



Smart Lighting Pilot Scheme For Small Medium Enterprises (SMEs)

Guide for Applicants Ver 1.3

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SEAI reserves the right to update this call for projects, revise the levels of grant funding available or to close the scheme should the level of demand exceed the available funding

Table of Contents

1. Background.....	3
2. Introduction	3
3. Who can avail of the funding?	3
4. Targeted sectors.....	4
5. What elements of the upgrade can be supported:	5
5.1 What is included:.....	5
5.2 What is excluded:.....	6
6. What level of support is available?	6
7. What do I need to do to apply ?	7
8. How will applications be selected	7
9. Application process	8
10. Participating energy supplier (PES)	8
11. Key information for successful applicants.....	9
11.1 Placing of contracts for equipment.....	9
11.2 Eligible costs	9
11.3 Accelerated Capital Allowances (ACA).....	9
11.4 Measuring, monitoring, reporting and dissemination of results	9
12. Contractors standards.....	10
13. Grant Agreement.....	10
14. Payment of Grant	11
15. Technical/financial audit.....	11
16. Timescales	11
17. Documents subject to change.....	12
18. Further information.....	12
19. USEFUL REFERENCE MATERIAL.....	13

1. Background

There are compelling arguments for an increased focus on energy efficiency in small and medium-sized enterprises (SMEs) given the vital role they play in the Irish economy. They provide the majority of employment opportunities (over 90% of national employment), contribute significantly to GDP (47% of value added) and export income, and play a key role in driving innovation. Energy efficiency can strengthen SMEs by helping them to cut costs, freeing up resources that can be invested in more productive activities, and can make them more resilient and more competitive. Even though SMEs individually consume small to moderate amounts of energy, collectively they account for a significant portion of national and indeed global energy demand.

2. Introduction

The objective of this pilot scheme, the Smart Lighting Pilot Scheme, is to assist SMEs in reducing their energy use and costs, making them more competitive while reducing their carbon footprint.

SEAI has identified lighting as a priority technology for support in 2017.

Key objectives of this initial pilot include;

- testing market readiness for such an approach
- inform the design of schemes going forward which might include other relevant technologies for SMEs as appropriate and
- develop a scalable model for replication and demonstrate the potential for other technologies to the wider SME sector leveraging support through alternative channels such as the Energy Efficiency Obligations Scheme (EEOS), supply chain initiatives etc .

The purpose of this Application Guide is to outline: (i) who can avail of the available funding, (ii) what is supported, and (iii) the process and associated terms and conditions.

3. Who can avail of the funding?

Projects eligible for funding must be delivered to private sector organisations defined as SME's.¹ The SMEs being specifically targeted in this Guide for Applicant falls within the category of 'less than 250 employees' and which have an annual turnover not exceeding EUR 50 million, and/or an annual balance sheet total not exceeding EUR 43 million.

¹ (<http://www.reach-compliance.eu/english/REACH-ME/engine/sources/regulations/2003-361-EC.pdf>)

Applications can be submitted by either:

- Individual SMEs within targeted sectors set out in section 4 below or
- ‘Aggregators’ who group applications and are in a position to apply and deliver for a number on SMEs in the target sectors.

Applications must entail a whole building or whole facility solution which would see lighting upgrades undertaken in all service areas within that building or facility. This could include for example in a retail outlet; the retail sales area, store rooms, toilet facilities and outside car parking lighting if applicable. Where partial lamp replacement with low energy types has occurred previously, then these areas will be considered to be outside the scope of this requirement.

Given the objective of developing a scalable model for widespread replication the approach of grouping applications is encouraged.

Intending applicants can consult SEAI in advance of making an application by emailing to: info@seai.ie or phoning 01 8082100.

4. Targeted sectors

The targeted sectors for this 2017 pilot are:

Fitness Centres	General and Food Retailers
Jewellers	Small Hotel/Large B&B
Pharmacies	Nursing Homes

If you are an SME falling under the definition outlined in Section 3, operating in one of the sectors above and wish to undertake an energy efficient lighting upgrade during 2017 then you are eligible to apply for grant support

The objective is to support a balanced portfolio of projects across the sectors identified above, reflecting also good geographical spread and full range of project and organisation size that will act as good demonstrators for other SME’s to follow suit.

Proposals falling outside the above targeted sectors may be considered on a case by case basis depending on funding availability and the balance achieved across target sectors. It is also intended to allocate funding for a small number of ‘innovative’ approaches to grouping of projects and in such circumstances SME’s, outside these sectors but as part of a wider innovative group, can be considered.

It is expected that up to 100 facilities will be upgraded under the scheme with a higher percentage being represented by those in the smaller size range.

5. What elements of the upgrade can be supported:

5.1 What is included:

The following elements of your energy efficient lighting upgrade can be supported, up to a level of 40% of eligible approved costs, under this pilot scheme.

- New energy efficient light products which are on the SEAI triple E register and eligible for Accelerated Capital Allowance (ACA) (<http://www.seai.ie/aca>)*
- Decorative or specialized non typical lighting products, not on the SEAI Triple E product register but demonstrating energy efficient performance characteristics with supporting evidence may be allowed on a case by case basis at the discretion of SEAI. Examples of these might include display lighting with specific colour rendering properties or chandelier lamps;
- Emergency lighting only as part of a retrofit, works must be completed in accordance with statutory requirements and prevailing regulations as amended from time to time;
- Fittings and lamps with a powerfactor in excess of 0.9;
- Lighting controls including;
 - PIR (Passive Infra Red sensors (heat));
 - Microwave sensors (movement detection);
 - Daylight sensing (photo sensitive);
 - Automatic dimming and trimming controls;
- Smart meter (if applicable)
- VAT if applicable**
- Design costs if applicable
- Equipment hire to assist with installation (if applicable)
- Project management costs

***NOTE:** The SEAI does not guarantee the performance of installed equipment expressly or implicitly. Nor does the SEAI endorse any particular manufacturers, products, or system designs in promoting this program.

****NOTE:** Only in circumstances where VAT is not reclaimable by the applicant i.e. not registered for VAT, then if there is appropriate certification available from the Revenue Commissioners confirming this, the VAT can be deemed an eligible cost and included on the request for payment.

5.2 What is excluded:

The following activities are specifically excluded and cannot attract any funding:

- Any works undertaken before submitting an application and its subsequent approval from SEAI (before receiving a “Letter of Offer”).
- Installation of T5 Adaptor kits;
- Retrofitting LED/LED linear lamps into fittings designed for alternative lamp type;
- 2D to LED
- Any fitting that requires the bypassing of original ballast is excluded;
- Secondhand equipment;
- Replacement of a like for like lamp or fitting with a light or fitting type or similar model/type to that being upgraded, for example replacement of an LED of one colour with a new LED of a different colour rendering;
- Any upgrades that reduce service levels, including safety levels;
- New building installations;
- Task lighting such as portable lighting or desk lights;
- Costs not directly associated with the project;
- Complete rewiring, exception being some additional costs to include reposition fittings, extra fittings, or new controls;
- Emergency lighting – new installations where none previously existed;
- Any incompleting or uncertified works;
- Activities undertaken in order to comply with other statutory requirements.

The facility must be in everyday use and the existing lighting must be in working order at the time of the application.

6. What level of support is available?

The total funding available for this 2017 pilot scheme is up to **€700,000**.

The standard level of support available, on the basis of organisations employing less than 250 people, is **40% of eligible approved cost** thus supporting a total investment in SME lighting upgrades of up to **€1,750,000**

SEAI reserves the right to update this call for projects, revise the levels of grant funding available or to close the scheme should the level of demand exceed the available funding.

7. What do I need to do to apply ?

In order to be eligible for consideration all project applications must include :

- A completed application form;
- A completed lighting evaluation workbook template which should indicate the existing (pre upgrade) system types and proposed new lighting upgrade types and showing initial lighting levels, and energy and cost savings. You will need to undertake (or have a contractor do) a lighting survey in order to complete this workbook;
- A detailed lighting installation specification which should include the Triple E product registration number (or for the exceptions outlined in section 5.1 above a manufacturers technical specification sheet) for each lamp type (s) or fitting on your register with the quantity of each type being upgraded;
- A simple drawing floor/site plan and simple design specification with lighting levels if applicable;
- Where specialised non-typical, non Triple E products are proposed, supporting benefits calculation must be included;
- On approval a simple smart meter should be installed or existing service meter should be utilised to provide a minimum level of measuring to support ongoing measurement and verification (M&V) and reporting of savings;
- A delivery plan demonstrating completion by October 13th 2017;
- A site located in the Republic of Ireland;

The energy saving benefits of the project may be analysed using the SEAI lighting audit workbook calculators or similar. Proprietary workbooks/calculators may be used but only where SEAI or its agents have full sight of the basis for calculating any energy savings/credits.

8. How will applications be selected?

Projects for grant support will be selected on the basis of the following to determine their eligibility for support:

- Administrative compliance with scheme requirements including fully completed and signed application form, workbook, provision of tax clearance in the form of Tax Reference Number and Tax Clearance Access Number (TCAN), VAT status etc.
- Technical compliance with scheme requirements including;
 - Quality of application and associated evidence of proposed upgrade;
 - Energy efficient lighting proposed meets the criteria for retrofit;
 - Have a Measurement and Verification (M&V) plan;
 - Have a delivery plan and scheduled for completion and grant drawn down before 13th October 2017
 - Project management team in place;

In order to ensure a balanced portfolio of projects, SEAI may at its discretion include some or all of the following as part of the scheme management and/or project selection process:

- Replication potential and scalability;
- Geographic spread;
- Mix of building types/applications/facilities;
- Range of SMEs by size and sector;
- Appropriate distribution of funds across number of applications and sectors.

9. Application process

Applications should be submitted to SEAI, by email to: info@seai.ie

Included in the application documents should be:

1. Application form - In the case of grouped applications, each beneficiary will have to sign a declaration (Appendix A) confirming their acceptance that the aggregator can draw down the grant on their behalf and pay into their account;
2. A completed lighting audit workbook either one developed by SEAI or a proprietary one, outlining the details of existing system and upgrade proposed (in the case of multi site or grouped applications, a separate workbook for each facility will be necessary);
3. Schedule of light fittings/lamps being replaced including the Triple E registration number and quantities of lamps installed;
4. eTax Clearance (eTC) with Tax Reference Number (TRN) and Tax Clearance Reference Number (TCAN) being provided. In the case where an application is submitted by an 'aggregator' eTC's for the lead applicant and each beneficiary will be required;
5. Where a lighting design for the upgrades was undertaken to support the application then this design and floor plans should be submitted as part of the application.

10. Participating energy supplier (PES)

Participating Energy Suppliers (PES) have an obligation to deliver energy savings annually to a level that is linked with their sales of energy. They are actively seeking projects to be associated with and in order to claim the energy savings credits arising from a project they must have a demonstrable involvement in delivery of the project.

There are a number of ways such suppliers could be involved in projects under this pilot scheme. These include project management, provision of a financial contribution, provision of materials, installation of works, monitoring lighting, energy auditing or advice. The projected energy savings/credits from the project can be used as leverage for negotiations with the energy suppliers.

For a PES to be eligible to claim the energy credits from a project they need to be specifically identified on the Application Form. If there is a PES involved, a Non-Residential Energy Credits (NREC) application form which needs to be completed providing details on the contribution to be provided by the PES. Full guidance on this process can be found here: [Guidance-on-authenticating-and-claiming-energy-credits](#). Please note there are no derogations and all projects are subject to M&V. However any PES will be very familiar with the process and may be able to help with completing the application form.

11. Key information for successful applicants

11.1 Placing of contracts for equipment

Grant assistance is offered subject to value for money criteria and meeting the eligibility criteria. Successful applicants shall be required to demonstrate that the proposed investment represents 'value for money'. The normal procedure of obtaining three separate and bone fide quotations or that a tender process has been completed will fulfil this requirement. Any rebates or discounts should be highlighted at payment drawdown, aggregators in particular should pass on any bulk purchase discounts to beneficiaries.

11.2 Eligible costs

In the case of successful applicants, only eligible expenditure incurred from the date of approval (issue of letter of offer) of the application by the Authority will be considered for funding. Any expenditure incurred by an applicant **before** this date is **ineligible**. Where a performance contract is being included as part of the delivery plan then the applicant should disperse the funds to the beneficiaries before applying any performance related contract.

11.3 Accelerated Capital Allowances (ACA)

The ACA is a tax incentive for companies paying corporation tax and aims to encourage investment in energy efficient equipment. The ACA offers an attractive incentive whereby it allows companies to write off 100% of the purchase value of qualifying energy efficient equipment against their profit in the year of purchase. Qualifying products from the defined ACA equipment categories are listed on the ACA Specified List which is updated on a regular basis. All ACA qualifying products can be searched for on the [ACA Specified List](#)

For Grantees eligible to claim the Accelerated Capital Allowance (ACA) linked to the Triple E register, it should be noted that any ensuing claim to the Revenue Commissioners for the ACA should be made on the basis of costs net of the grant

11.4 Measuring, monitoring, reporting and dissemination of results

A condition of funding is that successful applicants are required to co-operate with Sustainable Energy Authority of Ireland in providing monitoring, measuring and reporting of the savings being delivered by the project. This could take the form of a benefits study to be completed within one year of project commissioning or other quantitative analysis.

The benefits delivered by projects under this pilot will be required to be evaluated against one of the recognised Measurement and Verification protocols such as the ISO 50015:2014 Energy management systems -Measurement and verification of energy performance of

organisations or its components, or a Certified Measurement and Verification Professional (CMVP) evaluating to Option B of the International Performance Measurement & Verification Protocol (IPMVP). Where energy credits are being claimed under EEOS, then the procedures outlined here should be followed: [Guidance-on-authenticating-and-claiming-energy-credits](#). Please note there are no derogations and all projects are subject to M&V.

All projects should have a dedicated smart meter installed (if service meter not already in place) or even a simple web enabled display monitor for the purposes of making an application. Where there is no existing service meter in place good engineering estimates may be used to support the application and determining baseline energy use, but on approval a smart meter must be installed to measure the consumption beforehand for a minimum of one week or a period that reflects the typical usage pattern for the main lighting so as to determine baseline and for verification of results post completion.

12. Contractors standards

Applicants must ensure that all electrical work in the lighting upgrade is performed by members of the Register of Electrical Contractors of Ireland (RECI) or the Electrical Contractors Safety and Standards Association (ECSSA). This requirement applies even when the lighting upgrade does not require any wiring work to be conducted but does include replacement of fittings.

13. Grant Agreement

Support in the form of grants will be awarded subject to the terms and conditions of a contract between Sustainable Energy Authority of Ireland and the applicant organisation(s). All correspondence and matters relating to the contract will be between SEAI and a single nominated individual within the recipient organisation or through an aggregator.

All contracts will be based on the elements of the application approved for support, and an agreed delivery schedule.

Where a grouped application is submitted the relevant eligible parties will be represented by the aggregator or project co-ordinator. All correspondence and matters relating to the contract will be conducted solely between Sustainable Energy Authority of Ireland and a 'project co-ordinator'. In such instances the project co-ordinator shall be responsible for overseeing and verifying the design, procurement, installation, M&V, and for the proper distribution of support to the eligible parties responsible for project fulfilment.

Applicants must sign a declaration to the following:

1. that the information provided in respect of this application is to the best of their knowledge correct;
2. to allow SEAI or its delegated agent(s) to verify any of the information contained herein;
3. they are duly authorised to sign on behalf of the organisation(s) applying for funds;

14. Payment of Grant

The grant payment will comprise of a single payment and will normally be made on successful completion of contract as detailed in the letter of offer and in some instances following inspection by SEAI or its representatives.

Payment will be made into the applicants account identified at time of grant approval. The basis of payment will be 40% of the eligible costs incurred subject to the maximum level as outlined in the letter of offer or whichever is the lesser.

Evidence of costs incurred will be required including:

1. invoices for work completed,
2. confirmation of payment from suppliers.
3. Further evidence, by way of bank statement, from either applicant or supplier to demonstrate flow of funds from/to relevant accounts will be necessary.
4. Completion certificates for all electrical work.

Where grouped applications are made, payments from the Authority will be made to a holding account under the control of the aggregator/project co-ordinator, who shall be accountable for the proper disbursement of the funds. (Beneficiaries must sign a declaration to agree this in advance of any payment).

Aggregators/Project coordinators and all beneficiaries must provide relevant Tax Reference Number (TRN) and Tax Clearance Access Number (TCAN) at time of application.

Request for payment must be made on an SEAI request for payment form and be submitted on or before 13th October 2017.

15. Technical/financial audit

All funded projects will be subject to financial / technical audit at the sole discretion of SEAI and any other SEAI-appointed, competent authority. Any approved applicant is obliged to ensure that appropriate financial, administrative and technical records are maintained. Successful applicants must accommodate any technical inspection within 7 working days of it being requested. SEAI will revoke any applicants funding who fails to accommodate these inspections. It will also be necessary to have the electrician present during inspection to facilitate closer examination of fittings/lamps installed. A random sample will be selected and must be removed and supplied to the inspector, if there is an access issue it's the client's responsibility to notify SEAI beforehand.

The upgrade must be completed and certified in accordance with any relevant code or codes of practice and other relevant legislation applying to it, including any licensing, registration, statutory approval, certification, health, safety, environmental or waste disposal requirements. Separate guidance on what to expect during an inspection will issue on approval.

16. Timescales

This Call for Proposals will remain open until further notice or until all the funds are committed.

Once an application is received by SEAI, an acknowledgement will issue within five working days. If further information is required this will be identified at that stage.

The Letter of Offer (LOO) issued will form the basis of contract between SEAI and the applicant. Only after receipt of this letter should the applicant commence the process of procuring and installing the proposed upgrades. SEAI endeavours to issue a LOO within 28 days of receipt of an application.

Offers must be formally accepted within 14 days of the letter of offer date issue.

Projects should be completed and the necessary request for payment form submitted together with necessary proof of payment on or before 13th October 2017. Applicants must be tax compliant at the time of requesting payment. Tax Reference Number and TCAN should be provided again at this stage if necessary.

17. Documents subject to change

It is envisaged that the scheme conditions may require alteration during the life-cycle, of this pilot, however, at all times the latest version of these conditions will be posted on the Sustainable Energy Authority of Ireland website: <http://www.seai.ie/Grants/> .

It is those conditions which appear on the website or in this guidance on the date of submission that will apply to an application.

18. Further information

Further information on the scheme can be obtained either in writing by e-mail to info@seai.ie or calling (01) 808 2100.

19. USEFUL REFERENCE MATERIAL

Lighting Survey and design

If you are intending to apply you should consider the following standards and guides when compiling an application for support. The main lighting standards and guides appropriate to scheme design are listed below:

- EN 12464-1:2011** – Light and lighting. Lighting of work places - Indoor work places
- EN 12464-2:2014** - Light and lighting. Lighting of work places - Outdoor work places
- BS5266** - Code of Practice for Emergency Lighting

CIBSE Lighting Guides

- [SLL Code for Lighting \(2012\)](#)
- [SLL Lighting Handbook \(2009\)](#)

The energy savings benefits of the proposed upgrade solution should be evaluated using the SEAI lighting evaluation calculators or similar.

SLL Lighting Guides

- [SLL Lighting Guide 1: The Industrial Environment \(2012\)](#)
- [SLL Lighting Guide 2: Hospitals and Health Care Buildings \(2008\)](#)
- [SLL Lighting Guide 4: Sports \(2006\)](#)
- [SLL Lighting Guide 5: Lighting for Education \(2011\)](#)
- [SLL Lighting Guide 6: The Exterior environment \(2016\)](#)
- [SLL Lighting Guide 7: Offices \(2015\)](#)
- [SLL Lighting Guide 8: Lighting for Museums and Art Galleries \(2015\)](#)
- [SLL Lighting Guide 9: Lighting for Communal Residential Buildings \(2013\)](#)
- [SLL Lighting Guide 10: Daylighting - A Guide for Designers: Lighting for the Built Environment \(2014\)](#)
- [SLL Lighting Guide 11: Surface Reflectance and Colour \(2001\)](#)
- [SLL Lighting Guide 12: Emergency Lighting \(2015\)](#)
- [SLL Lighting Guide 13: Lighting for Places of Worship \(2014\)](#)
- [SLL Lighting Guide 14: Control of Electric Lighting \(2016\)](#)
- [Guide to Limiting Obtrusive Light \(2012\)](#)
- [Guide to the Lighting of Licensed Premises \(2011\)](#)
- Guide to the Specification of LED Lighting Products 2012

The Energy Audit Scheme managed by SEAI contains a list of Energy Auditors for the purposes of completing audits required by non SME's under the Energy Efficiency Directive. Applicants may be able to draw on a consultant from this list to help with compiling an application. List found here:

http://www.seai.ie/Your_Business/Energy-Auditing-Scheme/EAS-22-03-17.pdf).

The recently launched Energy Audit Handbook might be of benefit to applicants or auditors when undertaking the lighting survey:

https://www.seai.ie/Publications/Your_Business_Publications/Large_Energy_Users/SEAI-Energy-Audit-Handbook.pdf

There are two Registers of Approved Electrical Contractors in Ireland whose members claim that their work complies with the National Rules for Electrical Installations - "The Wiring Rules". These are:

- [Electrical Contractors Safety & Standards Association](#) (ECSSA). (Tel: 064-37266)
- [Register of Electrical Contractors of Ireland](#) (RECI) (Tel: 01-4929966)

S.I. No. 299/2007 - Safety, Health and Welfare at Work (General Application) Regulations 2007 <http://www.irishstatutebook.ie/eli/2007/si/732/made/en/print>

Guidance on measuring and claiming energy credits under an EEOS contract:

<http://www.seai.ie/EEOS/Guidance-on-authenticating-and-claiming-energy-credits.pdf>

Approach to determining the energy savings benefits.

- Undertake a lighting survey to evaluate existing system pre-upgrade;
- Establish baseline energy use, at a whole site or part of a facility before a project is implemented;
- Compare performance of the new systems against the baseline using the metered data before upgrade and after upgrade and report to SEAI;
- Comparing baselines is most appropriate where energy savings result in a significant reduction in site electricity consumption (more than 10%), and where historical electricity consumption data is available;
- If applicable, the impact on power factor correction should also be evaluated as some lighting upgrades can reduce power factor and thus reduce the benefits.
- Post installation monitoring should be conducted to report to SEAI as part of a VFM benefits study or for energy credits;
- The proposed lighting upgrade project and its benefits should be analysed using the SEAI lighting evaluation calculators or similar. Proprietary workbooks/calculators may be used but only where SEAI or its agents have full sight of the basis for calculating any energy savings/credits.

Design/Installation Guidance – Advisory Only

- Use a competent lighting design professional
- Use independent design software
- Ensure that the lux levels, uniformity and other requirements are achieved in line with the requirements of the appropriate lighting standard.
- Apply appropriate reflectance's for ceilings and walls.
- Apply appropriate boundary zones in each area.
- Apply an appropriate maintenance factor.
- Where VDU screens or such devices are in use apply the appropriate fittings with louvres to limit potential glare.
- All calculations must show average illuminance levels on a workplane, apply 0m in circulation spaces or where the workplane is considered to be the floor.
- Ensure that the light output of the fitting wattage is correct and the design does not require excessive numbers of fittings
- Sensors are in adequate positions to allow appropriate operation
- Where fittings have individual integrated sensors they should be practically linked to other fittings as per their design intent.
- LED's have adequate head height, where recessed and heat sinks have adequate clearance from insulation.
- Specifiers should take into account the environmental factors which may impact the LED fitting and the type of fitting which may survive the environment.
- When installing sensors in small areas such as bathrooms, they may be difficult to get to operate correctly. Where the sensor doesn't pick up the person in the cubicle and the lights go out. Small toilets which have one light and an integrated microwave sensor would work fine.