



NATIONAL OIL RESERVES AGENCY

Climate Action Roadmap

September 2023

Revision Control

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1 INTRODUCTION

The National Oil Reserves Agency DAC (NORA) was established in 1995 under the European Communities (Minimum Stocks of Petroleum Oils) Regulations 1995 as a private limited company for the maintenance of Ireland's strategic oil reserves.

Under the National Oil Reserves Agency Act 2007 (NORA Act 2007) and associated legislation, NORA is responsible for ensuring that Ireland meets its obligations under EU legislation and International Energy Agency (IEA) rules to maintain a minimum of 90 days' oil supply. In addition, this Act established NORA as a stand-alone State Body under the aegis of the Minister for the Department of the Environment, Climate and Communications (DECC).

NORA has three key functions:

- a) To ensure that Ireland meets its obligations under EU legislation and IEA rules to maintain 90 days minimum stocks of oil for use in an oil supply emergency,
- b) To maintain the necessary resources, skills, processes, and procedures to support the Department effectively and efficiently in responding to an international or national disruption in any such oil supply emergency; and
- c) To administer Ireland's Biofuel Obligation Scheme, including fulfilment of the role of designated authority for measuring compliance with Article 7(a) of the EU Fuel Quality Directive (FQD).

The Government's Climate Action Plan 2023 (CAP23) sets out the energy efficiency and energy related Greenhouse Gas Emissions (GHG) reduction targets which Public Sector Bodies in Ireland are legally obliged to meet. It also mandates Public Bodies to develop a Roadmap setting out how they will deliver these targets.

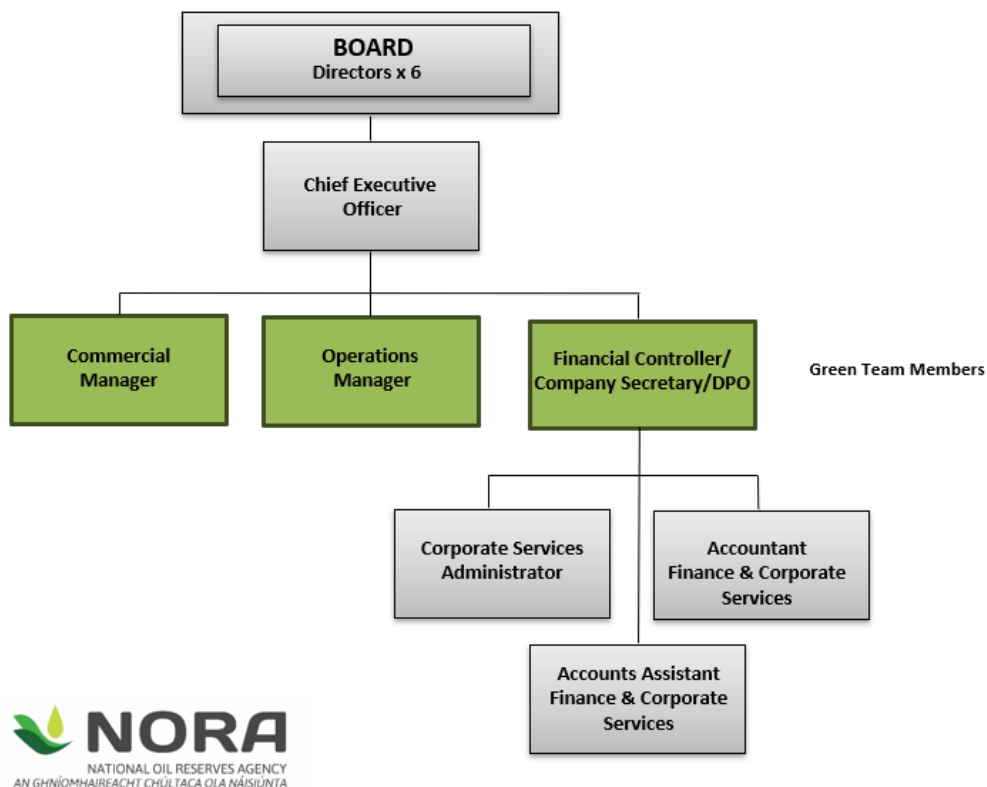
This NORA Climate Action Roadmap has been developed by NORA in response to this obligation. It outlines progress to date and our approach to continue to reduce carbon emissions from our operations by reducing energy usage and shifting energy sources from fossil fuels towards renewable energy sources.

NORA is committed to achieving its 2030 carbon emissions and energy efficiency targets and objectives have been included in our business Strategic Plan 2023 -2027. This Climate Action Roadmap has been approved by the CEO and will be reviewed and updated annually. The annual review will consider our climate action progress, Gap to Target analysis and any updates to the Government's Climate Action Plan and Public Sector Climate Action Mandate.

2 ENGAGING OUR PEOPLE

NORA employs seven full time staff members located at its Head Office in Ballsbridge Dublin 4 and owns three oil storage facilities at Tarbert , Ringsend and Poolbeg. These facilities are managed by a third-party Operations & Maintenance Contractor (Zenith Energy) who reports directly to our Operations Manager.

The organisation chart of the agency is outlined below and a Green Team of three staff members was established in 2023, comprising of representation from across the agency with roles in operations, commercial and finance. The Green Team reports directly to the CEO and will become integrated drivers of sustainability at the agency.



Since its establishment earlier this year, the Green Team has developed a range of action points including commitment to:

- Focus on delivering the agency's decarbonisation and energy efficient targets.
- Continue to report and improve on our energy management processes.
- Develop an agency Energy Policy.
- Identify and quantify its scope one, two and three carbon emissions and establish appropriate plans and actions to reduce these emissions.
- Provide appropriate climate leadership training to key staff.
- Provide staff training on climate action and sustainability for all staff.
- Prepare this Climate Action Roadmap and present it to CEO for approval.

2.1 LEADERSHIP AND GOVERNANCE OF CLIMATE ACTION

The Governance Structure for Climate and Sustainability is embedded in our organisational structure. Responsibility for implementing and reporting on the Mandate is assigned to the Climate and Sustainability Champion.

The **Climate and Sustainability Champion** and the **Energy Performance Officer (EPO)** is Justin Fahey, Commercial Manager and is member of the Management Team in NORA. Justin has decision making power with respect to facilities, budgets and procurement.

The **Green Team Membership** comprises of the following personnel:

Team Member	Role
Gavin Norris	Operations Manager
Lisa Mullan	Financial Controller / Company Secretary
Justin Fahey	Commercial Manager

2.2 ENGAGING AND TRAINING STAFF

- NORA will support all staff in attending training courses to better their knowledge of climate action and sustainability.
- Staff will also be made aware of information, training and other supports provided by SEAI focussing on engagement and awareness. These include:
 - Reduce Your Use in the Public Sector – Energy Awareness Programme
 - SEAI Engaging People at Work Accelerator
 - SEAI Energy and Carbon Basics Training
- NORA will host quarterly team meetings to discuss energy performance focussing specifically on energy related emissions and over time on wider climate issues and reducing the agency's carbon footprint.

3 ACHIEVING OUR TARGETS

3.1 ACHIEVING OUR ENERGY EFFICIENCY TARGET

The target set by the Climate Action mandate is an increased energy efficiency of 50% by 2030 from a baseline of 2009. Reducing energy consumption has been a high priority for NORA over the past number of years and our achievements to date include the following:

- Relocated our Head Office from an E2 energy rated building to a LEED accredited building with a BER rating of B1.
- Installed LED lighting at our three oil storage facilities in Tarbert, Ringsend and Poolbeg.
- Installed 10kV solar panels at our Tarbert oil storage facility.
- Installed real time meters at our head office and storage facilities to monitor energy consumption more closely.

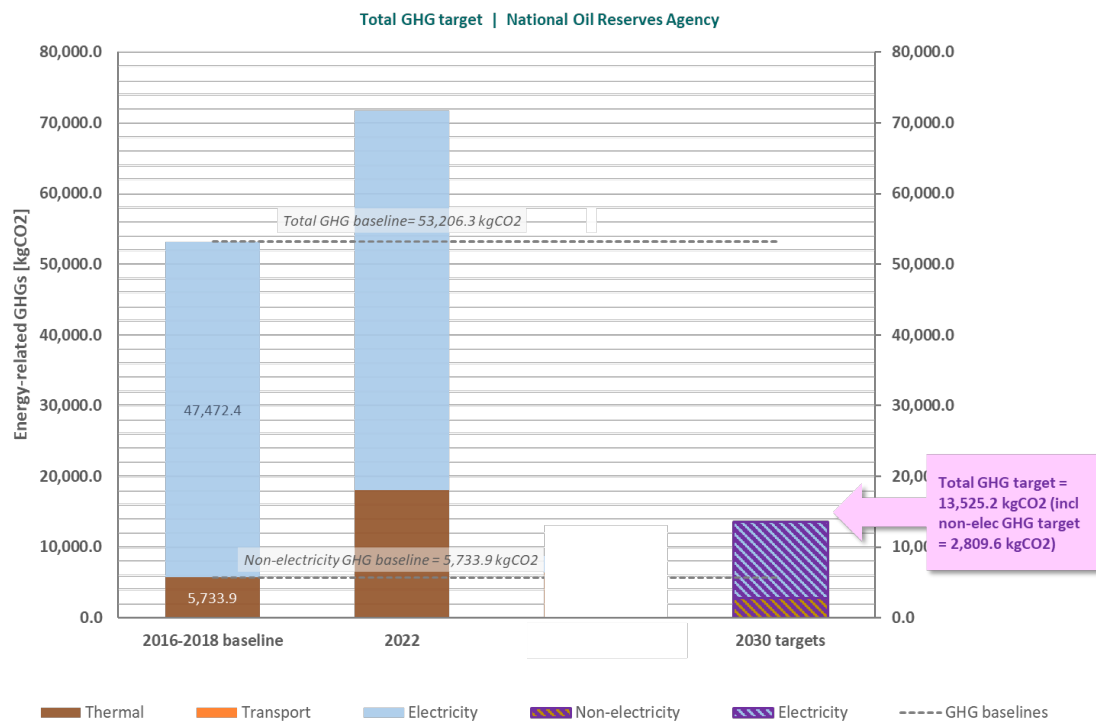
The table below outlines several projects we have in the pipeline to continue to reduce our energy consumption. We anticipate the reduction in electricity energy consumption by completing these projects could potentially be between 80-90% and this will allow us to significantly exceed the targets set under the Climate Action plan to 2030.

Project	Year	Annual Energy Savings (kWh)	Comments
Our lease at the old office expires at the end of January 2024 so we will no longer be consuming any energy at this building.	2024	3,000	
Landlord has committed to Installation of solar panels on the roof of our existing head office at No. 1 Ballsbridge	2023	3,800	40% reduction in electricity consumption
Installation of solar panels at the Poolbeg oil storage facility.	2024	8,250	11 kVa installation
Installation of solar farm at Tarbert oil storage facility	2025	125,000	100-200 kVa solar farm subject to planning approval
All heating in control rooms at sites to be thermostatically controlled	2024	1,000	reducing the heat requirement by 50%
Installation of intelligent heating system on the fire water pump house in Tarbert	2024	2,600	reducing the heat requirement by 50%

These projects have been entered into our Gap to Target spreadsheet which is highlighted further in Section 6.0.

3.2 ACHIEVING OUR REDUCTION IN GHG EMISSIONS

Our GHG 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, transport and overall energy related emissions including electricity to be reduced by 51%. The SEAI M&R tool and reporting records allow us to set the baseline as detailed in the bar chart outlined below. The chart highlights that based on NORA’s 2022 consumption data we have a very challenging task to meet our 2030 target in reducing our overall GHG emissions from 70 tonnes CO₂ to 13.5 tonnes CO₂.



It is important to note that for the baseline period in 2016-2018, NORA’s head office was in Clanwilliam Square where there was no air conditioning system and all heating was provided by electrical storage heaters. The new building that the Agency has moved into has a Building Management System (BMS) with mechanical ventilation and a heating system powered by Natural Gas. As a result of this, together with the addition of a new oil storage facility at Poolbeg, Dublin, NORA’s total emissions has increased significantly in 2022 since the baseline of 2016-2018.

As mentioned previously the projects highlighted in Section 3.1 will assist us in meeting the total GHG target and reducing the Electricity block in the graph above. However, the challenge for NORA will be in meeting the Non-Electricity GHG emissions target. The Thermal block in the Chart above arise from the use of Natural Gas to heat our Head Office building and the use of Gasoil for heating our Control Rooms and Firewater Heater Pumphouses at our oil storage facilities.

NORA plans to reduce the thermal component by replacing Gasoil usage at sites with the renewable alternative Hydrotreated Vegetable Oil (HVO) and this will result in a reduction of c. 35% in non-electricity GHG emissions. The challenge will be in reducing the Natural Gas usage as the Agency is in a commercial shared building with no other public bodies. As a result, there will be very little incentive for the Landlord to replace the heating system from a fossil fuel system to a heat pump alternative.

One possible solution that may come down the line in the future, most likely beyond 2030, is the replacement of natural gas by a renewable gas alternative. The GHG pathways and targets to 2030 is discussed further in Section 6.0.

4 OUR WAY OF WORKING

NORA is subject to the Code of Practice for the Governance of State Bodies and the Agency adheres to the principles and standards placed on Irish public sector organisations to ensure transparency, accountability and effective management. The Agency will continue to analyse and report annually on its impact and progress on GHG emissions, energy savings and sustainability activities in its Annual Report and will include reporting on Green Public Procurement sustainability activities. As NORA is a small public body, it is not our intention to achieve formal environmental accreditation with ISO 50001 or ISO 14001 but we plan to implement some form of energy management system in the near future at our head office and oil storage facilities.

4.1 GREEN PUBLIC PROCUREMENT

NORA is committed to environmental, economic and socially sustainable procurement activities. We will apply green criteria where it is applicable in all our tenders and we will endeavour to:

- Make contractors / key suppliers aware of NORA's sustainability and Green procurement commitment.
- Ask tenderers to demonstrate either current or planned green procurement practices that provide increased sustainable awareness and work practices.
- Only purchase goods and services that reflect best practice specifications and economic or social sustainability.
- Continue to ensure that NORA obtain best value for money in all procurement activities.

4.2 WASTE MANAGEMENT

The NORA Green Team, staff and O&M Contractor at site are committed to a waste action plan that increases recycling and minimises waste generation.

4.3 RESOURCE USE

NORA continues to review our paper-based processes and we have digitalised where appropriate. We are currently in the progress of moving to a cloud-based data storage and sharing document system and an online accounting system which will considerably reduce our printing requirements.

Awareness campaigns and other supports will be provided at all locations to help in reducing paper-based processes.

5 OUR BUILDINGS AND VEHICLES

5.1 OUR BUILDINGS

5.1.1 HEAD OFFICE

NORA's head office is in a shared office space at a LEED accredited building at Number One Ballsbridge, Dublin. The office is under leasehold tenancy until 2035. We continue to ensure that our office floor space is operated as efficiently as possible and we will continue to improve performance going forward. The building has an energy rating of B1 and a Display Energy Certificate is on display.

5.1.2 SITE CONTROL ROOMS

At each of our three oil storage site locations there is a small control room of approximately 120 sq. m in size. We have appointed a consultant to carry out a BER rating on each of the control rooms and we will put measures in place to improve energy performance going forward.

5.2 OUR VEHICLES

NORA do not have any of their own vehicles with all staff having their own personal vehicles. EV charging points are provided in the car park of our shared office building and we have EV charging points at our oil storage facilities.

5.3 BICYCLES

NORA office and storage sites are bicycle friendly with safe and secure access-controlled bicycle parking facilities. Lockers and shower facilities are available for NORA staff who wish to walk, cycle, run or jog when commuting to work. NORA also participates in the Cycle to Work Scheme.

5.4 CLIMATE ACTION INITIATIVES

Consideration will be given in the future as to what further steps NORA can take in relation to reducing other indirect emissions (i.e., Scope 3 emissions, e.g., from business travel, commuting, working from home, and purchased goods and services), identifying the impact of climate change on the agencies operations and undertaking climate adaptation measures.

Additionally, we plan to encourage staff and personnel down at site to suggest improvements and initiatives to raise awareness of climate change mitigation and adaptation.

6 NORA CLIAMTE ACTION ROADMAP

As highlighted in Section 3.0, NORA uses the SEAI Public Sector Programme, Gap to Target Tool (v3.10), to evaluate its energy performance over time, using data and methodologies from SEAI’s Public Sector Monitoring and Reporting System (M&R) which includes a feature to model the decarbonisation of NORA’s energy use over the period to 2030.

The latest version incorporates 2022 data and allows for the modelling of initiatives in terms of carbon and energy reduction towards 2030 targets.

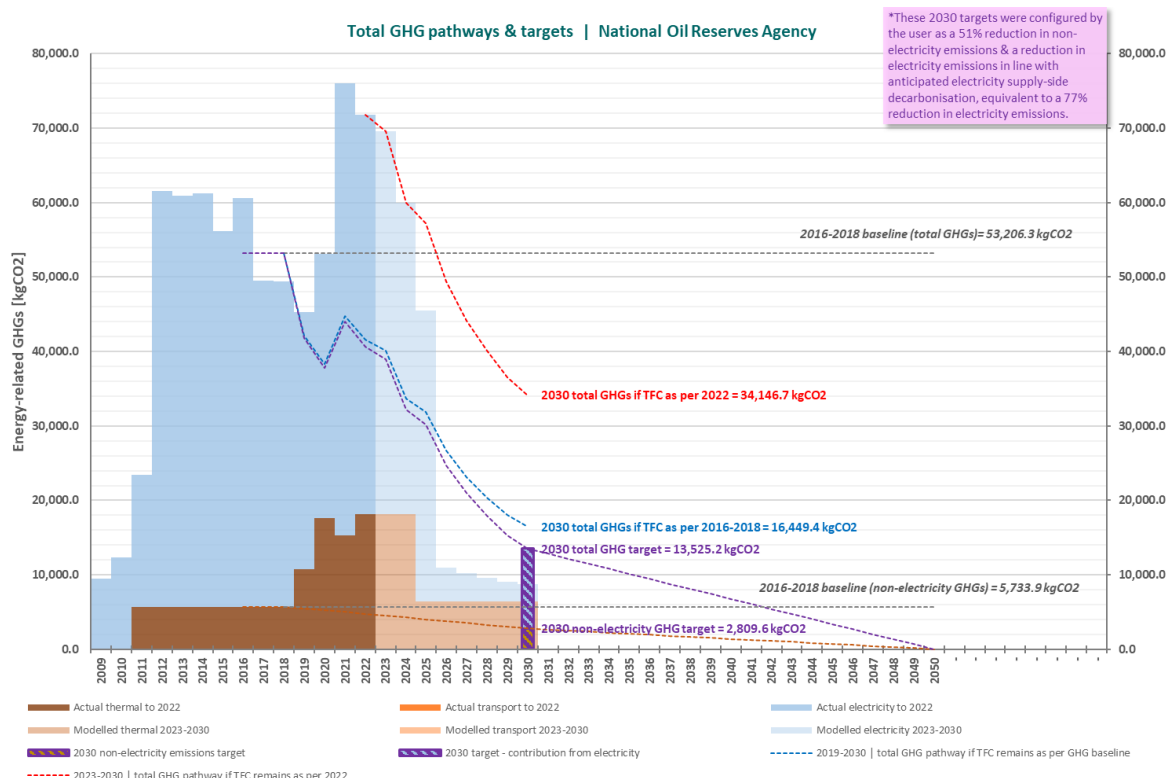
Note: New data for NORA fossil fuel consumption has been added to the GTT tool to show the GHG emissions targets. Some of the new data hasn’t been pulled in to update the energy efficiency as this has to be completed in the M&R system and this is currently locked. It is due to be opened for a week in October and NORA will update the M&R and GTT accordingly.

6.1 PROGRESS TO DATE

NORA has been recording and reporting on our greenhouse gas emissions since 2009 as highlighted in the graph below. In 2020, NORA’s GHG emissions increased mainly due to:

- NORA moving head office from Clanwilliam Square to a new building in No.1 Ballsbridge, Dublin. NORA also still holds the lease at the Clanwilliam building until January 2024.
- NORA opened a new oil storage facility at Poolbeg, Dublin.

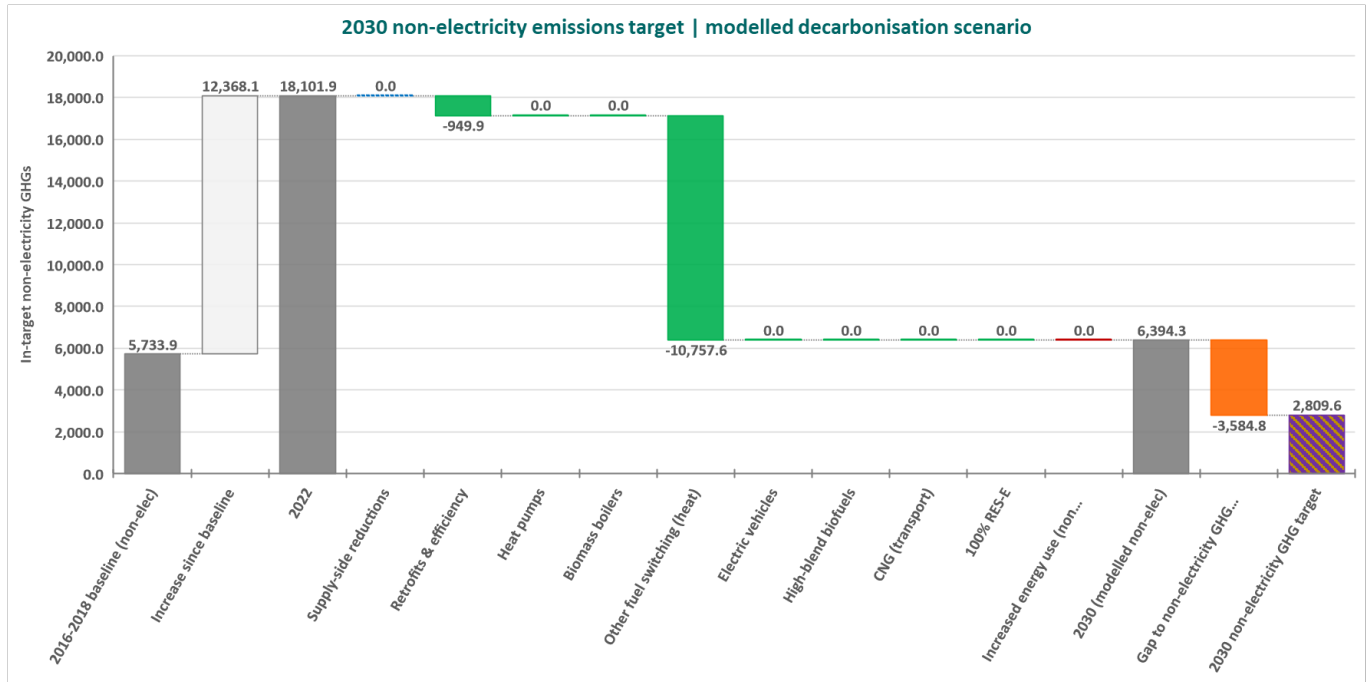
NORA’s GHG emissions pathway and targets are outlined in the figure below and as highlighted in Sections 3.1 and 3.2 we have identified several projects to reduce our emissions and along with the anticipated national electricity supply side decarbonisation we should be in a position to meet our total emissions target in 2030.



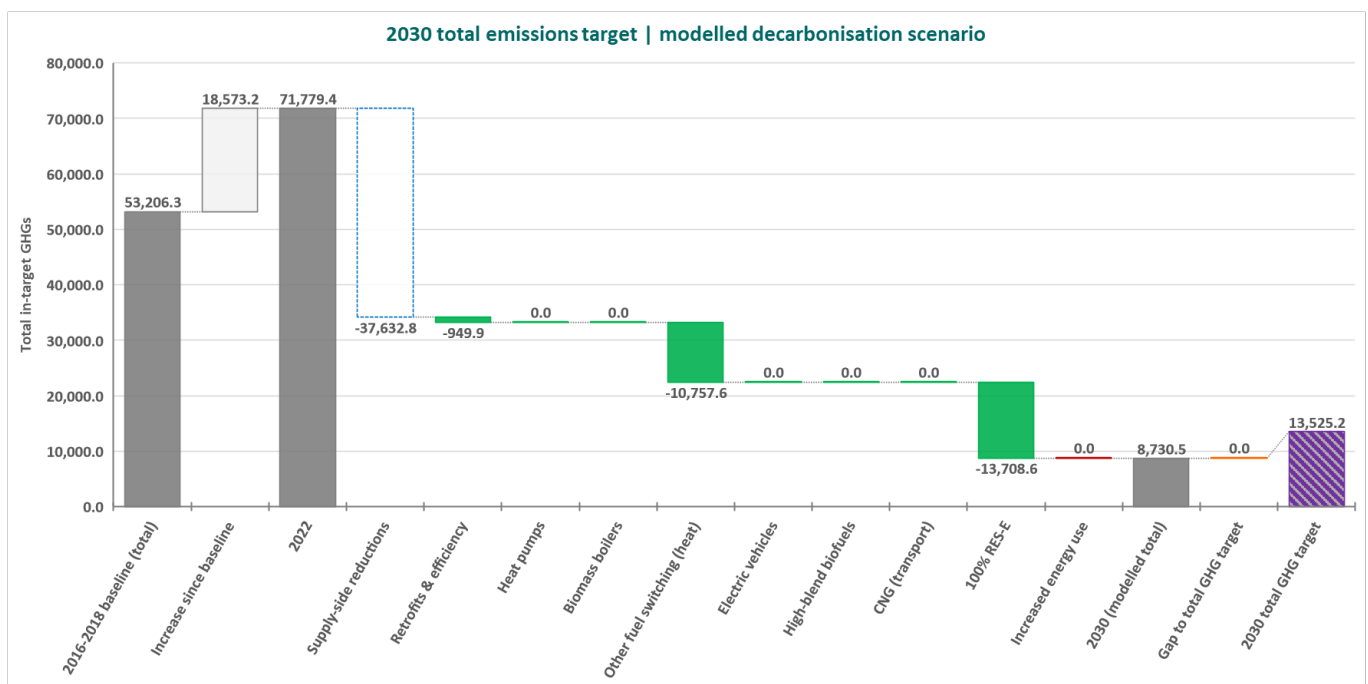
It is worth noting that we will fall short in meeting the non-electricity target as this is outside of our control due to Natural Gas consumption at our new office building which has a long-term lease until 2035.

6.2 CLOSING THE GAP

At a concept level, the waterfall charts below illustrates the impact of decarbonisation initiatives we predict from the various projects planned as set out in Section 3.0. Whilst we don't meet the non-electricity emissions target the activities we have undertaken will ensure we reach the total emissions target for 2030.



Impact of decarbonisation initiatives on non-electricity emissions.



Impact of decarbonisation initiatives on total emissions.

7 CONCLUSION

The NORA Climate Action Roadmap outlines the plan to reduce the Agency’s greenhouse gas emissions and increase energy efficiency up to 2030. This roadmap will continue to be a working document and will be updated on an annual basis with greater detail, further plans and initiatives that will assist us in meeting our targets.

REFERENCES

Public Sector Bodies Climate Action Roadmaps Guidance SEAI, EPA

SEAI Climate Action Roadmap SEAI