Public Sector Energy Programme

Support Manual

A GUIDE TO HOW SEAI CAN SUPPORT YOU IN TRANSFORMING YOUR ENERGY USE

From getting started, to getting strategic and delivering impactful results, this manual sets out the programme of supports available to you in the Public Sector to deliver on energy efficiency.

seai SUSTAINABLE ENERGY AUTHORITY OF IRELAND

HOW TO USE THIS MANUAL

This manual is for all public sector organisations – it is set out in colour coded sections based on self-diagnosis of where you are now in creating a cleaner energy future for Ireland.

Green/Yellow – you are a first-time user of the SEAI Public Sector Energy Programme and want to get started: go to **sections 1 & 2**.

Orange – you are already engaged in the SEAI Programme, have achieved results and now need to know how to get more strategic: go to **section 3**.

Red – you have improved energy performance through effective energy management systems and now want to create significant impact through innovative project delivery: go to **section 4**.

Contents

Introduction

In Ireland, the public sector is required to set an exemplary standard in relation to sustainable energy targets with 33% energy efficiency to be achieved by all Irish public bodies by 2020. The SEAI Public Sector Energy Progamme is aimed exclusively at supporting the public sector to achieve this 33% energy efficiency target.

WHY

Offering comprehensive advice and engagement to guide public bodies in reaching energy saving targets, the Programme is an essential pillar of the National Energy Efficiency Action Plan (NEEAP) and the government's Public Sector Energy Efficiency Strategy, published in January 2017.

HOW

From identifying opportunities right through to the delivery of capital projects, the SEAI Public Sector Energy Programme is focused on effective implementation of energy management practices in public bodies, and ongoing monitoring of these practices.

WHO

The Programme engages at all levels within public sector organisations and provides tailored supports, delivered in partnership with organisations who demonstrate commitment to strategic energy management.

WHAT WE OFFER

SEAI provides the tools, training, and advice to integrate energy management into the general management of public sector organisations. This manual will help you to understand and access the supports and help that we can offer.

The business case – drivers for energy management

The public sector has a target of improving its energy efficiency by 33% by 2020. This is a common objective for all public bodies to realise benefits for their organisation and to contribute to a cleaner energy future for Ireland. This target is essential for our economy, our environment, and overall public sector reform. Despite good progress by public bodies since energy monitoring and reporting started in 2012, reaching these targets requires radical action, and we are here to help.

There are clearly defined carbon dioxide (CO_2) targets under EU law, COP22 and other international agreements to which Ireland is bound. These legal requirements are all aimed at reducing our CO_2 emissions. Under Ireland's National Energy Efficiency Action Plan (NEEAP), the public sector is legally bound to lead the way in this regard. This manual is business focused to allow us to meet the challenges posed by climate change, within an overall vision for a better quality of life for all our citizens.

In addition to the policy and legal drivers outlined above, there is a clear business case for public sector organisations to take a structured energy management approach to how they operate.

— Achieving sustained cost savings

Structured energy management saves more, for a longer period. Most organisations have the potential to achieve energy cost savings of 5% – 10% with minimum effort by looking at the costs paid for energy, energy supply, and reducing organisational demand for energy.

However, these savings will be quickly eroded unless ongoing energy management practices are adopted. Savings of 20% or more are possible with structured energy management and sustained programmes. To achieve the 33% public sector target as set out in the NEEAP requires exemplar application of structured energy management.

— Contributing to a healthier environment

Our climate is changing. Ever increasing CO_2 emissions from fossil fuels are causing climate change, which is negatively impacting on public health and damaging the environment.

Energy consumption which involves the use of fossil fuels such as coal, oil, and gas results in the emission of CO_2 into the atmosphere. Other harmful emissions, such as oxides of sulphur and nitrogen, cause acid rain, destroy ecosystems and create health problems due to poor air quality.

Public bodies must lead the way. Ireland has ambitious CO_2 reduction targets and the public sector needs to make significant reductions to help to achieve these. Organisations that are proactive in energy management help to control these atmospheric emissions, and to make Ireland a healthier and safer place.

— Improved performance rooted in evidence-based data monitoring

Since 2010, all public sector organisations have been required by Irish Statute to report on their energy usage and actions taken to reduce consumption. The Monitoring and Reporting (M&R) System enables public bodies and schools to fulfil their legal energy reporting requirements under Statutory Instrument 426 of 2014 and is used to track their progress towards the 2020 energy efficiency target of 33%.

The M&R system keeps all your annual energy data in one place. This energy performance data enables change and will be made available to the public in 2018. As part of the M&R process, SEAI has developed an energy performance scorecard that can be easily understood by all parties, from staff members to the CEO, showing savings performance for the year and the gap to target. This evidence-based approach to energy management facilitates effective decision-making and measurable results.

More information on the monitoring and reporting system is available here.

Programme Summary

The Public Sector Energy Programme is part of SEAI's Energy Demand Management (EDM) unit, which aims to engage organisations, of all scales, to take action on energy consumption and meet targets.

The Programme aims to:
— **embed the principles of energy management** within organisations, leading to sustained and long-term energy savings. As an organisation matures in energy management, opportunities for deeper and more strategic initiatives arise through partnership models identified through the Programme.

— **develop and support energy saving actions** in organisations, through behavioural change and large-scale projects. Key to this is being organised and delivering a project pipeline in pursuit of both national and organisational targets.

— **measure energy performance** through SEAI's M&R system. This provides a tool to measure progress against strategic and operational targets. By tracking progress to the 33% target and assisting organisations to develop their own energy performance systems, it is an evidence-based approach to setting strategic energy management objectives.

This manual outlines the various advisory and financial supports available through the Programme, as well as SEAI's various capital support programmes, and supports provided by other organisations.

Dun-Laoghaire Rathdown County Council is one example of an organisation where energy management has evolved from an initial engagement with Energy MAP, to achieving ISO 50001 certification in 2016. Energy management is now embedded as a key part of their strategic focus and planning, including housing projects, community projects and public buildings.

How the Programme Works

The Programme provides engagement with public sector organisations at different levels to achieve energy targets and savings:

- At **CEO and Energy Performance Officer (EPO)** level – through the parent department, EPO network and CEO communications.
- At **energy management** level – through Energy Link, best practice guidance, workshops and training events.
- At **strategic engagement** level – through partnership, with agreed objectives to achieve savings within a sector or particular programme.

The Programme has a strong emphasis on sharing knowledge and success via Energy Link, training, best practice and case studies. There are also departmental, EPO, and CEO networks, providing support to your organisation at all levels.

This means it is designed to meet your needs – whether you want to engage as a partner on a one-to-one basis, as part of a group, or at a strategic level. **The higher the level of commitment from partner organisations, the more services that are available through the Programme, and the higher the level of engagement from SEAI.** At a strategic level, there are potential opportunities for collaborations with other public bodies, sectoral focused supports, and targeted pilot funding.

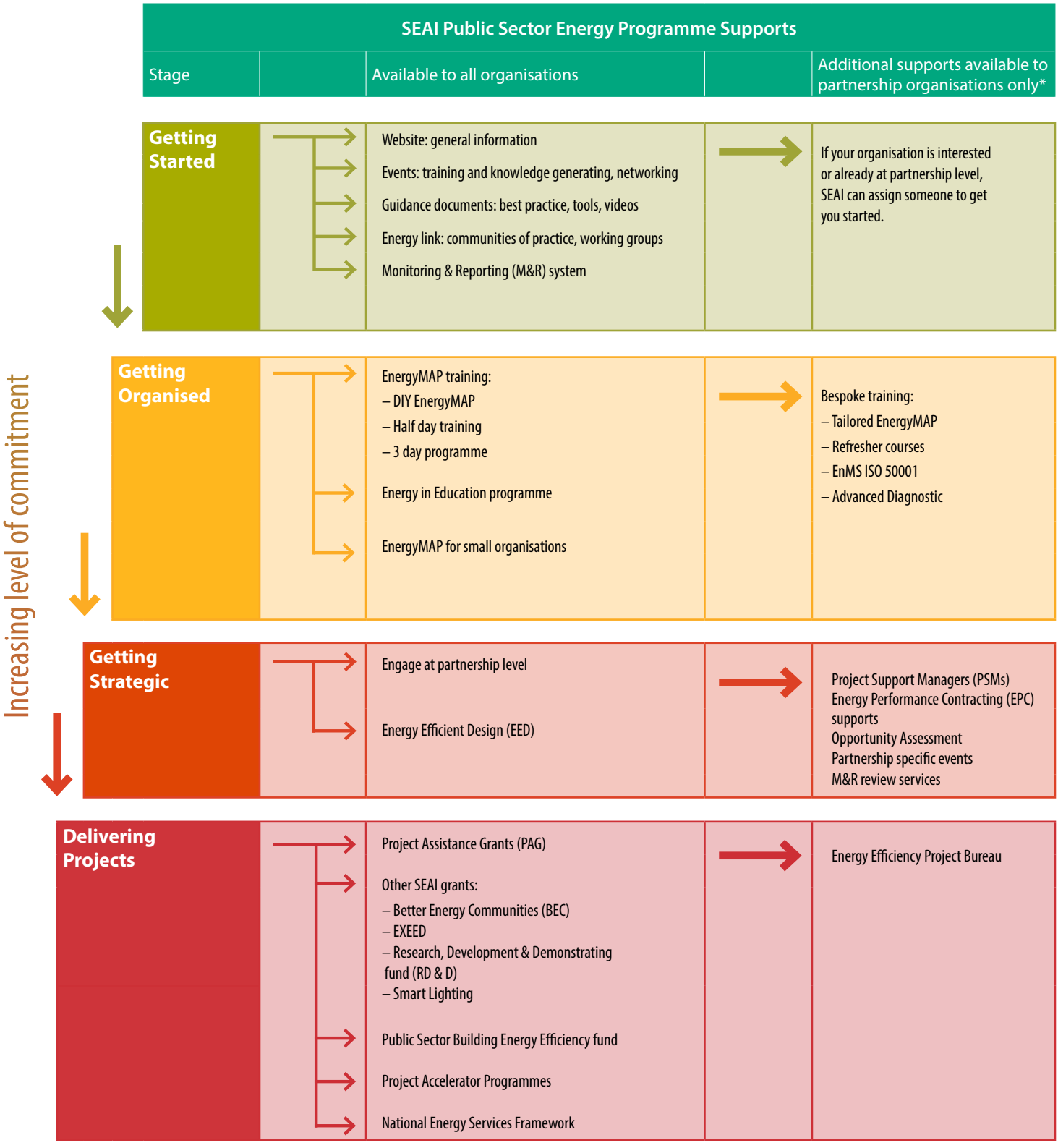

Fig 1.
SEAI Public Sector Energy Programme supports

*Supports are tiered to align with level of commitment. Organisations at advanced stages are also free to draw on supports from earlier stages.

SECTION 1.
GETTING STARTED

1. Getting Started

The services described on this page are open to all public sector organisations, working in or interested in energy and sustainability. Joining Energy Link is the recommended first step for anyone who is new to this area and interested in hearing about SEAI supports. You can then take a DIY approach and dip in and out of the SEAI website for advice, knowledge, and support.

Sign up to Energy Link here: http://energylink.seai.ie

SEAI Service	Description
Website 	General information for any organisation wanting to find out more about the Public Sector Energy Programme, best practices and financial supports. Link to SEAI website here, and to the Programme here.
Events	SEAI's website lists a wide range of training and knowledge generating events, most of which are available to both private and public sector attendees. Link to SEAI's wider events page here.
Guidance Documents	Best practice guidance is available from our website through printed materials, tools and calculators, and online videos.
Energy Link 	Energy Link is SEAI's knowledge portal for public sector energy management. This online network helps members to: • Share and exchange knowledge and experience • Find out what works and what doesn't • Get answers and solve problems • Receive up-to-the-minute information on current energy issues • Register for upcoming seminars and workshops
Events	All events for public bodies only, or of specific interest to public bodies, are listed in Energy Link. Click here for the 2018 calendar of events.
Communities of Practice (COPs)	Within Energy Link, COPs are groups of people who share an interest in an aspect of energy management activity, and learn how to do it better through regular interaction. Online activity is supplemented by a member-driven agenda of events throughout the year.
Working Groups (WGs)	WGs are closed groups within Energy Link, typically established to support a collaborative project (i.e. develop new guidance), for an Accelerator Programme (see section 4.2.1), or topics with exclusive membership (i.e. SEAI advisors only).
Monitoring and Reporting System (M&R) 	Public sector bodies, including schools, are required to report annually on their energy usage and actions taken to reduce consumption in accordance with Statutory Instrument 426 of 2014. This requirement is met by completing your submission on the M&R system. The M&R scorecard helps to track your progress towards the 2020 energy efficiency target.

Table 1. SEAI supports available to all public sector organisations

SECTION 2.
GETTING ORGANISED

2. Getting Organised

2.1 Energy Management

Energy Management (EM) is a journey not a destination. Commitment to adopt a structured approach is a vital first step for your organisation in realising the efficiencies and savings associated with improved energy performance. Whether large or small, technical or non technical, every organisation needs some form of energy management.

SEAI promotes **structured** energy management. The principles underlying all SEAI public sector supports are that for sustained energy savings, all organisations, sites and facilities should adopt a structured energy management programme.

In its simplest form, structured energy management achieves organisational objectives for the minimum energy cost. There are two ways to do this effectively: reduce the amount you pay per unit of energy, and/or reduce the amount of energy you consume.

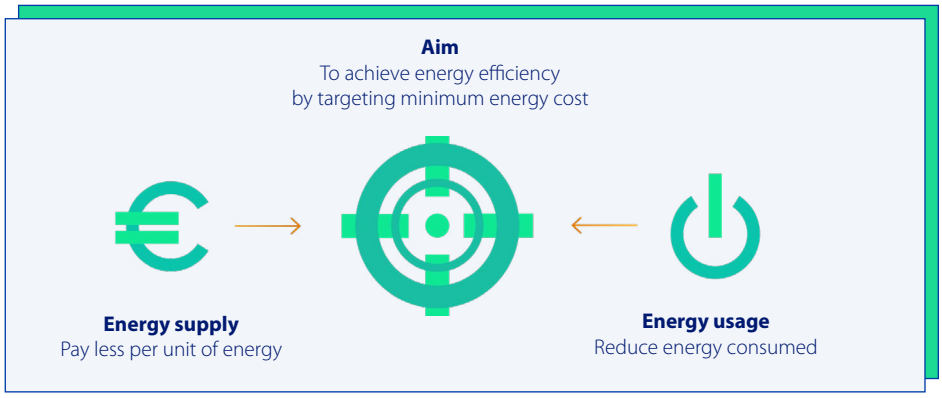

Fig 2.
How to achieve cost savings through energy management

Structured energy management is a systems based approach for attaining long term success, as opposed to ad hoc energy management. The difference between these approaches to energy management is illustrated in Figures 3 & 4 below.

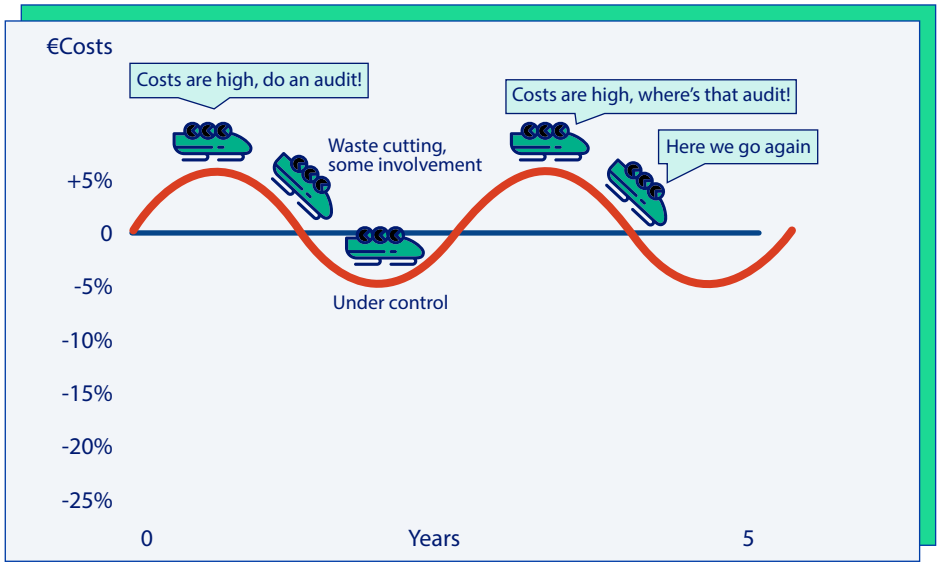

Fig 3.
The 'boom and bust' cycle of an ad-hoc approach to energy management

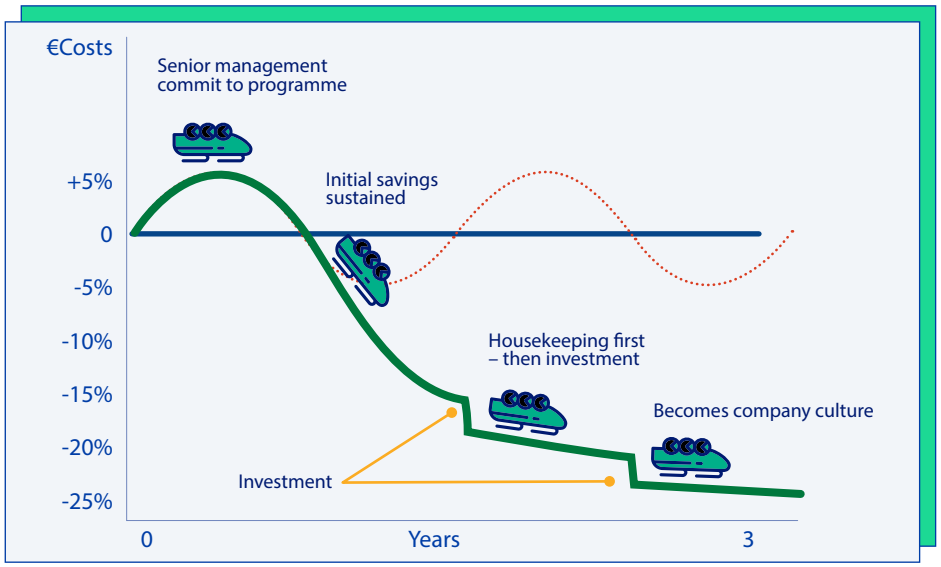

Fig 4.
The sustained benefits of a structured approach to energy management

SEAI tools for structured energy management are outlined in Section 2.4.

2.2 Exemplar Energy Management

Public sector bodies are required to demonstrate an exemplary role in terms of energy management. Both the government's National Energy Efficiency Action Plan (NEEAP) and EU energy efficiency regulations, transposed into Irish law under Statutory Instrument 426 of 2014, place specific obligations on public bodies regarding their exemplary role in relation to energy management.

In addition to the above regulatory requirements, the Public Sector Energy Efficiency Strategy states that public sector bodies should, as a minimum, practice these five basic, structured energy management steps within their organisation:

1. **Commit:** appoint a senior manager to provide leadership and accountability; empower staff to act; choose an appropriate path to energy management or certification.
2. **Identify:** work to identify actions and projects based on your energy performance data – SEAI and OPW can assist.
3. **Plan:** avail of strategic planning assistance; build energy management capacity; integrate facilities management, finance and human resource functions in your energy management planning; set annual energy saving targets.
4. **Take Action:** avail of project design, development and supervision support; commit to projects.
5. **Review:** measure results and continually improve energy performance.

These steps are the five pillars of SEAI's structured energy management tools, such as Energy MAP and ISO 50001, the international energy management standard. **For most organisations, doing these steps well, and continuously, constitutes exemplar energy management.** For bigger organisations, exemplar energy management means becoming more organised and strategic in your approach.

2.3 What is exemplar energy management for me?

The Exemplar Energy Management Roadmap, Figure 5, outlines the most suitable energy management approach for your organisation. For some, energy management capability may also determine where your organisation starts on its energy management journey. For example, most local authorities spend over €1m annually on energy, but started their journey with Energy MAP. This helped instill energy management practices in teams throughout their organisation. Some have now progressed to ISO 50001 certification.

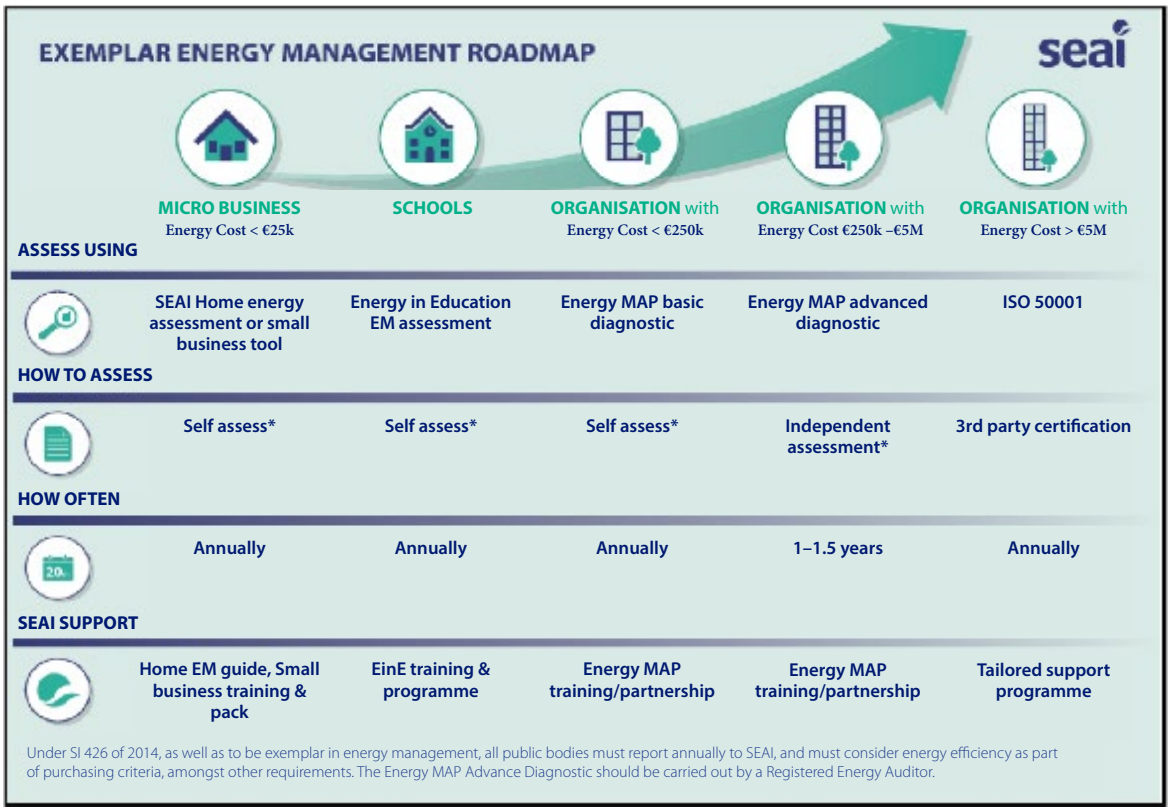

Fig 5.
Exemplar Energy Management Roadmap

The starting point of any energy management programme is to assess your current status, something SEAI can help you do. Remember that energy management needs to be reviewed regularly to ensure that it is fit for purpose and is delivering on your organisation's objectives. The roadmap also suggests how often your energy management programme should be reassessed and how to go about this.

Regardless of your energy management level, SEAI has developed a comprehensive package of energy management tools and supports, appropriate to the size and capability of your organisation or site. As your Energy Management System (EnMS) matures and you begin to see the benefits, energy management will become embedded in your organisation's strategic decision making process. Strategic energy efficiency opportunities that align with your core business will arise. This will become a bigger objective of SEAI's partnership programme in the future.

2.4 SEAI Energy Management Tools

Energy Management Action Plan (Energy MAP) is SEAI's primary energy management tool. It is intended to be used by organisations of every scale, from the smallest, right up to very large energy users.There are different levels of Energy MAP diagnostics depending on the size and scale of your organisation as outlined in Table 2 below.

SEAI's energy management diagnostic tools range from a simple assessment for small organisations and schools, to a 20 question Energy MAP diagnostic for larger organisations covering the five pillars of Energy MAP. Using Figure 5, pick the appropriate energy management approach, and apply the associated diagnostic. SEAI advisors can assist you pick the most appropriate approach and undertake the diagnostic with you, either directly or through training.

Energy Map Training and Tools			
Level	Energy Spend	Associated Training Course	Description
Schools Energy MAP Assessment	Any	2 x half days More details: www.energyineducation.ie or energyineducation@seai.ie	Using the principals of Energy MAP schools can undertake the Energy in Education programme which consists of a 5 step process to develop an basic energy management system within your school.
Small Organisations	<€250k	3 x half days More details: publicsector@seai.ie	Using the principles of Energy MAP small organisations can undertake a basic Energy MAP programme which consists of a less intensive version of Energy Map.
Energy MAP Group training	<€250k	3 x full days One day refresher also available on group basis More details: publicsector@seai.ie or EnergyLink	Energy MAP training is delivered to a mix of different users in a group setting. Courses are run frequently or you can request one to be run in your area.
Energy MAP organisation specific	>€250k <€5M	3 x full days and bespoke one day follow-on refresher available Advanced diagnostic through partnership (see Section 3)	Organisation MAP training is open to anyone but you must engage at partnership level in order to progress towards the advanced level Energy MAP with more detailed diagnostics – see section 3 of this manual.
Energy MAP refresher course	Any	1 x full day refresher course More details: publicsector@seai.ie	For organisations that have already had Energy MAP training but would benefit from additional training, i.e. if there are new members on the energy team or it is a number of years since the original course was attended.
Advanced	>€5M	EnMS ISO 50001	Refer to Section 3.5 for more details.
Note – The Energy MAP website is currently being redeveloped. An archived version is available here. If you want particular tools from the old site, please email publicsector@seai.ie			

Table 2. Summary of Energy MAP training and tools

Selecting an energy management programme appropriate to your energy spend and completing the relevant diagnostic for the scale of your organisation, will highlight any weak spots in your existing energy management activity and an energy management action plan can then be put in place to address them.

Although it is not a formal energy management system, Energy MAP is fully consistent with the principles set out in the ISO 50001 Energy Management Standard. In this way, organisations that are keen to eventually formalise their energy management programmes through certification can initially develop Energy MAP programmes before seamlessly progressing to ISO 50001. More details of Advanced Energy MAP diagnostics are provided to partnership organisations to assist in this process, more details of this service can be found in Section 3.

All energy management programmes must improve every year, or they stagnate and will not deliver the same level of savings. In the Energy MAP approach, an organisation can start by implementing five or seven steps, and progress up to 20 steps, deepening their competence and performance along the way. For those with, or progressing to ISO 50001, the focus is on optimising the system to support an organisation culture where optimised energy performance is the aim of every business and person. Figure 6 overleaf shows this journey. Organisations can elect to improve their chosen energy management 'product' (i.e. Energy MAP basic), or move along the energy management process to ISO 50001, and ultimately, onto ISO 50001 certification.

As a general principle, the greater an organisation's energy spend, the more justification for advanced levels of energy management. Depending on their size, organisations can start with a programme that suits their current level of commitment, size, and energy management expertise and progress to a more advanced level before moving to ISO 50001, continuously progressing to more ambitious targets.

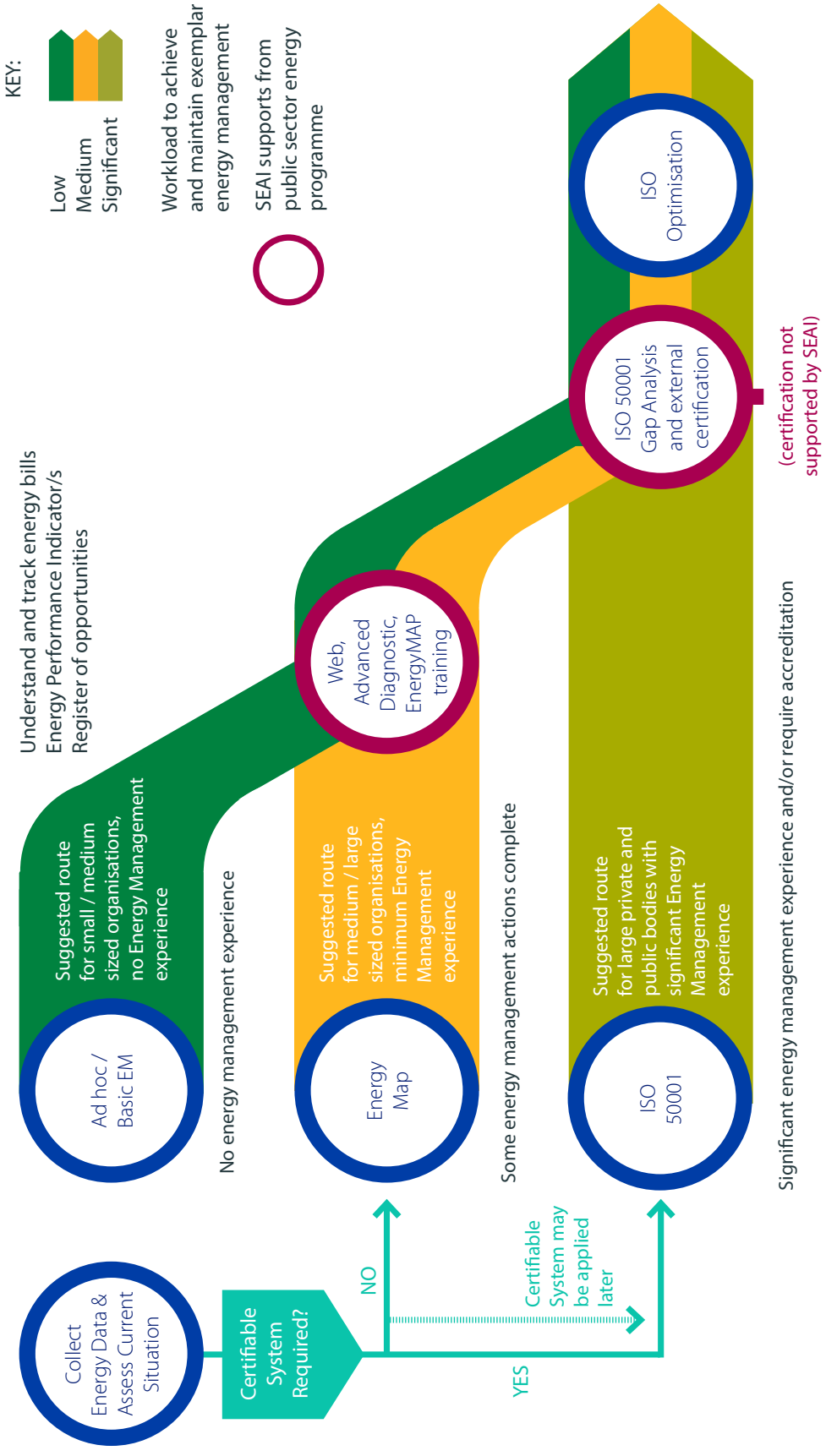

Fig 6.
Energy management route choices from basic to ongoing maturity

SECTION 3.
GETTING STRATEGIC

3. Getting Strategic

Getting strategic means progressing beyond knowing about your energy usage to adopting structured energy management as a core business management process. SEAI offers comprehensive tailored supports to partnership organisations who demonstrate a commitment to strategic energy management. Partnership is applicable to all public sector organisations, regardless of scale, and is the main vehicle for strategic engagement.

Partnership in its simplest form, is an agreement between an individual public sector organisation and SEAI. It offers a clear roadmap with actions for achieving targeted energy savings, and ensures that your organisation is on course to demonstrate exemplar energy management as required to meet the 33% efficiency target. The more of a commitment you make, the more tailored support is available from SEAI.

SEAI provides partnership support through four core strands:

1. **Exemplar energy management** through tailored Energy MAP training or the ISO 50001 accelerator programme – initial and ongoing assessment by SEAI through an Energy MAP Advanced Diagnostic or by a 3rd party certification body for ISO 50001.

2. **Bespoke training** which can include:
   Accelerator Programmes focusing on implementing energy management (Energy MAP, ISO 50001), elements of energy management (Awareness) and certain technologies.
   - Procurement, Certified Measurement and Verification Professional (CMVP®), Certified Energy Manager (CEM®) training etc.
   - Training needs that address energy management weaknesses in your organisation.
   - Monitoring and Reporting (M&R) review services.

3. **Strategy and planning** for successful projects:
   - Opportunity Assessment: advice, mentoring and assessment (previously known as AMA) service.
   - Assistance to prepare and implement an annual Energy Management Action Plan.
   - Help to model your organisation's gap to reaching the 2020 target.
   - An annual review of your energy management practices to source and implement energy saving projects.
   - Support to assess and embed best practices for Energy Efficient Design (EED) and to help you integrate energy efficiency into design processes.
   - Create a long-term organisational energy strategy.

4. **Project support**
   - Implementing project supports, from early sense checking and support through the Project Development Process to implementing projects, including linking to the Project Assistance Grants.

3.1 What does partnership involve?

Access to the partnership programme is offered to those organisations who demonstrate sustained commitment to energy management. Your organisation must formally commit at board level to fulfilling an exemplary role with respect to energy efficiency. You will work with our Partnership Support Managers (PSMs) to assess the saving potential in your organisation, to develop an annual Energy Action Plan and to implement the plan by undertaking specific, targeted actions that will improve your energy efficiency by 33% by 2020.

We will guide you to develop, execute, and maintain energy reduction plans. In return, you commit to driving the programme forward, and aim for year on year savings of over 3%.

To avail of supports offered to partners, public bodies must:

- Formally commit, at board level, to fulfilling an exemplary role with respect to energy efficiency.
- Commit to preparing an annual Energy Action Plan – to deliver annual energy savings that achieve a 33% energy efficiency improvement by 2020.
- Participate in an annual review of energy management practices and project pipeline.
- Report progress annually to SEAI through the monitoring and reporting (M&R) system.
- Engage meaningfully with SEAI, with your Partnership Support Manager (PSM) and with the other energy experts appointed to assist your organisation – over the short and long term.
- Consider energy efficiency when procuring and designing equipment and facilities.

Partnership offers a clear roadmap, with actions, for achieving targeted energy savings and ensures that your organisation is on course to demonstrate exemplar energy management as required under S.I. 426 legislation.

3.2 Delivering Partnership Supports

Partnership supports are principally provided through Project Support Mangers (PSMs). PSMs are responsible for managing and coordinating the relationship between SEAI and the partner organisation, and positioning the organisation for more challenging targets beyond 2020. A summary of SEAI's approach to supporting your organisation through partnership is as follows:

- Partners and potential partners are arranged into eight sectoral groups.
- Depending on the size of your organisation and your level of engagement, you will be allocated a designated Partnership Support Manager (PSM) where SEAI's services are delivered on a one-to-one basis and tailored to your organisation.
- Smaller public bodies, and early stage larger organisations, can avail of subgroup services, whereby PSM services are delivered to a subgroup of public bodies.
- A Partnership Group Coordinator (PGC) is also appointed by SEAI to coordinate each sectoral group. The PGC identifies sectoral gaps in energy management and develops bespoke supports and materials for their specific sectoral group, for example Local Authorities, Transport or Public Lighting.

Table 3 below outlines what SEAI requires from each partnership relationship:

Partnership Output	Partner Responsibility	PSM Responsibility	Timing
Energy management review	Participation in the review process if Energy MAP ISO 50001 annual review (by 3rd parties)	Coordination and review of report, identifying gaps for optimisation	December – January
Energy projects review • Projects implemented and reported in M&R • Project pipeline to report in M&R	Collation and submission of data. Participation in gap-to-target modelling exercise; commitment to ID project pipeline	Facilitation and mentoring	December – January
Energy Action Plan (EAP)	Preparation	Review and prioritisation	January
Partnership Annual Report	Preparation	Review	January
Support plan	Facilitation of supports	Preparation	February
M&R submission (complete and robust)	Collation and submission of data; retention of reports	Facilitation, mentoring	April

Table 3. Summary of Partnership requirements

3.3 Energy MAP Advanced Diagnostic

Advanced Diagnostic is a service that is only available to partners. It takes the form of a two to three hour workshop where an expert examines your energy management system, activities and results in order to ascertain where and how to improve energy management in your organisation. It is a chance to take stock and re-evaluate your organisations progress to the 2020 targets and plan the remaining actions to reach your energy management goals. The Advanced Diagnostic is structured in a similar fashion to an ISO 50001 audit, but is a less formal approach. It will assess your commitment to the energy management programme, your annual plan, the identification and implementation of energy actions and your review of your programme.

The output from the diagnostic is an **energy management score** and a list of specific, tailored recommendations for taking the next steps in improving energy management practices and aligning those with international best practices.

As previously mentioned, exemplar energy management is a journey, not a destination. Consequently, the diagnostic score issued depends on where an organisation is on their energy management journey. The diagnostic cannot be 'passed' or 'failed', lower scores typically indicate a greater potential to save, while higher scores suggest that organisations have the practices in place to unlock even more valuable savings. If organisations score highly (70–80%) then they should consider implementing ISO 50001.

If you think that you are at the appropriate level of Energy MAP to progress to ISO 50001, SEAI will carry out a gap analysis for partners, or you can progress directly to the ISO 50001 Accelerator Programme. Upon reaching ISO 50001 certification; there is a continuous support programme, including performance review and improvement, through various means, to ensure that certified organisation's energy systems are optimised for maximum savings.

3.4 Bespoke training

Summary Of Bespoke Training For Partner Organisations			
Level	Energy Spend	Support	Description
Energy Management System (EnMS) ISO 50001	Typically for organisations with over €5m energy spend per annum, but many smaller organisations also seek to achieve ISO 50001 as it represents the gold standard for energy management.	10 x full day series of training with expert mentoring. Ongoing support programme to optimise systems. Gap analysis also available for those assessing the 'gaps' to achieving ISO 50001. More details: Contact your Partnership Support Manager (PSM) or publicsector@seai.ie	A tailored support programme is available to organisations who wish to progress to third party certification to ISO 50001. Includes a series of training accompanied by expert mentoring. New in 2018 will be a series of ongoing activities to support those with ISO 50001 optimise their systems for energy savings.
Energy Efficient Design (EED)	Refer to section 4.3.1	Expertise, mentoring, and advice. Pilot project basis - Up to five days expert consultancy to explain the benefits of EED to clients, design teams, and other stakeholders.	This is an ongoing support to analyse existing systems, where EED principles could add value, and embed the principles of EED in an organisation. From mentoring, assessment to training, this is a highly bespoke service to build EED into existing capital and project management systems. Applications are invited from partnership organisations throughout the year. Email: publicsector@seai.ie
Engaging People Accelerator Programme	Any	The six-month accelerator programme consists of 3 x master class workshops and access to marketing experts for mentoring on messaging and behavioural change.	Commencing March 2018 with a best practice showcase event aimed at preparing and implementing effective energy awareness campaigns in public bodies.
Other bespoke supports	Any	Work with PSMs to suggest solutions to accelerate action.	Sectoral teams will analyse client needs and barriers to develop effective supports.

Table 4.
Summary of bespoke training for partner organisations

Other specialist training courses, workshops and tailored support programmes can also be organised as required. These can include:

- Energy Awareness Support Programme
- Certified Energy Manager (CEM) training
- Certified Measurement & Verification Professional (CMVP) training
- Public Lighting training

3.5 Strategy and Planning

As an energy management programme matures, it moves 'from the boiler house to the board room'. From implementing energy saving actions, to becoming aligned with the business planning and strategic plans, getting more strategic as an organisation is the next phase of development of the partnership programme. For example, you may want to make energy management a separate function in your organisation, or share it across several organisations.

SEAI can facilitate the development of an energy strategy for partner organisations. This starts with assessing where you are now, articulating where you want to be in 2020, 2030 and beyond and then determining how to get there. An SEAI facilitator will support a series of strategic workshops with senior management staff to produce an initial strategy document, leading to a final energy strategy. From this process, 'gaps' will be identified which SEAI can then help to close e.g. where more data analysis is needed, or where bigger projects need to be undertaken.

3.5.1 Opportunity Assessment

SEAI's Opportunity Assessment Service (previously known as AMA) helps you to identify energy saving opportunities within your organisation. An energy advisor will assess the potential for savings at a facility or site and provide mentoring to help you take action to realise these savings.

See section 4.1 for more information on Opportunity Assessments.

3.5.2 Sectoral collaboration

Where energy saving objectives align with your organisation's core mission, strategic synergies will arise. For sectoral groups or departmental groups SEAI can help to facilitate development of a strategic focus across a common sectoral grouping e.g. schools, or within a department and its aegis bodies as outlined in the following examples:

Since 2011, the Department of Education and Skills and SEAI have developed and delivered the Energy in Education Programme. This has provided training, opportunity assessments and advice to over 600 schools, saving on average 10% for those who participate. In 2017, both organisations, with DCCAE support, co-funded deep retrofit energy projects in 10 schools. In 2018, it is envisaged that there will be further pilot projects, researching various approaches to retrofitting schools. The Public Sector Energy Strategy sets out an outline strategy of how this research could be implemented across 3800 schools nationally.

The Department of Agriculture and Food has a core mission to promote Irish food products at home and abroad and Irish food is positioned as of sustainable origin and production. The Department has embraced the 33% target, striving to achieve the target in its own facilities. From this, opportunities have arisen to collaborate with dairy farmers on grants schemes,

and also encourage their aegis bodies to align with the Department's core strategic missions in their own energy strategies – in this case supporting jobs and the food sector, whilst also becoming more sustainable.

3.5.3 Strategic supports in development

SEAI is in the early stages of developing grant support for energy bureaus. A bureau is a dedicated team of resources to undertake audits, analyse data, produce Energy Performance Indicators, support delivery of projects and assist with Measurement and Verification. An example is the e3 Energy Bureau, formed by the estates offices of four Dublin colleges (UCD, DCU, DIT and Trinity), which has saved €6.9 million over eight years.

Through grant support, SEAI will part fund the setting up of energy bureaus to enable public bodies, typically in a common sector (for example schools or Sector 38/39 bodies), to pool resources. For organisations who are starting their energy management journey, an energy bureau could help them to get organized and establish a project pipeline. Other bureaus will be more focused on project delivery (see section 4.3.2), where organisations are very advanced with their energy management programmes. In all cases they will require a lot of collaboration between participants.

3.5.4 Procurement

In 2018, SEAI will develop a support programme for the procurement of energy related equipment, services and projects. It will be developed in conjunction with public sector bodies, procurement specialists, and where possible the Office of Government Procurement (OGP) and public bodies with a procurement remit. SEAI can also help coordinate the delivery of frameworks where common approaches are required across the public sector.

Where a strategic focus on energy projects is embedded, organisations may consider energy contracting approaches to project delivery. Energy contracting pushes technical/ performance risk and financial burden to a third party, typically Energy Service Companies (ESCOs). More information on energy contracting is given in Section 4.3.3.

An example of sectoral collaboration is the national Public Lighting Programme, which began as a Working Group focused on technical issues. It has grown into a national for the delivery of public lighting retrofits, led by the Roads Management Office (RMO). The RMO is addressing a number of common issues and barriers across all local authorities and delivering a vehicle for public lighting retrofit nationally. Energy contracting approaches are being considered as part of this.

3.5.5 Energy Efficient Design

Energy Efficient Design (EED) is a systematic approach to the design, construction and commissioning of new investment projects to minimise energy consumption in their operational life cycle. Projects may include new, modified and renovated facilities, buildings, equipment, systems and processes. SEAI provides supports to embed the principles of EED in organisations.

SEAI can assist if your organisation wants to embed the principles of EED across all capital processes. Up to five days expert consultancy is available to review a design project. The objective of the EED review is to encourage public sector clients to establish a systematic approach to the design and operation of projects to minimise energy use in the project operation.

SECTION 4.
DELIVERING PROJECTS

4. Delivering Projects

To meet 2020, and longer term targets, radical action in delivery of energy efficiency projects will be required by all public bodies. The diverse nature of the public sector means that individual projects can range from small scale energy technologies or building retrofit projects, up to multi-million euro national infrastructure investments.

The Public Sector Energy Efficiency Strategy envisages the compilation of a Public Sector Project Pipeline. Public Bodies will be asked to submit their own projects into this national pipeline to create visibility of scale, nature, and payback of investments in energy efficiency, to focus resources appropriately. Adding a project to the Pipeline is not a means of applying for funding, however, projects on the pipeline, through increased visibility, are more likely to attract available funding.

A benefit of a structured energy management system is that, energy efficiency project opportunities will be proactively identified, where energy demand is evaluated, significant users identified, and energy efficiency project opportunities are based on solid evidence-based data. This forms the basis of a robust business case.

Where funding has not been identified for potential projects, it is still recommended that they are developed and a robust business case is built. SEAI's experience is that public bodies with 'shovel ready' projects are more likely to attract funding.

Developing and delivering an energy efficiency investment project consists of a number of stages. SEAI encourages organisations to take action by building on project opportunities that have arisen as a result of having gone through a structured energy management approach, delivered though a 5–stage process, as illustrated in Figure 7 overleaf.

The previous sections of this manual focus on stage 1 and, to some extent, stage 2 of this 5 Stage process, i.e. getting organised and identifying opportunities. Stages 1 and 2 are essential to establishing clear objectives and the feasibility of the project before you decide how you are going to deliver it. During stage 3 you will establish how the contract is going to be structured, financed, and procured, and analyse the project financials in greater detail.

Stages 4 and 5 focus on the procurement and delivery of the project, and will vary depending on if energy contracting approaches or traditional approaches are being taken to project delivery.

SEAI's project supports focus on stages 2–5, with guidance, training, accelerator programmes, and grant funding available to assist in the delivery of energy efficiency investments.

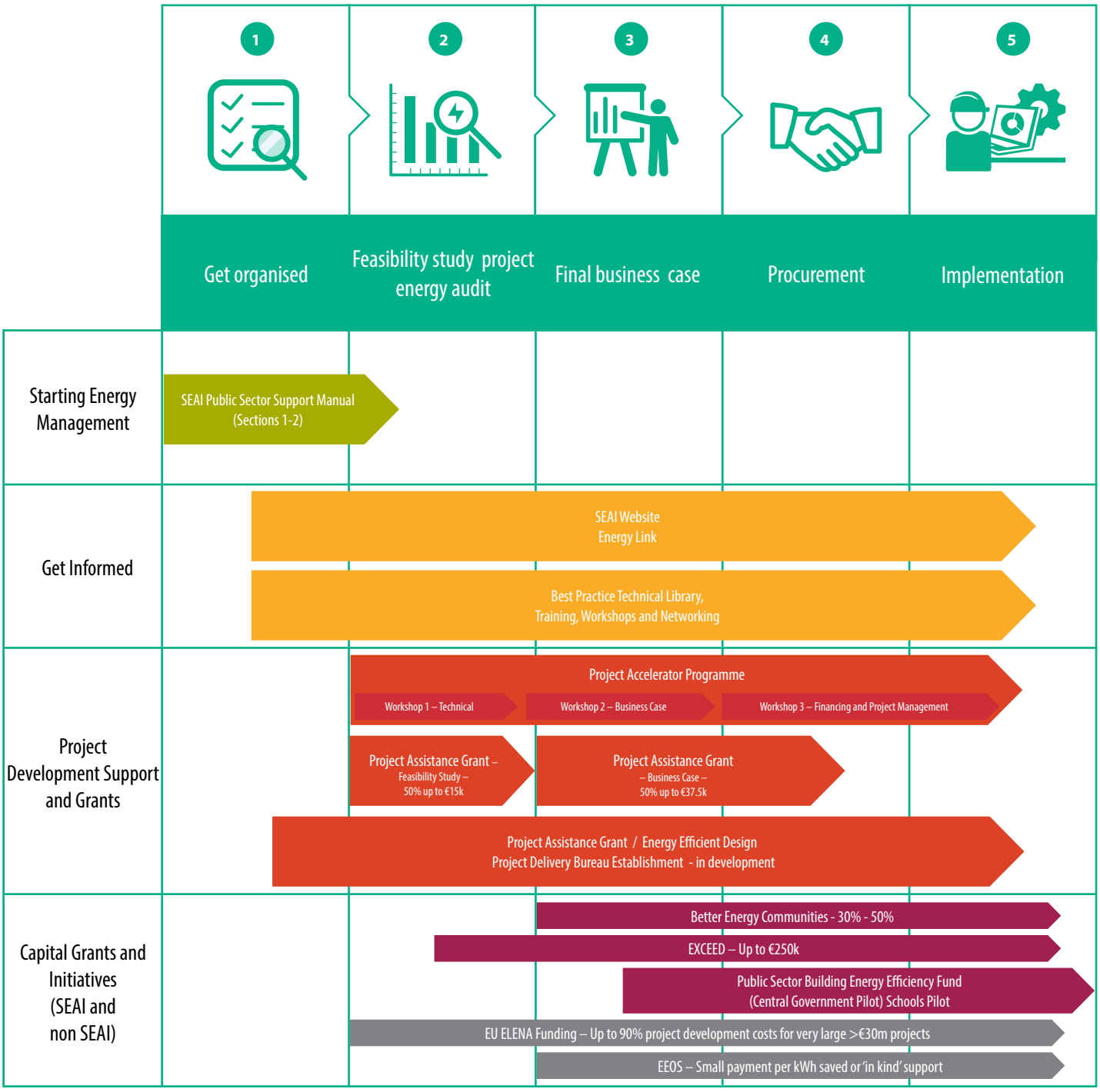

Figure 7.
The 5-stage process for project delivery with associated project supports.

4.1 Get informed

The first step for any organisation in delivering an energy efficiency project is to become familiar with the technology and industry best practice. SEAI provides a range of guidance, best practice material, training, and networking to help organisations build knowledge in the diverse range of topics surrounding energy efficiency.

- **Technical Information:** SEAI publish a significant range of best practice materials including guidance documents (on technical and non-technical topics), FAQs, calculation tools, case studies etc. We are currently redeveloping and refreshing this best practice library and will continue to do so throughout 2018. If there is any material you would like to see, or if you wish us to profile your project in a case study, please contact us.

- **Training, Workshops and Networking:** SEAI will run training courses and workshops throughout 2018. These will cover energy management and technical topics. SEAI encourage networking around best practice through Energy Link, and will host several networking best-practice events at the Energy Show in April.

- **Opportunity Assessment:** Where a public body has identified a project opportunity and requires some specialist resources to further develop this opportunity, SEAI will consider undertaking an opportunity assessment. This will allow specialist expertise and advice to be provided to the public body to scope out the project, and identify any potential issues or barriers to implementation. Normally this support is limited to 1–2 days of support. Opportunity Assessments can be requested through your Partnership Support Manager.

Where can I get more information?

Best practice information, training and workshops, networking events will be posted on www.seai.ie and EnergyLink.

4.2 Project development & grants

If a public body wishes to take projects from identified opportunities through to implementation, SEAI have supports (both non-financial and financial) to assist in this process. To help public bodies to get organised and develop projects, two main supports are offered:

- Project Accelerator Programmes
- Project Assistance Grants (PAGs)

Capital supports are also available through other SEAI grant schemes, such as the Public Sector Building Energy Efficiency Fund and SEAI Capital Grants. Further details on these supports are included below.

4.2.1 Project Accelerator Programmes

In 2018, SEAI will deliver Project Accelerator Programmes, grouped by technology theme, to public bodies. This will allow a number of public bodies to attend a structured programme, run through 2018, which allows them to develop their particular project from concept through to delivery. The structured project delivery supports will focus on four key areas across the year, including:

1. Technical best practice – technology state-of-the-art and specification, data collection and baselining, lessons learned.
2. Business case development – data collection and assumptions, cost optimal solutions, business case presentation.
3. Project financing – budgetary process, DCCAE/SEAI funds, SEAI Grants, third party funding and energy performance contracting.
4. Project delivery – design, tendering, procurement, project management, risk management, commissioning and takeover, M&V, O&M.

Following an initial briefing session, open to all with an interest in the area, the structure of the programme will be three days of workshops (with items 3 and 4 above combined), with mentoring and deliverables between workshops. It is envisaged currently that these three workshops will take place throughout 2018. There will be a heavy networking focus to the workshops to cross-pollinate ideas and approaches between diverse public bodies. There are likely to be two separate technical themes in 2018:

1. Interior/office LED lighting
2. Combined Heat and Power

The overall objective of the programme is for a number of public bodies to develop very robust business cases for projects, based on reliable data, and put them forward for funding. In certain cases, projects may be delivered in 2018.

A graphical representation of the Project Accelerator Programmes is given below.

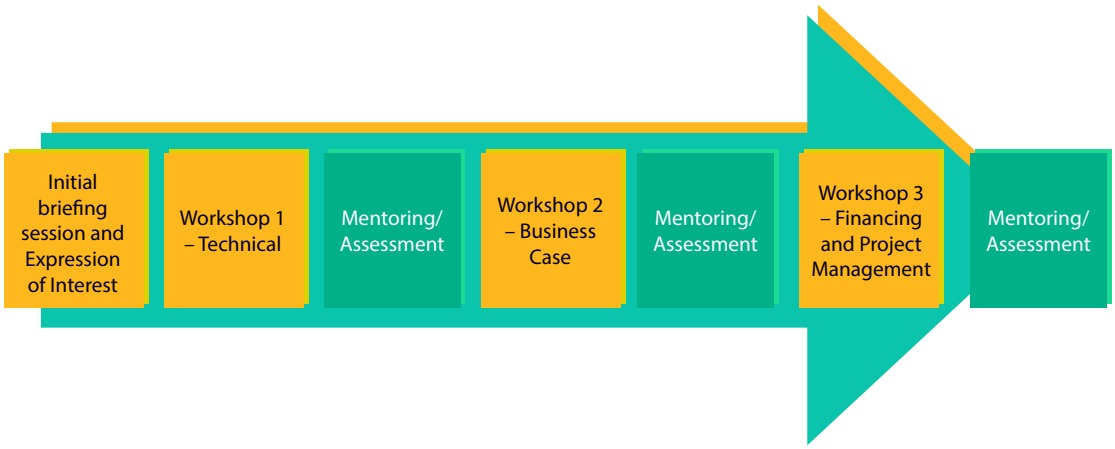

Figure 8. Outline of Project Accelerator Programmes

Where can I get more information?

More information and dates for project accelerator workshops will be posted on EnergyLink.

4.2.2 Project Assistance Grants (PAGs)

Project Assistance Grants (PAGs) are targeted at engagement of specialist expertise to develop potential energy efficiency projects with a focus on two stages of project development:

- The Feasibility Study and Project Energy Audit grant ('Stage 2 grant') focusses on the development of a feasibility study for potential energy efficiency opportunities, focusing on energy audits, preliminary business case, and data collection (through metering). Energy contracting approaches should be considered at this stage.

- The Final Business Case and Project Delivery Support grant ('Stage 3/4 grant') focuses on the delivery of the project through an energy contracting approach. The grant covers the cost of implementing several energy contracting approaches.

PAGs are intended, firstly, to financially assist public bodies in scoping potential project opportunities through audits, feasibility studies and metering. For public bodies who choose to enter into a form of energy contract, the 'Final Business Case and Project Delivery Support' grant, provides significant support for the engagement of expertise to assist with procurement, contracting, and legal issues.

The grant funding levels for these two stages of grants are given below in Table 5.

Project Type	Funding level
Feasibility Study and Project Energy Audit	Up to 50% funding to a maximum of €15,000 (maximum of €7,500 for organisations with energy spend of <€1m)
Final Business Case and Project Delivery Support Grant	Up to 75% funding to a maximum of €15,000 where basic energy performance arrangements are considered and up to €37,500 where energy performance contracting (EPC) is considered

Table 5.
PAG funding levels

In addition to the above, Project Assistance Grants can be requested for the establishment of an Energy Bureau, as outlined in section 3.6 and section 4.3.2. Therefore, beyond supporting project development alone, a PAG may support a strategic approach to energy management or project delivery in a public body or across several public bodies.

Where can I get more information?

More information on PAG is available on our website: https://www.seai.ie/grants/business-grants/project-assistance-grants/

4.2.3 Public Sector Building Energy Efficiency Fund

The Department of Communications, Climate Action and Energy (DCCAE) has provided a fund for the delivery of capital energy efficiency projects in certain public bodies. In 2017 this €5m fund was deployed on energy efficiency projects in schools (with the support of Department of Education and Skills) and Central Government (with the support of, and delivered by the OPW). In 2018, €9m is available. SEAI and DCCAE will evaluate the deployment of this capital fund on an annual basis.

SEAI's preference is to support projects in public bodies where a high level of structured energy management has been demonstrated. Public bodies, who develop projects in a structured way, are more likely to attract funding of this type.

4.2.4 Capital grants

In addition to Project Assistance Grants, a snapshot of all grant schemes available from within SEAI for businesses or public bodies is included in Table 6. For capital projects within the public sector it is likely that the Better Energy Community scheme is the most suitable grant scheme.

SEAI Grant	Applicable for	Amount	Eligible Costs	Schedule / Notes	More Info
Better Energy Communities	Energy Efficiency Measures	Dependent on organisation type but 30% typical, with up to 50% possible for some not-for-profit sectors	Energy Efficiency Works (Capital Costs) and Project Management	Annual cycle. Application typically by end January (26th in 2018), award by April and Works Complete by October. Applications must be community focused containing a range of sectors and projects (such as domestic retrofit, not-for-profit, and private sector).	SEAI Better Energy Communities Grants
EXCEED	Additional costs for Energy Efficient Design and Incremental Energy Efficiency Measures for a refurbishment or new build	30% for incremental capital costs, 50% for professional services up to maximum €250k. Higher % thresholds for SMEs	Professional services and Incremental Energy Efficiency Works	Annual cycle. Applications typically in Q1, works to be completed by October. Must be part of a project that is seeking EXCEED certification.	SEAI EXCEED Certified Grants
Research Development and Demonstration (RD&D) Fund	Innovative Energy Research and Development Projects	Typically up to 45%, but up to 100% in some cases	Equipment Costs, Staff Costs, Travel Costs, Professional Services Costs	Annual and multi-annual cycle. Application typically by April, works Complete by October (for annual awards)	SEAI Energy RD&D Fund
Smart Lighting Grant (2017 Pilot)	Full lighting retrofit for certain class of smaller SMEs	Up to 40%	Lighting Upgrade Works (Capital Costs), Design Costs and Project Management	Pilot for 2017 (under review for 2018) Applications by June, Works Complete by October	SEAI Smart Lighting Pilot Grants

Table 6.
SEAI Capital Grants Summary Table

4.3 Scaling up

For large public bodies, or those with more challenging gaps to target, there may be benefits in adopting a more strategic approach to energy efficiency projects. SEAI can support the development of this approach through Energy Efficient Design, the establishment of Project Bureaus, and Energy Contracting approaches.

4.3.1 Energy Efficient Design and EXEED

In addition to the Energy Efficient Design supports described in section 3.5.5, SEAI's EXEED grant programme provides capital to part cover the costs of design consultants and energy efficient design experts during the design stage (see Table 6). It also covers the incremental capital costs arising from implementing enhanced energy saving technologies during the construction stage.

Where can I get more information?
For more information visit our website or make a request through your Partnership Support Manager.

4.3.2 Energy Efficiency Project Bureaus

As outlined in Section 3.6, SEAI encourages public bodies to develop an organisational model which can support the delivery of energy efficiency projects. This may involve new functional units (within or contracted to) a public body or a number of public bodies sharing this resource with a common goal to deliver energy efficiency projects. This functional unit can be described as an Project Bureau. A good example of this is where the Roads Management Office (RMO) are leading the delivery of a public lighting programme, which can be adopted by all local authorities for the delivery of their 33% targets.

The Project Bureau service is being developed for roll-out in 2018 with the aim of supporting a strategic approach with guidance, facilitation, and funding where appropriate. We envisage opening consultation in Q1 of 2018 and launching the service in Q3–Q4 2018, subject to demand.

Where can I get more information?
For more information on this service come and talk to us or you can contact us by email: publicsector@seai.ie

4.3.3 Energy contracting

Energy Contracting is a 'pay for performance' approach to delivering energy efficiency projects, which transfers risk to the service provider. The option you choose influences the level of energy and cost savings guaranteed. The two ends of the spectrum are:

- Simple – Contractual guarantee making a portion of payment conditional on performance.
- Complex – Third parties take full performance and finance risk of the energy project but on the basis of having future savings as a revenue stream.

There are various labels applied to Energy Contracting approaches. They will generally fall under one of three types listed below. There is usually a risk/reward dynamic in each type of contract i.e. the more risk you want to transfer to a third party the more it will reduce the reward to your business in the short term.

Contract type	Approach
Energy Performance Guarantee (EPG)*	A contractor undertakes energy efficiency works and guarantees the energy savings for an agreed fee. If savings fall short of expectations, the contractor loses a part of their fee.
Energy Performance Contract	A contractor installs energy efficient works and through the contract, guarantees savings. The client pays the contractor from these savings over a number of years. If savings fall short, the contractor covers the difference.
Local Energy Supply Contract (LESC)	An Energy Services Company (ESCO) installs works and supplies energy (usually electricity or heat) to a particular point at the client/host's facility. The ESCO is paid for the quantity of energy supplied over the term of the contract.

Table 7.
Energy Performance Contract Types

** previously known as Energy Performance Related Payment (EPRP)*

There is increased interest in Energy Contracting as forthcoming Eurostat rules may make it more attractive by taking such projects off the government balance sheet. Further guidance is expected from Eurostat to clarify requirments, and this will determine how the business case for individual projects will be affected.

SEAI has also developed a National Energy Services Framework (NESF) to support the non-domestic energy efficiency market in Ireland. The framework sets out the roadmap through which energy efficiency projects and an energy contracting process is developed. SEAI provide a range of NESF guidance and support documentation to assist any business wishing to consider this route.

Where can I get more information?

SEAI are currently reviewing and enhancing guidance materials for Energy Contracting and the NESF documentation package but the current version is available at any time by contacting: publicsector@seai.ie

4.4 Future considerations

Public bodies should also be aware of these forthcoming incentives which could impact the business case for various energy efficiency projects.

4.4.1 Support Scheme for Renewable Heat ('RHI')

The Support Scheme for Renewable Heat (aka Renewable Heat Incentive or 'RHI'), is a scheme of financial support for non-domestic renewable heat schemes, namely biomass and anaerobic digestion (through a metered heat tariff) and heat pumps (through a capital grant).

The government have assigned a budget of €7m to the scheme in 2018, which will be administered by SEAI. Terms and conditions for the scheme will be published in 2018.

The Support Scheme for Renewable Heat will consist of two types of support mechanism:

1. An on-going operational support (paid for a period up to 15 years) for new installations or installations that currently use a fossil fuel heating system and convert to using biomass heating systems or anaerobic digestion heating systems
2. A grant (of up to 30%) to support investment in renewable heating systems that use heat pumps.

Where can I get more information?
Click here for press release on the RHI.

4.4.2 Renewable Electricity Support Scheme (RESS)

A new support scheme for renewable electricity is under development currently, informed by public consultation.

Microgeneration is being considered as part of this scheme, which considers some form of financial support for small-scale renewables like rooftop solar PV, or small wind turbines. However, no formal decision has been made yet on the inclusion of microgeneration within this scheme, or what form a support for microgeneration would take.

It is likely to be late 2018 before such a scheme is available.

Where can I get more information?
Click here for more information on the public consultation.

SECTION 5.
RELATED NON-SEAI SUPPORTS

5. Related Non-SEAI Supports

In addition to the SEAI supports outlined within this manual, some non-SEAI supports are summarised below. Public bodies should be aware of these supports when considering their energy efficiency programmes.

5.1 Energy related funding initiatives

From time to time various government departments can run specific funding initiatives, SEAI encourage public bodies to actively monitor for these opportunities and encourage members to post information in relation to such opportunities on Energy Link. For example, the Department of Transport, Tourism and Sport provided funding for pool upgrades in 2015 and Transport Infrastructure Ireland (TII) provided funding for public lighting retrofits in 2016 and 2017. By continually reviewing opportunities and developing business cases, you will be project ready and able to take advantage of these initiatives.

5.2 OPW Optimising Power @ Work

What is it?

Optimising Power @ Work (OP@W) is a large-scale behavioural change campaign operating in over 270 large Central Government Buildings in Ireland. The programme is funded by Central Government.

The campaign began in 2008 and was subsequently expanded in 2014 with €9M funding from DCCAE. Annual savings to date are calculated to be 55.5 GWh, equivalent to €5.95M.

The campaign relies on three fundamentals:

- **Technology** – installation of energy monitoring equipment
- **Specialist Resources** – application of adequate and suitable specialist resources (energy consultants)
- **Energy Teams** – establishing suitable active energy teams in each participating building

The main difference between Optimising Power @ Work and other behavioural change energy campaigns such as SEAI's Engaging People programme is that before the programme commences in a building, energy monitoring equipment is installed and energy consultants continually work with energy teams in each building to identify savings and constantly monitor progress against targets. The scheme's overall targets are:

- 20% average annual energy saving (currently 18.4%)
- Minimum saving of 15% in each building

Who can avail of it?

The campaign is available to all public sector organisations and is currently successfully operating in Hospitals, Universities, Institutes of Technology, Prisons and Local Authorities.

Where can I get more Information?

www.opw-energy.ie or email info@opw-energy.ie

5.3 Energy Efficiency Obligation Scheme (EEOS)

What is it?

Under the EEOS, energy suppliers must support energy efficiency projects in businesses and homes across Ireland. Obligated parties must show that they were essential to the work on your home or business. This means it would not have been carried out at all, as quickly, or to the same extent without their involvement. The support they provide to you may be technical, financial, or a mixture of both.

Financial support can range from:

- A direct monetary contribution towards a project.
- Facilitating low interest loans.
- Negotiating discounts on materials (e.g. lighting supplies, high efficiency pumps, and motors).
- Reduced energy prices or tariffs.

Technical support for a project may be:

- Providing a certified energy practitioner to carry out energy audits.
- Implementing energy management systems.
- Identifying energy efficiency opportunities.
- Measuring and verifying savings once opportunities have been realised.

They could also provide advice on planning, sourcing, and installing technologies. This might include combined heat and power, building management systems, and heat recovery systems. In the non-residential sector, eligible measures are those applied to your business or organisation. If you are undergoing any of these measures, the obligated party will calculate the energy credits achieved in accordance with our guide on authenticating and claiming energy credits below.

Eligible measures include:		
Lighting Decommissioning, maintenance, retrofit and controls.	Ventilation and air conditioning Free cooling, maintenance, optimisation of operation and general energy management.	Transport eco-driving, fleet and energy management.
Heating Servicing, set point regulation, control and fabric upgrade.	Motors, drives and pumps Replacement, VSDs and control.	Combined heat and power To meet 'own use' heat and electricity demand.
Refrigeration Temperature control, pipe insulation, relocation and replacement.	Compressed air Leak repair, optimisation, redesign and replacement.	Industry processes Steam trap inspections, facility programmes and BMS.

Table 8.
EEOS eligible measures

Who can avail of it?

Anyone who purchases energy from one of the major energy suppliers in Ireland. This means that all public bodies can avail.

Where can I get more Information?

https://www.seai.ie/energy-in-business/energy-efficiency-obligation-scheme/

5.4 European Local Energy Assistance (ELENA)

What is it?

ELENA is a joint initiative by the EIB and the European Commission under the Horizon 2020 programme. ELENA provides grants for technical assistance focused on the implementation of energy efficiency, distributed renewable energy and urban transport projects and programmes.

The grant can be used to finance costs related to feasibility and market studies, programme structuring, business plans, energy audits and financial structuring, as well as to the preparation of tendering procedures, contractual arrangements and project implementation units.

Typically, ELENA supports programmes above EUR 30 million over a period of around 3–4 years, and can cover up to 90% of technical assistance/project development costs. Smaller projects can be supported when they are integrated into larger investment programmes.

The annual grant budget is currently around EUR 20 million. Projects are evaluated and grants allocated on a first-come-first-served basis. ELENA may co-finance investment programmes in the following fields:

1. Energy efficiency and distributed renewable energy.
2. Urban transport and mobility.

Who can avail of it?

Any public body can avail of ELENA funding to cover 90% of project development costs, as long as they are in the fields indicated above. An application must be made to the fund to be considered.

Where can I get more Information?

http://www.eib.org/products/advising/elena/index.htm

SEAI is Ireland's national sustainable energy authority. Our vision is for Ireland's energy to be sustainable, secure, affordable, and clean. Leading the transition to smarter and more sustainable energy activities is central to what we do.

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