the Court's directions

80. If any party fails to comply with a direction of the Court that some action be taken by a specified time, and the defaulting party is not able to take that action within two days of the specified time, the defaulting party is to:
- (a) relist the matter before the Court within three days of the specified time; and
 - (b) provide to the Court on the relisting an affidavit explaining the non-compliance, the reason for the non-compliance and what action the party proposes to take and when the party proposes to take action to comply with the direction.
81. If any party fails to comply with a direction of the Court or this practice note, the Court will usually order that the defaulting party pay the costs of the other party of and occasioned by the non-compliance and any relisting required unless it appears to the Court that some other order should be made as to the whole or any part of the costs.

Variation of timetables

82. If either party becomes aware of circumstances that will necessitate a variation to the timetable, an application to vary the timetable can be made by Online Court request. Any party seeking to make an application to vary the timetable using Online Court must first contact the other parties in an attempt to provide the Court with a consent position.
83. If a party makes a request for orders through the Online Court without the consent of the other side, the Online Court system gives the other party an opportunity to respond by either consenting to the request or offering a 'counter' request. If no response is received within 2 days of the request or such other time as the Registrar determines, the proceedings may be listed for further directions.
84. If, by reason of a party's failure to respond to an Online Court request, another party is unnecessarily put to the cost of attending a directions hearing, an order

for the payment of costs of the appearance may be made unless there is some reasonable excuse for the failure to respond.

85. If proposed directions vary an existing timetable, they must include the vacation of any date for a directions hearings or mention or for the hearing of motions that can no longer be maintained.

Liberty to restore

86. Parties have liberty to approach the Court without a notice of motion on three working days' notice or earlier if urgency requires. A party seeking to make urgent application should, if possible, make prior arrangement with, or give appropriate notice to, any other party, and should send an Online Court request.
87. The Court expects that prior to exercising liberty to restore, the parties confer with a view to reaching an agreement on any proposed variation to the timetable and if an agreement is reached, request the variation to the timetable through Online Court.

Amendments to applications and to statements of facts and contentions

88. Subject to paragraph 12 of this practice note, an applicant for consent may not rely on an amended development appeal application including amended plans unless it first obtains the leave of the Court.
89. Applicants for consent should ensure that their development appeal application is suitable for assessment at the hearing before commencing the development appeal, including ensuring plans satisfy the requirements in Schedule A. Multiple requests for leave to amend applications (including plans) cause unnecessary delay and cost for all parties and should be avoided.
90. If an applicant for consent wishes to amend its development appeal application, including by amended plans, the applicant is to consolidate all such amendments (to avoid multiple requests to amend) and apply for leave as soon as reasonably possible and usually no later than 10 days after the facts or circumstances which prompted the application for leave came to the attention

of the applicant. Examples of such facts or circumstances are the receipt of a report of a parties' single expert or a joint report of parties' experts recommending modification of the proposed development, which recommendation the applicant wishes to adopt in whole or part.

91. Other than amendments sought during the hearing of the appeal, leave to rely on an amended development appeal application including amended plans is to be sought by notice of motion, accompanied by a short affidavit in support that:
- (a) provides particulars sufficient to indicate the precise nature of the amendments proposed;
 - (b) identifies any amended plans by date and plan revision number;
 - (c) identifies the facts or circumstances which prompted the application for leave and when they came to the attention of the applicant;
 - (d) identifies the respects in which the amendments lessen the environmental impact of the development and/or otherwise lead to an improved community outcome;
 - (e) identifies why granting leave to amend the application would promote the just, quick and cheap resolution of the proceedings;
 - (f) discloses if any additional documents (eg a BASIX certificate for the amended development) are required to support the amended application and, if so whether those documents have been, or are to be, obtained;
 - (g) discloses the applicant's position on any additional costs that the consent authority may incur as a consequence of the amendment; and
 - (h) identifies the potential impacts on the hearing dates and the applicant's position on the adjustments to the timetable that would enable the hearing dates to be maintained if possible.

If practicable, the affidavit should not exceed 3 pages in length (excluding annexures).

92. Leave will usually not be given to amendments where to do so would require either the vacation of the final hearing (for applications to amend made prior to a hearing which has been fixed) or the adjournment of the final hearing (for applications to amend made during the final hearing). An alternative course that should be considered by an applicant is for the development the subject of the application to be amended by means of conditions of development consent or approval if the Court considers the grant of such development consent or approval is appropriate.
93. If leave to rely on an amended development appeal application is granted, the parties should expect that the Court will make the further usual directions in **Schedule I** and should hand either agreed or competing proposed short minutes to the Court, unless there is a reasonable basis for considering that alternative directions will better facilitate the just, quick and cheap resolution of the proceedings. If alternative directions are proposed, the party seeking those directions is to notify the other party before the hearing of the application for leave and ensure that proposed short minutes are available to the Court.
94. Parties require leave of the Court to amend their statement of facts and contentions. Leave to do so consequential on an amended development appeal application may be assumed where leave to amend a development appeal application has been granted and will be subject to directions made at that time. In all other cases, leave is to be sought by notice of motion accompanied by a short affidavit in support explaining the reasons for leave being sought.

Applications to vacate hearings and for adjournments

95. Development appeals will not be adjourned generally. In particular, applicants for consent should generally be ready to proceed with their development appeal when it is commenced. This requires applicants to ensure that their development appeal application, and the development proposed in the application, is considered, complete and final, and suitable for assessment at the final hearing.

96. Development appeals usually will not be adjourned because of failure to comply with this practice note or Court directions or because of lack of preparedness for any attendance before the Court. If failure to comply or lack of preparedness nevertheless does cause the adjournment of the proceedings, the defaulting parties or legal practitioners may be ordered to pay costs.
97. Applications to vacate hearing dates are to be by notice of motion, with an affidavit in support explaining the circumstances of the application and the reasons the hearing date should be vacated.

Application for final orders by consent of parties

98. When there is agreement prior to the commencement of a hearing of a development appeal involving a deemed refusal of the application by the consent authority, the Court will usually expect the consent authority to give effect to the agreement by itself granting consent or approval.
99. Any application for consent final orders in development appeals will be listed before the Court for determination. The parties will be required to present such evidence as is necessary to allow the Court to determine whether it is lawful and appropriate to grant the consent or approval having regard to the whole of the relevant circumstances, including the proposed conditions. The consent authority will be required to demonstrate that relevant statutory provisions have been complied with and that any objection by any person has been properly taken into account. Additionally, the consent authority will be required to demonstrate that it has given reasonable notice to all persons who objected to the proposal of the following:
- (i) the content of the proposed orders (including the proposed conditions of consent);
 - (ii) the date of the hearing by the Court to consider making the proposed consent orders; and
 - (iii) the opportunity for any such person to be heard,
- or that, in the circumstances of the case, notification is not necessary.

Application for an easement under s 40 of the *Land and Environment Court Act 1979*

100. An application for an order under s 40 of *the Land and Environment Court Act 1979* can only be made if:

(a) the Court has determined to grant or modify development consent pursuant to proceedings on an appeal under the *Environmental Planning and Assessment Act 1979*; or

(b) proceedings on an appeal under the *Environmental Planning and Assessment Act 1979* with respect to the granting or modification of a development consent are pending before the Court.

101. It is inappropriate for parties to seek an order under s 40 of *the Land and Environment Court Act 1979* at the hearing of an appeal pursuant to s 97 of the *Environmental Planning and Assessment Act 1979*.

102. An application for an order under s 40 of the Land and Environment Court Act 1979 is to be made in Class 3 of the Court's jurisdiction and is subject to *Practice Note – Classes 1, 2 and 3 Miscellaneous Appeals*.

Costs and compliance

103. If a breach of the Court's directions or of this practice note causes costs to be thrown away, a party or legal practitioner responsible for the breach may be ordered to pay those costs.

104. The cost of unnecessary photocopying and assembly of documents is unacceptable. Legal practitioners for the parties are to consider carefully the documents necessary to be tendered. Unnecessary documents may attract adverse costs orders.

105. Any failure by one party to comply with the Court's directions will not be considered an adequate excuse for any failure to comply by the other party.

Applications for a cost order

106. Where a Commissioner has heard and determined a development appeal, any party seeking an order for costs of the proceedings must apply for costs by notice of motion filed within 28 days of the making of the final orders in the proceedings.

Note: Pt 3 r 3.7 of the Land and Environment Court Rules 2007 provides that for proceedings in Class 1 of the Court's jurisdiction, including development appeals, the Court "is not to make an order of the payment of costs unless the Court considers that the making of an order as to the whole or any part of the costs is fair and reasonable in the circumstances": Pt 3 r 3.7(2). Some of the circumstances in which the Court might consider the making of a costs order to be fair and reasonable are listed in Pt 3 r 3.7(3). 70.

107. The notice of motion for costs will be heard and determined by either the Registrar or a Judge of the Court.

***The Honourable Justice Brian J Preston
Chief Judge***

22 March 2017

Schedule A

Requirements for Plans

1. General

- Plans should be drawn to an appropriate scale shown on the drawings.
- Plans should be drawn with clarity.
- Plans should indicate a north point.
- All plans shall be consistent with each other.

2. Survey plans are to indicate:

- Existing buildings, structures and features of the site;
- Topography (spot levels, contours) including that of adjoining property where relevant;
- Natural drainage of the site;
- Any easements or rights of way;
- Significant existing vegetation, indicating its location on the site, type and spread;
- Location, height and use of any adjoining buildings or structures such as swimming pools; and
- Features of streets immediately adjoining or within the property, including poles, kerbs, crossings and pits.

3. Site plans are to identify the location of the following:

- Proposed and existing buildings;
- Existing significant trees, indicating whether they will be retained or removed;
- Paved areas;
- Landscaped areas;
- Driveway entry and/or exit;
- Garbage storage areas;
- On-site detention tanks;
- Letter boxes;
- Private open spaces; and

- Where privacy is an issue in the proceedings, the location of windows of the adjoining property and the subject proposal.

4. Floor plans are to indicate:

- Room names, area and dimensions;
- The location of windows and doors;
- The levels of floors, terraces and the like to Australian Height Datum (AHD);
- Wall construction; and
- Spot levels of natural ground to AHD.

5. Elevations are to indicate:

- Elevations of all sides of the building or structure;
- Outline of existing buildings;
- Materials and finishes to be used in construction;
- Location of adjoining buildings showing address, height, setbacks and other relevant features;
- Proposed window size, sill height and location; and
- Height of eaves, ridge and floor levels to AHD.

6. Sections are to indicate:

- Appropriate number and location;
- Section line and location on plan;
- Room names;
- Adequate representation of ground level;
- Areas of cut and/or fill; and
- Height of levels to AHD.

7. Landscape plans are to:

- Be consistent with other plans tendered to the court with respect to the height, size and location of buildings;
- Indicate the location, species, height and spread of significant existing trees, indicating whether they will be retained or removed;

- Indicate the location of any additional planting to be carried out including species names, spread, height and other features; and
- Indicate the location of significant retaining walls or other structures.
- Indicate finished relative levels of all major surfaces.

8. Overshadowing plans are to:

- Be based on true north;
- Indicate the location and nature of existing and/or proposed fencing, with the shadows projected;
- Indicate horizontal and vertical impact, including any impact from any substantial wall;
- Provide a table of compliance and non-compliance with known criteria (such as a development control plan, a State environmental planning policy or Australian Model Code for Residential Development (AMCORD)); and
- Make appropriate allowance for the topography.

Schedule B

Requirements for statement of facts and contentions by respondent consent authority

1. The statement is to be as brief as reasonably possible.
2. The statement is to be divided into two parts – Part A Facts and Part B Contentions.
3. An authorised officer of the respondent consent authority is to sign and date the statement.
4. In Part A Facts, the respondent consent authority is to identify:
 - (a) **The proposal:** a brief description of the proposed development or modification of a development including any building, subdivision and/or land use and, where relevant, matters such as density, floor space ratio, setbacks and heights.
 - (b) **The site:** a description of the site including its dimensions, topography, vegetation and existing buildings.
 - (c) **The locality:** a description of the locality including the type and scale of existing surrounding development.
 - (d) **The statutory controls:** details of the applicable statutory instruments (State environmental planning policies, regional environmental plans, local environmental plans and development control plans) and the relevant provisions.
 - (e) **Actions of the respondent consent authority:** date of application, application number, details of any advertising process and its results, details of any consultation and its results, the decision of the respondent and the reasons for refusal.

Part A Facts is not to include matters of opinion.

5. In Part B Contentions the respondent consent authority is to identify each fact, matter and circumstance that the respondent contends require or should cause

the Court, in exercising the functions of the consent authority, to refuse the application or to impose certain conditions.

6. In Part B Contentions, the respondent consent authority is to:
- (a) focus on issues genuinely in dispute;
 - (b) have a reasonable basis for its contentions;
 - (c) present its contentions clearly, succinctly and without repetition;
 - (d) where it contends that the application must be refused, identify the factual and/or legal basis for that contention. Any such contention is to be made at the beginning of Part B Contentions and is to be clearly identified as a contention that the application must be refused;
 - (e) where the respondent consent authority contends there is insufficient information to assess the application, list the information it contends is required;
 - (f) where it contends that a proposal does not comply with provisions, including development standards, of an environmental planning instrument or provisions of a development control plan, identify the standard or provision that is breached and quantify the extent of the non-compliance (if necessary, in a diagrammatic form), grouping together provisions dealing with the same aspect (for example, height or density);
 - (g) identify the nature and extent of each environmental impact relied upon to support any contention and, if practicable, quantify that impact; and
 - (h) identify any contentions that may be resolved by conditions of consent.

Schedule C

Requirements for statement of facts and contentions by applicant for consent or by objector

1. The statement is to be as brief as reasonably possible.
2. The statement is to be divided into two parts – Part A Facts and Part B Contentions.
3. The applicant for consent or the objector or its authorised officer is to sign and date the statement.
4. In Part A Facts, the applicant for consent or objector is to identify:
 - (a) the relevant development consent, including (if possible) the development application number and the date of determination;
 - (b) if an applicant for consent, the conditions appealed against;
 - (c) if an objector, the date(s) of their letter(s) of objection to the development application.

Part A Facts is not to include matters of opinion.

5. In Part B Contentions an applicant for consent or objector is to identify each fact, matter and circumstance that the applicant or objector contends require or should cause the Court, in exercising the functions of the consent authority, to grant or refuse the application or to impose certain conditions.
6. An applicant for consent or objector is to:
 - (a) focus its contentions on issues genuinely in dispute;
 - (b) have a reasonable basis for the contentions; and
 - (c) present its contentions clearly and succinctly.
7. An applicant for consent is to identify:
 - (a) each condition that the applicant contends should be deleted;

- (b) each condition that the applicant contends should be amended and, for each such condition, the amendment sought and the reason for seeking the amendment;
8. In Part B Contentions, an objector is to:
- (a) focus on issues genuinely in dispute;
 - (b) have a reasonable basis for the contentions;
 - (c) present contentions clearly, succinctly and without repetition;
 - (d) where the objector contends that the application must be refused, identify the factual and/or legal basis for that contention. Any such contention is to be made at the beginning of Part B Contentions and is to be clearly identified as a contention that the application must be refused;
 - (e) where the objector contends there is insufficient information to assess the application, list the information the objector contends is required;
 - (f) where the objector contends that a proposal does not comply with provisions, including development standards, of an environmental planning instrument or provisions of a development control plan, identify the standard or provision that is breached, quantify the extent of the non-compliance (if necessary, in a diagrammatic form), grouping together provisions dealing with the same aspect (for example, height or density);
 - (g) identify the nature and extent of each environmental impact relied upon to support any contention and, if practicable, quantify that impact; and
 - (h) identify any contentions that may be resolved by conditions of consent.

Schedule D

Usual directions for arranging a conciliation conference

The Court directs that:

1. A conciliation conference under s34 of the *Land and Environment Court Act 1979* ('the Court Act') is arranged for [date] commencing at [time] at [place].
2. The conciliation conference will not be adjourned to another time and place (fixed in consultation with the Registrar) by the Commissioner presiding over the conciliation conference unless the Commissioner is satisfied that there is good reason to do so (see s 34(6) of the Court Act).
3. The [applicant or respondent] is to file and serve its statements of facts and contentions in accordance with Schedule [B or C] of Practice Note – Development Appeals by [insert date having regard to date of conciliation conference].
4. The [respondent or applicant] is to file and serve its statements of facts and contentions in reply by [insert date having regard to date of conciliation conference]. This statement is not to repeat any facts not in dispute.
5. The parties are to participate, in good faith, in the conciliation conference (see s 34(1A) of the Court Act), including preparing to be able to fully and meaningfully participate, having authority or the ready means of obtaining authority to reach agreement and genuinely endeavouring to reach agreement at the conciliation conference.
6. Any amended plans or additional information proposed by the applicant to be the subject of without prejudice discussions at a conciliation conference are to be provided to the respondent 14 days before the conciliation conference.
7. The respondent is to provide to the applicant any response to the amended plans or additional information, and draft without prejudice conditions of consent, 7 days before the conciliation conference.
8. Any documents proposed to be relied upon by a party for the purposes of without prejudice discussions at a conciliation conference may be lodged with

the Court in a sealed envelope and marked for the attention of the Commissioner who is to preside over the conciliation conference. Such documents should not be filed and will not be recorded in the Court's records.

9. A copy of any documents so lodged is also to be provided, at the time of lodgment, to the other party to the proceedings with the notation that it has been brought into existence for the purposes of, and proposed to be relied upon by a party at, the conciliation conference.
10. If no agreement is reached at or after the conciliation conference, the proceedings are listed for a second directions hearing on [7 days after the conference].
11. Each party is to notify the other party in writing of the name of any expert upon which they propose to rely, the area of expertise of the expert and the issues to be addressed by the expert 2 business days prior to the second directions hearing, in the form of a draft completed information sheet or in such other form as may be agreed between the parties.

Schedule E

Usual directions for a hearing

The Court directs that:

1. The proceedings are fixed for hearing on [insert date as soon as reasonably possible and usually within 12 weeks from the first directions hearing date].
2. The hearing is to be [an on site hearing] or [a Court hearing] and is to commence [on site at 9.30am] or [in Court at 10.00am]. If the parties consider the site may be difficult to find, they are to file an agreed map showing the proposed location for the commencement of any hearing on site at 9.30am two working days before the hearing.

Note: If a matter is fixed for an on site hearing or is otherwise to involve substantial time or taking of evidence on site, the parties should ensure that appropriate facilities are available for that purpose, including a table and chairs and bathroom facilities, and that the hearing will be open to the public and will be able to be observed and heard by all persons attending the hearing.

3. The [respondent/applicant for consent or objector] is to file and serve its statements of facts and contentions in accordance with Schedule [B or C] of Practice Note – Class 1 Development Appeals by [insert date].
4. The [applicant for consent or objector/respondent] is to file and serve its statements of facts and contentions in reply in accordance with Schedule [B or C] of Practice Note – Class 1 Development Appeals by [insert date]. This statement is not to repeat any facts not in dispute.
5. Under rr 31.19 and 31.20 of the Uniform Civil Procedure Rules 2005 ('UCPR'), the Court makes the following directions regarding expert evidence:
 - [name of the expert witness] may prepare an individual expert's report on [specified issues];
 - [the named experts] are to confer in relation to [specified issues] under UCPR r 31.24 and prepare a joint expert report;
 - the individual expert's report of [named expert] is to be filed and served by [date];

- the joint expert report of [named experts] is to be filed and served by [date].

Note: The above directions may be duplicated for each area of expertise required.

6. Unless the Court otherwise orders, expert evidence may not be adduced at the hearing otherwise than in accordance with the directions made by the Court in accordance with UCPR rr 31.19 and 31.20, including compliance with directions as to the time for service and filing of experts' reports and joint expert reports.
7. Parties are to serve a copy of these directions, the statements of facts and contentions, Division 2 of Pt 31 of the Uniform Civil Procedure Rules, the Expert Witness Code of Conduct in Schedule 7 of the Uniform Civil Procedure Rules, and the Court policies on Joint Reports and on Conference of Expert Witnesses on all experts upon whose evidence they propose to rely within 3 business days of these orders being made, or, for a statement of facts and contentions (or reply) filed after the making of these orders, within 3 business days of them being filed or served.
8. Experts are directed to give written notice to the Court and the party instructing them if for any reason they anticipate that they cannot comply with these directions. In that case, or if the experts have failed to comply with these directions, the parties will promptly list the matter before the Court for directions and give written notice to the other parties.
9. Experts are to ensure that a joint conference is a genuine dialogue between experts in a common effort to reach agreement with the other expert witness about the relevant facts and issues. Any joint report is to be a product of this genuine dialogue and is not to be a mere summary or compilation of the pre-existing positions of the experts.
10. A joint report is to identify the experts involved in its preparation, the date of their joint conferences, the matters they agreed about, the matters they disagreed about and reasons for agreement and disagreement. A joint report should avoid repetition and be organised to facilitate a clear understanding of the final position of the experts about the matters in issue and the reasoning

process they used to reach those positions. Each expert is to sign and date the joint report.

11. Legal representatives are not to attend joint conferences of experts or be involved in the preparation of joint reports without the leave of the Court.
12. At the hearing the evidence of experts is to be given by way of concurrent evidence, unless the hearing judge or commissioner directs otherwise.
13. A party calling a witness may not, without the leave of the Court, lead evidence from the witness the substance of which is not included in a document served in accordance with the Court's directions.
14. If any witness is required for cross-examination, notice is to be given at least 7 days before the hearing.
15. A party who proposes to object to any part of an affidavit, statement or report is to file and serve notice of its objections, including the grounds in support, at least seven days before the hearing.
16. The respondent consent authority is to file and serve a bundle of documents 14 days before the hearing. The bundle is to contain copies of relevant environmental planning instruments, relevant extracts from development control plans and policies, and documents evidencing the lodgment, processing and determination of the application by the consent authority, including all submissions from objectors, and the decision of the consent authority but is not to otherwise include copies of any documents annexed to the development appeal application. Unnecessary copying and duplication of documents is to be avoided. The bundle is to be subdivided into relevant divisions, paginated and have a table of contents.
17. The respondent consent authority is to file and serve a notice of objectors who wish to give evidence in the hearing, of whom the consent authority is aware, 7 days before the hearing. The notice is to identify the objector, their address, where they wish to give evidence (on site or in Court) and whether they made a written submission about the application (in which event, the notice is to provide the page number of that submission in the key bundle). If there is no submission, the respondent consent authority should, if possible, file and serve

a short statement identifying the topics about which the objector wishes to give evidence.

18. The respondent consent authority is to file and serve draft conditions of consent (in both hard copy and electronic form) 14 days before the hearing.
19. The applicant for consent is to file and serve its draft conditions in response (in both hard copy and electronic form) 7 days before the hearing.
20. If any party fails to comply with a direction of the Court that some action be taken by a specified time, and the defaulting party is not able to take that action within two days of the specified time, the defaulting party is to:
 - (a) relist the matter before the Court within three days of the specified time; and
 - (b) provide to the Court on the relisting an affidavit explaining the non-compliance, the reason for the non-compliance and what action the party proposes to take and when the party proposes to take action to comply with the direction.

Note: The Court will usually order that the defaulting party pay the costs of the other party of and occasioned by the non-compliance and the relisting unless it appears to the Court that some other order should be made as to the whole or any part of the costs.

21. The parties have liberty to restore on three working days' notice.

Schedule F			
Class 1 Development Appeals – Hearing Information Sheet			
Applicant:			
Respondent(s):			
Proceedings no:			
1.	Is any expert evidence required? If so, nominate general issues on which expert evidence is required, the areas of expertise and the names of the experts whose evidence leave is sought to be relied upon (with a new line for each area of expertise)		
Issues	Area of expertise	Applicant Expert	Respondent Expert
2.	Could any of the above issues be better dealt with by a parties' single expert? If so, what is the proposal for engaging the expert?		
3.	Are there any experts who should prepare an individual report before proceeding to a joint		

	conference and joint report and, if so, identify the expert, the area of expertise and provide reasons supporting the report being necessary or appropriate [point form only]?
4.	Should a Commissioner or Commissioners with special knowledge and experience in particular disciplines hear the development appeal? If so, specify the relevant disciplines.
5.	If the appeal concerns land outside of the Sydney metropolitan region, should the development appeal be heard in the local area? If not, why not?
6.	Is the appeal appropriate to be heard as an on site hearing under s 34A of the <i>Environmental Planning and Assessment Act 1979</i> ? If so, will adequate facilities be available? Will the hearing be able to be observed and heard by the public?
7.	Is there any reason that the hearing should not commence at 9.30am on site?
8.	Estimate of the length of hearing.
Applicant:	
Respondent:	
9.	Identify hearing dates sought:
Applicant:	
Respondent:	

Schedule G

Usual directions on the appointment of a parties' single expert:

The Court orders:

1. The Court notes the agreement between the parties to engage [insert name] as a parties' single expert and that the parties have agreed the remuneration to be paid to that expert as being [insert details of remuneration].

Or, failing agreement about the identity and/or remuneration of the parties' single expert:

- 1A.
 - (a) The parties are to agree on a parties' single expert and their remuneration and are to notify the Court of the expert's name and that the expert's remuneration has been agreed by [insert date 7 days after the first/second directions hearing].
 - (b) Failing agreement, the parties are to file and serve the names, CVs and fee estimates of three appropriately qualified experts by [insert date 10 days after the first/second directions hearing]. The Court will make order 2 below in Chambers and notify the parties accordingly.
2.
 - (a) The Court orders the parties to engage jointly [insert name] as a parties' single expert.
 - (b) The Court fixes the remuneration of the parties' single expert at [insert details of remuneration].
3. A parties' single expert is not to incur fees or disbursements additional to the remuneration agreed by the parties or fixed by the Court without written agreement of both parties or, absent such agreement, the leave of the Court.
4. The parties are to brief the parties' single expert with agreed instructions and an agreed bundle of documents by [insert date within 7 days of direction 2 being made].
5. The parties' single expert is to file and serve their expert report by [insert date within 6 weeks of direction 2 being made]. Without leave of the Court, the

parties' single expert is not to provide the parties with a preliminary expert report or preliminary opinion.

6. The parties' single expert is to comply with the requirements of Division 2 of Pt 31 of the Uniform Civil Procedure Rules and the Expert Witness Code of Conduct in Schedule 7 of the Uniform Civil Procedure Rules, including the requirements for experts' reports.
7. If the Court has ordered that a parties' single expert address any issue, no expert report addressing the same issue other than the report of the parties' single expert may be relied upon at the hearing, without leave.
8. The parties' are not to provide a parties' single expert with any expert report brought into existence for the purpose of the proceedings addressing any matter the subject of instructions to the parties' single expert, without leave of the Court.

SCHEDULE H

Usual directions for separate determination of questions

The Court orders that:

1. Pursuant to r 28.2 of the Uniform Civil Procedure Rules 2005, the following question is to be determined separately from any other question in the proceedings:

[insert separate question]

2. The parties are to file and serve any affidavits, reports or statements on which they wish to rely by [insert date within 14 days of the separation of the question].
3. The parties are to file and serve any affidavits, reports or statements in reply by [insert date within 28 days of the separation of the question].
4. The parties are to file an agreed bundle of documents by [insert date within 5 weeks of the separation of the question].
5. The party raising the question is to file and serve an outline of submissions by [insert date two working days before the hearing of the separate question].
6. The other party is to file and serve an outline of submissions by [insert date one working day before the hearing].
7. The question is listed for hearing in court on [insert date] at 10:00am.
8. Parties are to notify promptly the Court if there is any material slippage in the timetable.
9. The parties have liberty to restore on three working days' notice.

SCHEDULE I

Usual directions where an applicant for consent seeks leave to rely on an amended application

The Court orders:

1. Leave is granted to the applicant to amend the development appeal application by [describe amendments].
2. (If applicable) Pursuant to s 97B of the *Environmental Planning and Assessment Act 1979*, the applicant is to pay the costs of the respondent consent authority that are thrown away as a result of amending the development application.
3. The parties have leave to amend their statement of facts and contentions by [insert date 14 days from the date of leave being granted or such longer period if the Court accepts that further notification/exhibition is required].

If leave is granted before evidence of any experts is filed:

- 4A. [Such of the directions in Schedule D or E as are appropriate running from the date of leave being granted].

Or, if leave is granted after evidence of any experts has been filed and if the parties agree that it is appropriate or the Registrar orders:

- 4B. (a) Any parties' single expert is to file and serve a brief addendum to their expert report identifying any changes to their opinions by reason of the amendment by [insert date 28 days from the grant of leave]; and
 - (b) Other experts are not to prepare further reports, but are to proceed to a joint conference and are to file and serve an addendum to their joint expert report by [insert date 28 days from the grant of leave].
5. The hearing date of [insert date] is confirmed.



PRACTICE NOTE
CLASSES 1, 2 AND 3 MISCELLANEOUS APPEALS

Name and commencement

1. This Practice Note is to be known as Practice Note – Miscellaneous Appeals. It commences on 27 March 2017. It replaces the Practice Note – Miscellaneous Appeals made on 30 April 2007.

Application of Practice Note

2. This practice note applies to:
 - (a) Class 1 appeals other than those under ss 96A, 97, 97AA and 98 and applications under s 96(8) of the *Environmental Planning and Assessment Act 1979*, which are subject to Practice Note – Class 1 Development Appeals;
 - (b) Class 2 appeals and applications other than:
 - (i) proceedings under the *Trees (Disputes Between Neighbours) Act 2006*, which are subject to the Practice Note – Class 2 Tree Applications;
 - (ii) proceedings under ss 66, 85, 86 and 92 of the *Strata Schemes Development Act 2015*, which are subject to the Practice Note – Strata Schemes Development Proceedings; and
 - (c) Class 3 appeals and applications other than:
 - (i) proceedings for approval of a strata renewal plan under s 179 of the *Strata Schemes Development Act 2015*, which are subject to the Practice Note – Strata Schemes Development Proceedings;
 - (ii) claims for compensation by reason of the acquisition of land, which are subject to Practice Note – Class 3 Compensation Claims;

- (iii) objections to valuation under the *Valuation of Land Act 1916*, which are subject to Practice Note – Class 3 Valuation Objections respectively; and
- (iv) appeals and references under the *Aboriginal Land Rights Act 1983*, which are subject to Practice Note – Class 3 Aboriginal Land Claims.

The appeals subject to this practice note are referred to as “miscellaneous appeals”.

Purpose of Practice Note

- 3. The purpose of this practice note is to set out the case management procedures for the just, quick and cheap resolution of miscellaneous appeals.

Responsibility of parties, legal practitioners and agents

- 4. It is the responsibility of each party, its legal representatives and agents (as applicable) to consider the directions appropriate to be made in the particular case to facilitate the just, quick and cheap resolution of the real issues in the proceedings.
- 5. If a party reasonably considers that compliance with this practice note will not be possible, or will not be conducive to the just, quick and cheap resolution of the proceedings, the party should apply to be relieved from compliance on the basis that an alternative proposed regime will be more conducive to such resolution. In that event, the party is to notify other parties of the proposed alternative regime as soon as practicable and is to provide the Court with short minutes of proposed directions reflecting that alternative regime.
- 6. Parties are to ensure that all directions which they seek with respect to miscellaneous appeals will assist in enabling such appeals to be dealt with at the hearing with as little formality and technicality, and with as much expedition, as the requirements of this Act and of every other relevant enactment and as the proper consideration of the matters before the Court permits (see s 38 of the *Land and Environment Court Act 1979*).

Legal practitioners and agents of parties to be prepared

7. Each party not appearing in person shall be represented before the Court by a legal practitioner (or an agent authorised by the party in writing to whom leave of the Court has been granted to appear for the party) familiar with the subject matter of the proceedings and with instructions sufficient to enable all appropriate orders and directions to be made.
8. Any person seeking to perform the role of an agent should make themselves aware of the obligations of an agent and the requirement to obtain the leave of the Court to appear on someone's behalf in the proceedings. An application for leave to appear as an agent in the proceedings may be made at the time of commencing the proceedings by letter to the Registrar, or orally at the first directions hearing. The application must be supported by evidence that rule 7.7 of the Land and Environment Court Rules 2007 has been complied with.

Note: More information regarding the obligations of agents can be found on the Court's website (<http://www.lec.justice.nsw.gov.au>) and then accessed through "Coming to the Court" and then "Having someone represent you."

9. Legal practitioners and agents for each party should communicate prior to any attendance before the Court with a view to reaching agreement on directions to propose to the Court and on preparation of short minutes recording the directions.

Commencing a miscellaneous appeal

10. A miscellaneous appeal is to be commenced by filing in the Registry of the Court, by mail, over the counter or through the NSW Online Registry a completed Class 1, 2, 3 Application Form (Form B).

Note: the application form can be found on the Court's website (<http://www.lec.justice.nsw.gov.au>) and then accessed through "Forms & Fees" on the right hand menu.

Service of the miscellaneous appeal application

11. Miscellaneous appeal applications are to be served within 7 days of filing.

The return date of the miscellaneous appeal

12. Miscellaneous appeals will usually be given a return date before the Court 28 days after the date on which they are filed. On the return date, the first directions hearing will occur. The first directions hearing will usually be before the Registrar on a weekday from Tuesday to Friday.
13. If the miscellaneous appeal concerns a site that is located outside of metropolitan Sydney, the first directions hearing will occur by telephone in the telephone directions hearing list conducted before the Registrar on Mondays.
14. Applications to extend the period for the return of the application before the Court may be granted if the applicant demonstrates that service cannot be achieved within the time required. The Registrar may also extend the period if circumstances, such as public holidays, make it appropriate that a longer period be allowed for parties to take the action required by this practice note before or by the return of the proceedings.

Access to documents

15. On request, a respondent who is a public authority or public official is to provide the other party with access to the documents relevant to the application and its decision (if any) with respect to the miscellaneous appeal, within 14 days of the request.

Identifying the issues in dispute

16. If any party seeks to raise an issue of fact or law that it contends precludes the determination of the proceedings one way or another, then the party raising that issue is to identify it in its statement of facts and contentions prepared in accordance with Schedule A.
17. The applicant is to file and serve a statement of facts and contentions in accordance with **Schedule A** before 4.00pm on the third last working day before the first return of the proceedings unless the proceedings involve:
 - (a) An appeal against an order issued pursuant to s121ZK of the *Environmental Planning and Assessment Act 1979*;

- (b) An appeal concerning an application for modification of a transitional Part 3A project under Schedule 6A of the *Environmental Planning and Assessment Act 1979*.
18. If the proceedings involve an appeal against an order issued pursuant to s121ZK, or an appeal concerning an application for modification of a transitional Part 3A project, the respondent is to file and serve a statement of facts and contentions in accordance with Schedule A before 4.00pm on the third last working day before the first return of the proceedings.

Number of pre-hearing attendances

19. Unless there are interlocutory applications, a miscellaneous appeal is normally in court before the hearing on no more than three occasions:
- (a) at the first directions hearing,
 - (b) at the conciliation conference, and
 - (c) at the second directions hearing.

Before the first directions hearing

20. Before the directions hearing, the parties are to discuss and endeavour to agree upon:
- (a) whether the proceedings are suitable for a conciliation conference;
 - (b) the directions that the Court should make at the first directions hearing;
 - (c) the proposed dates for hearing or conciliation conference, being usually the dates in the range of available dates published at the top of the court list; and
 - (d) if any party intends to adduce expert evidence at a hearing of the proceedings, a statement of the disciplines in respect of which they propose to call expert evidence, the names of the experts, the issues to which the proposed expert evidence relates, and the reasons why the proposed expert evidence is reasonably required to resolve the proceedings having regard to the requirement for the just, quick and cheap resolution of the issues in dispute.

21. If the parties do not agree, each party should prepare their own written version of the directions they propose.

Parties to seek directions before adducing expert evidence

22. Parties are encouraged to consider whether expert evidence is genuinely necessary to resolve the issues in dispute in miscellaneous appeals. Unnecessary expert evidence substantially increases the time and cost of appeals. Parties are encouraged to consider whether the proceedings can appropriately be fixed for hearing before a Commissioner or Commissioners with special knowledge and experience in relation to the issues in dispute.
23. A party intending to adduce expert evidence at the hearing of any miscellaneous appeal must apply for directions from the Court under Pt 31 r 31.19 of the Uniform Civil Procedure Rules 2005 permitting the adducing of expert evidence.
24. The application for directions is to be made at a directions hearing at which the miscellaneous appeal is listed for hearing. The application is to be supported by a completed information sheet in the form of Schedule D, outlining the issues in the proceedings, the experts whose opinion is sought to be adduced as evidence in the proceedings, and the areas of expertise of the expert. The application is also to be accompanied by the proposed directions under r 31.20 of the Uniform Civil Procedure Rules 2005.
25. If practicable, the Court will determine the application for directions at the directions hearing or otherwise it will fix a date for hearing the application. At the hearing of the application for directions, the party seeking directions is to explain the expert evidence sought to be adduced and why the use of that expert evidence should be permitted, including why that expert evidence relates to a real issue in the proceedings and is reasonably required to resolve that issue.
26. A party may not adduce expert evidence at the hearing of any miscellaneous appeal unless the Court has given directions permitting the adducing of that expert evidence and the adducing of that expert evidence is in accordance with those directions (see r 31.19(3) of the Uniform Civil Procedure Rules 2005).

27. Any directions for the filing of experts' reports and joint expert reports made by the Court will specify the name of each expert required to comply with the directions.
28. If either party seeks to adduce the evidence of any expert not named in the directions made, that party is required to seek additional directions for the filing of evidence by that expert, either through Online Court or by exercising liberty to restore. Any application for additional directions is to be supported by an updated hearing information sheet in the form of Schedule D, and provide the information and explanation referred to in paragraphs 24 and 25 of this practice note.

At directions hearings

29. Unless good reason is demonstrated, the parties are to be sufficiently prepared at the first directions hearing to assist the Court in making and to accept a timetable up to and including the conciliation conference or hearing date. Legal practitioners and other representatives of the parties are to advise the parties of their obligation to be ready to agree to a timetable up to and including the hearing date and are to obtain full and timely instructions to ensure the parties comply with this obligation.
30. At the first directions hearing, the parties are to inform the Court if there is any reason for the miscellaneous appeal not to be fixed for a conciliation conference under s 34 of the *Land and Environment Court Act 1979*. If the miscellaneous appeal is fixed for a conciliation conference, then the parties should expect that the usual directions in **Schedule B** will be made.
31. If the parties do not satisfy the Court that there is a good reason why the miscellaneous appeal should not be fixed for a conciliation conference under s 34 of the *Land and Environment Court Act 1979*, then, in the ordinary course, the miscellaneous appeal will be fixed for a conciliation conference as follows:
 - (a) for short matters not requiring a site view, before the Duty Commissioner on the next available Friday; or
 - (b) for other matters, within 28 days, subject to the availability of the Court.

32. If the parties satisfy the Court that there is a good reason why the miscellaneous appeal should not be fixed for a conciliation conference but instead should be fixed for a hearing, the parties should expect that the usual directions set out in **Schedule C** will be made and should have either agreed or competing proposed short minutes to hand to the Court.
33. Following any termination of the conciliation conference, the parties are to be sufficiently prepared at the second directions hearing to assist the Court in making and to accept a timetable up to and including the hearing date, and to make any application for directions to adduce expert evidence in accordance with paragraphs 24 and 25 of this practice note. The parties should expect that the usual directions set out in Schedule C will be made and should have either agreed or competing proposed short minutes to hand to the Court.
34. In preparing the short minutes, parties may delete, amend or abridge any part of the usual directions to facilitate the just, quick and cheap resolution of the proceedings.
35. Parties may also propose alternative directions if they have a reasonable basis for considering that alternative directions will better facilitate the just, quick and cheap resolution of the proceedings. If alternative directions are proposed, the party seeking those directions is to notify the other party before the directions hearing and ensure that proposed short minutes are available to be handed to the Court.
36. To enable the usual directions in Schedule C to be made, when the miscellaneous appeal is to be fixed for hearing, the parties are to hand to the Court at the directions hearing a completed information sheet in the form of **Schedule D**.

Use of Online Court

37. Online Court allows parties to seek directions online rather than appearing at a directions hearing in court. Any of the usual directions, including fixing a date for a hearing or conciliation conference and the making of directions for expert evidence, can be made through Online Court.
38. Any application by Online Court to adduce expert evidence must be supported by a completed hearing information sheet (Schedule D) as well as the

information and explanation referred to in paragraphs 24 and 25 of this practice note.

39. Parties can apply for directions to be made online by submitting an Online Court request before 12noon on the day prior to the directions hearing. The Court will endeavour to respond to the request by 4:30pm. If the parties do not receive a response there must be an appearance on their behalf at the directions hearing.
40. Any party seeking to make an application using Online Court must first contact the other parties in an attempt to provide the Court with a consent position. If the parties reach consent as to the appropriate directions to be made and the date for a hearing or conciliation conference, the party lodging the request may mention the appearance of the other party and indicate that the directions are sought by consent.
41. If a party makes a request for orders through the Online Court without the consent of the other side, the Online Court system gives the other party an opportunity to respond by either consenting to the request or offering a 'counter' request. The other party is required to respond to the request by 2pm. If no response is received, appearances are required on behalf of all parties at the directions hearing.
42. If, by reason of a party's failure to respond to an Online Court request, another party is unnecessarily put to the cost of attending a directions hearing, the Court may make a costs order against that party for the cost of the other party's appearance in court unless there is some reasonable excuse for the failure to respond.

Conduct of conciliation conference

43. A conciliation conference arranged by the Court will be conducted in accordance with the Conciliation Conference Policy.

Note: the Conciliation Conference Policy can be found on the Court's website (<http://www.lec.justice.nsw.gov.au>) and then accessed through "Practice and Procedure" on the top menu.

44. The parties are to participate, in good faith, in the conciliation conference (see s 34(1A) of the *Land and Environment Court Act 1979*), including preparing to be

able to fully and meaningfully participate, having authority or the ready means of obtaining authority to reach agreement and genuinely endeavouring to reach agreement at the conciliation conference.

45. Any amended documents or additional information proposed by the applicant to be the subject of without prejudice discussions at a conciliation conference are to be provided to the respondent 14 days before the conciliation conference.
46. The respondent is to provide to the applicant any response to the amended documents or additional information, as well as draft without prejudice conditions of approval (if applicable), 7 days before the conciliation conference.
47. The conciliation conference will not be adjourned to another time and place (fixed in consultation with the Registrar) by the Commissioner presiding over the conciliation conference unless the Commissioner is satisfied that there is good reason to do so (see s 34(6) of the *Land and Environment Court Act 1979*).
48. The failure of a party to attend with adequate instructions (such as not having authority to reach agreement or the ability to respond to a proposed outcome), or the failure of a party to be sufficiently prepared to negotiate an outcome (for example, by reliance on inadequate plans or supporting material, or by not having experts in attendance to assist with negotiations), will not generally constitute a good reason for the adjournment of a conciliation conference.
49. In general, the conciliation conference will be adjourned only in circumstances where the parties have reached an agreement in principle as to the terms of a decision in the proceedings that would be acceptable to the parties and the adjournment is required to finalise that agreement.
50. If an adjournment is given, the conciliation may be listed before the Commissioner after 4pm on a future date not more than 3 weeks after the conciliation conference. The Commissioner may conduct the adjourned conciliation by telephone or by requiring the parties to attend in person. If the time or date of the listing changes due to other duties of the Commissioner, the parties will be notified in writing by email.
51. If a conciliation conference is terminated, the miscellaneous appeal will be listed for a second directions hearing 7 days after the conciliation conference is terminated. At the second directions hearing following the termination of the

conciliation conference, the parties are expected to be in a position to take a date for the final hearing of the proceedings and for the usual directions in Schedule C to be made.

Conduct of hearing

52. Generally, miscellaneous appeals should commence at 9.30am on site for the hearing view unless, in the particular circumstances of the case, it would be inappropriate to do so.
53. The hearing view will be conducted in accordance with the Site Inspections Policy.

Note: the Site Inspections Policy can be found on the Court's website (<http://www.lec.justice.nsw.gov.au>) and then accessed through "Practice and Procedure" on the top menu.

Expert evidence

54. Any directions made concerning the filing of expert evidence must be provided to the experts within 3 business days of being made, together with the statements of facts and contentions, Division 2 of Pt 31 of the Uniform Civil Procedure Rules, the Expert Witness Code of Conduct in Schedule 7 of the Uniform Civil Procedure Rules, and the Court policies on Joint Reports and on Conference of Expert Witnesses.
55. An expert (including a parties' single expert) and the expert's report are to comply with the requirements of Division 2 of Pt 31 of the Uniform Civil Procedure Rules and the Expert Witness Code of Conduct in Schedule 7 of the Uniform Civil Procedure Rules.
56. An expert witness should identify any pre-existing relationship between the expert witness, or their firm or company, and a party to the litigation.
57. It is not the role of any expert to opine whether an appeal should be upheld or dismissed. That is the role of the consent authority and, on appeal, the Court exercising the functions of the consent authority. Expert opinions in reports and joint reports are to deal with the contentions raised by the parties. Any

other matter relevant to the expert's expertise, which the expert feels obliged to draw to the attention of the parties and the Court, may also be noted.

58. Experts' reports are not to repeat matters in Part A Facts of the statements of facts and contentions. Wherever possible, an expert should state that Part A Facts has been adopted as correct. If this cannot be stated, the expert should identify the matters which are disputed and state his or her position in relation to those matters.
59. If experts are directed by the Court to confer, experts are to ensure that their joint conference is a genuine dialogue between experts in a common effort to reach agreement with the other expert witness about the relevant facts and issues. Any joint report is to be a product of this genuine dialogue and is not to be a mere summary or compilation of the pre-existing positions of the experts.
60. Legal representatives are not to attend joint conferences of experts or be involved in the preparation of joint reports without the leave of the Court.
61. Where expert evidence from more than one expert in the same discipline is to be given in Court, the experts will give such evidence concurrently (subject to any order by the hearing Judge or Commissioner to the contrary).
62. If a party requires any expert for cross-examination, notice is to be given at least 7 days before the hearing.

Parties' single expert

63. Where expert evidence is necessary to be called in relation to an issue, the Court encourages parties to use a parties' single expert. The use of a parties' single expert in an appropriate case can reduce costs and ensure the Court has the benefit of evidence from a person who is not engaged by only one party. In determining whether a parties' single expert might be appropriate in a particular case, consideration should be given to:
 - (a) the importance and complexity of the subject matter in dispute in the proceedings;
 - (b) the likely cost of obtaining expert evidence from a parties' single expert compared to the alternative of obtaining expert evidence from individual experts engaged by each of the parties;

- (c) the proportionality of the cost in (b) to the importance and complexity of the subject matter in (a);
 - (d) whether the use of a parties' single expert in relation to an issue is reasonably likely either to narrow the scope of the issue or resolve the issue;
 - (e) the nature of the issue, including:
 - (i) whether the issue is capable of being answered in an objectively verifiable manner;
 - (ii) whether the issue involves the application of accepted criteria (such as Australian Standards) to ascertainable facts;
 - (iii) whether the issue is likely to involve a genuine division of expert opinion on methodology, or schools of thought in the discipline; and
 - (iv) whether the issue relates to the adequacy or sufficiency of information provided in the miscellaneous appeal application;
 - (f) whether the evidence of the parties' single expert involves the provision of aids to assist in the assessment of a miscellaneous appeal application.
 - (g) whether the parties' single expert would be required independently to obtain further information or to undertake monitoring, surveys or other means of obtaining data before being able to provide expert evidence;
 - (h) whether the parties are prepared at the time to proceed to hearing on the basis of a parties' single expert report about the issue and no other expert evidence about that issue;
 - (i) whether the integrity of expert evidence on the issue is likely to be enhanced by evidence being provided by a parties' single expert instead of by individual experts engaged by the parties; and
 - (j) whether the Court is likely to be better assisted by expert evidence on the issue being provided by a parties' single expert instead of by individual experts engaged by the parties.
64. The Court will not usually accept the appointment of a parties' single expert if that expert is unable to provide a report within 5 weeks of receiving the brief or is unable to attend a hearing within a further 28 days thereafter.

65. The usual directions in **Schedule E** provide for a parties' single expert to file and serve one expert report only. Without leave of the Court, a parties' single expert is not to provide parties with preliminary reports or opinions.

Note: Under Pt 31.41 of the Uniform Civil Procedure Rules a party may seek clarification of the report of a parties' single expert on one occasion only.

66. The parties' are not to provide a parties' single expert with any expert report brought into existence for the purpose of the proceedings addressing any matter the subject of instructions to the parties' single expert, without leave of the Court.
67. Where a parties' single expert has been appointed to give evidence in relation to any issue, the parties may not rely on any other expert evidence about that issue without leave. Any application for leave is to be made as soon as reasonably possible and usually no later than five days after receiving the report of the parties' single expert.
68. Leave is to be sought by notice of motion, with an affidavit in support explaining:
- (a) the name, qualifications and expertise of the expert proposed to be called;
 - (b) the matters proposed to be addressed by the expert;
 - (c) the date on which the expert was first retained and the date or dates of any expert report the expert has already prepared;
 - (d) the reasons for the need to call an additional expert to give that evidence, rather than having the parties' single expert address the matters further or in cross examination;
 - (e) how calling the additional expert at all, or at the particular stage in the preparation of the proceedings, promotes the just, quick and cheap resolution of the proceedings; and
 - (f) the party's position in relation to any additional costs that might be caused by the calling of the expert.

If practicable, the affidavit should not exceed three pages in length (excluding annexures).

69. It is the responsibility of the parties to agree the remuneration to be paid to a parties' single expert. This includes making provision with respect to the

amount of the expert's fees and the frequency with which the expert renders accounts. The Court will fix the remuneration of a parties' single expert only where the parties are unable to agree that remuneration.

Note: See Pt 31.45 of the Uniform Civil Procedure Rules.

Short matters

70. Parties may request short matters (less than 2 hours) to be fixed for hearing before a Duty Commissioner or Duty Judge on a Friday.
71. If the request is by consent, the parties may file the request with the Registry before the first directions hearing. Parties will be notified if the hearing can be listed on a Friday before the first directions hearing, in which event the first directions hearing will be amended to be the hearing date.

Application for separate determination of an issue

72. In the ordinary course, all issues (including issues requiring findings on questions of law) should be heard together unless an issue genuinely capable of separate determination is likely to be determinative of the appeal.

Note: A Judge or a Commissioner who is an Australian Lawyer may be appointed to conduct the final hearing to facilitate the objective of having all issues heard together.

73. If any party seeks to raise an issue of fact or law that the party contends precludes or demands the determination of the miscellaneous appeal in a particular way or otherwise seeks to have an issue dealt with separately before the final hearing in accordance with Part 28 Division 2 of the Uniform Civil Procedure Rules 2005, the party must apply to do so by notice of motion supported by a short affidavit setting out the issue and the reasons why it should be dealt with separately. If possible, the notice of motion is to be returnable at the first directions hearing.
74. If an order is made for a hearing of a separate question:
 - (a) short matters (less than 2 hours) may be listed on the first available Friday before the Duty Judge or Duty Commissioner for issues of law or fact respectively; and
 - (b) other matters will be listed for hearing in the ordinary course,

and the usual directions in **Schedule F** will apply.

Expedition

75. Any party may seek expedition of a miscellaneous appeal by notice of motion, with a short affidavit in support setting out the reasons in support of expedition.

Breach of the Court's directions

76. If any party fails to comply with a direction of the Court that some action be taken by a specified time, and the defaulting party is not able to take that action within two days of the specified time, the defaulting party is to:

- (a) relist the matter before the Court within three days of the specified time; and
- (b) provide to the Court on the relisting an affidavit explaining the non-compliance, the reason for the non-compliance and what action the party proposes to take and when the party proposes to take action to comply with the direction.

77. If any party fails to comply with a direction of the Court or this practice note, the Court will usually order that the defaulting party pay the costs of the other party of and occasioned by the non-compliance and any relisting required unless it appears to the Court that some other order should be made as to the whole or any part of the costs..

Variation of timetables

78. If either party becomes aware of circumstances that will necessitate a variation to the timetable, an application to vary the timetable can be made by Online Court request. Any party seeking to make an application to vary the timetable using Online Court must first contact the other parties in an attempt to provide the Court with a consent position.

79. If a party makes a request for orders through the Online Court without the consent of the other side, the Online Court system gives the other party an opportunity to respond by either consenting to the request or offering a 'counter'

request. If no response is received within 2 days of the request or such other time as the Registrar determines, the proceedings may be listed for further directions.

80. If, by reason of a party's failure to respond to an Online Court request, another party is unnecessarily put to the cost of attending a directions hearing, an order for the payment of costs of the appearance may be made unless there is some reasonable excuse for the failure to respond.
81. If proposed directions vary an existing timetable, they must include the vacation of any date for a directions hearings or mention or for the hearing of motions that can no longer be maintained.

Liberty to restore

82. Parties have liberty to approach the Court without a notice of motion on three working days' notice or earlier if urgency requires. A party seeking to make urgent application should, if possible, make prior arrangement with, or give appropriate notice to, any other party, and should send an Online Court request.
83. The Court expects that prior to exercising liberty to restore, the parties confer with a view to reaching an agreement on any proposed variation to the timetable and if an agreement is reached, request the variation to the timetable through Online Court.

Amendments to applications and to statements of facts and contentions

84. An applicant requires leave of the Court to amend a miscellaneous appeal application.
85. Parties require leave of the Court to amend their statements of facts and contentions.
86. Other than amendments sought during the hearing of the appeal, leave to amend is to be sought by notice of motion accompanied by a short affidavit in support explaining the reasons for leave to amend being sought.

Applications to vacate hearings and for adjournments

87. Miscellaneous appeals will not be adjourned generally.
88. Miscellaneous appeals usually will not be adjourned because of failure to comply with this practice note or Court directions or because of lack of preparedness for any attendance before the Court. If failure to comply or lack of preparedness nevertheless does cause the adjournment of the proceedings, the defaulting parties or legal practitioners may be ordered to pay costs.
89. Applications to vacate hearing dates are to be by notice of motion, with an affidavit in support explaining the circumstances of the application and the reasons the hearing date should be vacated.

Application for final orders by consent of parties

90. Any application for consent final orders in a miscellaneous appeal will be listed before the Court for determination. The parties will be required to present such evidence as is necessary to allow the Court to determine whether it is lawful and appropriate to make the consent final orders.

Costs and compliance

91. If a breach of the Court's directions or of this practice note causes costs to be thrown away, a party or legal practitioner responsible for the breach may be ordered to pay those costs.
92. The cost of unnecessary photocopying and assembly of documents is unacceptable. Legal practitioners for the parties are to consider carefully the documents necessary to be tendered. Unnecessary documents may attract adverse costs orders.
93. Any failure by one party to comply with the Court's directions will not be considered an adequate excuse for any failure to comply by the other party. Both parties are responsible for ensuring that they comply with directions.

Applications for a cost order

94. Where a Commissioner has heard and determined a miscellaneous appeal, any party seeking an order for costs of the proceedings must apply for costs by notice of motion filed within 28 days of the making of the final orders in the proceedings.

Note: Pt 3 r 3.7 of the Land and Environment Court Rules 2007 provides that for certain proceedings in Classes 1-3 of the Court's jurisdiction, the Court "is not to make an order of the payment of costs unless the Court considers that the making of an order as to the whole or any part of the costs is fair and reasonable in the circumstances": Pt 3 r 3.7(2). Some of the circumstances in which the Court might consider the making of a costs order to be fair and reasonable are listed in Pt 3 r 3.7(3). 70.

95. The notice of motion for costs will be heard and determined by either the Registrar or a Judge of the Court.

***The Honourable Justice Brian J Preston
Chief Judge***

22 March 2017

Schedule A

Requirements for statement of facts and contentions

1. The statement is to be as brief as reasonably possible.
2. The statement is to be divided into two parts – Part A Facts and Part B Contentions.
3. An authorised officer of the relevant party is to sign and date the statement.
4. In Part A Facts, the party is to identify:
 - (a) **The subject of the appeal:** a brief description of the subject matter of the appeal.
 - (b) **The statutory context:** a brief description of the relevant statutory provisions under which the miscellaneous appeal is brought.
 - (c) **The circumstances:** a brief description of the circumstances leading to the miscellaneous appeal.
 - (d) **The land:** if relevant, a brief description of any relevant land.
 - (e) **Actions of the party:** as relevant, a brief description of any relevant actions of the party, including date any application was lodged, application number, notification and its results, decision and date of decision.

Part A Facts is not to include matters of opinion.

5. In Part B Contentions the party is to identify each fact, matter and circumstance that the party contends require or should cause the Court to uphold or dismiss the appeal.
6. In Part B Contentions, the party is to:
 - (a) focus its contentions on issues genuinely in dispute;
 - (b) have a reasonable basis for its contentions;
 - (c) present its contentions clearly and succinctly, without repetition;
 - (d) where it contends that the appeal must be upheld or dismissed, identify the factual and/or legal basis for that contention. Any such contention is

to be made at the beginning of Part B contentions and is to be clearly identified as a contention that the appeal must be upheld or refused;

- (e) where the party contends there is insufficient information to assess any relevant matter, list the information the party contends is required;
- (f) if applicable, identify the nature and extent of each environmental impact relied upon to support any contention and, if practicable, quantify that impact; and
- (g) identify any contentions that may be resolved by conditions.

SCHEDULE B

Usual directions for arranging a conciliation conference

The Court directs that:

1. A conciliation conference under s34 of the *Land and Environment Court Act 1979* ('the Court Act') is arranged for [date] commencing at [time] at [place].
2. The conciliation conference will not be adjourned to another time and place (fixed in consultation with the Registrar) by the Commissioner presiding over the conciliation conference unless the Commissioner is satisfied that there is good reason to do so (see s 34(6) of the Court Act).
3. The [applicant or respondent] is to file and serve its statements of facts and contentions in accordance with Schedule A of Practice Note – Classes 1, 2 and 3 Miscellaneous Appeals by [insert date having regard to date of conciliation conference].
4. The [respondent or applicant] is to file and serve its statements of facts and contentions in reply in accordance with Schedule A of Practice Note – Classes 1, 2 and 3 Miscellaneous Appeals by [insert date having regard to date of conciliation conference]. This statement is not to repeat any facts not in dispute.
5. The parties are to participate, in good faith, in the conciliation conference (see s 34(1A) of the Court Act), including preparing to be able to fully and meaningfully participate, having authority or the ready means of obtaining authority to reach agreement and genuinely endeavouring to reach agreement at the conciliation conference.
6. Any amended documents or additional information proposed by the applicant to be the subject of without prejudice discussions at a conciliation conference are to be provided to the respondent 14 days before the conciliation conference.
7. The respondent is to provide to the applicant any response to the amended documents or additional information, and draft without prejudice conditions of approval (if applicable), 7 days before the conciliation conference.

8. Any documents proposed to be relied upon by a party for the purposes of without prejudice discussions at a conciliation conference may be lodged with the Court in a sealed envelope and marked for the attention of the Commissioner who is to preside over the conciliation conference. Such documents should not be filed and will not be recorded in the Court's records.
9. A copy of any documents so lodged is also to be provided, at the time of lodgment, to the other party to the proceedings with the notation that it has been brought into existence for the purposes of, and proposed to be relied upon by a party at, the conciliation conference.
10. If no agreement is reached at or after the conciliation conference, the proceedings are listed for a second directions hearing on [insert date 7 days after the conference].
11. Each party is to notify the other party in writing of the name of any expert upon which they propose to rely, the area of expertise of the expert and the issues to be addressed by each expert 2 business days prior to the second directions hearing.

Schedule C

Usual directions for a hearing

The Court directs that:

1. The proceedings are fixed for hearing on [insert date as soon as reasonably possible and usually within 12 weeks from the first directions hearing].
2. The hearing is to commence [on site at 9.30am] or [in Court at 10.00am]. If the parties consider the site may be difficult to find, they are to file an agreed map showing the proposed location for the commencement of any hearing on site at 9.30am two working days before the hearing.

Note: If a matter is fixed for an on site hearing or is otherwise to involve substantial time or taking of evidence on site, the parties should ensure that appropriate facilities are available for that purpose, including a table and chairs and bathroom facilities, and that the hearing will be open to the public and will be able to be observed and heard by all persons attending the hearing.

3. The [respondent or applicant] is to file and serve its statements of facts and contentions in accordance with Schedule A of Practice Note – Classes 1, 2 and 3 Miscellaneous Appeals by [insert date having regard to date of conciliation conference].
4. The [respondent or applicant] is to file and serve its statements of facts and contentions in reply in accordance with Schedule A of Practice Note – Classes 1, 2 and 3 Miscellaneous Appeals by [insert date having regard to date of conciliation conference]. This statement is not to repeat any facts not in dispute.
5. Under rr 31.19 and 31.20 of the Uniform Civil Procedure Rules 2005 ('UCPR'), the Court makes the following directions regarding expert evidence:
 - [name of the expert witness] may prepare an individual expert's report on [specified issues];
 - [the named experts] are to confer in relation to [specified issues] under UCPR r 31.24 and prepare a joint expert report;
 - the individual expert's report of [named expert] is to be filed and served by [date];

- the joint expert report of [named experts] is to be filed and served by [date].

Note: The above directions may be duplicated for each area of expertise required.

6. Unless the Court otherwise orders, expert evidence may not be adduced at the hearing otherwise than in accordance with the directions made by the Court in accordance with UCPR rr 31.19 and 31.20, including compliance with directions as to the time for service and filing of experts' reports and joint expert reports.
7. Parties are to serve a copy of these directions, the statements of facts and contentions, Division 2 of Pt 31 of the Uniform Civil Procedure Rules and the Expert Witness Code of Conduct in Schedule 7 of the Uniform Civil Procedure Rules, and the Court policies on Joint Reports and on Conference of Expert Witnesses on all experts upon whose evidence they propose to rely within 3 business days of these orders being made, or, for a statement of facts and contentions (or reply) filed after the making of these orders, within 3 business days of them being filed or served.
8. Experts are directed to give written notice to the Court and the party instructing them if for any reason they anticipate that they cannot comply with these directions. In that case, or if the experts have failed to comply with these directions, the parties will promptly list the matter before the Court for directions and give written notice to the other parties.
9. Experts are to ensure that a joint conference is a genuine dialogue between experts in a common effort to reach agreement with the other expert witness about the relevant facts and issues. Any joint report is to be a product of this genuine dialogue and is not to be a mere summary or compilation of the pre-existing positions of the experts.
10. A joint report is to identify the experts involved in its preparation, the date of their joint conferences, the matters they agreed about, the matters they disagreed about and reasons for agreement and disagreement. A joint report should avoid repetition and be organised to facilitate a clear understanding of the final position of the experts about the matters in issue and the reasoning process they used to reach those positions. Each expert is to sign and date the joint report.

11. Legal representatives are not to attend joint conferences of experts or be involved in the preparation of joint reports without the leave of the Court.
12. At the hearing the evidence of experts is to be given by way of concurrent evidence, unless the hearing judge or commissioner directs otherwise.
13. A party calling a witness may not, without the leave of the Court, lead evidence from the witness the substance of which is not included in a document served in accordance with the Court's directions.
14. If any witness is required for cross-examination, notice is to be given at least 7 days before the hearing.
15. A party who proposes to object to any part of an affidavit, statement or report is to file and serve notice of its objections, including the grounds in support, at least seven days before the hearing.
16. If the applicant or respondent contends that, if the appeal is upheld, conditions should be imposed, that party is to file and serve draft conditions (in both hard copy and electronic form) 14 days before the hearing.
17. If any party fails to comply with a direction of the Court that some action be taken by a specified time, and the defaulting party is not able to take that action within two days of the specified time, the defaulting party is to:
 - (a) relist the matter before the Court within three days of the specified time; and
 - (b) provide to the Court on the relisting an affidavit explaining the non-compliance, the reason for the non-compliance and what action the party proposes to take and when the party proposes to take action to comply with the direction.

Note: The Court will usually order that the defaulting party pay the costs of the other party of and occasioned by the non-compliance and the relisting unless it appears to the Court that some other order should be made as to the whole or any part of the costs.

18. The parties have liberty to restore on three working days' notice.

Schedule D			
Classes 1, 2 and 3 Miscellaneous Appeals - Information Sheet			
Applicant:			
Respondent(s):			
Proceedings no:			
1.	Is any expert evidence required? If so, nominate general issues on which expert evidence is required, the areas of expertise and the names of the experts whose evidence leave is sought to be relied upon (with a new line for each area of expertise)		
Issues	Area of expertise	Applicant Expert	Respondent Expert
2.	Could any of the above issues be better dealt with by a parties' single expert? If so, what is the proposal for engaging the expert?		
3.	Are there any experts who should prepare an individual report before proceeding to a joint conference and joint report and, if so, identify the expert, the area of expertise and provide reasons supporting the report being necessary or appropriate [point form only]?		

4.	Should a Commissioner or Commissioners with special knowledge and experience in particular disciplines hear the appeal? If so, specify the relevant disciplines.
5.	If the appeal concerns land outside of the Sydney metropolitan region, should the appeal be heard in the local area? If not, why not?
6.	Is the appeal appropriate to be heard as an on site hearing under s 34A of the Environmental Planning and Assessment Act 1979? If so, will adequate facilities be available? Will the hearing be able to be observed and heard by the public?
7.	Is there any reason that the hearing should not commence at 9.30am on site?
8.	Identify any lay witnesses, if any
Applicant:	
Respondent:	
9.	Estimate of the length of hearing.
Applicant:	
Respondent:	
10.	Identify hearing dates sought:
Applicant:	
Respondent:	

SCHEDULE E

Usual directions on the appointment of a parties' single expert:

The Court orders:

1. The Court notes the agreement between the parties to engage [insert name] as a parties' single expert and that the parties have agreed the remuneration to be paid to that expert as being [insert details of remuneration].

Or, failing agreement about the identity and/or remuneration of the parties' single expert:

- 1A.
 - (a) The parties are to agree on a parties' single expert and their remuneration and are to notify the Court of the expert's name and that the expert's remuneration has been agreed by [insert date 7 days after the first/second directions hearing].
 - (b) Failing agreement, the parties are to file and serve the names, CVs and fee estimates of three appropriately qualified experts by [insert date 10 days after the first/second directions hearing]. The Court will make order 2 below in Chambers and notify the parties accordingly.
2.
 - (a) The Court orders the parties to engage jointly [insert name] as a parties' single expert.
 - (b) The Court fixes the remuneration of the parties' single expert at [insert details of remuneration].
3. A parties' single expert is not to incur fees or disbursements additional to the remuneration agreed by the parties or fixed by the Court without written agreement of both parties or, absent such agreement, the leave of the Court.
4. The parties are to brief the parties' single expert with agreed instructions and an agreed bundle of documents by [insert date within 7 days of direction 2 being made].
5. The parties' single expert is to file and serve their expert report by [insert date within 6 weeks of direction 2 being made]. Without leave of the Court, the

parties' single expert is not to provide the parties with a preliminary expert report or preliminary opinion.

6. The parties' single expert is to comply with the requirements of Division 2 of Pt 31 of the Uniform Civil Procedure Rules and the Expert Witness Code of Conduct in Schedule 7 of the Uniform Civil Procedure Rules, including the requirements for experts' reports.
7. If the Court has ordered that a parties' single expert address any issue, no expert report addressing the same issue other than the report of the parties' single expert may be relied upon at the hearing, without leave.
8. The parties' are not to provide a parties' single expert with any expert report brought into existence for the purpose of the proceedings addressing any matter the subject of instructions to the parties' single expert, without leave of the Court.

SCHEDULE F

Usual directions for separate determination of questions

The Court orders that:

1. Pursuant to r 28.2 of the Uniform Civil Procedure Rules 2005, the following question is to be determined separately from any other question in the proceedings:

[insert separate question]

2. The parties are to file and serve any affidavits, reports or statements on which they wish to rely by [insert date within 14 days of the separation of the question].
3. The parties are to file and serve any affidavits, reports or statements in reply by [insert date within 28 days of the separation of the question].
4. The parties are to file an agreed bundle of documents by [insert date within 5 weeks of the separation of the question].
5. The party raising the question is to file and serve an outline of submissions by [insert date two working days before the hearing of the separate question].
6. The other party is to file and serve an outline of submissions by [insert date one working day before the hearing].
7. The question is listed for hearing in court on [insert date] at 10:00am.
8. Parties are to notify promptly the Court if there is any material slippage in the timetable.
9. The parties have liberty to restore on three working days' notice.



**Land and Environment
Court**
of New South Wales

PRACTICE NOTE

CLASS 1 RESIDENTIAL DEVELOPMENT APPEALS

Name and commencement

1. This practice note is to be known as Practice Note – Class 1 Residential Development Appeals. It commences on 30 March 2017. It replaces the Practice Note – Class 1 Residential Development Appeals made on 7 February 2011.

Application of Practice Note

2. This practice note is to be known as Practice Note – Residential Class 1 Development Appeals.
3. This practice note applies to the proceedings referred to in s 34AA of the *Land and Environment Court Act 1979*. They are the following proceedings in Class 1 of the Court’s jurisdiction relating to appeals and applications under s 97 or 97AA of the *Environmental Planning and Assessment Act 1979*:
 - (a) proceedings concerning development applications or modifications to development consents for:
 - (i) development for the purposes of detached single dwellings and dual-occupancies (including subdivisions), or alterations or additions to such dwellings or dual-occupancies (referred to as “residential development”), or
 - (ii) development of a kind prescribed by the regulations,
 - (b) particular proceedings that the Court orders, on the application of a party to the proceedings or of its own motion, to be dealt with under s 34AA.

These proceedings are referred to in this practice note as “residential development appeals”.

Purpose of Practice Note

4. The purpose of this practice note is to set out the case management procedures for the just, quick and cheap resolution of residential development appeals.

Responsibility of parties, legal practitioners and agents to facilitate resolution

5. It is the responsibility of each party and their legal practitioners and agents (as applicable) to consider the orders and directions appropriate to be made in the particular case to facilitate the just, quick and cheap resolution of the real issues in the proceedings.
6. If any party reasonably considers that compliance with this practice note will not be possible, or will not be conducive to the just, quick and cheap resolution of the proceedings, the party should apply to be relieved from compliance on the basis that an alternative proposed regime will be more conducive to such resolution. In that event, the party is to notify other parties of the proposed alternative regime as soon as practicable and is to make available to the Court short minutes reflecting that alternative regime.
7. Parties are to ensure that all directions which they seek with respect to residential development appeals will assist in enabling such appeals to be dealt with at any hearing with as little formality and technicality, and with as much expedition, as the requirements of the Land and Environment Court Act and of every other relevant enactment and as the proper consideration of the matters before the Court permits (see s 38 of the Land and Environment Court Act).

Legal practitioners and agents of parties to be prepared

8. Each party not appearing in person shall be represented before the Court by a legal practitioner (or an agent authorised by the party in writing to whom leave of the Court has been granted to appear for the party) familiar with the subject matter of the proceedings and with instructions sufficient to enable all appropriate orders and directions to be made.
9. Any person seeking to perform the role of an agent should make themselves aware of the obligations of an agent and the requirement to obtain the leave of the Court to appear on someone's behalf in the proceedings. An application for leave to appear as an agent in the proceedings may be made at the time of commencing the proceedings by letter to the Registrar, or orally at the first directions hearing. The application must be supported by evidence that rule 7.7 of the *Land and Environment Court Rules 2007* has been complied with.

Note: More information regarding the obligations of agents in development appeals can be found on the Court's website (<http://www.lec.justice.nsw.gov.au>) and then accessed through "Coming to the Court" and then "Having someone represent you."

10. Legal practitioners and agents for each party should communicate prior to any attendance before the Court with a view to reaching agreement on directions to propose to the Court and on preparation of short minutes recording the directions.

Commencing a residential development appeal

11. A residential development appeal is to be commenced by filing in the Registry of the Court, by mail, over the counter or through the NSW Online Registry, a completed Class 1 Application Form (Form B).

Note: the application form for residential development appeals can be found on the Court's website (<http://www.lec.justice.nsw.gov.au>) and then accessed through "Forms & Fees" on the right hand menu.

12. Any plans of any residential development accompanying the residential development appeal application are to satisfy the requirements in **Schedule A**. If leave is granted by the Court to amend the plans, any amended plans are also to meet those requirements.

13. If the plans the subject of the determination of a consent authority in respect of which a residential development appeal application is to be made do not satisfy the requirements in Schedule A, the applicant, before lodging the residential development appeal application, may amend the plans without seeking leave of the Court, but only to the extent necessary to cause the plans to satisfy the requirements in Schedule A. Any other amendment is to be by leave of the Court.

Service of the residential development appeal application

14. Residential development appeal applications are to be served within 3 working days of filing.

The return of the residential development appeal application before the court

15. Residential development appeal applications will usually be given a return date before the Court 21 days after the date on which they are filed. On the return, the first directions hearing will occur. The first directions hearing will usually be before the Registrar.
16. Applications to extend the period for the return of the application before the Court may be granted if the applicant demonstrates that service cannot be achieved within the time required. The Registrar may also extend the period if circumstances, such as public holidays, make it appropriate that a longer period be allowed for parties to take the action required by this practice note before or by the return of the proceedings.

Access to documents

17. On request, a respondent who is a public authority or public official is to provide the applicant with access to the documents relevant to the residential development application and its decision (if any), within 7 days of the request.

Identifying the issues in dispute

18. The respondent consent authority is to file in the Court and serve on the applicant a statement of facts and contentions in accordance with **Schedule B** before 4.00pm on the second last working day before the first directions hearing unless the proceedings involve an appeal against a determination to grant consent subject to conditions.
19. If the proceedings involve an appeal against a determination to grant development consent for residential development subject to conditions, then the applicant is to file in the Court and serve on the consent authority a statement of facts and contentions in accordance with **Schedule C** with its residential development appeal application.

Number of pre-hearing attendances

20. Normally, there will be only one directions hearing in residential development appeals before the conciliation conference and hearing.

Before the first directions hearing

21. Before the first directions hearing, the parties are to discuss and endeavour to agree upon:
 - (a) the directions that the Court should make at the directions hearing;
 - (b) the proposed dates for the conciliation conference and hearing, being usually the dates in the range of available dates published at the top of the court list; and
 - (c) if any party intends to adduce expert evidence at a hearing of the proceedings, a statement of the disciplines in respect of which they propose to call expert evidence, the names of the experts, the issues to which the proposed expert evidence relates, and the reasons why the proposed expert evidence is reasonably required to resolve the

proceedings having regard to the requirement for the just, quick and cheap resolution of the issues in dispute.

22. If the parties do not agree, each party should prepare their own written version of the directions they propose.

Parties to seek directions before adducing expert evidence

23. Parties are encouraged to consider whether expert evidence is genuinely necessary to resolve the issues in dispute in residential development appeals. Unnecessary expert evidence substantially increases the time and cost of appeals. Parties are encouraged to consider whether the proceedings can appropriately be fixed for hearing before a Commissioner or Commissioners with special knowledge and experience in relation to the issues in dispute.
24. A party intending to adduce expert evidence at the hearing of any residential development appeal must apply for directions from the Court under Pt 31 r 31.19 of the Uniform Civil Procedure Rules 2005 permitting the adducing of expert evidence.
25. The application for directions is to be made at the first directions hearing. The application is to be supported by a completed information sheet in the form of **Schedule D**, outlining the issues in the proceedings, the experts whose opinion is sought to be adduced as evidence in the proceedings, and the areas of expertise of each expert. The application is also to be accompanied by the proposed directions under r 31.20 of the Uniform Civil Procedure Rules 2005.
26. If practicable, the Court will determine the application for directions at the first directions hearing or otherwise it will fix a date for hearing the application. At the hearing of the application for directions, the party seeking directions is to explain the expert evidence sought to be adduced and why the use of that expert evidence should be permitted, including why that expert evidence relates to a real issue in the proceedings and is reasonably required to resolve that issue.

27. A party may not adduce expert evidence at the hearing of any residential development appeal unless the Court has given directions permitting the adducing of that expert evidence and the adducing of that expert evidence is in accordance with those directions (see r 31.19(3) of the Uniform Civil Procedure Rules 2005).
28. Any directions for the filing of experts' reports and joint expert reports made by the Court will specify the name of each expert required to comply with the directions.
29. If either party seeks to adduce the evidence of any expert not named in the directions made, that party is required to seek additional directions for the filing of evidence by that expert, either through Online Court or by exercising liberty to restore. Any application for additional directions is to be supported by an updated hearing information sheet in the form of Schedule D and provide the information and explanation referred to in paragraphs 25 and 26 of this practice note.

At the first directions hearing

30. Unless good reason is demonstrated, each party is to be sufficiently prepared at the first directions hearing to assist the Court in making and to accept a timetable up to and including the date of the conciliation conference and hearing. Legal practitioners and other representatives of the parties are to ensure they advise the parties of their obligation to be ready to agree to a timetable up to and including that date and are to obtain full and timely instructions to ensure the parties comply with this obligation.
31. To assist the Court in making the appropriate directions, each party is to complete and hand to the Court at the first directions hearing a completed information sheet in the form of **Schedule D**.
32. At the first direction hearing, the parties should expect that the usual directions set out in **Schedule E** will be made to prepare for the conciliation conference and hearing of the residential development appeal, and should have either agreed or competing proposed short minutes to hand to the Court.

33. In preparing the short minutes, parties may delete, amend or abridge any part of the usual directions to facilitate the just, quick and cheap resolution of the proceedings.
34. Parties may also propose alternative directions if they have a reasonable basis for considering that alternative directions will better facilitate the just, quick and cheap resolution of the proceedings. If alternative directions are proposed, the party seeking those directions is to notify the other party before the first directions hearing and ensure that proposed short minutes are available to be handed to the Court.
35. At the first directions hearing, the residential development appeal will be fixed for the conciliation conference and hearing under s 34AA of the Land and Environment Court Act. This conciliation conference and hearing will usually be not later than 6 weeks after the first directions hearing.
36. Estimates of the length of time needed for the conciliation conference and hearing should be realistic having regard to the statements of facts and contentions.
37. Generally, the conciliation conference and hearing should commence at 9.30am on the site of the residential development unless, in the particular circumstances of the case, it would be inappropriate to do so. The parties are to inform the Court at the first directions hearing whether there is any reason for not holding the conciliation conference and hearing at the site of the residential development.

Use of Online Court

38. Online Court allows parties to seek directions online rather than appearing at a directions hearing in court. Any of the usual directions, including fixing a date for the conciliation conference and hearing, and the making of directions for expert evidence, can be made through Online Court.

39. Any application by Online Court to adduce expert evidence must be supported by a completed hearing information sheet (Schedule D) as well as the information and explanation referred to in paragraphs 25 and 26 of this practice note.
40. Parties can apply for directions to be made online by submitting an Online Court request before 12noon on the day prior to the directions hearing. The Court will endeavour to respond to the request by 4:30pm. If the parties do not receive a response there must be an appearance on their behalf at the directions hearing.
41. Any party seeking to make an application using Online Court must first contact the other parties in an attempt to provide the Court with a consent position. If the parties reach consent as to the appropriate directions to be made and the date for the conciliation conference and hearing, the party lodging the request may mention the appearance of the other party and indicate that the directions are sought by consent.
42. If a party makes a request for orders through the Online Court without the consent of the other side, the Online Court system gives the other party an opportunity to respond by either consenting to the request or offering a 'counter' request. The other party is required to respond to the request by 2pm. If no response is received, appearances are required on behalf of all parties at the directions hearing.
43. If, by reason of a party's failure to respond to an Online Court request, another party is unnecessarily put to the cost of attending a directions hearing, the Court may make a costs order against that party for the cost of the other party's appearance in court unless there is some reasonable excuse for the failure to respond.

Conduct of conciliation conference and hearing pursuant to s 34AA

44. Subject to any alternative arrangement made at the first directions hearing, residential development appeals should commence at 9.30am on site.

45. The conciliation phase of the conciliation conference and hearing process will be conducted in accordance with the Conciliation Conference Policy.

Note: the Conciliation Conference Policy can be found on the Court's website (<http://www.lec.justice.nsw.gov.au>) and then accessed through "Practice and Procedure" on the top menu.

46. The parties are to participate, in good faith, in the conciliation conference (see s 34(1A) of the *Land and Environment Court Act 1979*), including preparing to be able to fully and meaningfully participate, having authority or the ready means of obtaining authority to reach agreement and genuinely endeavouring to reach agreement at the conciliation conference.
47. Any amended plans or additional information proposed by the applicant to be the subject of without prejudice discussions at the conciliation conference are to be provided to the respondent 14 days before the conciliation conference.
48. The respondent is to provide to the applicant any response to the amended plans or additional information 7 days before the conciliation conference.
49. The conciliation conference and hearing process will only be adjourned where the parties have reached an agreement in principle as to the terms of a decision in the proceedings that would be acceptable to the parties under s 34(3) of the *Land and Environment Court Act* and the adjournment is required to finalise that agreement.
50. If an adjournment is given, the conciliation may be listed before the Commissioner after 4pm on a future date not more than 3 weeks after the conciliation conference. The Commissioner may conduct the adjourned conciliation by telephone or by requiring the parties to attend in person. If the time or date of the listing changes due to other duties of the Commissioner, the parties will be notified in writing by email.
51. If no agreement of a kind referred to in s 34(3) of the *Land and Environment Court Act* is reached, the conciliation conference will be terminated and the residential development appeal will proceed to a hearing forthwith or, with the consent of the parties, on the basis of what occurred in the conciliation (see s 34AA(2)(b) of the *Land and Environment Court Act*). There will be no

adjournment between the termination of the conciliation conference and the commencement of the hearing.

Applications to opt out or opt in to the residential development appeal regime

52. If a party seeks to make an application pursuant to s 34AA(3) of the Land and Environment Court Act that the particular residential development appeal not be dealt with or not continue to be dealt with under s 34AA(2), the party should apply by notice of motion supported by an affidavit setting out the reasons why that course is appropriate in the circumstances of the case. The notice of motion is to be made returnable on the date of the first directions hearing.
53. If a party seeks to make an application pursuant to s 34AA(1)(b) of the Land and Environment Court Act for a particular proceeding that is not a residential development appeal be dealt with under s 34AA, the party should apply by notice of motion supported by an affidavit setting out the reasons why that course is appropriate in the circumstances of the case. The notice of motion is to be made returnable on the date of the first directions hearing.

Target time for finalisation of residential development appeals

54. Residential development appeals are intended to be dealt with expeditiously. The Court sets a target of finalising 95% of residential development appeals within 3 months of filing.

Expert evidence

55. Any directions made concerning the filing of expert evidence must be provided to the experts within 3 business days of being made, together with the statements of facts and contentions, Division 2 of Pt 31 of the Uniform Civil Procedure Rules, the Expert Witness Code of Conduct in Schedule 7 of the Uniform Civil Procedure Rules, and the Court policies on Joint Reports and on Conference of Expert Witnesses.
56. An expert (including a parties' single expert) and the expert's report are to comply with the requirements of Division 2 of Pt 31 of the Uniform Civil

Procedure Rules and the Expert Witness Code of Conduct in Schedule 7 of the Uniform Civil Procedure Rules.

57. An expert witness should identify any pre-existing relationship between the expert witness, or their firm or company, and a party to the litigation.
58. It is not the role of any expert to opine whether a residential development appeal should be upheld or dismissed. That is the role of the consent authority and, on appeal, the Court exercising the functions of the consent authority. Expert opinions in reports and joint reports are to deal with the contentions raised by the parties. Any other matter relevant to the expert's expertise, which the expert feels obliged to draw to the attention of the parties and the Court, may also be noted.
59. Experts' reports are not to repeat matters in Part A Facts of the statements of facts and contentions. Wherever possible, an expert should state that Part A Facts has been adopted as correct. If this cannot be stated, the expert should identify the matters which are disputed and state his or her position in relation to those matters.
60. If experts are directed by the Court to confer, experts are to ensure that their joint conference is a genuine dialogue between experts in a common effort to reach agreement with the other expert witness about the relevant facts and issues. Any joint report is to be a product of this genuine dialogue and is not to be a mere summary or compilation of the pre-existing positions of the experts.
61. Legal representatives are not to attend joint conferences of experts or be involved in the preparation of joint reports without the leave of the Court.
62. Where expert evidence from more than one expert in the same discipline is to be given in Court, the experts will give such evidence concurrently (subject to any order by the hearing Commissioner to the contrary).
63. If a party requires any expert for cross-examination, notice is to be given at least 7 days before the conciliation conference and hearing.

Parties' single expert

64. Where expert evidence is necessary to be called in relation to an issue, the Court encourages parties to use a parties' single expert. The use of a parties' single expert in an appropriate case can reduce costs and ensure the Court has the benefit of evidence from a person who is not engaged by only one party. In determining whether a parties' single expert might be appropriate in a particular case, consideration should be given to:
- (a) the importance and complexity of the subject matter in dispute in the proceedings;
 - (b) the likely cost of obtaining expert evidence from a parties' single expert compared to the alternative of obtaining expert evidence from individual experts engaged by each of the parties;
 - (c) the proportionality of the cost in (b) to the importance and complexity of the subject matter in (a);
 - (d) whether the use of a parties' single expert in relation to an issue is reasonably likely either to narrow the scope of the issue or resolve the issue;
 - (e) the nature of the issue, including:
 - (i) whether the issue is capable of being answered in an objectively verifiable manner;
 - (ii) whether the issue involves the application of accepted criteria (such as Australian Standards) to ascertainable facts;
 - (iii) whether the issue is likely to involve a genuine division of expert opinion on methodology, or schools of thought in the discipline; and
 - (iv) whether the issue relates to the adequacy or sufficiency of information provided in the residential development appeal application;
 - (f) whether the evidence of the parties' single expert involves the provision of aids to assist in the assessment of a residential development appeal application (such as shadow diagrams, view lines or photo montages).

- (g) whether the parties' single expert would be required independently to obtain further information or to undertake monitoring, surveys or other means of obtaining data before being able to provide expert evidence;
 - (h) whether the parties are prepared at the time to proceed to hearing on the basis of a parties' single expert report about the issue and no other expert evidence about that issue;
 - (i) whether the integrity of expert evidence on the issue is likely to be enhanced by evidence being provided by a parties' single expert instead of by individual experts engaged by the parties; and
 - (j) whether the Court is likely to be better assisted by expert evidence on the issue being provided by a parties' single expert instead of by individual experts engaged by the parties.
65. The Court will not usually accept the appointment of a parties' single expert if that expert is unable to provide a report within 4 weeks of receiving the brief or is unable to attend the conciliation conference and hearing.
66. The usual directions in **Schedule F** provide for a parties' single expert to file and serve one expert report only. Without leave of the Court, a parties' single expert is not to provide parties with preliminary reports or opinions.
- Note: Under Pt 31.41 of the Uniform Civil Procedure Rules a party may seek clarification of the report of a parties' single expert on one occasion only.
67. The parties' are not to provide a parties' single expert with any expert report brought into existence for the purpose of the proceedings addressing any matter the subject of instructions to the parties' single expert, without leave of the Court.
68. Where a parties' single expert has been appointed to give evidence in relation to any issue, the parties may not rely on any other expert evidence about that issue without leave. Any application for leave is to be made as soon as reasonably possible and usually no later than five days after receiving the report of the parties' single expert.
69. Leave is to be sought by notice of motion, with an affidavit in support explaining:

- (a) the name, qualifications and expertise of the expert proposed to be called;
- (b) the matters proposed to be addressed by the expert;
- (c) the date on which the expert was first retained and the date or dates of any expert report the expert has already prepared;
- (d) the reasons for the need to call an additional expert to give that evidence, rather than having the parties' single expert address the matters further or in cross examination;
- (e) how calling the additional expert at all, or at the particular stage in the preparation of the proceedings, promotes the just, quick and cheap resolution of the proceedings; and
- (f) the party's position in relation to any additional costs that might be caused by the calling of the expert.

If practicable, the affidavit should not exceed three pages in length (excluding annexures).

70. It is the responsibility of the parties to agree the remuneration to be paid to a parties' single expert. This includes making provision with respect to the amount of the expert's fees and the frequency with which the expert renders accounts. The Court will fix the remuneration of a parties' single expert only where the parties are unable to agree that remuneration.

Note: See Pt 31.45 of the Uniform Civil Procedure Rules.

Application for separate determination of an issue

71. In the ordinary course, all issues in a residential development appeal should be heard together unless an issue genuinely capable of separate determination is likely to be determinative of the residential development appeal.
72. If any party seeks to raise an issue of fact or law that the party contends precludes or demands the determination of the residential development application in a particular way or otherwise seeks to have an issue dealt with

separately before the final hearing, the party must apply to do so by notice of motion supported by a short affidavit setting out the issue and the reasons why it should be dealt with separately.

73. The notice of motion is to be returnable at the first directions hearing. The Court will deal with the notice of motion on the day of the first directions hearing or at a separate hearing shortly after the first directions hearing. However, the Court at the first directions hearing may still fix a date for the final hearing of the residential development appeal.
74. If an order is made for a separate hearing:
- (a) short matters (less than 2 hours) may be listed on the first available Friday before the Duty Judge or Duty Commissioner for issues of law or fact respectively; and
 - (b) other matters will be listed for hearing in the ordinary course, and the usual directions in **Schedule G** will apply.

Expedition

75. Any party may seek expedition of a residential development application appeal by notice of motion, with a short affidavit in support setting out the reasons in support of expedition.

Breach of the Court's directions

76. If any party fails to comply with a direction of the Court that some action be taken by a specified time, and the defaulting party is not able to take that action within two days of the specified time, the defaulting party is to:
- (a) relist the matter before the Court within three days of the specified time; and
 - (b) provide to the Court on the relisting an affidavit explaining the non-compliance, the reason for the non-compliance and what action the party proposes to take and when the party proposes to take action to comply with the direction.

77. If any party fails to comply with a direction of the Court or this practice note, the Court will usually order that the defaulting party pay the costs of the other party of and occasioned by the non-compliance and any relisting required unless it appears to the Court that some other order should be made as to the whole or any part of the costs.

Variation of timetables

78. If either party becomes aware of circumstances that will necessitate a variation to the timetable, an application to vary the timetable can be made by Online Court request. Any party seeking to make an application to vary the timetable using Online Court must first contact the other parties in an attempt to provide the Court with a consent position.
79. If a party makes a request for orders through the Online Court without the consent of the other side, the Online Court system gives the other party an opportunity to respond by either consenting to the request or offering a 'counter' request. If no response is received within 2 days of the request or such other time as the Registrar determines, the proceedings may be listed for further directions.
80. If, by reason of a party's failure to respond to an Online Court request, another party is unnecessarily put to the cost of attending a directions hearing, an order for the payment of costs of the appearance may be made unless there is some reasonable excuse for the failure to respond.
81. If proposed directions vary an existing timetable, they must include the vacation of any date for a directions hearings or mention or for the hearing of motions that can no longer be maintained.

Liberty to restore

82. Parties have liberty to approach the Court without a notice of motion on two working days' notice or earlier if urgency requires. A party seeking to make urgent application should, if possible, make prior arrangement with, or give

appropriate notice to, any other party, and should send an Online Court request.

Amendments to applications and to statements of facts and contentions

83. Subject to paragraph 13 of this practice note, an applicant requires leave of the Court to amend its residential development appeal application, including to amend the plans for the residential development proposed in the application. Applicants should ensure, before commencing their residential development appeal, that their residential development appeal application, and the residential development proposed in the application, is considered, complete and final and suitable for assessment at the final hearing including ensuring that the plans satisfy the requirements in Schedule A.
84. If an applicant wishes to amend its residential development appeal application, including by amending plans, the applicant is to apply for leave as soon as reasonably possible and usually no later than 3 working days after the facts and circumstances which prompted the application for leave came to the attention of the applicant. Examples of such facts or circumstances are the receipt of a report of a parties' single expert or a joint report of parties' experts recommending modification of the proposed development, which recommendation the applicant wishes to adopt in whole or part.
85. Other than amendments sought during the hearing of the residential development appeal, leave to rely on an amended residential development appeal application, including amended plans, is to be sought by notice of motion, accompanied by a short affidavit in support that:
 - (a) provides particulars sufficient to indicate the precise nature of the amendments proposed;
 - (b) identifies any amended plans by date and plan revision number;
 - (c) identifies the facts or circumstances which prompted the application for leave and when they came to the attention of the applicant;

- (d) identifies the respects in which the amendments lessen the environmental impact of the development and/or otherwise lead to an improved community outcome;
- (e) identifies why granting leave to amend the application would promote the just, quick and cheap resolution of the proceedings;
- (f) discloses if any additional documents (eg a BASIX certificate for the amended development) are required to support the amended application and, if so whether those documents have been, or are to be, obtained;
- (g) discloses the applicant's position on any additional costs that the consent authority may incur as a consequence of the amendment; and
- (h) identifies the potential impacts on the hearing dates and the applicant's position on the adjustments to the timetable that would enable the hearing dates to be maintained if possible.

If practicable, the affidavit should not exceed 3 pages in length (excluding annexures).

86. Leave will usually not be given to amendments where to do so would require either the vacation of the conciliation conference and hearing (for applications to amend made prior to a hearing which has been fixed) or the adjournment of the conciliation conference and hearing (for applications to amend made during the hearing). An alternative course that should be considered by an applicant is for the residential development the subject of the application to be amended by means of conditions of development consent or approval if the Court considers the grant of such development consent or approval is appropriate.
87. Parties require leave of the Court to amend their statement of facts and contentions. Leave to do so consequential on an amended residential development appeal application may be assumed where leave to amend an application has been granted and will be subject to directions made at that time. In all other cases, leave is to be sought by notice of motion accompanied by a short affidavit in support explaining the reasons for leave being sought.

Applications to change hearing dates and for adjournments

88. Residential development appeals will not be adjourned generally. In particular, applicants should usually be ready to proceed with their residential development appeal when it is commenced. This requires applicants to ensure that their residential development appeal application, and the residential development proposed in the application, is considered, complete and final, and suitable for assessment at the final hearing.
89. Proceedings usually will not be adjourned because of failure to comply with this practice note or Court directions or because of lack of preparedness for any attendance before the Court. If failure to comply or lack of preparedness nevertheless does cause the adjournment of the proceedings, the defaulting parties or legal practitioners may be ordered to pay costs.
90. Applications to change hearing dates fixed by the Court are to be by notice of motion, with an affidavit in support explaining the circumstances of the application and the reasons the hearing dates should be changed.

Applications for final orders by consent of parties

91. If the parties settle the dispute the subject of the residential development appeal and its resolution does not require the Court to make any orders, the applicant is to file a notice of discontinuance of the residential development appeal signed by all parties.
92. When there is agreement prior to the commencement of the conciliation conference and hearing of a residential development appeal involving a deemed refusal of the residential development application by the consent authority, the Court will usually expect the consent authority to give effect to the agreement by itself granting consent or approval. The applicant can then file a notice of discontinuance signed by all parties.
93. If the parties settle the dispute and its resolution does require the Court to make orders, it will be necessary for the Court to determine the residential development appeal rather than filing terms of agreement with the Court registry. The parties are to exercise the liberty to restore the proceedings

before the Court and request that the application for final orders by consent be listed for determination by the Court.

94. The parties are to file the proposed consent orders signed by all parties before the date fixed for hearing the application for final orders by consent.
95. At the hearing, the parties will be required to present such evidence as is necessary to allow the Court to determine whether it is lawful and appropriate to grant the consent or approval having regard to the whole of the relevant circumstances, including the proposed conditions. The consent authority will be required to demonstrate that relevant statutory provisions have been complied with and that any objection by any person has been properly taken into account. Additionally, the consent authority will be required to demonstrate that it has given reasonable notice to all persons who objected to the proposal of the following:
 - (i) the content of the proposed orders (including the proposed conditions of consent);
 - (ii) the date of the hearing by the Court to consider making the proposed consent orders; and
 - (iii) the opportunity for any such person to be heard,or that, in the circumstances of the case, notification is not necessary.

Application for an easement under s 40 of the Land and Environment Court Act

96. An application for an order under s 40 of the Land and Environment Court Act can only be made if:
 - (a) the Court has determined to grant or modify development consent pursuant to proceedings on an appeal under the *Environmental Planning and Assessment Act 1979*; or
 - (b) proceedings on an appeal under the *Environmental Planning and Assessment Act 1979* with respect to the granting or modification of a development consent are pending before the Court.

97. It is inappropriate for parties to seek an order under s 40 of the Land and Environment Court Act at the hearing of an appeal pursuant to s 97 of the *Environmental Planning and Assessment Act 1979*.
98. An application for an order under s 40 of the Land and Environment Court Act is to be made in Class 3 of the Court's jurisdiction and is subject to *Practice Note – Classes 1, 2 and 3 Miscellaneous Appeals*.

Costs and compliance

99. If a breach of the Court's directions or of this practice note causes costs to be thrown away, a party or legal practitioner responsible for the breach may be ordered to pay those costs.
100. The cost of unnecessary photocopying and assembly of documents is unacceptable. Legal practitioners for the parties are to consider carefully the documents necessary to be tendered. Unnecessary documents may attract adverse costs orders.
101. Any failure by one party to comply with the Court's directions will not be considered an adequate excuse for any failure to comply by the other party. Both parties are responsible for ensuring that they comply with directions.

Applications for a cost order

102. Where a Commissioner has heard and determined a residential development appeal, any party seeking an order for costs of the proceedings must apply for costs by notice of motion filed within 28 days of the making of the final orders in the proceedings.

Note: Pt 3 r 3.7 of the Land and Environment Court Rules 2007 provides that for proceedings in Class 1 of the Court's jurisdiction, including residential development appeals, the Court "is not to make an order of the payment of costs unless the Court considers that the making of an order as to the whole or any part of the costs is fair and reasonable in the circumstances": Pt 3 r 3.7(2). Some of the circumstances in which the Court might consider the making of a costs order to be fair and reasonable are listed in Pt 3 r 3.7(3).

70. The notice of motion for costs will be heard and determined by either the Registrar or a Judge of the Court.

***The Honourable Justice Brian J Preston
Chief Judge***

28 March 2017

Schedule A

Requirements for Plans

1. **General:**

- Plans should be drawn to an appropriate scale shown on the drawings;
- Plans should be drawn with clarity;
- Plans should indicate a north point; and
- All plans shall be consistent with each other.

2. **Survey plans are to indicate:**

- Existing buildings, structures and features of the site;
- Topography (spot levels, contours) including that of adjoining property where relevant;
- Natural drainage of the site;
- Any easements or rights of way;
- Significant existing vegetation, indicating its location on the site, type and spread;
- Location, height and use of any adjoining buildings or structures such as swimming pools; and
- Features of streets immediately adjoining or within the property, including poles, kerbs, crossings and pits.

3. **Site plans are to identify the location of the following:**

- Proposed and existing buildings;
- Existing significant trees, indicating whether they will be retained or removed;
- Paved areas;
- Landscaped areas;
- Driveway entry and/or exit;
- Garbage storage areas;
- On-site detention tanks;
- Letterboxes;
- Private open spaces; and
- Where privacy is an issue in the proceedings, the location of windows of the adjoining property and the subject proposal.

4. **Floor plans are to indicate:**

- Room names, area and dimensions;
- The location of windows and doors;
- The levels of floors, terraces and the like to Australian Height Datum (AHD);
- Wall construction; and
- Spot levels of natural ground to AHD.

5. Elevations are to indicate:

- Elevations of all sides of the building or structure;
- Outline of existing buildings;
- Materials and finishes to be used in construction;
- Location of adjoining buildings showing address, height, setbacks and other relevant features;
- Proposed window size, sill height and location; and
- Height of eaves, ridge and floor levels to AHD.

6. Sections are to indicate:

- Appropriate number and location;
- Section line and location on plan;
- Room names;
- Adequate representation of ground level;
- Areas of cut and/or fill; and
- Height of levels to AHD.

7. Landscape plans are to:

- Be consistent with other plans tendered to the court with respect to the height, size and location of buildings;
- Indicate the location, species, height and spread of significant existing trees, indicating whether they will be retained or removed;
- Indicate the location of any additional planting to be carried out including species names, spread, height and other features;
- Indicate the location of significant retaining walls or other structures; and
- Indicate finished relative levels of all major surfaces.

8. Overshadowing plans are to:

- Be based on true north;
- Indicate the location and nature of existing and/or proposed fencing, with the shadows projected;
- Indicate horizontal and vertical impact, including any impact from any substantial wall;
- Provide a table of compliance and non-compliance with known criteria (such as a development control plan, a State environmental planning policy or Australian Model Code for Residential Development (AMCORD)); and
- Make appropriate allowance for the topography.

Schedule B

Requirements for statement of facts and contentions by respondent consent authority

1. The statement is to be as brief as reasonably possible.
2. The statement is to be divided into two parts – Part A Facts and Part B Contentions
3. An authorised officer of the respondent consent authority is to sign and date the statement.

Part A Facts

4. In Part A Facts, the respondent consent authority is to:
 - (a) **The application:** identify the application for development consent or approval by application number and date of lodgment.
 - (b) **The site:** identify the site by street address and lot and deposited plan, and describe the site including lot dimensions, site area, topographic features, existing vegetation and existing improvements on the site.
 - (c) **The proposal:** - briefly describe the proposed development or modification.
 - (d) **The locality:** briefly describe the locality including the type and scale of existing surrounding development.
 - (e) **The statutory controls:** identify the relevant provisions of the applicable statutory instruments (State environmental planning policies, local environmental plans and development control plans) and any draft statutory instruments, the zoning of the site and any other applicable designation (such as foreshore scenic protection area or heritage conservation area).

- (f) **Compliance with statutory controls:** briefly describe (if appropriate, in tabular form) the extent of compliance of the proposal with the relevant statutory controls.
 - (g) **Actions of the respondent consent authority:** provide details of any notification process and its results, details of any consultation and its results, the decision of the respondent and the reasons for refusal.
5. Part A Facts is not to include matters of opinion.

Part B Contentions

6. In Part B Contentions, the respondent consent authority is to identify each fact, matter and circumstance that the respondent contends require or should cause the Court, in exercising the functions of the consent authority, to refuse the application or impose certain conditions.
7. In Part B Contentions, the respondent consent authority is to:
- (a) focus on issues genuinely in dispute;
 - (b) have a reasonable basis for each contention;
 - (c) identify the nature of each contention with an appropriate short heading; and
 - (d) present its contentions clearly, simply and without repetition and not by way of submission.
8. Part B Contentions should be divided into three parts:
- (a) B1 – Contentions that the application be refused
 - (b) B2 – Contentions that may be resolved by conditions of consent
 - (c) B3 – Contentions that there is insufficient information to assess the application.

B1 - Contentions that the application be refused

9. Part B1 is to identify those contentions which the respondent contends either must result or ought result in the Court refusing consent or approval to the application.
10. If the respondent contends that the application must be refused, it is to identify the factual and/ or legal basis for that contention. An example of such a contention is that the proposal is prohibited or that a jurisdictional precondition to the grant of consent or approval has not been satisfied. Any such contention is to be made at the beginning of Part B1 and is to be clearly identified as a contention that the application must be refused.
11. If the respondent contends that the application ought to be refused, it is to identify each ground on which the respondent so contends.
12. For each contention, the respondent should identify the contention with a short heading, identify the relevant statutory controls and give particulars.

The contention heading

13. Each contention is to commence by identifying the nature of the issue in a word or two and be succinct. For example, if an issue is the height of a proposed building, the contention should identify the issue as "Height" and not by reference to a planning control or planning instrument that identifies a height requirement.
14. Contentions should be identified specifically and not generically. For example, it is not sufficient to identify a contention that the application ought to be refused in the "public interest" or the "circumstances of the case". Rather the particular aspect or aspects of the public interest or the particular circumstances of the case which warrant refusal need to be identified. Similarly, it is not acceptable to identify as a ground for refusal "matters raised by the objectors". The respondent consent authority is to identify which, if any, of the matters raised by the objectors the respondent itself contends, on a reasonable basis, justifies the refusal of the application.

The statutory controls

15. Where the respondent contends that a proposal does not comply with statutory controls, including development standards, of an environmental planning instrument or a development control plan, such as density, floor space ratio, setbacks and height, it is to identify those controls by reference to the specific clause and subclause.
16. Where the respondent contends that a proposal is inconsistent with any objective of a statutory instrument, it must identify the specific objective.
17. Given the often overlapping nature of statutory controls, different development standards or controls and objectives from different statutory instruments may apply to the same contention.

Particulars

18. The respondent is to provide details of the extent of any non-compliance with the statutory controls or any inconsistency with any objective to enable the applicant to respond properly to the contention. Any particulars should be brief and not take the form of evidence or submissions. The extent of the non-compliance with the provisions of an environmental planning instrument may be shown in diagrammatic or tabular form.

B2 - Contentions that may be resolved by conditions of consent

19. Part B2 is to identify those contentions that, in the opinion of the respondent consent authority, can be addressed through the imposition of a condition of consent or approval. The respondent is to identify the contention and provide details of those matters required to satisfy the contention or alternatively provide the specific wording of a condition that would satisfy the contention.

B3 - Contentions that there is insufficient information to assess the application

20. Part B3 is to identify those matters that, in the opinion of the respondent consent authority, cannot properly be considered because of absence of

information submitted with the application. The respondent is to identify the information it contends should be provided by the applicant to permit the Court to assess the application properly.

Schedule C

Requirements for statement of facts and contentions by applicant

1. The statement is to be as brief as reasonably possible.
2. The statement is to be divided into two parts – Part A Facts and Part B Contentions
3. An applicant or its authorised officer is to sign and date the statement.

Part A Facts

4. In Part A Facts, the applicant is to:
 - (a) **The development consent:** identify the relevant development consent or approval, including the application number, the date of the application and the date of determination;
 - (b) **The challenged conditions or aspects of the consent:** identify the particular conditions or aspects of the development consent or approval with which applicant is dissatisfied;
 - (c) **The proposal:** briefly describe the proposed development or modification;
 - (d) **The site:** identify the site by street address and lot and deposited plan, and describe the site including lot dimensions, site area, topographic features, existing vegetation and existing improvements on the site;
 - (e) **The locality:** briefly describe the locality including the type and scale of existing surrounding development;
 - (f) **The statutory controls:** identify the relevant provisions of the applicable statutory instruments (State environmental planning policies, local environmental plans and development control plans) and any draft statutory instruments, the zoning of the site and any other applicable designation (such as foreshore scenic protection area or heritage conservation area); and

- (g) **Actions of the respondent consent authority:** provide details of any notification process and its results, details of any consultation and its results, the decision of the respondent and the reasons for refusal.
- 5. Part A Facts is not to include matters of opinion.

Part B Contentions

6. In Part B Contentions, the applicant is to identify:
 - (a) each condition of the development consent or approval that the applicant contends should be deleted and the reason for seeking deletion;
 - (b) each condition of the development consent or approval that the applicant contends should be amended and, for each such condition, the terms of the amendment sought and the reason for seeking the amendment; and
 - (c) any other aspect of the development consent or approval with which the applicant is dissatisfied, the manner in which the applicant contends that aspect should be addressed or changed, and the reason for each such change.

7. In Part B Contentions, an applicant is to:
 - (a) focus on issues genuinely in dispute;
 - (b) have a reasonable basis for the contentions; and
 - (c) present contentions clearly, succinctly and without repetition and not be way of submission.

Schedule D			
Class 1 Residential Development Appeals – Hearing Information Sheet			
Applicant:			
Respondent(s):			
Proceedings no:			
1.	Is any expert evidence required? If so, nominate general issues on which expert evidence is required, the areas of expertise and the names of the experts whose evidence leave is sought to be relied upon (with a new line for each area of expertise)		
Issues	Area of expertise	Applicant Expert	Respondent Expert
2.	Could any of the above issues be better dealt with by a parties' single expert? If so, what is the proposal for engaging the expert?		
3.	Are there any experts who should prepare an individual report before proceeding to a joint conference and joint report and, if so, identify the expert, the area of expertise and provide		

	reasons supporting the report being necessary or appropriate [point form only]?
4.	Should a Commissioner or Commissioners with special knowledge and experience in particular disciplines hear the residential development appeal? If so, specify the relevant disciplines.
5.	If the appeal concerns land outside of the Sydney metropolitan region, should the residential development appeal be heard in the local area? If not, why not?
6.	Is it appropriate to conduct the conciliation conference and hearing on site? If so, will adequate facilities be available? Will the hearing be able to be observed and heard by the public?
7.	Is there any reason that the conciliation conference and hearing should not commence at 9.30am on site?
8.	Estimate of the length of the conciliation conference and hearing.
Applicant:	
Respondent:	
9.	Identify dates sought:
Applicant:	
Respondent:	

Schedule E

Usual directions at the first directions hearing for residential development appeals

1. Time and place of conciliation conference and hearing

- (a) The proceedings are listed on [insert date usually within 6 weeks after the directions hearing] for a conciliation conference and hearing under s 34AA of the *Land and Environment Court Act 1979*;
- (b) The conciliation conference is to commence on site at 9.30am. If the parties consider the site may be difficult to find, they are to file an agreed map showing its location two working days before the conciliation conference.

Note: The parties should ensure that appropriate facilities are available for that purpose, including a table and chairs and bathroom facilities. As any hearing will be open to the public, the venue must be adequate to ensure that the hearing will be able to be observed and heard by all persons attending.

2. Statement of facts and contentions in reply

The [applicant/respondent] is to file and serve any statement of facts and contentions in reply in accordance with Schedules B or C (as appropriate) of the Practice Note Class 1 Residential Development Appeals by [insert date 7 days after directions hearing]. This statement is not to repeat any facts not in dispute.

3. Preparation for and conduct of conciliation conference

- (a) The parties are to participate, in good faith, in the conciliation conference (see s 34(1A) of the Court Act), including preparing to be able to fully and meaningfully participate, having authority or the ready means of obtaining authority to reach agreement and genuinely endeavouring to reach agreement at the conciliation conference.

- (b) Any amended plans or additional information proposed by the applicant to be the subject of without prejudice discussions at the conciliation conference are to be provided to the respondent 14 days before the conciliation conference.
- (c) The respondent is to provide to the applicant any response to the amended plans or additional information 7 days before the conciliation conference.
- (d) Any documents proposed to be relied upon by a party for the purposes of without prejudice discussions at the conciliation conference may be lodged with the Court in a sealed envelope and marked for the attention of the Commissioner who is to preside over the conciliation conference. Such documents should not be filed and will not be recorded in the Court's records.
- (e) A copy of any document so lodged is also to be provided, at the time of lodgment, to the other party to the proceedings with the notation that it has been brought into existence for the purposes of, and proposed to be relied upon by a party at, the conciliation conference.
- (f) If no agreement of a kind referred to in s 34(3) of the Land and Environment Court Act is reached, the conciliation conference will be terminated and the proceedings will proceed to a hearing forthwith or, subject to the agreement of the parties, on the basis of what has occurred at the conciliation conference, in accordance with s 34AA(2)(b).

4. Expert evidence

- (a) Under rr 31.19 and 31.20 of the Uniform Civil Procedure Rules 2005 ('UCPR'), the Court makes the following directions regarding expert evidence:
 - [name of the expert witness] may prepare an individual expert's report on [specified issues];
 - [the named experts] are to confer in relation to [specified issues] under UCPR r 31.24 and prepare a joint expert report;

- the individual expert's report of [named expert] is to be filed and served by [date];
- the joint expert report of [named experts] is to be filed and served by [date].

Note: The above directions may be duplicated for each area of expertise required.

- (b) Unless the Court otherwise orders, expert evidence may not be adduced at the hearing otherwise than in accordance with the directions made by the Court in accordance with UCPR rr 31.19 and 31.20, including compliance with directions as to the time for service and filing of experts' reports and joint expert reports.

5. Experts' obligations

- (a) Parties are to serve a copy of these directions, the statements of facts and contentions, Division 2 of Pt 31 of the Uniform Civil Procedure Rules, the Expert Witness Code of Conduct in Schedule 7 of the Uniform Civil Procedure Rules, and the Court policies on Joint Reports and on Conference of Expert Witnesses on all experts upon whose evidence they propose to rely within 3 business days of these orders being made, or, for a statement of facts and contentions (or reply) filed after the making of these orders, within 3 business days of them being filed or served.
- (b) Experts are directed to give written notice to the Court and the party instructing them if for any reason they anticipate that they cannot comply with these directions. In that case, or if the experts have failed to comply with these directions, the parties will promptly list the matter before the Court for directions and give written notice to the other parties. Default without leave of the Court can result in the imposition of sanctions.
- (c) Any written expert evidence is to include acknowledgement that the expert has read and agrees to be bound by the Expert Witness Code of Conduct.

6. Obligations for joint conference and report

- (a) Experts are to ensure that a joint conference is a genuine dialogue between experts in a common effort to reach agreement with the other expert witness about the relevant facts and issues. Any joint report is to be a product of this genuine dialogue and is not to be a mere summary or compilation of the pre-existing positions of the experts.
- (b) A joint report is to identify the experts involved in its preparation, the date of their joint conferences, the matters they agreed about, the matters they disagreed about and reasons for agreement and disagreement. A joint report should avoid repetition and be organised to facilitate a clear understanding of the final position of the experts about the matters in issue and the reasoning process they used to reach those positions. Each expert is to sign and date the joint report.
- (c) Legal representatives are not to attend joint conferences of experts or be involved in the preparation of joint reports without the leave of the Court.

7. Restrictions on oral expert evidence

A party calling a witness may not, without the leave of the Court, lead evidence from the witness the substance of which is not included in a document served in accordance with the Court's directions.

8. Witnesses required for cross-examination

If any witness is required for cross-examination, notice is to be given at least seven days before the conciliation conference and hearing.

9. Objections to evidence

A party who proposes to object to any part of an affidavit, statement or report is to file and serve notice of its objections, including the grounds in support, at least seven days before the conciliation conference and hearing.

10. Bundle of documents

The respondent consent authority is to file and serve a bundle of documents by 7 days before the conciliation conference and hearing. The bundle is to contain copies of relevant environmental planning instruments, relevant extracts from development control plans and policies, and documents evidencing the lodgment, processing and determination of the application by the consent authority, including all submissions from objectors, and the decision of the consent authority but is not to otherwise include copies of any documents annexed to the residential development appeal. Unnecessary copying and duplication of documents is to be avoided. The bundle is to be subdivided into relevant divisions, paginated and have a table of contents.

11. Notice of objectors who will give evidence

The respondent consent authority is to file and serve a notice of objectors who wish to give evidence at the hearing, of whom the consent authority is aware, by 7 days before the conciliation conference and hearing. The notice is to identify the objector, their address, where they wish to give evidence (on site or in Court) and whether they made a written submission about the application (in which event, the notice is to provide the page number of that submission in the key bundle). If there is no submission, the respondent consent authority should, if possible, file and serve a short statement identifying the topics about which the objector wishes to give evidence.

12. Draft conditions of consent

- (a) The respondent consent authority is to file and serve draft conditions of consent (in both hard copy and electronic form) by 7 days before the conciliation conference and hearing.
- (b) The applicant for consent is to file and serve its draft conditions in response (in both hard copy and electronic form) by 2 days before the conciliation conference and hearing.
- (c) Each party's draft conditions of consent are to identify any variance from the standard conditions of consent for residential development, including conditions which have been added, amended or deleted.

13. Non-compliance with directions and timetable

If any party fails to comply with a direction of the Court that some action be taken by a specified time, and the defaulting party is not able to take that action within two days of the specified time, the defaulting party is to:

- (a) relist the matter before the Court within three days of the specified time; and
- (b) provide to the Court on the relisting an affidavit explaining the non-compliance, the reason for the non-compliance and what action the party proposes to take and when the party proposes to take action to comply with the direction.

Note: The Court will usually order that the defaulting party pay the costs of the other party of and occasioned by the non-compliance and the relisting unless it appears to the Court that some other order should be made as to the whole or any part of the costs.

14. Liberty to re-list

The parties have liberty to restore on two working days' notice.

15. Concurrent evidence of experts

At the hearing the evidence of experts is to be given by way of concurrent evidence, unless the hearing Commissioner directs otherwise.

16. Submissions of parties

- (a) The applicant is to file and serve an outline of submissions by 5 working days before the conciliation conference and hearing.
- (b) The respondent is to file and serve an outline of submissions by 2 working days before the conciliation conference and hearing.

Schedule F

Usual directions on the appointment of a parties' single expert:

The Court orders:

1. The Court notes the agreement between the parties to engage [insert name] as a parties' single expert and that the parties have agreed the remuneration to be paid to that expert as being [insert details of remuneration].

Or, failing agreement about the identity and/or remuneration of the parties' single expert:

- 1A.
 - (a) The parties are to agree on a parties' single expert and their remuneration and are to notify the Court of the expert's name and that the expert's remuneration has been agreed by [insert date 7 days after the first directions hearing].
 - (b) Failing agreement, the parties are to file and serve the names, CVs and fee estimates of three appropriately qualified experts by [insert date 10 days after the first directions hearing]. The Court will make order 2 below in Chambers and notify the parties accordingly.
2.
 - (a) The Court orders the parties to engage jointly [insert name] as a parties' single expert.
 - (b) The Court fixes the remuneration of the parties' single expert at [insert details of remuneration].
3. A parties' single expert is not to incur fees or disbursements additional to the remuneration agreed by the parties or fixed by the Court without written agreement of both parties or, absent such agreement, the leave of the Court.
4. The parties are to brief the parties' single expert with agreed instructions and an agreed bundle of documents by [insert date within 7 days of direction 2 being made].
5. The parties' single expert is to file and serve their expert report by [insert date within 6 weeks of direction 2 being made]. Without leave of the Court, the

parties' single expert is not to provide the parties with a preliminary expert report or preliminary opinion.

6. The parties' single expert is to comply with the requirements of Division 2 of Pt 31 of the Uniform Civil Procedure Rules and the Expert Witness Code of Conduct in Schedule 7 of the Uniform Civil Procedure Rules, including the requirements for experts' reports.
7. If the Court has ordered that a parties' single expert address any issue, no expert report addressing the same issue other than the report of the parties' single expert may be relied upon at the hearing, without leave.
8. The parties' are not to provide a parties' single expert with any expert report brought into existence for the purpose of the proceedings addressing any matter the subject of instructions to the parties' single expert, without leave of the Court.

SCHEDULE G

Usual directions for separate determination of questions

The Court orders that:

1. Pursuant to r 28.2 of the Uniform Civil Procedure Rules 2005, the following question is to be determined separately from any other question in the proceedings:
[insert separate question]
2. The parties are to file and serve any affidavits, reports or statements on which they wish to rely by [insert date within 14 days of the separation of the question].
3. The parties are to file and serve any affidavits, reports or statements in reply by [insert date within 28 days of the separation of the question].
4. The parties are to file an agreed bundle of documents by [insert date within 5 weeks of the separation of the question].
5. The party raising the question is to file and serve an outline of submissions by [insert date two working days before the hearing of the separate question].
6. The other party is to file and serve an outline of submissions by [insert date one working day before the hearing].
7. The question is listed for hearing in court on [insert date] at 10:00am.
8. Parties are to notify promptly the Court if there is any material slippage in the timetable.
9. The parties have liberty to restore on three working days' notice.

COUNCIL NOTICES

BEGA VALLEY SHIRE COUNCIL

ROADS ACT 1993
Section 16

Notice of Dedication of Land as Public Road

Notice is hereby given that pursuant to Section 16 of the *Roads Act 1993*, the land described in the Schedule below is hereby dedicated as public road.

Leanne Barnes, General Manager, Bega Valley Shire Council, PO Box 492, Bega NSW 2550

SCHEDULE

Land shown by black hatching in the diagram hereunder as road, being approximately 1,045 metres long extending from the Sapphire Coast Drive intersection to Henwood Street known as Main Street, Merimbula and approximately 133 metres long extending from the Main Street intersection to the Merimbula Drive intersection known as Market Street, Merimbula.



[9071]

KEMPSEY SHIRE COUNCIL

ROADS ACT 1993
Naming of Roads

Notice is hereby given that Kempsey Shire Council, pursuant to section 162 of the *Roads Act 1993*, has officially named the road(s) as shown hereunder:

Name	Locality
FAULKNER STREET	South Kempsey
Description	
Public road, approximately 660m in length, travelling east off Macleay Valley Way. This section of road was previously known as South Street.	

Name	Locality
MARAGAN PLACE	South Kempsey
Description	
Public road, approximately 140m in length, travelling south off Faulkner Street.	

DAVID RAWLINGS, General Manager, Kempsey Shire Council, 22 Tozer Street, WEST KEMPSEY NSW 2440
GNB Ref: 0053 [9072]

PENRITH CITY COUNCIL

ROADS ACT 1993
Section 16

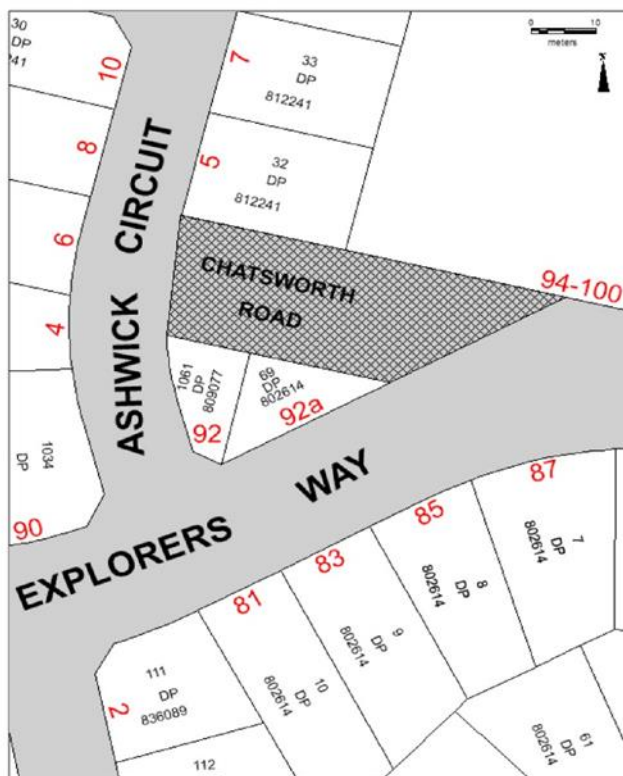
Dedication of Land as Public Road

NOTICE is hereby given by the Council of the City of Penrith that in pursuance of Section 16 of the *Roads Act 1993*, the land as described in the Schedule below is hereby dedicated as public road.

ALAN STONEHAM, General Manager. Penrith City Council, PO Box 60, Penrith NSW 2751.

SCHEDULE

The land comprising part of former Chatsworth Road, St Clair, Parish of Melville, County of Cumberland, shown as road on DP2054, within Certificate of Title Volume 1039 Folio 68, as shown hatched on the attached plan.



[9073]

QUEANBEYAN-PALERANG REGIONAL COUNCIL

ROADS ACT 1993
Naming of Roads

Notice is hereby given that Queanbeyan-Palerang Regional Council, pursuant to section 162 of the *Roads Act 1993*, has officially named the road(s) as shown hereunder:

Name	Locality
BRIMBLE CLOSE	Bungendore
Description	
Proposed name for the new road created as part of subdivision of Lot 8 Sec 11 DP 976608 – 125 Ellendon Street, Bungendore (DA.2015.124)	

PETER TEGART, Interim General Manager, Queanbeyan-Palerang Regional Council, 10 Majara Street, BUNGENDORE NSW 2621

GNB Ref: 0052

[9074]

QUEANBEYAN–PALERANG REGIONAL COUNCIL

ROADS ACT 1993

Naming of Roads

Notice is hereby given that Queanbeyan–Palerang Regional Council, pursuant to section 162 of the *Roads Act 1993*, has officially named the road(s) as shown hereunder:

Name	Locality
JACOMBS STREET	Bungendore
Description	
Proposed name for the new road created as part of subdivision of Lots 3, 4 and 5 DP 1195030 and Lot 30 DP 1217652, Majara Street, Bungendore (DA.2016.014).	

PETER TEGART, Interim General Manager, Queanbeyan–Palerang Regional Council, 10 Majara Street, BUNGENDORE NSW 2621

GNB Ref: 0055

[9075]

RICHMOND VALLEY COUNCIL

ROADS ACT 1993

Dedication of Land as Public Road

NOTICE is hereby given by Richmond Valley Council in pursuance of section 10, Division 1 of Part 2 of the *Roads Act 1993*, that the lands described in Schedule below are hereby dedicated as public road.

Dated at Casino, this 24 March 2017, VAUGHAN MACDONALD, General Manager, Richmond Valley Council, Locked Bag 10, CASINO, N.S.W. 2470

Schedule

Lots 123, 124 & 125 DP1086327

[9076]

THE HILLS SHIRE COUNCIL

ROADS ACT 1993

Naming of Roads

Notice is hereby given that The Hills Shire Council, pursuant to section 162 of the *Roads Act 1993*, has officially named the road(s) as shown hereunder:

Name	Locality
WATTLEBIRD CLOSE	Kenthurst
Description	
Extending in a northerly direction from McClymonts Road into Lot 3 DP 734262 ending in a cul-de-sac	

DAVE WALKER, General Manager, The Hills Shire Council, 3 Columbia Court, BAULKHAM HILLS NSW 2153

GNB Ref: 0054

[9077]

By Authority