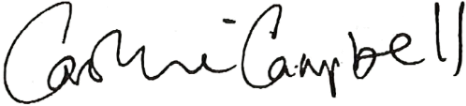
National Gallery of Ireland Climate Action Roadmap 2024

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Signed:  Director

Date: 02/12/24

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# A Message from the Director

Dear colleagues and stakeholders,

I am pleased to introduce the National Gallery of Ireland's Climate Action Roadmap 2024. This Roadmap outlines the Gallery’s plans to achieve a 51% reduction in our Greenhouse Gas emissions by 2030, a 50% increase in the improvement of energy efficiency by 2030 and net zero energy-related emissions by 2050 or sooner.

As a National Cultural Institution, we are determined to lead by example by demonstrating our commitment to climate action and the positive impact that sustainable practices can have on the environment. As a public sector body, we are committed to supporting the Government's efforts to achieve its emissions reduction targets and transition to a low- carbon economy. And as one of the country's leading free visitor attractions, we are also committed to promoting energy efficiency and the use of low-carbon and renewable energy to all our stakeholders.

Our Climate Action Roadmap aligns with the Climate Action Plan (CAP21) and the Public Sector Climate Action Mandate. It outlines a range of activities we will implement, measure and assess to reduce our emissions where feasible and under our control. Energy efficiency is a core element of our activities and while we recognise that further improving the Gallery’s energy efficiency is a challenge, it is essential.

These measures include upgrading our lighting, heating and cooling systems, implementing energy management systems, and promoting sustainable practices at every opportunity. In 2024, the Gallery will invest in LED lighting upgrades, work with the OPW and relevant architects on Number 7 and Houses 88-90, and on staff training / awareness days.

The Office of Public Works and the Department of Tourism, Culture, Arts, Gaeltacht, Sport and Media are key partners in the operation and development of the Gallery’s buildings and the completion of the final phase of the Gallery’s Master Development Plan. As a result, they are critical agents for the success of this Roadmap.

This Roadmap is a live document. It will be updated next at the end of June 2025 and annually thereafter.

Dr Caroline Campbell Director

National Gallery of Ireland

# Introduction

The Climate Action Plan 2021 (CAP21) committed that all public sector bodies must complete a Climate Action Roadmap by the end of 2022. A Climate Action Roadmap is a document which communicates how each public sector body aims to meet the requirements of the Climate Action Mandate 2022 (the Mandate) and reach its 2030 carbon and energy efficiency targets. It should be reviewed regularly and updated to reflect revised mandates, e.g. “Public Sector Bodies Climate Action Roadmaps Guidance 2024 Mandate”.

In their Climate Action Roadmap, public bodies should focus most attention on their plans for reducing total energy related emissions and fossil fuel related emissions from their operations in line with the targets in CAP21.

This document is the National Gallery of Ireland’s Climate Action Roadmap (the Roadmap). It focuses on our energy-related greenhouse gas emissions within our operations, in line with the target of a 51% absolute reduction by 2030. This Roadmap aligns with our vision of achieving the climate actions and targets we have set ourselves.

The Roadmap has been approved by the Director of the National Gallery of Ireland. It will be reviewed and updated annually by the executive and presented to the Director and Board for approval. The annual review will assess our progress, report our gap-to-target and will incorporate any updates to the National Climate Action Plan, the Public Sector Climate Action Mandate and changes to Guidance for Roadmaps. Our activities are reported in our annual report from 2023 onwards.

# Areas of focus

## Our targets

The Gallery aims to meet the emissions reduction and energy efficiency targets, which include a:

* + - 51% reduction in energy related Greenhouse Gas emissions in 2030 (2016-2018 baseline),
    - 50% increase in the improvement of energy efficiency by 2030 (2009 baseline), and
    - net zero energy-related emissions target for 2050 at the latest.

## Our people

The Gallery has appointed a Climate and Sustainability Champion, an Energy Performance Officer, and established a Gallery Green Team. Subsequently, the Gallery established a working group, with representation from across all areas of the organisation, to bring initiatives to life throughout its operations. Collectively, both groups are focused on delivering the managerial, technological, and behavioural improvements that will help the Gallery achieve its climate action targets. They are responsible for leading sustainable development within the Gallery by driving awareness and engagement and rolling out appropriate training to all staff to ensure that sustainability is embedded in our ways of working.

## Our ways of working

The Gallery’s ways of working will include staff engagement and the integration of our actions into our business planning, goals and objectives. They also include promoting best practices in the Gallery, office, the home-office and in daily life, while providing support to our staff through appropriate training. We will assess the improvements made through our actions and we will continue to report our Greenhouse Gas emissions and energy consumption, with our data being returned into the SEAI Monitoring and Reporting System as required.

## Our buildings and vehicles

The largest contributor to carbon emissions is our heating, ventilation and air conditioning system (HVAC), which is powered by natural gas boilers and our Combined Heat & Power Unit. In the long term, we intend to transition to a source of energy generation that aligns with the national decarbonisation plan. To achieve this, we will develop a capital budget plan and support for decarbonisation efforts with the OPW and the Department of Tourism, Culture, Arts, Gaeltacht, Sport and Media. As we progress, we display our updated Energy Certificates (DEC) in the Gallery.

## Our Gap-to-Target

The energy consumption data collected by the Gallery feeds into the SEAI's Monitoring and Reporting System, which in turn contributes towards our gap-to-target annual reporting. The SEAI uses the M&R data to model decarbonisation gap-to-target over the period to 2030. This helps us to identify our GHG emissions target to 2030. It also helps the Gallery to model and report the impact of our actions, revisit our gap- to-target annually and assess future emissions pathways.

# Our Targets

The *Climate Action and Low Carbon Development (Amendment) Act 2021* and other compliance requirements (See Appendix One) give legal underpinning to climate action by the public sector. The Climate Action Mandate sets the following emission reduction and energy efficiency targets for public bodies:

* 51% reduction in GHG emissions in 2030 (2016-2018 baseline), targets set for both thermal and total emissions.
* 50% energy efficiency improvement by 2030 (2009 baseline).
* A net zero energy-related emissions target for 2050 at the latest.

## Achieving the carbon emissions reduction target (51% reduction by 2030)

The greenhouse gas emissions target is based on energy-related carbon dioxide equivalent emissions, with the baseline average of 2016-2018 emissions. It requires energy emissions, for heating and transport, and overall energy-related emissions (including electricity) be reduced by

51%. The SEAI Monitoring and Reporting System’s records for this period allows the Gallery to set our baseline.

The Gallery houses the largest fine art collection in the state. As custodians, we have an obligation to ensure that environmental conditions for the display and storage of the Collection are met. It is critical that the Collection is maintained, in an environment, with sufficient lighting to display works to the best affect, maintaining temperature range between 19 and 22°C and controlling relative humidity (RH) within the parameters of 55% (+/- 5 %).

In 2021, a Gallery Climate Multidisciplinary Group (the Group) was set up in an effort to move towards a more sustainable museum climate. The Group consisted of Gallery staff from the Conservation department, Facilities Management and OPW Engineers. The aim of the Group was to identify ways to reduce energy consumption while exploring safe and sustainable boundaries for maintaining the Collection. The Group believed that a more sustainable Gallery climate can be achieved through the efficient running and control of our lighting and heating systems and further investment in these areas.

Multidisciplinary collaboration and discussion with stakeholders and the exchange of information with international museums and institutions is essential for the Gallery to build understanding and gain support in its efforts to achieve greater sustainability. This type of research and collaboration requires investment of time and effort to reach agreements and establish technical solutions.

To this end, the Gallery has made a connection with Dr. Nina Quabeck, Head of Conservation at the Kunstsammlung Nordrhein-Westfalen in Germany. She has shared insights into her museum’s efforts to lower emissions by relaxing climate parameters. Discussions on sustainable museum practices have also been held with CNCI institutions, including The National Museum, The National Library, and The National Museum Northern Ireland. Additionally, meetings with European colleagues from the Rijksmuseum and the Doerner Institute have facilitated information exchange on climate levels and the exploration of measures to reduce energy consumption while maintaining safe climate parameters for collections.

All of the above elements will be assessed and incorporated into the Gallery’s planning process for reaching our carbon emission reduction target.

## Achieving the Energy Efficiency Target (50% Improvement by 2030)

In 2009, energy efficiency target reductions were set for the Gallery. For the energy efficiency baseline, the SEAI Monitoring & Reporting (M&R) System recorded an EnPI baseline of 361 KWh/m2 (2009). By the end of 2021, the Gallery had achieved a 46.7% reduction in energy efficiency since 2009, lowering the initial usage to a new EnPI baseline of 193 KWh/m2. The Gallery aims to achieve the 50% target EnPI of 181 KWh/m2 well in advance of the 2030 deadline.

Working together, the OPW and the Gallery are investigating opportunities arising from the energy and building audit to improve on the current F Building Energy Rating. The Gallery will also engage with the OPW to specify a project pipeline up to the year 2030, including specific actions, timelines, financing requirements, and responsibilities. Together, we have identified the following projects, which can be undertaken to help achieve our targets:

* In 2024, LED lighting will be installed in rooms 6-10, rooms 25-30, House Number 5, and the Energy Centre.
* Installing thermostatic radiator valves.
* Identifying opportunities for improved energy efficiency through duct & pipe insulation, boiler upgrades, and advanced controls.
* Reviewing the Master Development Plan (MDP) with a focus on sustainable mechanical and electrical technologies and their integration. In 2024, we will have ongoing discussions with the architects contracted for the MDP in relation to sustainable technologies.
* Researching advanced Energy Monitoring and Controls Technologies.
* Staff engagement through ‘Reduce Your Use’ and ‘Optimise Power @ Work’ campaigns. In 2024, we will rollout ‘Reduce your Use’ and ‘Optimise Power @ Work’ in conjunction with staff Climate Awareness Days.

The Gallery will continue improving its analysis of energy consumption using the SEAI’s Gap-to-Target tool. This will help identify high-energy-use activities or locations and determine any needs that must be addressed. Where gaps are identified, the Gallery will explore more energy efficiency pathways through specific projects in collaboration with OPW.

# Our Progress to Date

SEAI’s Public Sector Monitoring and Reporting (M&R) System incorporates recently released 2023 data which will allows for modelling of the Gallery’s carbon and energy reductions toward 2030 targets. These reports show key performance indicators for the Gallery’s progress towards the energy and greenhouse gas (GHG) emissions targets. They also show how the Gallery’s emissions and energy efficiency have changed over time.

**Fossil CO2 Emissions**

In 2023, fossil CO2 emissions were 962,754 kgCO2, which is 7.9% above the baseline of 892,432 kgCO2.

*Chart One: Fossil CO2 Target*

In 2023, fossil CO₂ emissions were 962,754 kgCO₂, which is 7.9% above the 2016-2018 baseline of 892,432 kgCO₂.

The 2030 target is 437,292 kgCO₂. To achieve this target, fossil CO₂ emissions must be reduced by 54.6% from the 2023 level within seven years.

To achieve the 2030 target of 437,292 kgCO2, fossil CO2 emissions must reduce by 54.6% from 2023 level within 7 years.

**Total CO2 Emissions**

In 2023, total CO2 emissions were 1,938,162 kgCO2, which is 19.1% above the baseline of 2,394,281 kgCO2.

*Chart Two: Total CO2 Target*

In 2023, total CO2 emissions were 1,938,162 kgCO2, which is 19.1% above the baseline of 2,394,281 kgCO2.

The 2030 target is 758,978 kgCO2. To achieve this target, total CO2 emissions must reduce by 60.8% from 2023 level within 7 years.


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**Energy Efficiency**

By 2023, energy performance had improved by 32.6% since the baseline.

*Chart Three: Energy Efficiency Target*

By 2023, energy performance had improved by 32.6% since the baseline. 

To achieve the 2030 efficiency target of 50.0, energy performance must improve by 17.4 percentage points within 7 years.

To achieve the 2030 efficiency target of 50.0, energy performance must improve by 17.4 percentage points within 7 years.

*Table One: Energy Data Overview for 2022 and 2023*

|  |
| --- |
| Three bar charts depicting energy consumption and CO2 emissions for 2022 and 2023  Thermal energy includes fossil and renewable fuels (liquids, gases and solids) that are used for heating and other non-transport purposes. |
| First chart shows 'Total Energy' consumption staying consistent in 2022 and 2023 at 2.0 kWh, with the total energy figure reported as 2.017 kWh as of the end of 2023. Second chart displays 'Primary Energy' consumption remaining consistent at 2.2 kWh in 2022 and 2023, with the total stated as 2,219 kWh as of the end of 2023. Third chart represents 'CO2 Emissions,' which stayed consistent as well at 495 kgCO2 in 2022 and 2023, with the total reported as 495 kgCO2 at the end of 2023.  Transport fuels include fossil and renewable fuels (liquids and gases) that are used in vehicles of all types. |
| First chart shows 'Total Energy' consumption rising from 3.2 M in 2022 to 3.5M kWh in 2023, with the total energy figure reported as 3,527,822 kWh as of the end of 2023. Second chart displays 'Primary Energy' consumption rising from 6.1 M in 2022 to 6.3 M kWh in 2023, with the total stated as 6,274,492 kWh as of the end of 2023.  Third chart represents 'CO2 Emissions,' which dropped from 1.1 M in 2022 to 1.0 M kWh in 2023, with the total reported as 975,408 kgCO2 at the end of 2023.  Electricity generated from fossil and renewable sources, including electricity used in heating and transport. |
| 'Total Energy' consumption increasing from 4.4M kWh in 2022 to 4.7M kWh in 2023, with the total energy figure reported as 4,699,853 kWh as of the end of 2023.  All energy used by the organisation, including thermal energy, transport fuels and electricity, from fossil and renewable sources. |

**Source:** *The "Energy & GHG Targets - Key Indicators" report (M&R Report PSO-R03) for the National Gallery (PSO-00346). Generated on November 26, 2024, with provisional data reported for the year 2023.*

# Closing the GHG Emissions Gap

The Gallery is aware that significant action is required before 2030 if we are to achieve a 51% reduction in energy related GHG emissions in 2030 (based on the 2016-2018 baseline). In 2024 and 2025, with the assistance of a consultant, we will assess the actions required to meet our GHG emissions targets. This assessment will involve identifying the additional people and financial resources needed, evaluating our project readiness, and establishing the relevant timelines to achieve the targets.

# Our People

# Leadership and Governance for Climate Action

The Gallery Green Team reports to the Director of the Gallery who is supported by the Executive Leadership Team (ELT).

The Director reports to The Board of Governors and Guardians of the National Gallery of Ireland.

Climate & Sustainability Champion

In 2024 the ELT appointed **Gillian De Marco, Director of Corporate Services,** to the position of **Climate and Sustainability Champion (C&SC)**. The C&SC has responsibility for implementing and reporting on the Mandate and must be a member of the Gallery’s ELT.

Energy Performance Officer

The ELT nominated **Christiaan Clotworthy, Head of Operations** to act as the **Energy Performance Officer (EPO**).The EPO has decision-making powers with regard to facilities management, corporate budgets and procurement, along with responsibility for corporate and financial reporting. They will:

* Lead the development of our Energy Management Plan as an integral part of our Business Planning and Performance Management processes.
* Drive the implementation of the actions and projects agreed under our Energy Management Plan.
* Assign clear responsibility for implementation of our Energy Management Plan and ensure staff have the necessary training and support to carry out these tasks.
* Ensure the setting of our annual energy saving targets.
* Ensure the timeliness and quality of our annual data reports to the SEAI Public Sector Energy.
* Delegate tasks as part of annual goal setting under SEAI’s Performance Monitoring & Reporting System.
* Ensure Gallery data is input to SEAI’s Performance Monitoring & Reporting System.
* Ensure timely provision of our report for the Annual Memorandum to Government on the implementation of this Strategy.

The Gallery Green Team

The Gallery has established a Gallery Green Team, which reports to the ELT. The Green Team will serve as the integrated drivers of sustainability within the Gallery. The *Terms of Reference* for the Green Team committee have been approved by the National Gallery of Ireland ELTand the Board of Governors and Guardians; they have also appointed an executive to commence the work of the Green Team.

The Gallery Green Team’s responsibilities include:

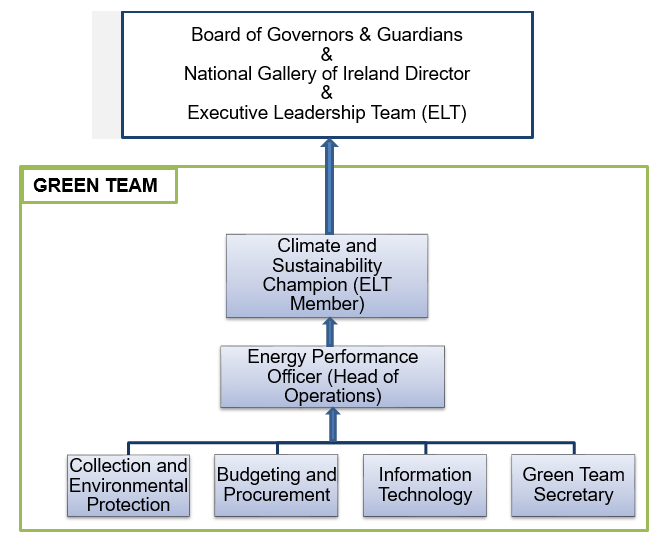
* Preparing and reviewing the Gallery’s Climate Action Roadmap on an annual basis.
* Presenting the Gallery’s Climate Action Roadmap to the Director and the Board of Governors and Guardians for approval.
* Developing a Sustainability Policy and presenting it to the Director and the Board of Governors and Guardians for approval.
* Setting out the Green Team’s technical work streams including annual workshops/events.
* Focusing on energy decarbonisation and outlining the steps required to meet or exceed our 2030 targets.
* Identify gap-to-target strategic projects for the reduction of carbon footprint.
* Implementing the Gallery’s Reduce Your Use (RYU) Policy.
* Establishing a working group of local Sustainability Champions to drive awareness and engagement with all staff.

The Gallery Green Team members are:

| Name | Role & Responsibility | Email Address |
| --- | --- | --- |
| Gillian De Marco –  Director of Corporate Services | Climate and Sustainability Champion (C&SC).  ELT member and reports directly to the Director. | GDeMarco@ngi.ie |
| Christiaan Clotworthy – Head of Operations | Energy Performance Officer (EPO).  Oversees the strategic implementation of the Climate Action Plan with regard to future capital works. | [cclotworthy@ngi.ie](mailto:cclotworthy@ngi.ie) |
| Andrew Hetherington – Head of Audience Development & Stakeholder Engagement | ELT member and reports directly to the Director. | [ahetherington@ngi.ie](mailto:ahetherington@ngi.ie) |
| Ciaran Troy – Facilities Manager | Manages Facilities and Energy by identifying operational savings, upgrading existing plants and services, and supporting the Climate Action Plan. | [ctroy@ngi.ie](mailto:ctroy@ngi.ie) |
| Bernadette Kenny – Finance Business Partner | Budgeting & procurement for the Climate Action Plan. | [bkenny@ngi.ie](mailto:bkenny@ngi.ie) |
| Muirne Lydon - Conservator | Environmental protection of the Collection. | [mlydon@ngi.ie](mailto:mlydon@ngi.ie) |
| Anne Hodge –Curator | Sustainable practices in temporary exhibitions. | [ahodge@ngi.i](mailto:ahodge@ngi.i)[e](mailto:mlydon@ngi.ie) |
| Jane Brennan – Head of Legal & Risk | Compliance and reporting. | [jbrennan@ngi.i](mailto:jbrennan@ngi.i)[e](mailto:mlydon@ngi.ie) |
| Lucy Mokua – Reduce Your Use Coordinator | Coordinator of all Green Team initiatives & activities. | [LMokua@ngi.i](mailto:LMokua@ngi.i)[e](mailto:mlydon@ngi.ie) |

Please refer to *National Gallery of Ireland Green Team Terms of Reference* for further details on the Green Team.

*Chart Four: Governance Structure*



# Engaging and Training Staff

In 2024, the Green Team will present to all staff at a Town Hall. This presentation will include a call for volunteers to join a Green Working Group and become local Sustainability Champions, whose objective is to embed sustainable practices into daily operational activities.

The Green Team will host a minimum of two staff Climate Awareness Days in conjunction with the OPW to introduce the local Sustainability Champions, drive staff engagement, and share opportunities for staff to become more energy efficient. These awareness days will culminate in the rollout of a Gallery-wide campaign promoting the top five key initiatives developed by the working group.

The Green Team researches, identifies, and delivers appropriate training to enhance Climate Action knowledge among the ELT and key staff. The Green Team also advises the Gallery’s HR department on incorporating relevant Climate Action training into ongoing staff learning and development. Additionally, all staff will be informed about freely available information, training, and other supports.

The 2024 Training Plan includes:

| Target Group | Training/Workshop/Event | Status/Comment |
| --- | --- | --- |
| Board of Governors & Guardians | * SEAI Carbon & Energy Basics |  |
| Senior Leadership | * Climate Action Leadership Training | 50% complete |
| * Approaches to Improving Energy Performance of Heritage Buildings |  |
| Green Team | * Energy Management – Creating an Energy Action Plan |  |
| * Climate Action Leadership Training | Complete |
| * Approaches to Improving Energy Performance of Heritage Buildings |  |
| * Decarbonising Existing Buildings * SME Business Briefing |  |
| All Staff | * Staff Climate Awareness Days | Complete |
| * SEAI Carbon & Energy Basics | Rolled out to Working Group |
| * Leading sustainable change for decarbonisation | Rolled out to Working Group |
| * Conservation: Approaches to sustainability | All staff invited |
| * Saving the world from your desk | Rolled out to Working Group |
| * AIB Sustainability Conference | Rolled out to Working Group |
| * Reduce Your Use in the Public Sector – Energy Awareness Programme | Rolled out to Working Group |

In Q4 2023, an assessment of uptake of the ‘TaxSaver’ and ‘Bike to Work’ schemes was undertaken. The Gallery remains committed to identifying ways to enhance participation in these schemes.

Where required, the Gallery Green Team will present information on any training needs analyses conducted to relevant stakeholders. It will also assess and present feedback on staff engagement activities and training initiatives undertaken. The Gallery will support the Green Team and staff by providing time and funding for suitable engagement activities and training opportunities.

# Our ways of working

In 2024, the Gallery will report the following in its Annual Report:

* Current GHG emissions and comparison with the 2016-2018 baseline, as per M&R data.
* Progress towards implementing the requirements of the Mandate.
* Implementation of Green Public Procurement activities.
* Sustainability activities undertaken by the organisation over the past year.
* Evidence of compliance with circular 1/2020: Procedures for offsetting the emissions associated with official air travel.

Additionally, the Gallery will:

* Commence the development of a waste action plan to increase recycling and minimise waste generation.
* Cease providing disposable cups, plates, and cutlery in the administrative buildings’ canteens
* Reduce, measure, and monitor water consumption. Implement a long-term plan to reduce water consumption.
* Engage an energy consultant to address the organisation’s specific needs and provide a comprehensive approach to long-term sustainability.
* Utilise the SEAI Critical Success Factor tool to assess the organisation’s status and, in conjunction with the OPW, build Registers of Opportunities.
* Roll out the ‘Reduce Your Use’ campaign.
* Register for the Smarter Travel Mark.

# 

# Reducing paper use and moving to digitised processes

Set a baseline for paper consumption and measure paper waste generated (e.g., quantity and/or expenditure, such as procured and waste paper collected for shredding). Set a target to reduce paper use and identify actions to meet that target. Report on these activities in the 2024 Annual Report.

The Gallery will review its paper usage, ensure recycled paper is the default, and assess progress towards digitisation as the default approach.

In 2024, the Gallery will roll out a new system for the digitisation of paper-based invoicing, building on the existing digitised system for purchase orders.

# Energy & Environmental Management Systems and Accreditation

The Gallery Green Team together with the OPW will investigate the most appropriate form of energy management system that we plan to put in place at the Gallery. This will be achieved by:

* Assessment of annual energy usage spend against targets.
* Setting of target date for achievement of the energy management programme appropriate to the Gallery.
* Identify whether formal accreditation for ISO 500001 will be required for the energy management programme.

# Green Public Procurement

The Green Public Procurement (GPP) is a process where public authorities seek to source goods, services or works with a reduced environmental impact. The EPA has published GPP guidance and ten accompanying criteria sets that support the inclusion of sustainable and green practices into public sector procurement procedures.

The ten criteria sets published are: Road Transport Vehicles & Services; ICT Products & Services; Food & Catering Services; Indoor Cleaning Services; Office Buildings Design, Construction & Management; Indoor & Outdoor Lighting; Heating Equipment; Energy related Products and Paper Products & Printing Services.

The National Gallery of Ireland takes green and social considerations into account at a category level when planning its public procurement activities. Each procurement process is analysed for opportunities to include green and/or social considerations. On a case by case basis, these considerations are applied at an appropriate level in the tender in question. For categories with an environmental and/or social impact, appropriate weightings and technical considerations are applied in tender procedures. This includes but is not limited to categories like food services, cleaning, power and heat, maintenance and ICT equipment and consumables.

# Food Waste Management

Measure and monitor the food waste generated on premises from 2024, using a standardised approach to food waste measurement set out in the EPA Protocol/Pathway. All new contract arrangements related to canteen or food services, including events and conferences, to include measures that are targeted at addressing food waste, with a specific focus on food waste prevention and food waste segregation.

# Our Buildings and Vehicles

The Gallery works in partnership with the OPW on the operation and development of our buildings. Along with the Department of Tourism, Culture, Arts, Gaeltacht, Sport and Media, they are key partners for the current and future operation of our buildings, the completion of our Master Development Plan, upon which these targets are reliant, and ensuring our buildings meet all legal and compliance requirements.

# Our buildings

* In 2024, the Gallery obtained from the OPW up‐to‐date Display Energy Certificate (DEC) for all National Gallery of Ireland Buildings that are open to the public. The Gallery will ensure that any buildings leased will meet our compliance and legal requirements.
* The Gallery will work with the OPW to specify low carbon construction methods and low carbon cement material (as afar as practicable) for directly procured or supported construction projects from 2024.
* The Gallery submitted our Stage One Building Stock Plan in 2024.
* The Gallery will engage with the OPW to ensure that it will not install heating systems that use fossil fuels after 2023, unless at least one of the following exceptions apply:
  + - The fossil‐fuel use is only through the use of electricity from the grid.
    - There is no technically viable non‐fossil alternative (generally only related to applications for a purpose other than space heating).
    - The installation of a renewable energy space heating system would increase CO2 emissions.
    - The fossil‐fuel use is provided for backup, peaking, or operational purposes (and makes up less than 10% of annual heating energy).
    - Where the direct replacement of existing fossil fuel heating is required for an emergency maintenance purpose.

The Gallery will consult with the OPW in relation to these requirements if or when replacing planned heating systems works. We will also consult with the OPW to identify our buildings’ retrofitting requirements.

# Our vehicles

The Gallery will only purchase or lease zero‐emissions vehicles where available and required from 2023. It is noted, that the National Gallery of Ireland has one van but that no further purchases are planned in 2024.

# Bicycle friendly

The Gallery will continue to create bicycle friendly facilities for employees and visitors. Covered bicycle stands are currently available for visitors and staff at the Merrion Square entrance. In 2024 we continue to focus on the use of bicycles and shared mobility services among our employees and visitors.

# Summary of Next Steps

## Planning Phase (Year 1)

* + Seek sustainability consultancy expertise (**in progress**).
  + Conduct initial energy audit of all buildings with the OPW (**complete**).
  + Develop a decarbonisation strategy for our building(s) with the OPW.
  + Define emissions reduction targets for each building.
  + Identify possible building adjustments with the OPW.
  + Develop a capital budget plan and support for decarbonisation efforts with the OPW and the Department of Tourism, Culture, Arts, Gaeltacht, Sport and Media.

## Monitoring and reporting (Years 1-8)

* + Monitor energy usage and emissions to track progress towards targets (**ongoing**).
  + Report the impact of our actions to stakeholders in our annual report to help maintain momentum and build support for our climate action efforts (**ongoing**).
  + Evaluate and adjust the energy management plan as necessary based on monitoring and reporting results.

## Education and training (Years 1-8)

* + Conduct staff workshops, events and awareness campaigns to encourage behavioural changes (**ongoing**).
  + Develop and deliver training programmes to educate staff and building occupants on energy efficiency and emissions reduction (**ongoing**).
  + Encourage staff participation in energy conservation and emissions reduction initiatives (**ongoing**).

## Energy efficiency improvements (Years 2-4)

* + Identify all potential Reduce Your Use improvements (**ongoing**).
  + Where required, work with the OPW to upgrade our lighting control systems.
  + Work with the OPW to Develop HVAC improvements and operational control to increase efficiency.
  + Work with the OPW to incorporate building adjustments, which are aligned to the National Gallery of Ireland Master Development Plan and deliver on our sustainability targets.
  + Assess the feasibility and implementation other ideas for energy performance improvement.
  + Review Master Development Plan with regard to sustainability performance with the OPW and the Department of Tourism, Culture, Arts, Gaeltacht, Sport and Media.

## Renewable energy technology (Years 3-4)

* + Conduct feasibility studies for potential alternative renewable energy sources (heat pumps, solar, biofuel, and biomass).
  + If/where possible, work with the OPW to transition to new form of power generation.

# Appendix One – Compliance & Legal Requirements

The Gallery needs to be aware of our legal requirements relating to energy and climate action and acknowledge these in our roadmap.

These requirements include:

* + **Climate Action and Low Carbon Development (Amendment) Act 2021**, which requires all public bodies to perform their functions in a manner consistent with Ireland’s climate ambition.
  + **SI393/2021 Energy Performance** of buildings, which requires installation of Building Automation and Control by 2025, for buildings with HVAC rated output over 290kW; requires installation of electric vehicle charging points in carparks for new or refurbished buildings with more than 10 car parking spaces.
  + **SI381/2021 Clean Vehicles Directive**, which sets targets for the procurement of clean light and heavy-duty vehicles, with the first target falling in 2025 and the second in 2030. The definition of clean vehicle changes to zero emission vehicles in 2025.
  + **SI4/2017 Energy Performance of Buildings**, which requires all new public sector buildings built since 2018 to be “nearly zero emissions”.
  + **SI646/2016**, which requires that public bodies procure only energy using products and vehicles that are on the Triple E register.
  + **SI426/2014**, which requires the public sector to demonstrate exemplary energy management and requires public bodies to undertake energy audits every four years.