



Comhairle Chontae Chill Chainnigh Kilkenny County Council

Kilkenny



### FUNDING. CASE STUDIES. **REDUCE YOUR USE. EUROPEAN SUSTAINABLE ENERGY WEEK.** WORLD CAR FREE DAY. HVO & MORE.

## Message from the Chief Executive **Kilkenny County Council**



Welcome to the first Kilkenny County Council Climate Action Newsletter. On this platform we will update you on key information that will inform you on climate action activities, funding and inspiring ideas that are happening throughout County Kilkenny.

Kilkenny's climate is changing and this poses significant challenges and risks to all those living and working in the county. Quality of life, economic prosperity, the environment and critical infrastructure are all subject to the impacts of climate change. The Kilkenny County Council Climate Action Plan is a road-map for how Kilkenny County Council will respond to the challenges, meet our climate obligations and deepen our commitment to climate action.

This newsletter will be part of an overall communicational strategy that will be used to keep our staff and you the wider public informed on our progress in implementing our agreed actions.

### Sincerely

Lar Power **Chief Executive Kilkenny County Council** 









# MATS MSDE issue 1



### **A SUMMARY OF OUR TARGETS**

KILKENNY COUNTY COUNCIL CLIMATE ACTION PLAN GHG TARGETS OUR GREEN HOUSE GAS EMISSIONS







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# A SUMMARY OF OUR TARGETS

### **KILKENNY COUNTY COUNCIL CLIMATE ACTION PLAN GHG TARGETS OUR GREEN HOUSE GAS EMISSIONS**

2030



REDUCTION IN KILKENNY COUNTY COUNCIL'S LIGHTING **ENERGY USE BY 2030** 

### **OUR 2030 TARGETS**

**REDUCTION IN KILKENNY** 6 COUNTY COUNCIL'S **GREEN HOUSES GASES** 

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Kilkenny County Council Climate Action Plan 2024 - 2029

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COUNTY COUNCILS FLEET **EMISSIONS BY 2030** 











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The Kilkenny County Council Climate Action Plan 2024-2029 sets out the actions that will be taken by Kilkenny County Council to prepare our County and people living here for the impacts of climate change whilst also laying out measures to mitigate the effects of climate change. The Plan outlines the main climate risks facing County Kilkenny and the current levels of greenhouse gas emissions of Kilkenny County Council and the County.

The actions within this Climate Action Plan include those for which Kilkenny County Council is fully accountable across its own buildings, operations, services, and functions; as well as actions for which Kilkenny County Council will influence, co-ordinate, facilitate and advocate on for Climate Action in the County.













We recognise that Kilkenny County Council has a significant role to play in tackling climate change. Our services, operations, policies and programmes have a direct impact on all those living and working in Kilkenny.

This puts the Council in a unique position to lead by example, in conjunction with influencing other key stakeholders to undertake effective climate action. Kilkenny County Council will transform how we do business, delivering our Climate Action Plan and achieve emission reduction and energy efficiency targets. We will also support other stakeholders, communities and businesses in the County to take action. We don't underestimate the challenge ahead, but are optimistic that by working together with the support of staff, elected representatives and stakeholders in the County that we can realise the ambition in this Plan.

on the video here to find

Click on the video here to find







# EOMMUNITY FUNDING

# Kilkenny Going Green

### **CLIMATE ACTION GRANTS**

All change starts with a few small steps, the changes in our behaviour, how we live, use energy and utilise resources, all play a big part in tackling the impacts of climate change. Reducing our carbon footprint and impact on our natural environment can require investment but there are now a number of supports available to assist you. Click on the links below and video here for more details on Climate Action grants.



Click on the 2023 grants video here Please note that details on the 2024/25 grant will be posted on our website when announced by the Department

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# Kilkenny Going Green

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### **CASE STUDIES**

As part of this newsletter we will showcase sample case studies on how projects are working towards addressing climate change in County Kilkenny. Over time this newsletter will document additional sample projects and will hopefully give you inspiration and insight into what can be achieved.



### **ACTIVE TRAVEL**



### **Housing Retrofit Scheme**





# Public Lighting Energy Efficiency Project (PLEEP SCHEME)



### ACTIVE TRAVEL





## CASE STUDY

The Travel and Transport section of Kilkenny County Council provides advice and information on mobility issues; develops policies and priorities for the enhancement of Kilkenny's sustainable travel and transport including active travel, public transport, traffic management and parking. This section also collates mobility data, and promotes and support sustainable mobility awareness & education throughout the county.

A key objective is to work with an interdepartmental team and a key stakeholder groups in the preparation and in the implementation of the city's Sustainable Urban Mobility Plan. Click here



### **Public Lighting Energy Efficiency Project (PLEEP)**.

Kilkenny County Council is the lead authority in the Eastern Region of the Public Lighting Energy Efficiency Project (PLEEP). The PLEEP is a national project for the upgrading of Public Lighting infrastructure from incandescent light bulbs to energy efficient LED lanterns. Public Lighting is responsible for 34.8% of Kilkenny County Councils energy consumption.

The target energy savings for the PLEEP is 70% with a minimum saving estimated at 50% of original consumption. An even higher saving could be made through the introduction of "dimming and trimming" this is where lights can be set to dim outside of peak hours and trim to refine where the light is emitted therefore protecting our natural environment and surrounding from light pollution. To date almost half of the 10,726 lanterns in Kilkenny have been upgraded to LED fittings. With an estimated payback period of 10 years and a life span of 25 years.





Public Lighting Energy Efficiency Project (PLEEP SCHEME)

# **CASE STUDY**



### Hydrotreated Vegetable Oil (HVO)





Kilkenny County Council operates over 250 vehicles for roadworks, and other services such as the Fire Service, Civil Defense, Mobile Library and the Parks Department. Together they produce over 25% of the Council's greenhouse gas emissions.

Many of these vehicles are large machines, and current technology isn't suitable to replace them with electric alternatives. HVO is an interim solution until more sustainable technologies are found, with trials presently ongoing. In October 2023, Kilkenny County Council commenced a trial using HVO in a number of council vehicles and if the trial is successful, HVO could play a significant role in reducing the Council's greenhouse gas emissions. For more information please click on the link here.



### CASE STUDY THE WATERSHED

The Watershed Kilkenny is no stranger to using sustainable methods to heat and power their facilities. Two of the most recent retrofits included installing a new woodchip boiler and a 150kwp Solar PV system.

WoodCo supplied the Watershed with a 500kW wood chip boiler as part of an ESCO agreement. This means that the Watershed had no capital costs but instead pays for the heat it uses at an agreed price as part of a 15-year ESCO agreement, with WoodCo owning and maintaining the boiler. The Renewable heat is benchmarked against current gas prices and is guaranteed to be cheaper than gas. The Watershed is currently paying €0.06/kwh compared to approximately €0.13 for gas. The woodchip is sourced locally and delivered every two weeks. The Watershed requires 500 tonnes of wood chip per annum and this results in savings of up to 300 tonnes of CO2 per annum compared to gas which they had previously used.

A 150kwp Solar PV system was installed at the Watershed in late 2022 and so far the array has produced over 103,000kwh. Assuming the final production figure for the year is around 117,000kwh, the Watershed is set to generate €44,500 worth of electricity based on their electricity bills showing them paying 38c/kwh. In addition to this a further 55 tonnes of CO2 emissions will not be emitted into the atmosphere.





# WE'RE TAKING CLIMATE ACTION

### CASE STUDY RETROFITING PROGRAMME

Kilkenny County Council is implementing an energy efficiency retrofitting programme on existing local authority housing, in partnership with the Department of Housing, Local Government and Heritage. In addition, Kilkenny County Council is designing new local authority housing to be more energy efficient.

An example is Pairc Nua, Castlecomer Road, a stunning one and two bed social housing development which was nominated in the regeneration category of the Irish Council for Social Housings Allianz Community Housing Awards. The houses were developed from a number of existing buildings including a disused former pub and guest-house, in addition to the constructing of new units. The development has sustainability at its core by utilizing existing buildings, designing to Nearly Zero Energy Building (NZEB) A rating, incorporating renewable energy solutions such as solar PV panels and planting greenery and trees.







### **Housing Retrofit Scheme**



# European Sustainable Energy Week

From 11 to 13 June, the European Sustainable **Energy Week brings together public authorities,** private companies, NGOs and consumers to promote initiatives accelerating decarbonisation through green technologies and solutions towards a fair and just transition for people and competitive businesses.

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### 11-13 JUNE 2024 EUROPEAN SUSTAINABLE **ENERGY WEEK**

Net-zero energy solutions for a competitive Europe

#EUSEW2024 ec.europa.eu/eusew



European Commission





### WORLD CAR FREE DAY September 22ND 2024

### What is World Car-free Day?

Taking place on the 22nd of September, World Car-free Day is an annual celebration of cities and public life, free from the noise, stress and pollution of cars. This is a fantastic chance to discuss the importance of exercise with your children as well as the impact of cars on the environment.

### Why do we celebrate World Car-free Day?

Motor vehicles emit carbon dioxide and other greenhouse gases, which are major causes of global warming. World Car Free Day is celebrated to help the environment and bring awareness to what we can all do to help. This wonderful event encourages everyone to give up their cars for a day and consider alternative ways of travelling, for example walking and cycling to school/work more often. 

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### WE'RE TAKING CLIMATE ACTION

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### Climate Change and its Impacts for Ireland

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## FLOODING

Climate change not only means changes in the average climate such as temperature but also changes in the frequency and intensity of extreme weather and climate events. Though climate change projections, like all projections of the future, are subject to uncertainty, the latest climate modelling projections for Ireland are in broad agreement with previous research. Ireland has seen an increase in average annual national rainfall of approximately 60mm or 5% in the period 1981-2010, compared to the 30- year period 1961-1990.

# Kilkenn Going Green

ROAD







Projections indicate a substantial increase in the frequency of heavy precipitation events in Winter and Autumn (approx. 20%).

Flooding in Ireland can have a significant impact on property, people, communities, the environment and cultural heritage. It is likely that climate change will increase flood risk in Ireland due to rising sea levels, increased rainfall in winter, more heavy rain days and more intense storms. Sea Level Rise

The rate of global sea level rise for 2006–2015 of 3.6 mm per year, is unprecedented over the last century, and about 2.5 times the rate for 1901–1990. Sea level is projected to continue to rise at this rate or greater. All major cities in Ireland are in coastal locations subject to tides, any significant rise in sea levels will have major economic, social and environmental impacts. Rising sea levels around Ireland would result in increased coastal erosion, flooding and damage to property and infrastructure.



# INFORMATION



## KILKENNY COUNTY COUNCIL CLIMATE ACTION WEBSITE

The Climate Action Department has developed a new Kilkenny County Council Climate Action web platform. On this platform we will update you on key information that will inform you on climate action activities, funding and inspiring ideas that are happening throughout County Kilkenny. On this platform we will also be uploading climate action videos as a resource that will showcase climate action related topics that we hope you will find interesting.















# REDUCE Y@URUSE





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### REDUCE YOUR USE CAMPAIGN OCTOBER 2023 - MARCH 2024

Kilkenny County Council signed up for the 2023/24 Reduce Your Use campaign.The Reduce Your Use Campaign is a voluntary initiative for the public sector as part of a whole-of-government national campaign to reduce energy use through the winter months.

Running from November 2023 to March 2024, we asked all staff to be mindful of their energy use and we encouraged delivery service areas and offices to take simple measures to reduce energy use over the winter months.

### **CASE STUDY**

Also as part of this campaign, Kilkenny County Council selected the Thomastown and Callan Area Offices as two pilot buildings where we implemented a number of measures focusing on behavioural change in the Thomastown building and both behavioural change and some minor investment in energy saving in the Callan Area Office.





# ALL TARGET

### **ENERGY SAVINGS**

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By reducing our daily energy use, we can save money and limit our reliance on imported fossil fuels.

Find out more



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### OBJECTIVE

The overall objective of the Reduce Your Use Campaign for the Callan and Thomastown Area Office was to reach a combined energy savings on buildings between November 2023 to March 2024 of 15%.

Given Kilkenny County Councils commitment to reducing emissions in the recently launched Kilkenny County Council Climate Action Plan 2024-2029 and the ongoing situation in relation to energy prices and supply, there is now a concerted effort across Kilkenny County Council and the public sector to lead by example in lowering energy consumption and costs.

The Reduce Your Use energy efficiency initiative pro-

vides a structured programme of energy saving activities that Kilkenny County Council can use to help us reach our targets in the recently published Kilkenny County Council Climate Action Plan 2024-2029.

The Initiative is focused on taking action in the short term and on implementing measures that will set our organisations on a pathway towards achieving our 2030 energy efficiency targets.

**REDUCE YOUR USE** 



### By reducing our daily energy use we can save money and limit our reliance on imported fossil fuels

### Find out more

### **THOMASTOWN AREA OFFICE**



### **CALLAN AREA OFFICE**





As part of this campaign, Kilkenny County Council have selected the Thomastown and Callan Area offices as two pilot buildings for the Reduce Your Use Campaign.

**Callan Area Office Building** The Callan building was constructed in 1840 and extended in 2000. The original building consists of 520mm of solid stone walls wall with no insulation. There is also basic attic insulation while all windows are single-glazed timber frame, the doors are of timber construction and the floor is solid concrete.

The extension has double glazed PVC windows and doors. The extension walls are assumed to be partly filled 300mm cavity walls. The area office is equipped with a 70 kW Bongioanni T100/7 non-condensing combi boiler installed in 2000 with Kerosene as the fuel used. Based on its age, the operating efficiency may be as poor as 50%. The heating is provided in the building through radiators having TRVs.

The key measures taken in the Callan building were a combination of behavioural change with some minor investment that will improve energy efficiency. For example replacing LED lights, resetting the timer on the oil burner i.e. reducing the hours of use.



By reducing our daily energy use we can save money and limit our reliance on imported fossil fuels.

Find out more





### THOMASTOWN AREA OFFICE

The Thomastown building is a more modern building that was constructed over thirty years ago. The building is of cavity wall construction with 130m2 of usable floor area split over two floors.

The building comprises a large open plan office, reception area, meeting room, toilets and storage room on the ground floor, with three large offices, canteen and two bathrooms on the first floor. The build is occupied to the normal 9 - 5 operation with the standard holiday and public holidays.

Unlike the Callan building which has received some investment to address energy efficiency, the key focus in the Thomastown building was solely on staff behavioural change. In other words we wanted to see what we can achieve in reducing energy use by behavioural change alone. Examples of efforts included putting timers on heaters, turning off radiators in rooms that were not in use, turning off lights and appliances and putting a timer on lights surrounding the building.



### **REDUCE YOUR USE**

















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# Actions taken Area Office

The Reduce Your Use measures incorporated in the **Callan Area Office included a combination of** behavioural change and an investmemnt of 9,000 euros in energy saving improvements.

**Communicational Campaign** 

A Reduce Your Use Awareness / Communicational Campaign was put in place in the Callan Area Office.

### **Oil Heating**

The Callan buildings oil boiler heats the radiators throughout the area office. The boilers timer was adjusted and the overall usage was reduced by 26%.

### **Radiators**

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Radiators in rooms not in use were turned off where feasible throughout the building.

**Disconnection of heating pipes in the buildings attic** Heating pipes in the attic were disconnected from the main heating system by installing valves.

### **Installation of LED Lights**

In November 2023 there were 33 (120 Watts) fittings in the Area Office in Callan this number was reduced to 23 fittings with efficient LED 50 Watt bulbs installed. An additional 12 bulbs were replaced with energy efficient bulbs ,these were located in the stairwells ,meeting room and at the main entrance of the building.



The Reduce Your Use measures incorporated in the Thomastown Area Office incorporated behavioural change only

### **Communicational Campaign**

A Reduce Your Use Communicational/Awareness Campaign was put in place in the Thomatown Area Office. **Radiators** 

There are eight radiators in total in the building, four of these are new radiators incorporating built-in timers. The four radiators with timers were all reduced to 19C and the heating was turned off during Christmas and holiday periods.

### **OUTSIDE LIGHTS/TIMER**

A timer was installed to mange the buildings outside lights. These lights used to be on during the night, the timer is now set for the lights to be on in the winter between 4.30 - 5.50pm.





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# HIHILI THE REDUCTION IN ENERGY USE in the Thomastown & Callan Area Offices







## CALCULATING THE RESULTS



Johan Muller from the South East Energy Agency was tasked with independently calculating and reporting on the results from the Kilkenny County Councils Reduce Your Use Campaign in the Thomastown and Callan Area Offices. Johan used a number of methods when calculating the results in both buildings that included comparing baseline data readings over the last 3 years with energy consumption (kWH), savings in behaviour and savings in investment over the five month duration of the Reduce Your Use Campaign (November 2023-March 2024).

Given the Callan Area Office operates an oil burner for heating the building, different methods were used to calculate readings.For example using the HDD method, dipping the oil tank at various intervals throughout the campaign and incorporating how adjustments like the isolation of the heating from the attic reduced consumption, the reduction of use in hours of the boiler, and the upgrading of lighting. The final results gave some very interesting statistics ,specifically showcasing how a change in behaviour combined with some minor investment can give some very positive results.





By reducing our daily energy use, we can save money and limit our reliance on imported fossil fuels.

Find out more



### SOUTH EAST ENERGY AGENCY

# Thomastown & Callan Area Offices



### OVERALLTARGET FOR BOTH BUILDINGS ackieved

# i.e. combined total reduction in energy use

REDUCE

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### **YOUR USE**

### **REDUCTION IN ENERGY**

Callan



Energy reductions based on 100% Behavioural Change with no investment made

Baseline

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### Callan - Heating Consumption Baseline vs 2024

	Baseline
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20000	
40000	
60000	
80000	
100000	
120000	
140000	

Energy reductions based on behavioural change 9,000 euro in investment



### Thomastown - Electricity Consumption Baseline vs 2024



### Callan - Electricity Consumption Baseline vs 2024







### **REDUCTION IN ENERGY**

# savinnas in Bonsningtion Behaviour & Investment

	Callan					Thomastown		Total		
	Heating		Electricity		Total			rotai		
									Cost	kgCO2
	Baseline	2024	Baseline	2024		Baseline	2024	kWh	savings	savings
Consumption (kWh)	119,707	90,551	18,000	11,778	137,707	8,370	7,478	154,447		
Savings Behaviour (kWh)		21,541		2,128	23,669		892	25,453	€3,009	6,539
Savings Investment (kWh)		7,615		4,094	11,709			11,709	€1,968	3,316
Savings Behaviour %	0%	18%	0%	12%	17%	0%	11%	16%		
Savings Investment %	0%	6%	0%	23%	9%	0%	0%	8%		
Total Savings %		24%		35%			11%	24%	€4,977	9,855





# Kilkenny Going Green







