

Resource Efficiency Action Plan

Minimising waste generation and
maximising recycling

2019-2021



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November 2019

Sustainable Energy Authority of Ireland

SEAI is Ireland's national energy authority investing in, and delivering, appropriate, effective and sustainable solutions to help Ireland's transition to a clean energy future. We work with the public, businesses, communities and the Government to achieve this, through expertise, funding, educational programmes, policy advice, research and the development of new technologies.

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Introduction

Overview of SEAI

SEAI is Ireland's national sustainable energy authority. We work with householders, businesses, communities and government to create a cleaner energy future.

Our vision is for Ireland's energy to be sustainable, secure, affordable, and clean. To achieve this, Ireland must use less energy, move to clean energy, and innovate to create new solutions to meet our energy needs. Leading the transition to smarter and more sustainable energy activities is central to what we do.

Our Mission

SEAI will be central to bringing about a low carbon economy through measures and activities focused on the transition to a smarter and more sustainable energy future. To achieve this mission, we will continue to build an environment for positive change through our analysis, modelling and support for policy-making. We will catalyse direct action through our design and delivery of grant and incentive programmes and through our capacity-building processes with citizens, communities and private and public sector organisations. We will be an agile organisation, with the ability to grow and adapt to meet national needs and we will maintain and grow the expertise and experience to deliver transformational programmes and activities.

Climate Action Plan

In response to climate disruption and its wide-ranging impacts on Ireland's environment, society, economic and natural resources, the Department of Communications, Climate Action and Environment has identified the nature and scale of the issue in the Climate Action Plan (CAP). The Climate Action Plan sets out an ambitious course of action over the coming years to address this issue, with many actions falling under the ownership of SEAI. These actions are key directives for SEAI from the department, which SEAI are committed to supporting.

EU targets for renewable energy

There are two binding EU targets for renewable energy by 2020:

- 16% of final energy use (all sectors) must be sources from renewables
- 10% of energy use in the transport sector must be renewable

To achieve the overall 16% target, national sub-targets have also been set for heat (12%) and electricity (40%). The pathways to achieving these targets are set out in the National Renewable Energy Action Plan (NREAP).

Greenhouse gas (GHG) emissions

Ireland, along with Denmark and Luxembourg, has the most challenging target for greenhouse gas (GHG) emissions reductions in the EU; a 20% reduction on 2005 emissions levels by 2020. Activity contributing to achievement of our energy targets help to meet the binding EU greenhouse gas emissions target, but does not guarantee it. Emissions targets also include emissions from agriculture and waste disposal which currently account for 34% of Ireland's total greenhouse gas emissions.

Future targets in 2030 and 2050

Meeting Ireland's 2020 renewable energy and energy efficiency targets will put Ireland on a low-carbon pathway to meet future targets in 2030 and 2050. An EU-wide reduction of 40% by 2030 has already been agreed by Member States. The EU, along with several other Member States, have set out ambitions to reduce greenhouse gas emissions by 80% to 95% by 2050, compared with 1990 levels.

The Paris Agreement forged at COP21 provides further impetus for strong action on climate change mitigation in Ireland and internationally.

2018 Achievements

- €10 million committed to over 50 research and innovation projects
- 2,000 grants for new electric vehicles
- 266 SMEs and farms received a total of €1 million for lighting and efficiency upgrades
- €13.5 million invested in 69 projects in major public sector collaborations with the Office of Public Works and Department of Education and Skills
- 21,350 home energy upgrades supported including 5,710 energy poor homes
- 98,500 residential and commercial Building Energy Ratings published
- 235 sustainable energy community network members, representing over 10,000 citizens
- 58,000 students engaged with the SEAI schools programme
- 17 major statistical and policy analysis reports published

Outline of environmental sustainability initiatives

Resource Efficiency Report

In order to outline our environmental sustainability initiatives, it is important to outline recent developments within SEAI and our performance to-date in key areas generating waste.

Future developments and intentions will depend on negotiations with the landlord of our new premises.

Energy

Overview

In 2018, SEAI increased its total energy consumption by 20%. This was mainly increased usage of electricity and thermal energy consumption in the Dublin office space due to a 25% increase in floor area occupied. This increase in floor area was necessary following a 79% increase in FTE staff across the whole organisation between the end of 2017 and end of 2018. The vast majority of this increased staff count were placed in the Dublin office.

Additionally, electrical consumption was increased due to the purchase of two new electrical vehicles (see the transport section for additional information).

The 2018 figures for SEAI showed personnel occupied 1,598 m² of office space across Dublin (increased by 200m² in March 2018 due to re-location on 2nd floor in Wilton Park House), Dundalk, Cork and Sligo. All offices, including our new Dublin premises, are sub-let spaces within larger buildings. 2018 energy use across the four offices and company vehicles is summarised in the table across.

Energy Use	2017 kWh TFC	2018 kWh TFC
DIRECT CONSUMPTION FOR OFFICES AND POOL CARS		
Electricity, lighting, ICT, office power, HVAC, two electric vehicles purchased in 2018 and three charging points	112,669	127,508
Natural gas for heating	56,144	83,517
Marked gas oil for heating	11,164	11,094
Petrol for pool car	8,249	3,948
Totals for Direct Consumption	188,227	226,067
CO₂ Emissions (kg)	70,955	82,631

Table 1: SEAI Energy Use 201-2018, Source: SEAI Annual Report 2018

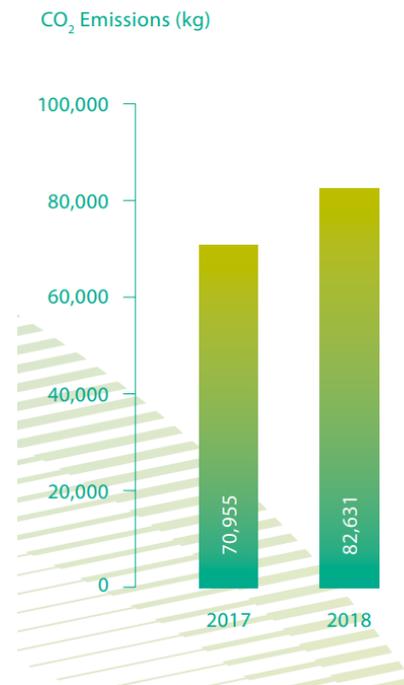


Table 2: SEAI Co2 Emissions 2017-2018, Source: SEAI Annual Report 2018

ISO50001

SEAI first achieved certification to the International Energy Management Standard ISO50001 in September 2016, and increased focus will be required to ensure energy consumption reduction continues. ISO50001 recertification audit commenced in June 2019 with SEAI retaining its certification.

SEAI is already considering energy monitoring and conservation measures in its new Dublin office space, occupied since the end of October 2019.

Energy Efficiency Actions Proposed for 2019/2020:

- New senior management appointment to ISO50001 programme
- Dublin office move (now completed) and integration of energy management system with appropriate metering capabilities,
- With move to new A3 office in Dublin, focus on delivering energy saving project(s) in Dundalk office as our second highest energy consuming office.

Energy Efficient Features of Three Park Place:

- LED lighting
- An automatic lighting control system minimises electricity waste.
- The building is designed to a standard that will target Leadership in Energy and Environmental Design (LEED) Platinum certification. This includes:
 - Energy aspects metering and controls, including lighting control system
 - Water Conservation requirements with the dual flush, controls, metering etc.
 - Location of the building maximises public transport opportunities

Energy Efficient Feature of Dundalk:

- Timer controls were installed on the Burco boiler and under-sink heater in the Dundalk office kitchen. This is a simple example of an effective small-scale energy efficient project.

Future Actions

There is an opportunity for a lighting upgrade in the Dundalk office; pending further analysis.

Our new premises in Three Park Place offers SEAI greater transparency on our consumption of energy, potentially enabling greater detail tracking our energy consumption.

Transport

Overview

Current employee transport supports include the Cycle to Work Scheme and the TaxSaver Public Transport Scheme both of which are available to all employees.

Bicycle parking spaces are available in the new Dublin premises, as well as at other office locations.

SEAI's new location of Three Park Place is in close vicinity to various public transport options, and SEAI staff have been informed of these options to encourage uptake.

- Luas Green Line: 1 minute walk
- Luas Cross City: 3 minute commute
- Luas Red Line: 8 minute commute
- Dublin Bus: 1 minute walk
- Dublin Bikes: on our doorstep
- Irish Rail and Dar: 15 minute walk
- Taxi Rank: on our doorstep
- Aircoach: 5 minute walk
- Port Tunnel: 15 minute drive
- Swiftway Bus Rapid Transit: 2 minute walk

SEAI provides access for staff to two electric vehicles, one based in the Dublin office and one based in the Dundalk office. There is a total of 10 charging sockets available between three SEAI offices which can be used by to charge the electric vehicles.

Location	Sockets
Dublin (Three Park Place)	4
Sligo	2
Dundalk	2

Reduction of Waste Generated

SEAI Electric Vehicles

Electrical consumption increased in 2018 due to the purchase of two new electric vehicles and installation of three new charging units at Dublin, Dundalk and Sligo offices. This increase was offset slightly by lower transport fuel consumption which was due to the sale of SEAI's Toyota Prius Hybrid company car in August.

SEAI Sustainable Transport Forum Group

The SEAI Sustainable Transport Forum Group was created to foster collaborative discussion on sustainable and multi-modal transport. This group is open to businesses across private and public sectors, academics, policy makers, researchers, industry experts and sustainable transport enthusiasts. Access to the forum is available via LinkedIn.

Additional Staff Bicycle Storage

SEAI's new office at Three Park Place includes additional secure bicycle storage units dedicated to SEAI staff. These additional units reflected the increased participation of SEAI staff in bicycling to work.

Future Actions

A Sustainable Transport Policy is in development from HR, due 2020.

Waste Management

Overview

Given the recent move from Wilton Park House to 3 Park Place, future actions will be agreed once the works and move to Three Park Place is complete and after consultation with the landlord. However, SEAI can outline general activities and strategies to date.

Activity to date

- **Ban on Single-Use Plastics**
As of 4th of January 2019, Government departments and public bodies ceased procurement and usage of single-use plastics in their offices. In line with this, plastic cutlery, cups, and straws are no longer procured on behalf of SEAI. A shift to Keep Cups has been strongly encouraged and uptake of these over single-use coffee cups has been widely implemented.
- **Introduction of Paperless Office**
As part of the relocation activities from Wilton Place to Three Park Place a paperless strategy was implemented to encourage employees to reduce printing and storage of documents. Within the Accounts Department a paperless process and system was implemented for invoicing and expenses.
- **Employee Recycling Workshop**
Hosted by a VOICE Recycling Ambassador, the workshop focused on upskilling SEAI employees what items can be recycled in Ireland.
- **Separated bins**
Bins for recycling, compost, and general waste provided in the kitchens and canteen. Print rooms contain bins for recycling and general waste, and at coffee stations recycling and compost bins are available.
- **Free Grounds For Your Garden**
The Three Park Place Hexagon restaurant has launched a sustainability project in conjunction with Aramark. Coffee grounds are available to take home from the restaurant. Composting coffee grounds helps to add nitrogen to compost piles, and can also be used as a natural slug repellent.

Future Actions

Potential increased division of waste into recycling, composting, general, and Waste Electrical and Electronic Equipment. This may be encouraged through engagement with staff and awareness of correct bins.

With the finance department having successfully moved to a paperless model, there is potential to encourage this across other teams, following consultation.

To some extent future actions at our main premises at Three Park Place will depend on services negotiated with the landlord, and any initiatives undertaken will need input from staff once final works to the office are complete.

Water

Overview

Given the recent move from Wilton Park House to 3 Park Place, SEAI can only report on water management and future actions once the move is complete in agreement with landlord. However, some features of our new premises will assist in minimising water usage as outlined below.

Activity to date

- Low flow taps in all bathrooms at Three Park Place
- The water canister system in Wilton Place has been replaced with a hot and cold water tap system that supplies all floors in Three Park Place
- Water fountains have seen an increase in the number of people using re-usable water bottles with less water bottles being found in the waste/recycling stream.
- A rain water collection tank collects rainwater from Three Park Place building roof areas. This passes through the leaf filter and is accumulated in the collection tank. The rain water is pumped through the two stage filtration to the sanitary fittings outlets

Future Actions

Future initiatives will depend on agreement with the landlord; however, in Three Park Place there are water conservation measures as part of the qualification for LEED certification. This includes water controls and metering.

Maximisation of Recycling

Recycling initiatives include the bins as mentioned previously. Posters have been installed throughout the office informing teams of what bins to use for various types of waste. These are located at bin areas, such as in the kitchen, at the printing rooms, and at coffee docks.

At current, a policy is in development that will examine resource efficiency and waste generation in SEAI.

Sustainable Procurement

There is no requirement or company policy on green procurement. However, many teams have already introduced a weighting of circa. 5% for sustainability criteria. The requirements and implications of Green Public Procurement are being considered company-wide.

Green Team

The Wilton Waste Warriors group was an SEAI employee initiative setup to encourage and promote sustainable practices within our former Dublin premises at Wilton Place. In October 2019 SEAI relocated to Three Park Place.

Key achievements of the Wilton Waste Warriors include;

- Sustainable Procurement Practices: Recycled printer paper, compostable tea bags, reduction in plastic items being purchased (cups and name badges)
- Sustainable Waste Management: Office composting, effective relabelling of SEAI bins for recycling, refuse, and food waste/compost
- Training and Awareness: Food waste talk, recycling workshop, sustainable movie screening, waste infographics, conscious cup blog, waste reporting requirements, book club, Plastic Free July
- Sustainable initiatives: Introduction of SEAI branded conscious (reusable) cups and reusable aluminium water bottles.

Plans for 2020

Following our recent move of the majority of staff in October 2019 to our new premises at Three Park Place, 2020 will be an opportunity to identify areas of opportunity for input from the team at SEAI. It is worth noting that the final works on the new office space are not complete as of the time of writing. Time will be needed to enable and encourage staff to identify what they feel should be considered as part of any new needs or strategies relating to waste. This may be easier to assess once the office works are complete. Consultation with staff will be needed before putting any policy in place.

There is interest in looking at the possibilities of a Three Park Place SEAI Green Team. This will require input and expressions of interest from staff.

Finally, SEAI are part of the Government Corporate Social Responsibility Stakeholders' network. Considering this, SEAI will examine appropriate strategies as part of our CSR requirements.

w: www.seai.ie
e: info@seai.ie
t: 01 8082100



Rialtas na hÉireann
Government of Ireland

Data for REAP environmental benchmark

Year:

Department name:

Site

Site address:

Green team contact person: Name:
 email:
 phone:

Total number of staff at this site (full time equivalent):

Total area of the building (m2): m2

Energy data

Total electricity use for the year kWh

Total thermal fuel use for the year (as relevant):

Natural gas, LPG, & biogas kWh

Heating oils kWh

Renewables kWh

Total thermal fuel use: kWh

Energy indicator: kWh per m2 per year

Total transport fuel use kWh

Water data

Total water use for the year m3

Water indicator: m3 per employee per year

Waste data

Total waste amounts for the year (fill in as relevant):

Recyclables	<input type="text"/>	tonnes
Food waste	<input type="text"/>	tonnes
General waste	<input type="text"/>	tonnes
Other (e.g. confidential paper, WEEE, etc.)	<input type="text"/>	tonnes
Total waste	<input type="text"/>	tonnes

Waste indicators:	<input type="text"/>	kg per employee per year
	<input type="text"/>	percentage sent for recycling

A summary list of recent environmental actions already taken (waste, water, energy, resources)

Please see report.

Data on all Department sites

Note: not all sites are expected to develop REAPs in the first year. In addition, there may be sites which are considered too small to be included in the process. However, the following data on all sites is being gathered for information purposes only and is not intended for publishing in Departmental REAPs.

Department
name:

Sustainable Energy Authority of Ireland

Site No.	Location	Number of staff (full time equivalent)	Activity (e.g. office, lab., etc.)
1	Wilton Park House, Wilton Place, Dublin 2	119 approx.	Office
2	Finnabair Industrial Estate, Haggardstown, Dundalk, Co. Louth	12 approx.	Office
3	Energy Policy Statistical Support Unit. Building 2100. Cork Airport Business Park. Cork.	4 approx.	Office
4	Sustainable Energy Authority of Ireland. Finisklin Business Park. Sligo	1 approx.	Office

Data for REAP environmental benchmark

Year:

Department name:

Total number of sites:	<input type="text" value="4"/>
Total number of staff across all sites (full time equivalent):	<input type="text" value="136"/>
Number of sites included in this data set:	<input type="text" value="4"/>
Number of staff (full time equivalent) covered by this data set:	<input type="text" value="136"/>

Summary data on energy, water and waste

Indicate which site(s) are included in this data set:

Energy data

Total electricity use for the year	<input type="text" value="127,508"/>	kWh
Total thermal fuel use for the year	<input type="text" value="94,611"/>	kWh
Total transport fuel use for the year	<input type="text" value="3,948"/>	kWh

Water data

Total water use for the year m3

Water indicator: **m3 per employee per year**

Waste data

Total waste amounts for the year (fill in as relevant):

Recyclables	<input type="text"/>	tonnes
Food waste	<input type="text"/>	tonnes
General waste	<input type="text"/>	tonnes
Confidential paper	<input type="text"/>	tonnes
Total waste	<input type="text"/>	tonnes

Waste indicators: **kg per employee per year**
 percentage recycled

A summary list of recent environmental actions already taken (waste, water, energy, resources)

Please see report.

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