Health Information and Quality Authority

An tÚdarás Um Fhaisnéis agus Cáilíocht Sláinte

HIQA's Climate Action Roadmap

June 2024

Table of Contents

1. Introduction

The Government's Climate Action Plan specifies the energy efficiency and energy-related greenhouse gas (GHG) emission reduction goals that public sector bodies in Ireland must meet and directs all public bodies to develop a roadmap describing how they will meet these goals.

In response, the Health Information and Quality Authority (HIQA) has developed this Climate Action Roadmap. It outlines the work that HIQA has already undertaken in this area and details the organisation's plan for continuing to reduce energy use and switch to renewable and carbon-free energy sources in order to further reduce carbon emissions from HIQA's facilities.

Under the Climate Action Plan 2021 (CAP21), public sector bodies are required to achieve the following:

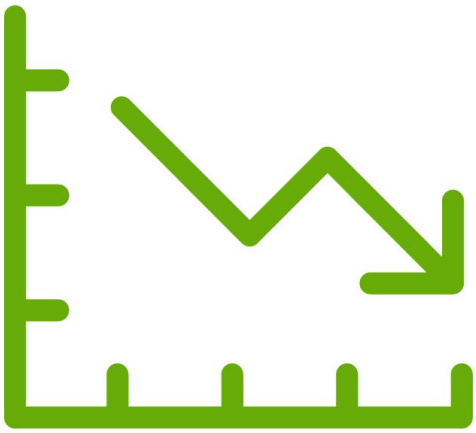
1. Reduce energy-related GHG emissions by 51% by 2030 (against a baseline of 2016-2018 average emissions)
2. Increase the improvement in energy efficiency in the public sector from the 33% target set in 2020 to 50% by 2030 using the 2009 baseline
3. A net-zero energy related emissions target for 2050 at the latest.

This roadmap, which will be revised annually, will assist with the achievement of the strategic goal to create a net-zero estate by 2050. Additionally, it will play a crucial role in achieving HIQA's strategic goals as well as lowering emissions from the delivery of service and our supply chain.

The roadmap outlines the required steps including the important deeper actions that will be necessary and builds on existing work-streams advanced by HIQA and its partners, particularly the Sustainable Energy Authority of Ireland (SEAI) and the Office of Public Works (OPW) under the Optimizing Power at Work and the Reduce your Use campaigns. For HIQA to meet its decarbonisation goals, this SEAI and OPW collaboration approach and support must be maintained.

As the OPW are the leaseholders of HIQA's office buildings on behalf of the State, there will be a requirement for HIQA to continue working with the OPW to ensure that all buildings are as energy efficient as possible. Any actions taken will be based on the OPW agreements with the landlord and will be supported by HIQA.

2. Progress to Date



HIQA entered into a partnership with the OPW and the SEAI in 2011 with a view of reducing its energy consumption. The data gathered allowed HIQA to work towards meeting the 33% energy efficiency required by Government by 2020. HIQA's offices, Cork, Dublin and Galway, achieved a saving of 38% in energy usage in 2022. This was accomplished through a number of activities including:

- Conducting an in-depth study of the significant energy users across both buildings
- Engaging external consultants to conduct independent energy audits of all sites as set out in the Statutory Instrument (SI) 131 of 2014
- Re-lamping of all lights in the organisation's Dublin office to LED lights, resulting in an energy saving of approximately 45% in light-related energy
- The implementation of stringent controls on HIQA's building management systems (BMS) which are used to regulate the organisation's heating, ventilation and air conditioning (HVAC) system
- Revising procurement practices and ensuring energy-efficient equipment was purchased wherever possible
- The implementation of auto shutdown systems for on-site computer equipment
- The upgrade of passive infrared sensors on the lighting systems to ensure that only the lights needed were being used
- Working with the landlord and the OPW in the Smithfield office to replace the gas boilers to ensure that maximum efficiency was achieved

- Improvements to the bathrooms to reduce the volume of water being used
- The implementation of energy awareness campaigns for all HIQA staff.

The combination of all of these actions resulted in significant savings from both environmental and financial perspectives.

HIQA has managed to keep it energy usage almost the same as its 2009 baseline even though the organisation has expanded greatly. (see figures 1.1 and 1.2 below)

Staffing levels have increased by 262% and occupied floor area has increased by almost 49% yet HIQA has managed to increase its energy efficiency by 64.3% since its baseline (see tables 1 and 2 and figure 1.6 below)

Activity	Unit	EE baseline	2016	2017	2018	2019	2020	2021	2022	2023
Full-time-equivalent employees	FTE	141.0	220.0	239.0	270.0	270.0	280.0	350.0	352.0	370.0
Total useful floor area	m2	3,936.0	5,058.0	5,058.0	5,058.0	5,058.0	5,058.0	5,058.0	5,858.0	5,858.0

Table 1 Increase in bot staffing levels and floor area occupied since 2009 baseline

	EE baseline	2016	2017	2018	2019	2020	2021	2022	2023
⊟ Thermal energy	311,842	314,467	243,942	383,058	299,417	307,066	318,407	244,679	298,593
⊟ Natural gas	311,842	314,467	243,942	383,058	299,417	307,066	318,407	244,679	298,593
Natural gas	311,842	314,467	243,942	383,058	299,417	307,066	318,407	244,679	298,593
⊟ Electricity	460,150	563,462	530,524	581,321	547,082	522,043	467,628	475,137	476,241
⊟ Electricity	460,150	563,462	530,524	581,321	547,082	522,043	467,628	475,137	476,241
Net electricity imports	460,150	563,462	530,524	581,321	547,082	522,043	467,628	475,137	476,241
Total	**771,992**	**877,929**	**774,465**	**964,379**	**846,499**	**829,108**	**786,035**	**719,816**	**774,834**

Table 1 Energy use from 2016 -2023 v 2009 Baseline (in kWh)

Figure 1.1 – Electricity Performance

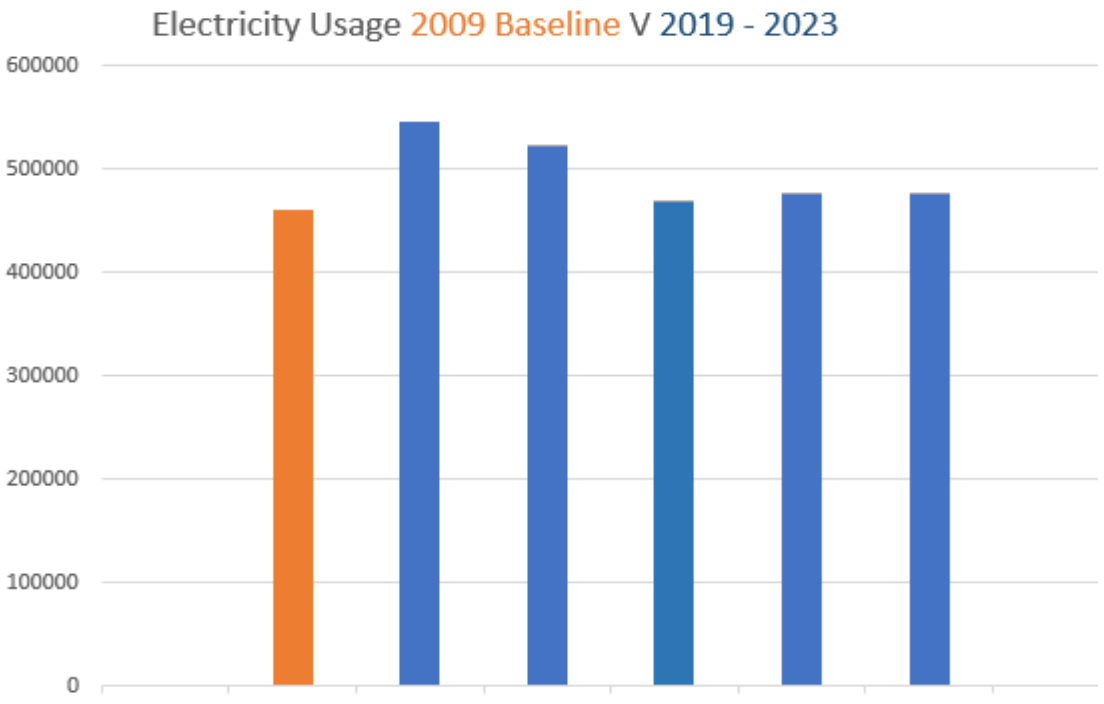


Figure 1.1 Electricity usage 2009 Baseline v 2019-2023 (in kWh)

Figure 1.2 – Gas Usage

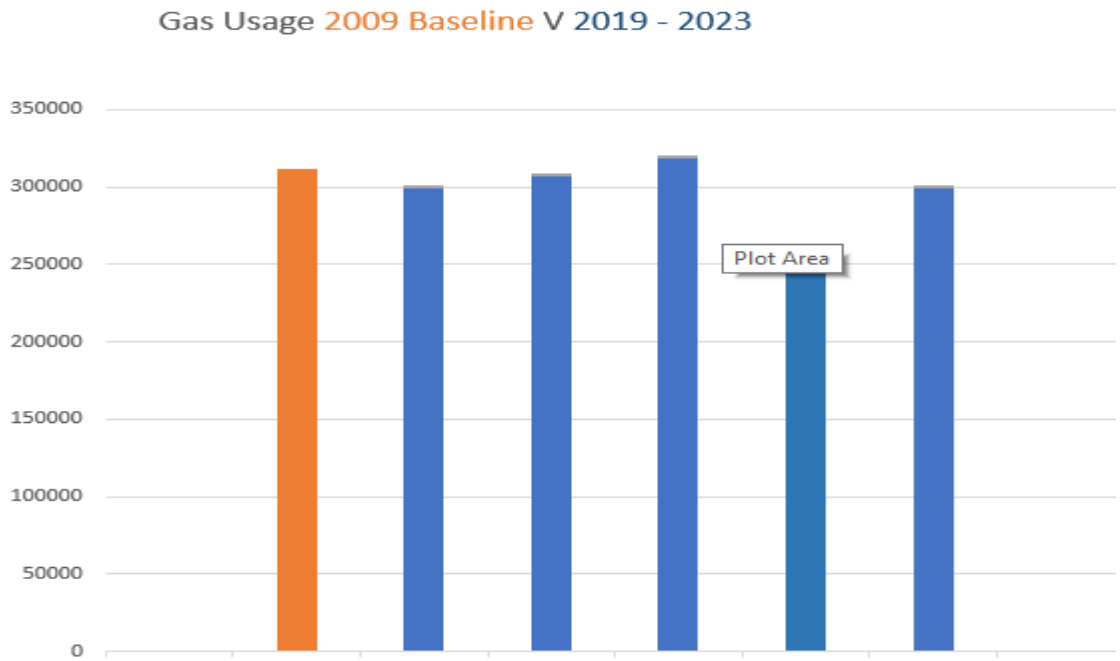


Figure 1.2 indicating Gas Usage 2009 Baseline v 2019-2023 (in kWh)

HIQA continues to engage with both the SEAI and the OPW under the 'Reduce Your Use Campaign' to meet the new 2030 Government set greenhouse gas reduction target of 51% from the 2016-2018 average usage baseline.

To date HIQA has achieved a 36.9% reduction. (see figure 1.3 below)

Figure 1.3 – Annualised Performance to Target

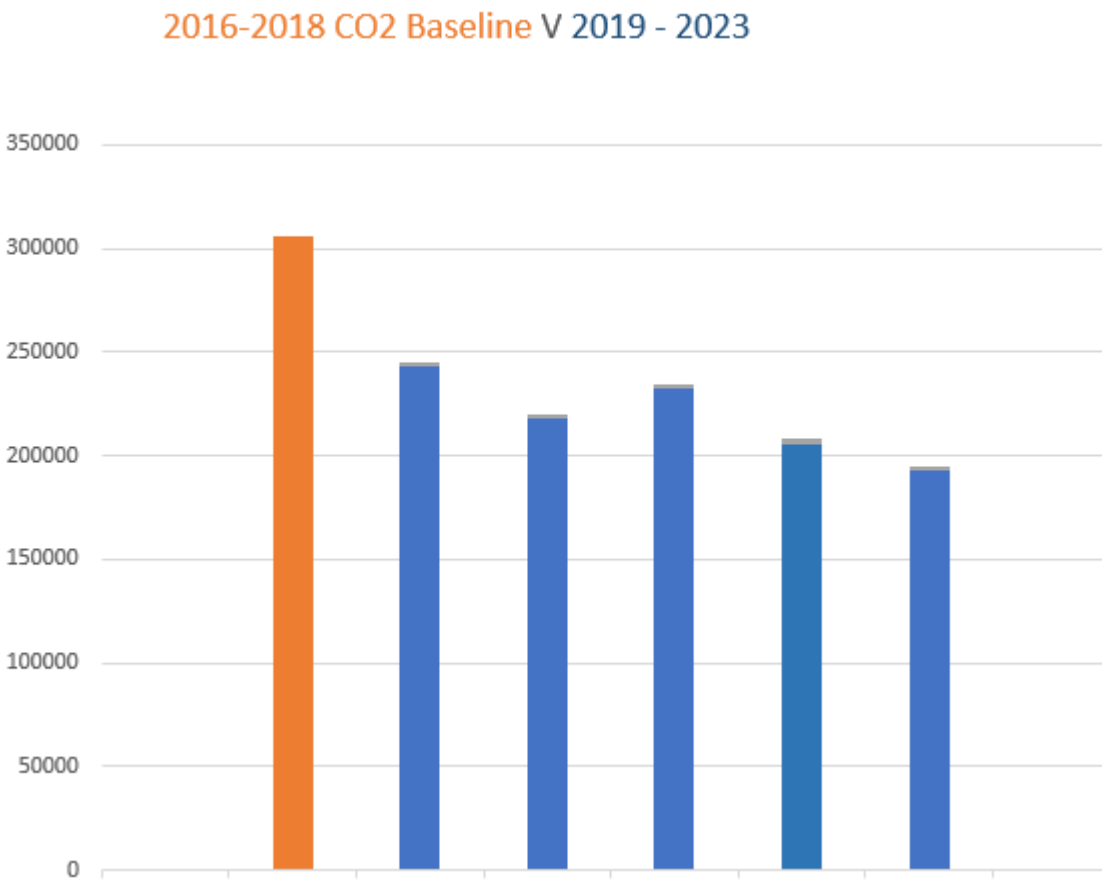


Figure 1.3 indicating CO2 Emissions 2016-2018 Average v 2019-2023 (in kgCO2)

3. Leadership and Governance for Climate Action

Green Team

HIQA is conscious that the ambitions set out in this roadmap will only be achieved through leadership and commitment from Senior Management in the organisation and a strong governance framework. This roadmap has been approved by HIQA's Executive Management Team and has the support of the Board of HIQA.

To support its implementation, HIQA has established a green team with representatives from across the organisation. This team will include key roles required to deliver on climate action and includes the Acting Chief Operating Officer, the Facilities Manager, representatives from the Communications and Stakeholder Engagement Teams and other functions from across the organisation.

The Team Members are:

Name	Title	Name	Title
Sean Angland	Acting Chief Operating Officer and Chairperson	Paul Larkin	Facilities/Health & Safety Manager
Pat Conway	Facilities Officer	Joe Leavy	Solutions Architect
Emma Burke	Senior Business Analyst	Ella Tuohy	Analyst NCEP
Marie Higgins	Acting Programme Manager	David Byrne	Health Services Researcher
Lucia Power	Regional Manager	Aine Tubridy	Research Officer
Maeve McGarry	Health Services Researcher	Julia Johansson	Health Information Research Officer

Angela McCormack	Inspector	Stephen Mulryan	Web Development Lead
Ann Delany	Regional Manager	Lisa Verhees	Executive Officer, Office of the Chief Executive
Donal Siochru	Senior Communications Coordinator		

With regard to specific roles that are required to deliver this mandate, the Head of Corporate Services, who is a member of the Executive Management Team, is the Climate and Sustainability Champion within HIQA. Reporting to the Chief Executive, the Head of Corporate Services has responsibility for implementing and reporting on the mandate and also acts as the Energy Performance Officer. Operational responsibility for energy performance is the responsibility of the Facilities Manager.

4. Engaging Our People

Achieving the decarbonisation targets that have been set will require significant changes in people's behaviours. This will only be possible if there is buy-in and commitment from those who work in HIQA.

In developing its wider approach to sustainability, HIQA has consulted with staff across the organisation. Meetings have been held with members of the Executive Management Team

and other identified members of staff. HIQA has carried out an online survey of all staff in the organisation and used their input in the development of this document.

This engagement has identified that there is a strong commitment from staff to playing their part in HIQA's decarbonisation journey. It has also identified that staff need more support from, and engagement with, the organisation to do this. Over the time period set out in the roadmap, HIQA will:

- Work with the Human Resources Team to incorporate appropriate climate action and sustainability training into learning and development strategies for staffin line with the requirements of the Public Sector Climate Action Mandate.
- Organise staff workshops, at least annually, to engage on climate issues, including a focus on decreasing the organisation's carbon footprint.
- Develop a communications plan to keep staff informed, engaged and motivated with regard to decarbonisation in HIQA.

5. Achieving Our Carbon Target

HIQA is mandated to achieve a 51% reduction in the organisation's carbon footprint by 2030 to aid the reduction of future global warming.

HIQA's 2016-2018 baseline is 306,102 kgCO2 and its 2030 target is 83,381 kgCO2. To reach this target HIQA must reduce its carbon emissions by 109,750 kgCO2 between now and 2030. This goal can only be achieved by implementing a number of actions, which are listed in detail below.

HIQA will commit to carrying out research into the energy and environmental systems available to it, and will commit to implementing the most suitable system that will best serve the needs of the organisation in meeting its 2030 and 2050 targets.

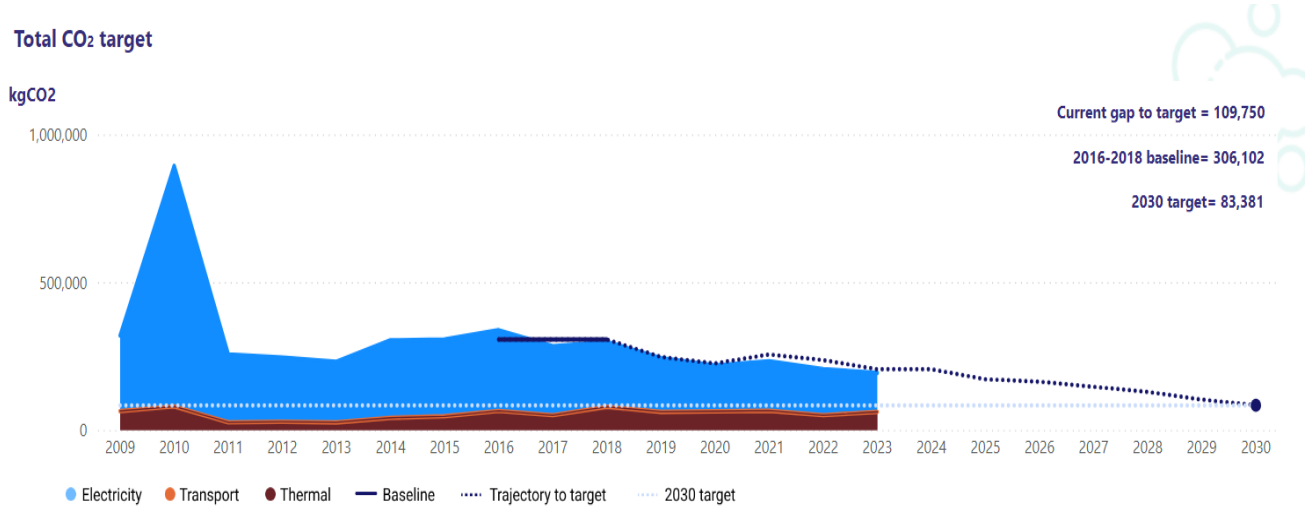
HIQA will also review energy usage in its new offices in Cork and Galway with the view to implementing automated controls which will ensure that they are operated in the most energy-efficient manner possible.

Action No.	Action Details
1	Continue to engage with both the SEAI and the OPW under the current partnership agreements.
2	Support and continue to develop HIQA's Green Team which includes members from across the organisation
3	Increase focus on energy efficient procurement.
4	Work with the OPW and landlords to implement deep energy and carbon reduction retrofits of our buildings where possible.
5	Develop and roll out energy metering models which will be interlinked with HIQA's energy management system.
6	Use resources from the OPW and the SEAI to implement behavioural training and learning for all HIQA staff.
7	Support the wider work of HIQA in the area of Climate Action and Sustainability.

The actions listed above will have a number of interlinked dependencies and the cooperation of colleagues and HIQA's external partners will be essential. Senior management have committed to supporting this drive to reach the organisation's targets.

To date HIQA has reduced emissions by 112,989 KgsCO2 which is a saving of 36.9% but must save another 109,750 kgCO2 to achieve its 2030 target.

Figure 1.4 – Greenhouse Gas Summary 2009 to 2023



6. Achieving Our Energy Efficiency Target

HIQA acknowledges that the organisation's carbon footprint is the combined result of numerous inputs. This roadmap will initially focus on the input created by HIQA's energy usage. The graphs above (Figures 1.1 and 1.2) indicate HIQA's usage from 2019 to 2023 compared to its 2009 baseline. While HIQA has already made significant savings, the organisation needs to reduce its usage even further to meet its goal which is 51,811 kgCO2 of gas emissions and 31,570 kgCO2 of electricity emissions by 2030

To achieve these targets, additional controls will need to be implemented with the cooperation of colleagues and HIQA's partners, the OPW and the SEAI.

Action No.	Action Details
1	Reduction of temperatures across all offices to 19°C as advised by the Government. The reduction of temperatures in open-plan offices is not without its challenges, hence colleague cooperation is essential. This can only be achieved through open discussion and the focused work of the green teams in each office.
2	Recalibration of the LED light sensors which identify when staff are in a given area, ensuring only those lights that are required are activated. According to the SEAI, electricity used for lighting a building can account for up to 40% of the total usage, efficient use of lights will aid in the reduction of HIQA's overall usage.
3	Working with landlords to conduct a feasibility study of retrofitting the existing lights in the Cork office to LEDs. LED light systems have been proven to significantly reduce energy consumption.

4	Using the building management system (BMS) to implement stringent controls on gas use. As only HIQA's Dublin office uses gas, there will be a need to consult with other tenants within the building as any changes would have a direct effect on them.
5	Implement out-of-hours audits in all offices to ensure all equipment is switched off each evening. Reports show that equipment left in standby mode still use energy. By ensuring all equipment is unplugged or switched off, the organisation could achieve an additional 2% reduction in electricity use.
6	A project was identified in the Cork and Dublin offices respectively. The project would have seen one chiller unit in the Communications rooms put on standby and on automatic start-up mode. This would have the impact, if practical, of sufficiently reducing the electricity energy usage at both sites out of hours and at weekends. It would also further reduce HIQA's greenhouse gas emissions from both sites. The Dublin Communications Room chiller units now operate alternatively While this project was deemed to be not viable in the Cork office due to the age of the chiller units, HIQA has reduced the operational hours of one unit in the Building 1000 Office in City Gate. This unit is switched off during the working day, Monday to Friday, resulting in energy savings of approx. 16%. HIQA is now liaising with the OPW and their energy consultants with the view to increasing the energy efficiency of the Comm's Rooms in its offices. A report has been issued in relation to the Cork HIQA Office and the findings will be considered.

7. Energy and Environmental Management Systems

In HIQA, energy usage in the Cork and Dublin offices is managed with the use of a Cylon-controlled building management system (BMS).

In the Dublin office, all gas boilers, pumps, valves, and fan coil units are controlled by way of timed schedules from the centralised BMS. The use of gas is further controlled by the use of outside air temperature compensatory calculations. This means that the higher the outside temperature, the lower the temperature of the hot water supplied by the boilers.

The Dublin office is shared with other public sector bodies and this does pose challenges in that all the gas energy usage is shared between the occupiers of the building. Gas usage is split on a percentage of floor area occupied by each public sector body. HIQA's usage is calculated at 37.28% in Smithfield and 22.7% in George's Court of the gas energy used.

In HIQA's head office in Cork all heating and cooling is supplied by an air conditioning system which is controlled through time schedules on the BMS. The time schedules ensure that controlled start and finish times are maintained. Internal thermostats ensure that the office is maintained at a controlled temperature preventing energy wastage.

Energy in HIQA's second Cork office, Building 2000, along with the Galway office, is controlled through localised wall-mounted control pods.

8. Greening Our Procurement

HIQA recognises the necessity and importance of Green Public Procurement (GPP).

GPP is a process where public authorities seek to source goods, services or works with a reduced environmental impact throughout their life cycle, as compared to alternative products and or solutions. GPP is acknowledged as a vital policy lever in meeting environmental policy objectives.

HIQA has already begun implementing green award criteria in many of its tenders. 67% of all HIQA tenders in 2023 had requirements for green criteria or environmental considerations – these were mainly in the areas of Facilities and ICT. HIQA is committed to expanding on this number in its future tenders.

9. Baselining and Reducing Resource Use

HIQA's 2016 to 2018 CO2 emissions baseline has been calculated at 306,102 kg. The organisation's current usage, when compared to its 2030 target, shows that HIQA is currently slightly ahead of its forecasts (see figure 1.4 page 12) and is on course to meet its 2030 targets.

Figure 1.5 – Annualised Tonnes of CO2 Emitted in 2023

In 2023 HIQA emitted 193,131 kgCO2 which is a 36.9% decrease on it baseline of 306,102 kgCO2

To achieve its target of 83,381 kgCO2, HIQA will need to reduce its emissions by a further 109.131 kgCO2 between now and 2030

Figure 1.6 – Energy Performance Indicators 2023

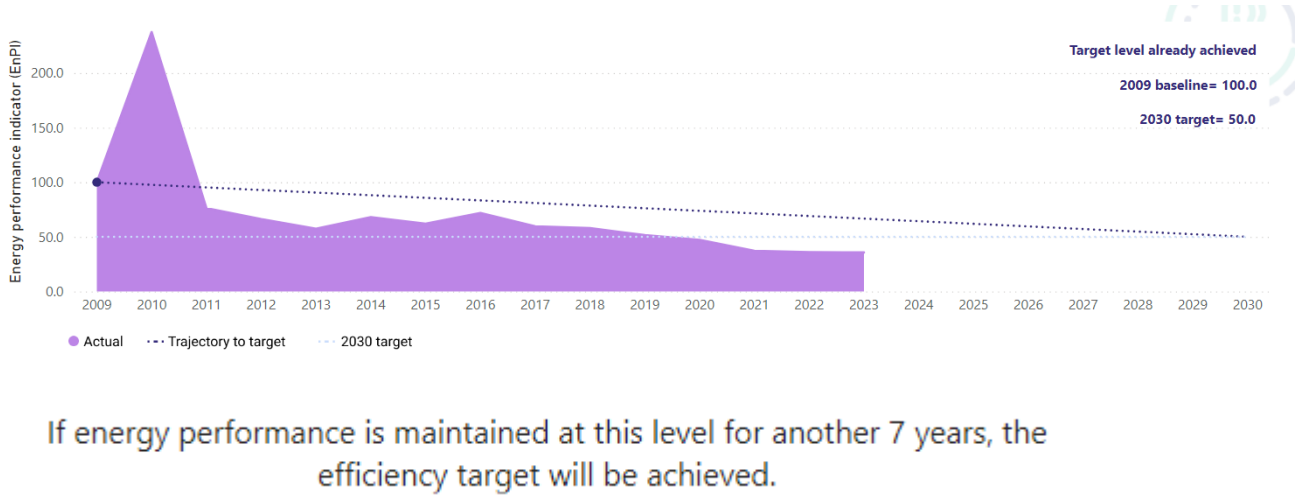


Figure 1.6 illustrates HIQA's improved energy efficiency in light of the organisation's continued expansion over time. HIQA employee numbers have increased from 141 employees in 2009 to 370 in 2023. This is a 262% increase of the workforce.

Figure 1.7 – Energy-related CO2 Emissions 2023

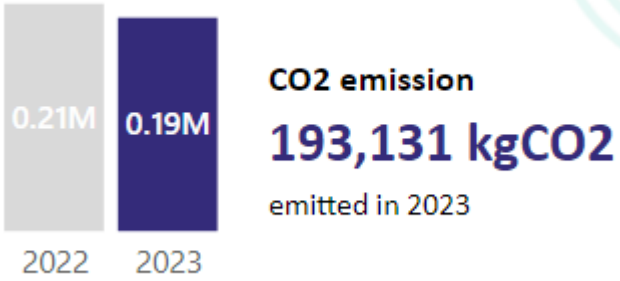


Figure 1.7 highlights the organisation's decrease in CO2 emissions in 2023 and can be viewed in conjunction with Figure 1.5.

10. Improving Our Buildings

It is acknowledged that there is a difference between how buildings are designed and how they actually perform in relation to energy efficiency. While the Government has implemented legislation and policies to ensure all new buildings, both commercial and residential, meet an agreed standard as a minimum, this will not address the energy loss from the existing building stock. Therefore, the need for reducing this gap falls to the landlords and the tenants.

In summary, HIQA has to date achieved significant energy efficiencies across its portfolio with the assistance of the OPW, the SEAI and most importantly its employees. Through the implementation of a number of projects and internal controls, along with an increased focus on green procurement, HIQA achieved a 36.9% reduction in CO2 emissions by the end of 2023. While this is ahead of forecasts, HIQA will continue to seek new opportunities to reach its overall target as soon as possible.

Published by the Health Information and Quality Authority (HIQA).

For further information please contact:

Health Information and Quality Authority

George's Court

George's Lane

Smithfield

Dublin 7

D07 E98Y

+353 (0)1 8147400

info@hiqa.ie

www.hiqa.ie