Application for Accreditation – Part B

Method Details – Commercial Lighting Energy Savings Formula

Version 4.5, July 2024

Purpose of this form

This form is used to apply for accreditation as an Accredited Certificate Provider or ‘ACP’ for the **Commercial Lighting Energy Savings Formula (Commercial Lighting)** sub-method. It must be accompanied by *Application Form – Part A (general details)* and other supporting documentation as indicated in these forms.

Refer to the [Commercial Lighting Method Guide](https://www.ess.nsw.gov.au/Home/Document-Search/Guides/Commercial-Lighting-Method-Guide) and the [Commercial Lighting Evidence Manual](https://www.ess.nsw.gov.au/Home/Document-Search/Guides/Commercial-Lighting-Evidence-Manual) to assist you in completing this form. Essential information about the requirements of applicants and ACPs is set out in the:

* [ACP Application Guide](https://www.ess.nsw.gov.au/Home/Document-Search/Guides/Application-for-Accreditation-Guide-ACPs)
* [Record Keeping Guide](https://www.ess.nsw.gov.au/Accredited-Certificate-Providers/Obligations-of-an-ACP/Record-keeping)
* [Guide to ACP’s Obligations](https://www.ess.nsw.gov.au/Accredited-Certificate-Providers/Obligations-of-an-ACP)
* [Product Applications Guide](https://www.energysustainabilityschemes.nsw.gov.au/documents/guide/product-applications-guide-v11).

Your application information must be consistent with and meet the requirements set out in these documents. More information on the [application process](https://www.ess.nsw.gov.au/Accredited-Certificate-Providers/Becoming-an-ACP/The-application-process) can be found on the ESS website.

Meaning of key terms and icons in this form

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

Key terms

**ACP** means **accredited certificate provider**. If this application for accreditation is approved, you will be an ACP.

**ELT** means **emerging lighting technology**. Products classified as ELTs must be accepted for use by IPART.

**ESC** means **energy savings certificate**. If this application for accreditation is approved, you may be able to create ESCs from the activities conducted under the RESA.

**ESS Rule** means the [***Energy Savings Scheme Rule of 2009***](https://www.ess.nsw.gov.au/Home/About-ESS/Legislation-ESS-Performance/ESS-Rule). The ESS Rule sets out the specific requirements of each calculation method under the ESS. Requirements specific to Commercial Lighting are set out in clause 9.4 of the ESS Rule. The ESS Rule is available on the [ESS website](https://www.ess.nsw.gov.au/Home/About-ESS/Legislation-ESS-Performance/ESS-Rule).

**EUE** or **end-user equipment** means Eligible Fuel consuming equipment, processes, or systems, including the equipment directly consuming one or more Eligible Fuels, and other equipment or products that cause, control or influence the consumption of one or more Eligible Fuels, and includes (in the context of clause 8.8) a NABERS Building.

**Implementation** means the delivery of a RESA at a site.

**Switched Maintained Emergency Luminaire and Un-Switched Maintained Emergency Luminaire** have the same meaning as they have in the AS/NZS 2293.1: *Emergency lighting and exit signs for buildings – System design, installation and operation*.

**RESA** means **recognised energy saving activity**. A RESA must meet all of the criteria set out in clause 5.3 of the ESS Rule. If this application for accreditation is approved, you will be accredited in respect of a specific energy saving activity.

**Site** means the location of the EUE included in a RESA,as defined by:

* an Address,
* a unique identifier, as specified for the relevant Implementation that identifies the affected EUE, or
* a method accepted by the Scheme Administrator.

Icons

|  |  |
| --- | --- |
|  | Important information to assist you with completing the application. |
|  | Indicates an instruction for completing this form. |
| 0. | Indicates a document or supporting evidence to be provided with the application. |

How to complete and submit your application

1. Complete [Application for Accreditation – Part A](http://www.ess.nsw.gov.au/How_to_apply_for_accreditation/Apply_now_-_guides_and_application_forms) and Application for Accreditation – Part B (this form).
2. Finalise supporting documentation.
3. Review the completed application forms and supporting documentation to ensure they are concise, complete and accurate. This is an opportunity to demonstrate the effectiveness of your quality assurance procedures to IPART.
4. Submit the application forms and supporting documentation to IPART.

Method eligibility

#### Type of lighting upgrade

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| --- | --- |
|  | The Commercial Lighting method can be used for lighting upgrades of buildings, roads and public spaces, and traffic signals. Lighting upgrades of roads and public spaces and traffic signals can also be conducted under the [Public Lighting Energy Savings Formula](https://www.energysustainabilityschemes.nsw.gov.au/Home/About-ESS/Energy-savings-calculation-methods/Public-Lighting-Energy-Savings-Formula), which is a separate calculation method. |
|  | If your application is successful, your RESA will include **modifying** and **replacing** EUE. |
|  | Select all activities that will be included in the RESA.  |

|  |  |
| --- | --- |
| Building lighting  | [ ]  |
| Lighting for roads and public spaces  | [ ]  |
| Traffic signals | [ ]  |

#### Ineligible activities

|  |  |
| --- | --- |
|  | [Activities which are not eligible](https://www.ess.nsw.gov.au/Home/About-ESS/Overview-of-the-ESS/Excluded-activities) RESAs are set out in clause 5.4 of the [ESS Rule](https://www.ess.nsw.gov.au/Home/About-ESS/Legislation-ESS-Performance/ESS-Rule). If any of these activities are part of your RESA you need to explain how they will be excluded from your energy savings and ESC calculations. |

Are any ineligible activities included in the proposed RESA?

|  |  |
| --- | --- |
|  | Check the appropriate box and respond accordingly. |

|  |  |  |
| --- | --- | --- |
| No | [ ]  | 🡪 Go to Question 3 |
| Yes | [ ]  | 🡫 Provide the information below |

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| --- | --- |
| Describe how any ineligible activities will be excluded from energy savings and ESC calculations: | Click here to enter text |

#### Minimum co-payment

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| --- | --- |
|  | The original energy saver must have paid a Net Amount of at least $5 (excluding GST) per megawatt hour (**MWh**) of electricity saved (**minimum co-payment**). In-kind payments are not acceptable and payments cannot be reimbursed. The minimum co-payment must be made in full before ACPs can apply to register ESCs.  |
|  | ACPs are responsible for the activities of third parties and for ensuring third parties adhere to scheme requirements, including the minimum co-payment requirement. |

|  |  |
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| Describe how the minimum co-payment will be made: | Click here to enter text |
| Describe how you will ensure the minimum co-payment requirement is met before you apply to register ESCs: | Click here to enter text |
| Describe what records you will collect to show the minimum co-payment has been paid in full and it will not be reimbursed before you apply to register ESCs: | Click here to enter text |
| Describe how you will ensure third parties working with you adhere to the minimum co−payment requirements: | Click here to enter text |
| Who will be responsible for *calculating* the minimum co‑payment: | Click here to enter text |
| Who will be responsible for *collecting* the minimum co−payment: | Click here to enter text |

End-user equipment

#### Disposal of EUE

|  |  |
| --- | --- |
|  | Equipment that is removed as part of the RESA must be disposed of appropriately. It must not be refurbished, re-used or resold. |
|  | Lighting equipment containing mercury removed during upgrades in metropolitan levy areas (refer Table A25 of the ESS Rule) must be recycled in accordance with the requirements of a product stewardship scheme such as [Fluorocycle](https://fluorocycle.lightingcouncil.com.au/) or equivalent. |

|  |  |
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| Describe how you will ensure EUE that is removed as part of the RESA is not refurbished, reused or resold: | Click here to enter text |
| Describe how you will ensure relevant lighting equipment is recycled in accordance with the requirements of a product stewardship scheme: | Click here to enter text |

Implementing the proposed activities

#### Installation requirements

|  |  |
| --- | --- |
|  | Lighting upgrades must be performed by a person authorised to carry out electrical wiring work under section 14 (1) of the Home Building Act 1989. The licensed electrician who performs or supervises the works must complete a Certificate of Compliance of Electrical Work (**CCEW**). |

|  |  |
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| Describe how you will ensure every lighting upgrade is performed by a person authorised to carry out electrical wiring work: | Click here to enter text |
| Describe the installation process the installer will follow including completion of the CCEW: | Click here to enter text |

#### Maintaining production, service and safety levels

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|  | RESAs must not result in a reduction of production, service or safety levels. This means the performance or outputs of the site must not be reduced as a result of the RESA. |

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| Describe how you will consider customer and site requirements in the design phase of the lighting upgrade: | Click here to enter text |
| Describe how you will ensure the customer is satisfied with the lighting upgrade and it meets their needs and site requirements: | Click here to enter text |

Performance requirements – building lighting

Will you be implementing lighting upgrades for buildings?

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| --- | --- |
|  | Check the appropriate box and respond accordingly. |

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| --- | --- | --- |
| No | [ ]  | 🡪 Go to the next section: Roads and public spaces |
| Yes | [ ]  | 🡫 Provide the information below |

#### ELT requirements

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| --- | --- |
|  | ELTs such as LEDs and induction luminaires must meet certain safety and performance requirements. ELTs used in lighting upgrades must be accepted by IPART as meeting these requirements before ESCs can be registered. Refer to the [Product acceptance](https://www.energysustainabilityschemes.nsw.gov.au/Accredited-Certificate-Providers/Product-acceptance) page of the ESS website for more information. |

|  |  |
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| Describe how you will ensure ELTs used in the lighting upgrade have been accepted for use before you apply to register ESCs: | Click here to enter text |

#### Building Code of Australia

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| --- | --- |
|  | ESCs from building lighting upgrades can only be created for eligible Building Code of Australia (**BCA**) classes of building. The upgraded lighting system must comply with the requirements of the BCA section F4.4 Artificial Lighting. The upgraded lighting system must have an illumination power density (**IPD**) for each space less than or equal to the maximum IPD allowed under BCA Part J6. |

|  |  |
| --- | --- |
| Describe how you will ensure the following BCA requirements are met:* eligible building classes
* section F4.4 of the BCA
* IPD requirements of BCA Part J6:
 | Click here to enter text |
| Describe how you will deal with ambiguity of space types, for example, where a building could fall into two or more BCA classes: | Click here to enter text |
| Describe your process for verifying the requirements of the BCA have been addressed:  | Click here to enter text |

#### AS/NZS 1680

|  |  |
| --- | --- |
|  | Building lighting for each space must satisfy the relevant requirements of AS/NZS 1680. |

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| Describe how you will ensure the following requirements of the AS/NZS 1680 standard series for building lighting are met:* maintained illuminance accounting for lumen depreciation
* control of glare to avoid ‘disability glare’ and ‘discomfort glare’
* uniformity of illuminance
* correlated colour temperature
* colour rendering index
* reflectance off surfaces
* daylight effects:
 | Click here to enter text |
| Describe your process for verifying the requirements of the AS/NZS 1680 Standard series have been addressed: | Click here to enter text |

Will you be implementing lighting upgrades that are not covered by the AS/NZS 1680 Standard series?

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|  | Where the requirements of AS/NZS 1680 are not applicable, another benchmark may be used, subject to prior agreement with the Scheme Administrator. |
|  | Check the appropriate box and respond accordingly. |

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| --- | --- | --- |
| No | [ ]  | 🡪 Go to Question 10 |
| Yes | [ ]  | 🡫 Provide the information below |

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| Describe why the lighting upgrade is not covered by AS/NZS 1680: | Click here to enter text |
| Describe the benchmark you propose to use, how it is equivalent to AS/NZS 1680 and how it meets ESS requirements: | Click here to enter text |

|  |  |
| --- | --- |
| 0. | Attach a copy of the proposed standard or benchmark. |

|  |  |
| --- | --- |
| File name – proposed standard or benchmark: | Click here to enter text |

#### Maintained Emergency Luminaires

Will you be implementing lighting upgrades that involve Maintained Emergency Luminaires?

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| --- | --- |
|  | Check the appropriate box and respond accordingly. |

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| --- | --- | --- |
| No | [ ]  | 🡪 Go to the next section: Roads and public spaces |
| Yes | [ ]  | 🡫 Provide the information below |

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| --- | --- |
|  | Space types Un-Switched or Switched Maintained Emergency Luminaire apply only if the existing lighting EUE is an Un-Switched Maintained Emergency Luminaire. |

|  |  |
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| For lighting upgrades that involve Un-Switched or Switched Maintained Emergency Luminaires, describe how you will ensure the existing EUE is an Un‑Switched Maintained Emergency Luminaire: | Click here to enter text |

Performance requirements – roads and public spaces

Will you be implementing lighting upgrades for roads and public spaces?

|  |  |
| --- | --- |
|  | Check the appropriate box and respond accordingly. |

|  |  |  |
| --- | --- | --- |
| No | [ ]  | 🡪 Go to the next section: Traffic signals |
| Yes | [ ]  | 🡫 Provide the information below |

#### Equipment requirements

|  |  |
| --- | --- |
|  | Lighting for roads and public spaces must meet relevant requirements listed in section 5.2 of the Commercial Lighting Evidence Manual. |

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| --- | --- |
| Describe how you will ensure your equipment meets relevant requirements listed in section 5.2 of the Evidence Manual: | Click here to enter text |

#### AS/NZS 1158

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| --- | --- |
|  | Lighting for roads and public spaces must satisfy the relevant requirements of AS/NZS 1158. |

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| Describe how you will address the requirements of the AS/NZS 1158 Standard series for lighting for roads and public spaces: | Click here to enter text |
| Describe how you will ensure the following requirements of the AS/NZS 1158 Standard series (where relevant) are met:* vehicular lighting (category V lighting)
* pedestrian lighting (category P lighting)
* pedestrian crossing lighting (category PX) standards:
 | Click here to enter text |

Will you be implementing lighting upgrades that are not covered by the AS/NZS 1158 Standard series?

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|  | Where the requirements of AS/NZS 1158 are not applicable, another benchmark may be used, subject to prior agreement with the Scheme Administrator. |
|  | Check the appropriate box and respond accordingly. |

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| --- | --- | --- |
| No | [ ]  | 🡪 Go to the next section: Traffic signals |
| Yes | [ ]  | 🡫 Provide the information below |

|  |  |
| --- | --- |
| Describe why the lighting upgrade is not covered by AS/NZS 1158: | Click here to enter text |
| Describe the benchmark you propose to use, how it is equivalent to AS/NZS 1158 and how it meets ESS requirements: | Click here to enter text |

|  |  |
| --- | --- |
| 0. | Attach a copy of the proposed standard or benchmark. |

|  |  |
| --- | --- |
| File name – proposed standard or benchmark: | Click here to enter text |

Performance requirements – traffic signals

Will you be implementing lighting upgrades for traffic signals?

|  |  |
| --- | --- |
|  | Check the appropriate box and respond accordingly. |

|  |  |  |
| --- | --- | --- |
| No | [ ]  | 🡪 Go to the next section: Calculating energy savings  |
| Yes | [ ]  | 🡫 Provide the information below |

#### Equipment requirements

|  |  |
| --- | --- |
|  | Equipment requirements are set out in clause 9.4 and Schedule A of the ESS Rule. |

|  |  |
| --- | --- |
| Describe how you will ensure the equipment requirements will be met: | Click here to enter text |

#### AS 2144:2014

|  |  |
| --- | --- |
|  | Lighting for traffic signals must satisfy the relevant requirements of AS 2144:2014. |

|  |  |
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| Describe how you will address the requirements of the AS 2144:2014 Standard for lighting for traffic signals: | Click here to enter text |

Will you be implementing lighting upgrades that are not covered by the AS 2144:2014 Standard?

|  |  |
| --- | --- |
|  | Where the requirements of AS 2144:2014 are not applicable, another benchmark may be used, subject to prior agreement with the Scheme Administrator. |
|  | Check the appropriate box and respond accordingly. |

|  |  |  |
| --- | --- | --- |
| No | [ ]  | 🡪 Go to the next section: Calculating energy savings |
| Yes | [ ]  | 🡫 Provide the information below |

|  |  |
| --- | --- |
| Describe why the lighting upgrade is not covered by AS 2144:2014: | Click here to enter text |
| Describe the benchmark you propose to use, how it is equivalent to AS 2144:2014 and how it meets ESS requirements: | Click here to enter text |

|  |  |
| --- | --- |
| 0. | Attach a copy of the proposed standard or benchmark. |

|  |  |
| --- | --- |
| File name – proposed standard or benchmark: | Click here to enter text |

Calculating energy savings

#### Baseline energy consumption

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| --- | --- |
|  | Baseline energy consumption is determined by either using equation 7 or equation 8 from clause 9.4 of the ESS Rule. |

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| --- | --- |
| Describe how you will determine which baseline consumption equation to use for each implementation: | Click here to enter text |
| Describe what evidence you will collect to support your decision to use equation 7 or 8: | Click here to enter text |

#### Calculation tool

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| --- | --- |
|  | ACPs may use the Commercial Lighting Calculation Tool when equation 7 of the ESS Rule is applicable to the calculation of the baseline energy consumption of the lighting upgrade. The Commercial Lighting Calculation Tool is available on the [ESS website](https://www.ess.nsw.gov.au/Home/Document-Search/Tools/Commercial-Lighting-Calculation-Tool/). |
|  | Do not use the Commercial Lighting Calculation Tool if determining the baseline energy consumption using equation 8. |

Will you be using the IPART Commercial Lighting Calculation Tool?

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| --- | --- |
|  | Check the appropriate box and respond accordingly. |

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| --- | --- | --- |
| Yes | [ ]  | 🡪 Go to Question 17 |
| No | [ ]  | 🡫 Provide the information below |

|  |  |
| --- | --- |
|  | ESS Rule factors are updated from time to time. Your calculation tool must be capable of updating factors. |

Which calculation tool will you be using?

|  |  |
| --- | --- |
|  | Check the appropriate box and respond accordingly. |

|  |  |  |
| --- | --- | --- |
| Own calculation tool | [ ]  | 🡫 Complete Questions 16a and 17 |
| Proprietary software | [ ]  | 🡫 Complete Questions 16b and 17 |

**16a. Own calculation tool**

|  |  |
| --- | --- |
| Describe the calculation tool you will use and how it will meet ESS requirements: | Click here to enter text |
| Describe how you will ensure your calculation tool uses the correct factors: | Click here to enter text |

|  |  |
| --- | --- |
| 0. | Attach the calculation spreadsheet(s) / tool(s) you will use to calculate energy savings and ESCs. The spreadsheet / tool must show the steps and formula used to calculate energy savings and ESCs.  |

|  |  |
| --- | --- |
| File name – calculation spreadsheet / tool: | Click here to enter text |

**16b. Proprietary software**

|  |  |
| --- | --- |
| Indicate which proprietary software, tool or application you will use: | Click here to enter text |
| Describe how you will ensure the calculation tool uses the correct factors: | Click here to enter text |

#### Accuracy of energy savings and ESC calculations

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| --- | --- |
|  | You must have appropriate procedures for checking calculations of energy savings and ESCs. If during an audit of your RESA the auditor identifies errors in calculations from which ESCs have been registered, you may be requested, or required, to forfeit any improperly created ESCs. |

|  |  |
| --- | --- |
| Describe how your procedures will ensure the accuracy of energy savings and ESC calculations: | Click here to enter text |