Ard-Mhúsaem na hÉireann
National Museum of Ireland

museum

Climate Action Roadmap 2025

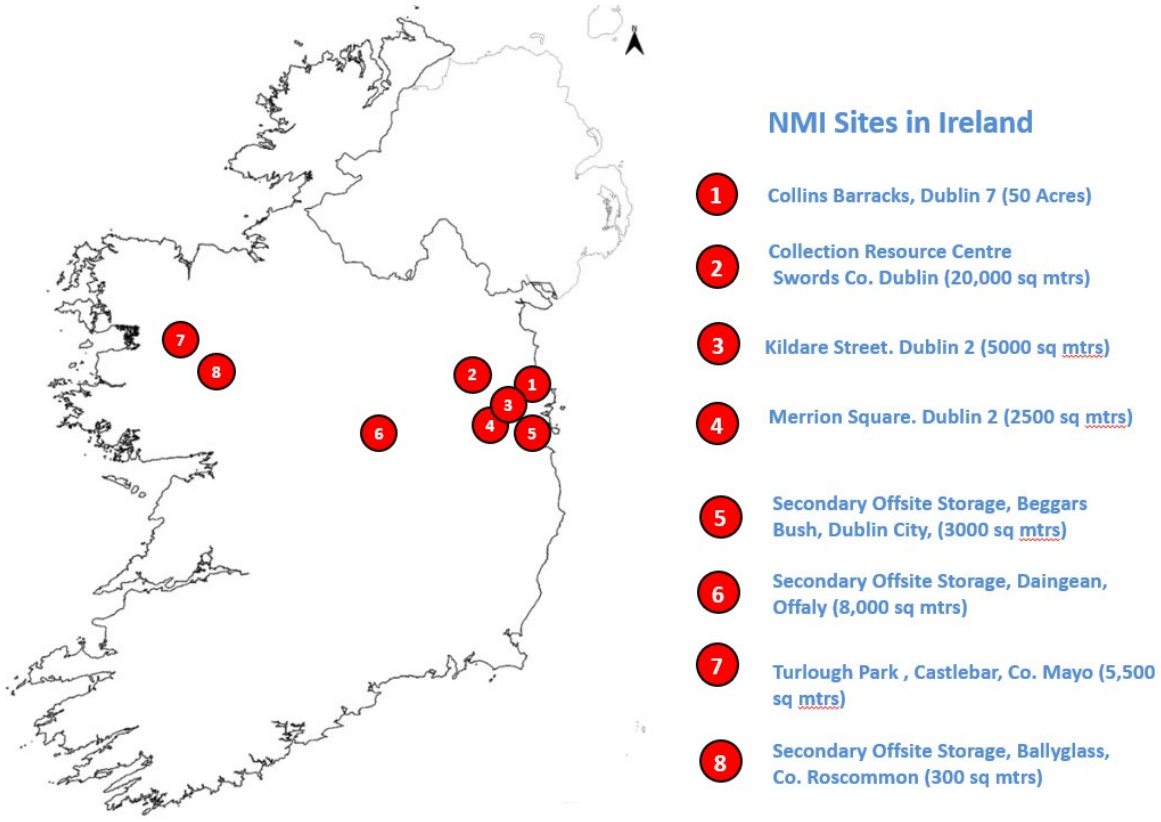
Contents

1. INTRODUCTION

1.1 Organisational context

The National Museum of Ireland is the national cultural institute mandated by the Irish Government to manage and curate Irelands material heritage and culture.

The NMI estate covering 8 sites is summarised as follows



Note : For historical reasons and because of the availability of central utilities services not under the Museum's direct control, site 3 and site 4 the Archaeology Museum and the Natural History Museum are not currently covered under SEAI's M&R energy reporting system.

It is intended to bring both Archaeology and Natural History into the Museum's energy reporting structure in the near future to allow us to capture the expected energy and carbon reduction benefits of expected investment in renewable energy in the Natural History building upgrade works which is currently ongoing

Energy Emissions Summary

The National Museum is the largest energy user in Irelands National Cultural Institutes, and in 2022, in the top 3 energy users within the Department of Culture, Communications and Sport.

Our 2024 energy usage was 8.4 Gwh, with Thermal Energy equating to 63% at 5.3 Gwh, and Electricity Energy Import to 37% at 3.1 Gwh.

The thermal energy breakout is as follows

- Natural Gas 82%
- LPG, 12%
- Gas Oil 5%
- Electric Heating 1%

Transport Emissions Summary

Our vehicle fleet currently consists of

- x1 small electric transport utility transport vehicle located at our Museum site in Collins Barracks
- x3 Electric Vans used as internal transport between different Museum sites

and results in 0 transport emissions for the Museum

In 2023 the National Museum of Ireland (NMI) launched the second strategic plan of its 15-year master vision. This strategic plan will have three lenses through which the National Museum will prioritise and address its work programmes over the next five years. The three lenses are 'For Community', 'For Shared Knowledge' and For the Planet'. While the lens 'For Community' speaks to the Museum's commitment to equality, inclusion and diversity in its operations and programmes, the lenses 'For the Planet' and 'For Shared Knowledge' contain objectives which align directly with both the Climate Action Plan, the Biodiversity Action Plan and the ambition to increase opportunities for greater engagement, research and citizen science. The Natural History Museum has recently been identified to be named in a key action of the draft Biodiversity Action Plan. It has also been mentioned in the final report of the Citizen's Assembly on Biodiversity Loss.
These lenses speak to the opportunity presented by the national collections to support greater community action on climate change and biodiversity.

Legal requirements for energy and climate action

We aim to meet the requirements of the Climate Action Mandate 2025 and recognise our minimum legal requirements as follows:

Please refer to Section 1.5 "Compliance with legal requirements" in the guidance document "Public Sector Bodies Climate Action Roadmaps Guidance 2025" https://www.gov.ie/en/department-of-climate-energy-and-the-environment/publications/climate-action-plan-2025/

1.2 Progress to date

From our energy savings project initiatives, from OPW CeDAR energy reporting system from January 2024 to December 2024 we have achieved

- Thermal Energy (exclusively Natural Gas Savings) of 28% (1.1 Gwh)
- Electrical Energy of 19% (571 Kwh)
- Overall Carbon Reduction for Electricity and Gas of 12% (209 tonnes tCO2)

2. OUR PEOPLE - LEADERSHIP AND GOVERNANCE

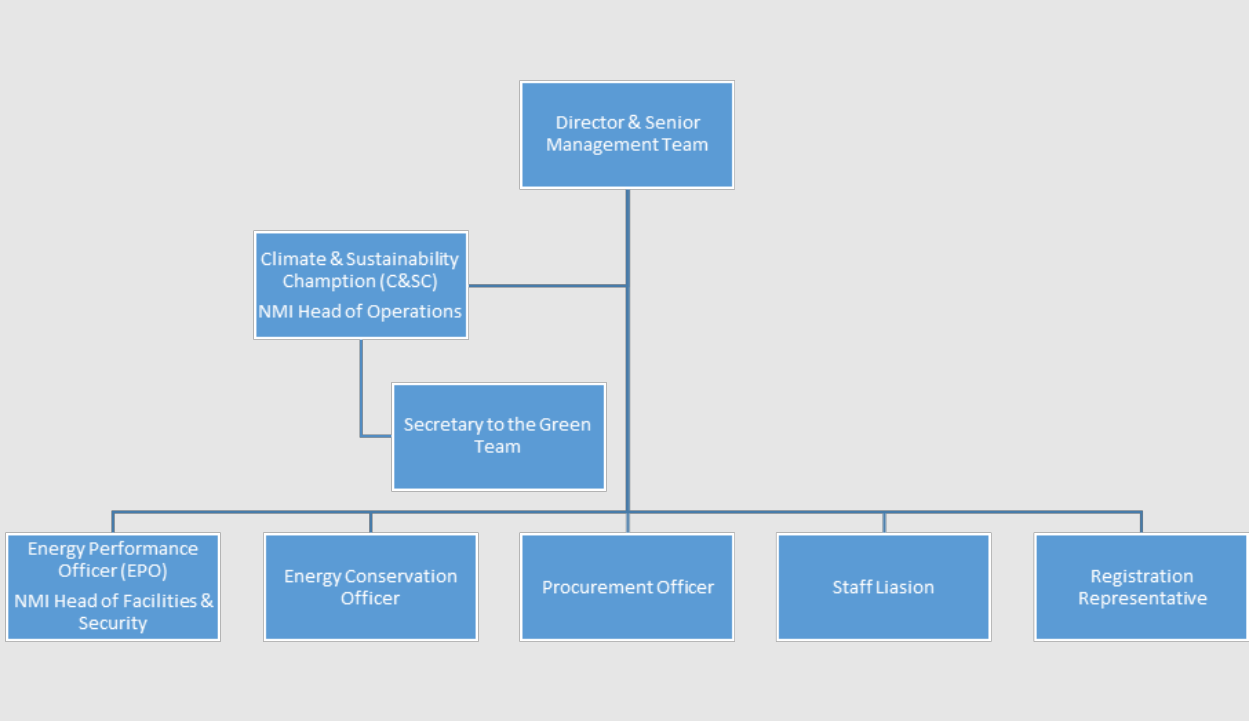
2.1 Statement demonstrating Senior Management commitment

The Museum has a responsibility to lead as advocates in promoting sustainability, biodiversity and addressing climate change. Through the development of our new strategy the Museum will enable greater access to our natural history collections to assist scientific research, recognising this collection's potential as the first biobank. We will approach our capital development programmes and operations from the perspective of sustainable practices, aligning our work to the requirements and road maps of the Climate Action and Low Carbon Development Act (2021). We will promote biodiversity by investing in our public realms and grounds. We will utilise our collections and programmes to engage the public on the challenges of climate change and how we can live more sustainably. Through this work we will advocate for communities most vulnerable to climate change.

From a governance standpoint the Museum provides quarterly updates to our partner department (Culture, Communications and Sport) on our climate action progress. We will continue to actively engage with the Department, and the OPW on the implementation of our strategy. The Museum is also committed to including climate action related duties in all new recruitment.

2.2 Governance structure for climate and sustainability

The Museum's Governance structure for climate and sustainability is cross departmental and will include staff members across a variety of grades and roles.



Climate and Sustainability Champion:

The Museum's Leadership Team have nominated the Head of Operation, Aoife Hurley, a member of the senior management leadership team, as the Climate and Sustainability Champion (C&SC) with responsibility for implementing and reporting on the Mandate. Aoife Hurley reports directly to the Director, Lynn Scarff. The Climate and Sustainability Champion has responsibility for implementing and reporting on the Mandate.

Energy Performance Officer:

Appointment of a member of the management team as an Energy Performance Officer is a requirement of the Public Sector Energy Strategy 2017. EPO's should have decision making powers with respect to facilities, corporate budgets, and procurement. It is noted that an appropriately ranked EPO may also serve as an organisation's Climate and Sustainability Champion in smaller public bodies.

The Museum's Leadership Team has nominated the Head of Estates, a member of the management leadership team, for the role of Energy Performance Officer (EPO).

The EPO has decision making powers with regard to facilities management, budgets and related procurement, along with a role in consultation with the Head of Finance & Procurement for corporate and financial reporting, so that they can:

- Lead the further 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 Performance Monitoring & Reporting System.
- Ensure timely provision of our report for the Annual Memorandum to Government on the implementation of this Strategy.
- Include these tasks as part of annual goal setting under PMDS

The nominated Green Team will include the key roles required to deliver on climate action, for example sustainability manager (if there is one), EPO, estates manager at minimum. Procurement and HR functions may also have a role and the Museum will strive to build climate action responsibilities into job role descriptions.

The Green Team's initial work will be to

- Set out a plan for at least one annual staff engagement workshop, focused specifically and initially on energy related emissions, and over time on wider climate issues and reducing organisational carbon footprint.
- Set out a plan, and advise the Museum's HR department where necessary, to identify appropriate climate action training for staff that will be incorporated into ongoing staff learning and development (training needs analysis and plan for delivery).
- Prepare information on any training needs analysis undertaken.
- Record information on relevant staff engagement and training already undertaken.
- Assist the Museum's Management in reporting to the Department and SEAI as required.
- Climate Change Carbon Reduction Awareness Programs
- The Museum intend to enable employee engagement initiatives like:
    - Site surveys on employee transport to work choice trends
    - Cycle/Walk to work promotions
    - Energy saving idea competitions

2.3 Green Team Structure

Names and roles of individuals appointed to the Green Team

Museum Green Team Member	Role & Responsibility	Email
Aoife Hurley Director of Operations	Climate and Sustainability Champion (C&SC). Member of Senior Management Team, reports directly to the Director.	ahurley@museum.ie
Head of Estates (formally known as Facilities & Security)	Energy Performance Officer (EPO), oversee facilities, budget and procurement for Climate Action Plan. Member of Management Committee Team reports directly to the Head of Operations.	bbarclay@museum.ie
Niall Brady Energy Manager	Energy Manager To seek energy saving operations, and upgrades, of existing plant and services and identify new Energy Saving Projects. Reports to the Head of Estates	nbrady@museum.ie

Museum Green Team Member	Role & Responsibility	Email
Paige Hagenov Procurement Officer	Procurement Officer focusing on Green Public Procurement. To seek improvements in our procurement processes, supplies, circular economy and life cycle costing. Reports to Head of Finance and Procurement.	phagenov@museum.ie
Sylviane Vaucheret Registration Department Representative	To work with the Procurement Officer in relation to supplies, circular economy and life cycle costing as well as management of the Museum Transport Framework	svaucheret@museum.ie
EO Corporate Affairs Unit	Secretary to the Museum Green Team Record minutes of meetings. Circulate updated information on Climate Action and Energy Saving, including the '*Reduce your Use*' campaign to staff to encourage user engagement by staff. Monitor and respond to emails to the Museum Green Team at greenteam@NMI.ie	greenteam@museum.ie
Jade Dillon Kieran Dowdall Staff Liaison x 2/3: Visitor & Security Officer x 2 EO Director's Office	Liaison for the Museum staff.	Jdillon@museum.ie kdowdall@museum.ie

3. OUR PEOPLE - ENGAGING OUR STAFF

The Climate Action Mandate requires that leadership and governance structures for climate action are set up, and that staff are engaged with climate action and have appropriate training.

The Museum will establish and resource a Green Team, reporting to senior management, to become integrated drivers of sustainability in the organisation.
The Terms of Reference for a Green Team committee have been set out, and approved by the leadership team, together with the appointment of initial personnel to commence the work of the Green Team.
The Museum also has a pre-existing environmental committee which has representation across the staff of the Museum, and it is planned that the Green Team, once established, will update and consult with the environmental committee.

The Museum will incorporate appropriate climate action and sustainability training (technical and behavioural) into learning and development strategies for staff. The Museum's Green Team and appropriate office holders will research suitable and appropriate training for increasing the depth of knowledge generally as well as specific training relevant to posts related to climate action activities. The Museum undertakes to support the team by providing time and funding for suitable Climate Action related training.

In addition to briefing to improve staff engagement on climate action, specialist training is anticipated in areas of Green Procurement, Collections Care, Facilities Management and Energy Management as well as on energy conservation measures and strategies appropriate to our buildings, collections and activities.

Members of the Green Team, or other nominated staff members, will present a workshop event, or at least one All-staff Meeting annually, to engage staff on climate issues, including a focus on decreasing the organisation's carbon footprint, and other initiatives.

3.1. Staff training plans

Staff training is essential in order for the Museum's to meet its 2030 Carbon reduction targets. Disseminating the core carbon reduction principals, and how to achieve it is crucial for the organisation. So one of the proposed initiatives planned in 2025 is to investigate the possibility of introducing a Sustainability module to the Museum's employee induction program.

Added to this will to be the ongoing encouragement driven by the Green Team to encourage staff to avail of the many SEAI modules and courses around energy management and sustainability.

Actions

- Develop Sustainability module content, and possibly develop a subsequent metric regularly report on number of new hires that would have had completed the Sustainability module training in a given period.
- Investigate E-Learning portal approach for Sustainability module training delivery. (lean on SEAI Energy Academy as part of this)
- Organise staff workshops (at least annually) to engage on climate issues, including a focus on decreasing the organisation's carbon footprint.
- Ensure that all senior management (P.O. level or equivalent and above) and members of State Boards complete a climate action leadership training course.

4. OUR TARGETS

In accordance with public sector requirements, our overall Carbon Reductions targets are mandated as follows:

- Reduce GHG emissions by 51% in 2030.
- Increase the improvement in energy efficiency in the public sector from the 33% target in 2020 to 50% by 2030.
- Update our Climate Action Roadmap annually within 6 months of the publication of the Climate Action Plan.

4.1 Carbon emissions analysis

- Baseline

  The Museum's Carbon Emissions baseline which the average emissions taken from SEAI's M&R over 2016 to 2018 is broken down as follows

	SEAI CO2 Baseline Average* (kgCO2)
Thermal Energy	**1,077,172**
Gasoil	**268,327**
LPG	**0**
Natural Gas	**808,844**
Electricity	**1,453,748**
Total	**2,530,920**

**Baseline Average Usage over 2016-2018*

- CO2 2030 Target

  The 2030 carbon reduction commitment on Fossil Fuel element (the most critical and includes Gasoil, LPG and Natural Gas elements combined is

  The Museum's Carbon Emissions target of 51% below baseline in 2030

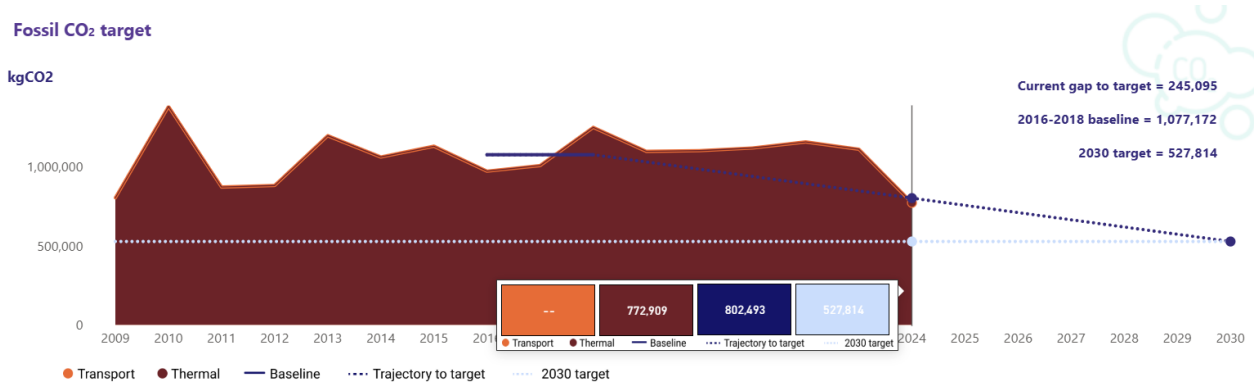
  CO2 kg absolute : **528,000 kg CO2** (51% of SEAI Baseline of 1,077,172)

- Current emissions 2024

	SEAI CO2 Baseline Average* (kgCO2)
Thermal Energy	**772,909**
Gasoil	**68,869**
LPG	**143,453**
Natural Gas	**560,588**

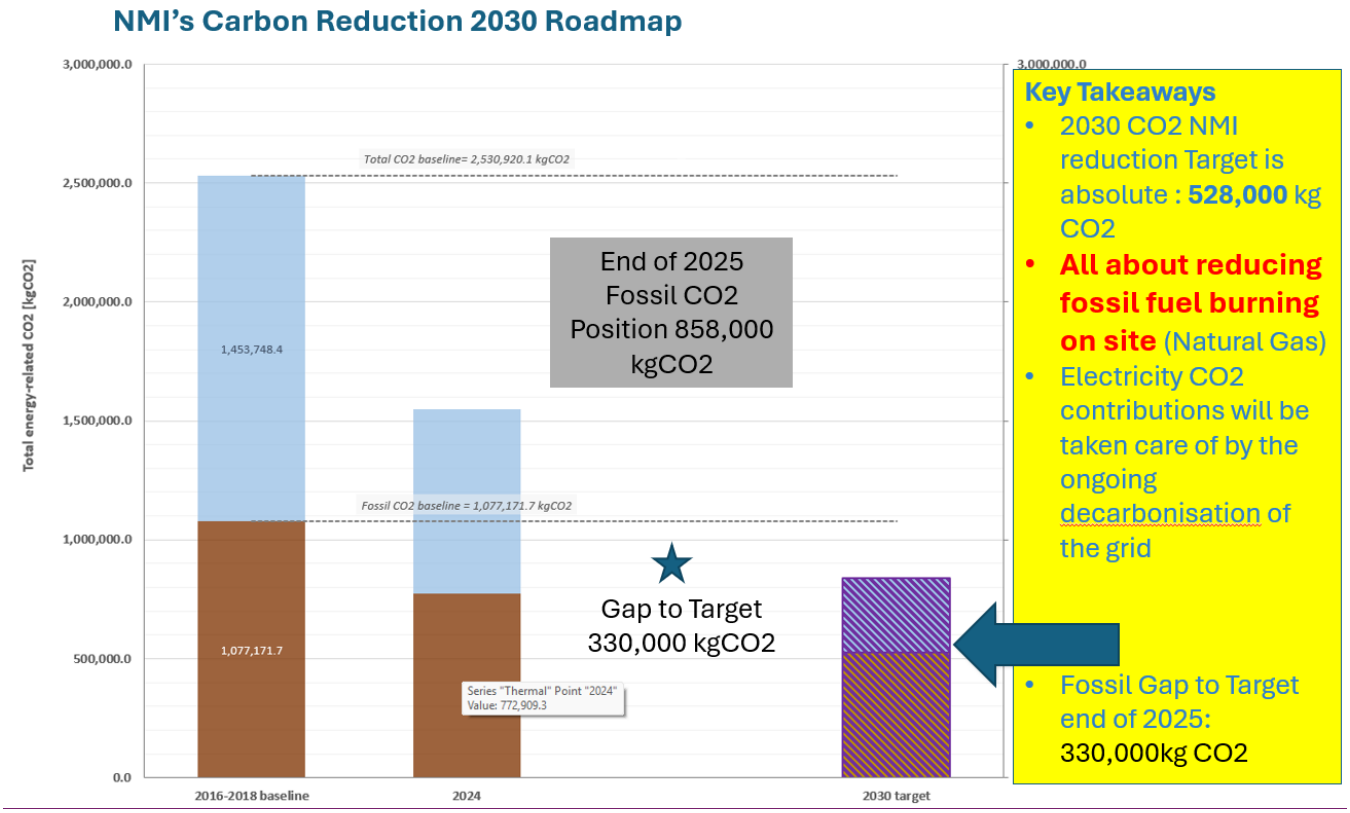
4.2 The Museum's Fossil Fuel Gap To Target Glidepath and Project Pipeline

As reported by M&R, the Museum is currently on 2030 glidepath with respect to fossil emissions



Summary graphical representation of 2034/2025 gap to target (taken from SEAI M&R) is outlined as follows

2025 Carbon Action Roadmap Gap to Target is detailed as follows



Climate Action Roadmap 2025

The following project listing (28 projects) is summarised on yearly savings based on proposed projects implemented with the remaining 5 year period of the 2030 commitments*

kg CO2e Saving 2025	kg CO2e Saving 2026	kg CO2e Saving 2027	kg CO2e Saving 2028	kg CO2e Saving 2029	kg CO2e Saving 2030	Total kgCO2e Savings to 2030	Gap to Target (2025)
24,507	-64,540	-222,268	-47,537	-60,819	-13,282	-383,938	-330,000

Caveats

1. *Need to factor in possible significant changes increases in the Museum's CO2 emissions position in 2026 once the Oireachtas District Heat Metering issue is resolved – currently the Museum has been given an out of date legacy energy use allocation in the absence of real data.*

2. *The following project listing outlines proposed projects only. The National Museum of Ireland is a tenant in buildings either owned or leased by the Office of Public Works, therefore any proposed projects are subject to agreement with the OPW as our landlord as well as discussion with our parent department regarding the appropriate allocation of the resources required to progress the projects, both financial and human. A commitment from both parties would be required to support the project list, including such items as biofuel substitution for relevant non natural gas boilers and building upgrade capital investments.*

Climate Action Roadmap 2025

Project Listing

Location	Project by Location	Comment	Annual Est Kwh Saving Scope 1	Annual Est kg CO2e Saving	kg CO2e Saving 2025	kg CO2e Saving 2026	kg CO2e Saving 2027	kg CO2e Saving 2028	kg CO2e Saving 2029	kg CO2e Saving 2030
TPH	TPH move to Biogas	Convert from LPG to Biogas - immediate no setup costs involved - major part of NMI Carbon Reduction 2025 target plan		-143,000			-143,000			
DGN	DGN move to HVO from GasOil	Current plan to convert DGN oil boilers to HVO - immediate no setup costs involved (HVO fuel cost premium involved TBD)		-69,000			-69,000			
NMI	Enhanced realtime Reporting - Energy Asset Energy Usage and Operational Awareness and Dashboard	CB Enviro by AHU Report Last Day - code development to report on ongoing performance/compliance	-30,805	-6,307		-6,307				
CB	Dedicated Energy Management resource to minimally monitor and modify schedules and maintain existing savings as well as driving future projects	Maintain existing savings by continuous monitoring of IoT and BMS heating and AHU schedules to 2030	0	0	0	0	0	0	0	0
CB	Implement Targetted IoT Monitoring on critical heating pump circuit Pump 14 in CB - include in Dashboard	Continue to implement innovative solutions to monitor SEU	-32,010	-6,554		-6,554				
CB	Generate and maintain an accurate Gas Significant Energy User (SEU) profile for thermal energy loads	This is essential in targetting efficent and effective energy reduction efforts	-42,680	-8,738		-8,738				
CB	CB Gas Submeter Install	Install x5 building level submeters and link to IoT Infrastructure -	-106,700	-21,846		-21,846				
CB	Pilot local TRV control solution for areas requiring trim control (possible wireless TRV) in P12 Visible Storage	Heating circuit shared with offices - need to isolate while improving Enviromental stability in the space	-5,335	-1,092		-1,092				
CB	Implement Gallery AHU Schedule Adjustments based on agreed Conservation policy	Make BMS adjustments (this would include seasonal setpoint adjustments)	-10,670	-2,185		-2,185				
NMI	Enable Complete summer shutdown strategy for all NMI sites	Identify and remediate any holdout heating demands that prevent boiler shutdowns in the summer - point of use heaters/immersions completed in all buildings except CB Riding School	0	0						
CRC	Summer HWS Boiler Shutdown Mitigation	Install immersions in Conservation and Canteen Areas to avoid running central LPHW system		15,000	15,000					
CRC	CRC HWS Decarb Strategy	Full Implementation €115k budget price) Eliminate Hot Water LPHW pipework in CRC - already solutioned and budget priced (H&S Legionella	-189,294	-38,756		-38,756				
CB	RS Water Heating and Radiator Electrification	Install electrical rads and point of use heaters in Riding School to avoid summer HWS and Heating demand in toilets in shoulder season	21,340	4,369		4,369				
CB	Gents Locker Room Electrical Heaters on BMS	Out of Hours Comfort Support Project - Need to schedule electric heaters remotely through BMS (avoid running main LPHW circuits at weekends) - currently running manually solution WIP	-29,577	-6,056	0	0	0	0	0	0
CB	West Block Desk Drop Down Space Readiness	Out of Hours Comfort Support Project - Need to provide an alternative deskProvide out of hours employee conditioned space out of hours avoid running main LPHW circuits at weekends	-29,577	-6,056		-6,056				
CB	Café Water Heating Electrification	Currently using standalone gas heater for water heating - running 24x7 including summer - not billable - and increases NMI CO2 emissions		9,500	9,500					

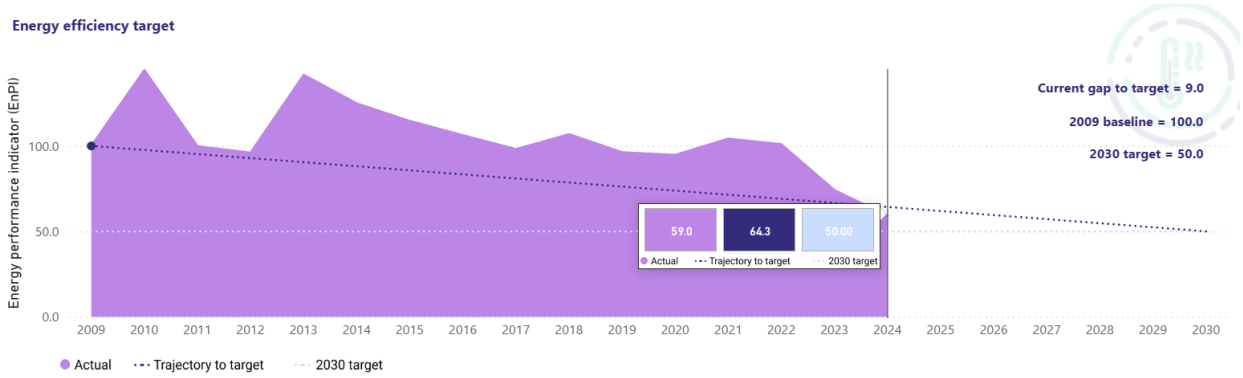
Project Listing (Continued)

Location	Project by Location	Comment	Annual Est Kwh Saving	Annual Est kg CO2e Saving	kg CO2e Saving 2025	kg CO2e Saving 2026	kg CO2e Saving 2027	kg CO2e Saving 2028	kg CO2e Saving 2029	kg CO2e Saving 2030
Priority/Big Impact Projects										
CB	**Bank Holiday BMS Scheduler (3% annualised saving)**	BMS Flakkt Programming Resource to schedule BH as a yearly one off - currently performed manually	-32,010	-6,554	0	0	0	0	0	0
CB	**CB AHU BMS Optimisation (North BT)**	Generate ongoing BMS Aircon Asset Performance reporting capacity - Constant Commissioning - help identify non performing aircon assets in realtime hardware already purchased - need enablement works programming effort	-50,149	-10,268			-10,268			
CB	**RS AHU Upgrade (controls/demand management) - aircon needs to be demand driven and not fixed**	outcome of SEU profiling project - needed to mitgate 7 day a week operation from mid 2025 for Dead Zoo usage	160,477	32,856		32,856				
CRC	**Generate and maintain an accurate Gas Significant Energy User (SEU) profile for thermal energy loads**	Essential Element of NMI Energy Management Plan (ISO50001 Accreditation)	-18,929	-3,876		-3,876				
CRC	**Bank Holiday BMS Scheduler (3%)**	BMS Flakkt Programming Resource to schedule BH as a yearly one off	-28,394	-5,813	0	0	0	0	0	0
CRC	**CRC Shallow BMS Upgrade**	Current Trend BMS headend is no longer supported and needs an upgrade - needs a basic heathcheck	-14,197	-2,907		-2,907				
CRC	**Implement Gallery AHU Schedule Adjustments based on agreed Conservation policy**	Make BMS adjustments (this would include seasonal setpoint adjustments)	-4,732	-969		-969				
TPH	**Generate and maintain an accurate Gas Significant Energy User (SEU) profile for thermal energy loads**	Essential Element of NMI Energy Management Plan (ISO50001 Accreditation)	-5,398	-1,105		-1,105				
TPH	**TPH Schedule Optimisation**	Work in progress - update end of May	-6,748	-1,382		-1,382				
CB	**B10 NZEB Building Fabric Upgrade Candidate - minimally replace gas boilers with Heat Pumps with Supplimentary Gas Boilers**	Good Building (Office) Upgrade project candidate (B11 copy?) - valuation report already generated - solution would include decarbonisation of heating	-297,053	-60,819					-60,819	
CB	**B15 Primary HT Heat Pump with Supplimentary Gas Boilers**	NMI Building Upgrade Priority position to be determined - outcome of SEU profiling project	-232,180	-47,537				-47,537		
CB	**RS Primary HT Heat Pump with Supplimentary Gas Boilers**	NMI Building Upgrade Priority position to be determined - outcome of SEU profiling project	-64,874	-13,282						-13,282

4.2 Energy efficiency analysis

From M&R 2024 performance review the following is the expected path to 2030 for energy efficiency – we are currently reporting lower than the glidepath for energy efficiency (ENPI). This requires savings to be generated and tracking with respect thermal and electrical energy consumption within the organisation

- 2024 ENPI Target : 64.3
- 2024 ENPI Actual : 59 (41% below baseline)
- 2030 ENPI Target : 50



4.3 Actions/projects required to meet Efficiency targets

The Museum will report progress in reducing GHG emissions and sustainability activities in the annual report. We will review any paper-based processes and evaluate the possibilities for digitalisation so it becomes the default approach, while ensuring that we capture all paper based public records in line with our statutory obligations.

Energy efficiency project listing as follows

Location	Electrical Savings Project	Comment
CB	**CB Water Pump Audit**	Carryout a full water pump audit for CB - previously requested into Helpdesk in 2024 but nothing delivered - identify key pump assets for upgrade (replacement of shunt (fixed speed) pumps with variable speed pumps for significant
CB	**Generate and maintain an accurate Electrical Significant Energy User (SEU) profile for electrical energy loads**	Essential Element of NMI Energy Management Plan (ISO50001 Accreditation)
CB	**Baseload Assessment Project**	Baseload accounts for 75% of electrical energy usage in CB Experimentation and Data analytics development to identify energy wasting assets
CB	**NMI Freezer Usage Monitoring**	Freezer estate SEU needs to be captured and monitored - complete the IoT rollout for NMI Freezer estate (IoT Investment)
CB	**Café Electrical Usage Data Availability Enablement**	Need to get remote read electrical meter (enabled and operational) - to make usage visible and billable - NMI already purchased meter
CB	**B10 Lighting Upgrade**	Replacement of T5 Flourescent Tubes (est 200-300 bulbs) and investigate introduction of a level of PIR control
CB	**Night Time CB Lighting Strategy**	Agree and implement night time out of hours external lighting plan
CB	**Upgrade Gallery Lighting Controls**	Current gallery lighting audit to be carried out and generate an upgrade plan
CB	**Gallery AHU VSD Drive Upgrades/Replace - demand response driven**	Minimal Upgrade to existing CB AHU asset stock - demand response solution
CB	**CRAC replace in B14 - futureproof replacement strategy incorporated with building fabric upgrade candidate**	very good passive conservation candidate decarb solution (already electrified) - fabric upgrade priority - could be an SEAI Pathfinder NMI candidate
CRC	**Generate and maintain an accurate Electrical Significant Energy User (SEU) profile for electricall energy loads**	Essential Element of NMI Energy Management Plan (ISO50001 Accreditation)
CRC	**Water Pump Audit**	Request pump audit identify key pump assets for upgrade (replacement of shunt (fixed speed) pumps with variable speed pumps for significant energy saving opportunity
CRC	**Main Storage AHU VSD Drive Upgrades/Replace**	Minimal Upgrade to existing CB AHU VSD drive asset stock - demand response solution - part of Deep BMS Upgrade works
CRC	**CRC Light Replacement Project**	needs a full lighting audit (some corridor lights have been changed out) requited - w/h metal halides minimally to be changed
CRC	**CRC Lighting Strategy**	Review current lighting control strategy - reduce the light levels to appropriate levels across the site
CRC	**CRC PV Install Project (As a Service)**	needs overall PV implementation strategy (OPW or NMI) driven - investigate the availaility of PV as a service provided by 3rd party vendors - no capital investment

Energy efficiency project listing (continued)

Location	Electrical Savings Project	Comment
TPH	**Generate and maintain an accurate Electrical Significant Energy User (SEU) profile for electricall energy loads**	Essential Element of NMI Energy Management Plan (ISO50001 Accreditation)
TPH	**Water Pump Audit**	Request pump audit identify key pump assets for upgrade (replacement of shunt (fixed speed) pumps with variable speed pumps for significant energy saving opportunity
TPH	**Main AHU VSD Drive Upgrades/Replace**	Minimal Upgrade to existing AHU VSD drive asset stock - move to demand response solution
TPH	**TPH PV Install Project (As a Service)**	
TPH	**TPH Lighting Replacement Project**	Existing CFL x400 in place in storage areas
DGN	**DGN Remote BMS Access and Optimisation**	Implement a remote connection to Daingean BMS to remotely the heating on site (winter daily clock schedule in place)

4.4 Ensuring consistency with Section 15(1) of the Climate Action and Low Carbon Act 2021

There is a requirement for Public bodies to be properly aligned with Section 15 of the Climate Action and Low Carbon Act 2021

Will Request a workshop on this new addition to the guidance from SEAI by 2025, following which further guidance specifically relating to this action will be published.

5. OUR WAY OF WORKING

We will report on the following in our Annual Report (*or equivalent*):

- Greenhouse Gas emissions.
- Implementation of the Climate Action Mandate.
- Sustainability activities.
- Compliance with Circular 1/2020: Procedures for offsetting the emissions associated with official air travel.

We will report annually on implementation of the Climate Action Mandate requirements using SEAI's Public Sector M&R System (when required) adopting a "comply and explain" approach.

Further requirements now included in 2024 Climate action roadmap, will be project managed and progress reported through the mandated Green Team within the Museum, using an agreed centralised reporting repository for Green based metrics

Green Public Procurement

- Implement Green Public Procurement (GPP), using the EPA Green Public Procurement Guidance and criteria/Office of Government Procurement's online Green Public Procurement Criteria Search
- Have incorporate green procurement training into learning and development strategies for staff in 2025.
- Measure the environmental and climate benefits achieved through the application of green criteria in future procurements.

Actions

- Implementing and actively monitoring of procurement contracts with respect to green criteria compliance from 2025, defining specific compliance metrics (like the number of contracts, and the number% of non compliances with reasons), and regularly reporting of compliance position.

Business Travel

- The Museum reports its business travel carbon impacts using the available trip analytics provided through the NSSO Core Expenses and reported regularly by the Museum's Finance Department to senior management.
- Reported metrics that are available out of the box are cumulative local travel kilometres travelled and international air travelled kilometres through flight locator information and an estimated accumulated CO2 value for air flights taken in the period for Museum staff.

Actions

- Request copies of reports, through the Green Team of available business travel reports

Construction

- Specify low carbon construction methods and low carbon cement material as far as practicable for directly procured or supported construction projects from 2023.
- Adhere to the best practice guidelines for the preparation of Resource and Waste Management Plans for construction and demolition projects for directly procured or supported construction projects from 2024.

Food waste

- The Museum provides Public Café services at two locations, using a single service contractor Synge & Byrne (S&B). As part of the Green Procurement obligations, current contractual obligations, require S&B to meet requirements regarding food waste management within their service provisioning.
- Ensure 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

Actions

- S&B have outlined sustainability goals including BCorp certification within their RFQ – plan to extract a starting set of metrics around their food waste management policy, reusing some of their BCorp certification kpis in 2025 for the Museum sites
- Make S&B aware of the Food Waste Charter and encourage them to sign up.
- Support National Stop Food Waste Day in March each year.
- Share Stop Food Waste resources with staff.

Paper

- Review any paper-based processes and evaluate the possibilities for digitisation so it becomes the default approach. Eliminate paper-based processes as far as is practicable. Where paper must be procured, ensure that recycled paper is the default.

Actions

- Using existing available reporting capabilities around centralised printer management to generate a series of metrics relating to printed paper consumption.
- Where possible Procurement team to instigate an historical paper purchase order assessment to establish the Museum's paper usage baseline
- Procurement to report regularly on specifically quantity of paper purchased by the Museum on a regular basis, and what % was recycled

Water

- Work on water usage reporting within the Museum will commence in 2025, with the primary task aimed at getting a full understanding of water provisioning services across all of the Museum's sites.

Actions

- Generate a WPRN register list for the Museum for all of its sites
- Establish a metering status position with respect to the WPRN register and identify any gaps i.e. WPRN that are currently estimated due to the lack of metering infrastructure
- Conduct a gap analysis and engage with OPW/Uisce Eireann to ensure a remediation plan
- Commit to a regular (at least quarterly) reporting of the Museum's water consumption.
- Implement a plan to reduce water consumption.
- Investigate the feasibility of providing adequate suitable drinking water refill points for all staff and in any premises accessed by the public and once in place plan to measure and monitor usage of the refill points.

Single Use

- The Museum provides Public Café services at two locations, using a single service contractor Synge & Byrne. As part of the Green Procurement obligations, current contractual obligations, require S&B to meet requirements and report compliance around single use items within their service provisioning.

- Also single use item obligations exists for contracted Event Management servicing of Museum organised, hosted or sponsored events at its various sites within the estate.

- Agree with S&B management and hosted event management to monitor and ensure compliance by external café and canteen service providers to cease using disposable cups, plates and cutlery in any public sector canteen or closed facility, excluding clinical (i.e., non-canteen healthcare) environments, and in publicly funded advertising or broadcasting, where feasible.

Actions

- Agree a series of practical reporting metrics that can be provided to the Museum on a regular basis regarding single use products among it service providers and contractors

Other Materials

- Support Ireland's Producer Responsibility Initiatives in the collection and recycling of products.
- Use waste collection services that are segregated into a minimum of 3 streams - residual/general waste, recycling waste and organic/biowaste.
- Generate a waste provider collection provider consolidation plan and begin its execution by end of 2025 (AES Bord na Móna has been awarded the contract)

Actions

- With a single supplier scenario, get the vendor to provide regular reports by location and by waste stream, using standard kpi's and reporting option for waste generation (general waste, dry recyclables,
- Have separate reporting streams for organic and electrical and electronic waste equipment.
- Get vendor to rollout a centralised battery
- Get a reporting position from confidential waste contractor as to what is shredded by site by year
- Set out plans to prevent waste (general waste, dry recyclables, organic waste, other wastes), to progressively reduce waste generation.

6. OUR BUILDINGS AND VEHICLES

Buildings

Fossil fuel heating systems Building stock plans.

- Get Display Energy Certificate (DEC) in every building that meets the requirement by year end.
- Ensure OPW comply with that design and build procedure requirements for non-fossil fuel heating in new builds for the Museum's projects after 2023.

Actions

- The first pass at the Museum's Fossil Fuel heated Building Stock Plan is included in App B as Roadmap in 2025.
- Where relevant, public bodies should set out their plans to commence the deep retrofit of at least one building in 2025.

Vehicles

Promoting alternatives to car use and phasing out parking

- Develop plans to promote the use of bicycles and shared mobility services among employees and visitors.
- Develop plans to phase out vehicle parking at relevant buildings.

Procurement of zero emission vehicles

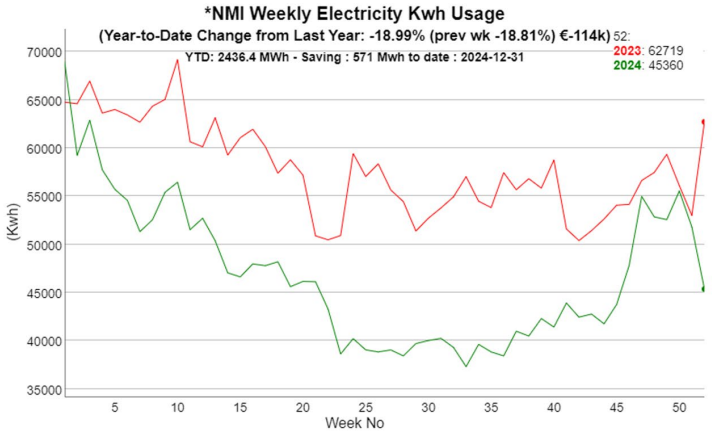
- Update processes for vehicle procurement to meet the target for the purchase of zero emission vehicles where operationally feasible, as well as the minimum targets set out by SI381/2021 Clean Vehicles Directive.
- Public bodies with a vehicle fleet should include their plan for installation of charging infrastructure in relevant locations.

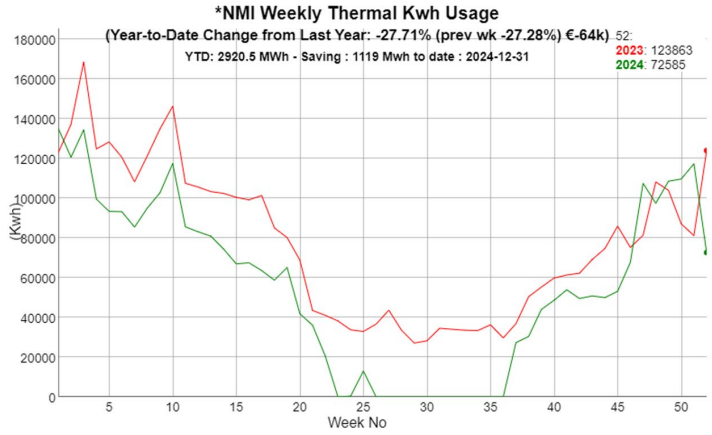
Management/Board Sign Off

Signed _____

APPENDIX 1 Demonstrating Exemplar Energy Management

The following is a summary of energy saving progress made by the Museum over the last 12 months to Dec 2024





2024 NMI Week on Week Energy Performance

Appendix 2 : Fossil Fuel Heated Building Stock

ID	Name	Description	Address 1	Eircode	Type	Sub-type	Protected structure	Building maintained by OPW	SEAI building code	Floor area (m2) 2024
12245	Collins Barracks Block 18	Storage	Benburb St	D07XKV4	Specialised building	Store, warehouse	Yes	Yes		1,647
12244	Collins Barracks Block 13	Storage	Benburb St	D07XKV4	Specialised building	Store, warehouse	Yes	Yes		1,430
12239	Collins Barracks Artist Studio	Studio	Benburb St	D07XKV4	Arts, culture, heritage, tourism	Other arts, culture, heritage,	Yes	Yes		175
12238	Collins Barracks Quartermasters Store	Storage	Benburb St	D07XKV4	Arts, culture, heritage, tourism	Museum	Yes	Yes		600
12237	Archaeology Museum	Gallery	Kildare Street	D02FH48	Arts, culture, heritage, tourism	Museum	Yes	Yes		7,240
12236	Collins Barracks Riding School	Public Gallery	Benburb St	D07XKV4	Arts, culture, heritage, tourism	Museum	Yes	Yes		1,244
9810	Collins Barracks Block 14	Storage	Benburb Street	D07XKV4	Arts, culture, heritage, tourism	Museum	Yes	Yes	23460	976
9809	Natural History Museum	Public Gallery	Merrion Street	D02F627	Arts, culture, heritage, tourism	Museum	Yes	Yes	23458	2,500
9808	Turlough Park House	Public Gallery and Storage	Turlough Park House	F23HY31	Arts, culture, heritage, tourism	Museum	Yes	Yes	23457	5,500
9807	Collins Barracks Asgard Gallery	Public Gallery and Storage	Benburb Street	D07XKV4	Arts, culture, heritage, tourism	Museum	No	Yes	23456	580
9806	Collins Barracks Clarkes Sq Galleries	Heritage Building	Benburb Street	D07XKV4	Arts, culture, heritage, tourism	Museum	Yes	Yes	23454	12,500
9805	Collins Barracks Block 19	Heritage Building	Benburb Street	D07XKV4	Office	Naturally ventilated	Yes	Yes	23453	970
9804	Collins Barracks Block 15	Heritage Building	Benburb St	D07XKV4	Office	Naturally ventilated	Yes	Yes	23452	1,200
9803	Collins Barracks Block 10	Office and Storage	Benburb Street	D07XKV4	Office	Naturally ventilated	Yes	Yes	23451	720
9802	Daingean Offsite Storage	Offsite Storage	St Conleths	R35T9X8	Specialised building	Store, warehouse	Yes	Yes	23450	8,000
9801	Collection Resource Centre	Main Storage Facility	Balheary Road	K67VR88	Specialised building	Store, warehouse	No	Yes	23449	20,000
9800	Beggars Bush	Storage	Haddington Roard	D04E0C9	Specialised building	Store, warehouse	Yes	Yes	23448	3,000