

National Oil Reserves Agency (NORA)

Climate Action Roadmap

October 2025

Revision Control

Rev No.	Date	Comments
Rev 0	30/09/23	First iteration of Roadmap
Rev 1	30/06/24	Second iteration of Roadmap with updates
Rev 2	15/10/25	Third iteration of Roadmap with updates

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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 Renewable Transport Fuel Obligation (RTFO) scheme (previously known as the Biofuel Obligation Scheme (BOS)), 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 2025 (CAP25) 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.

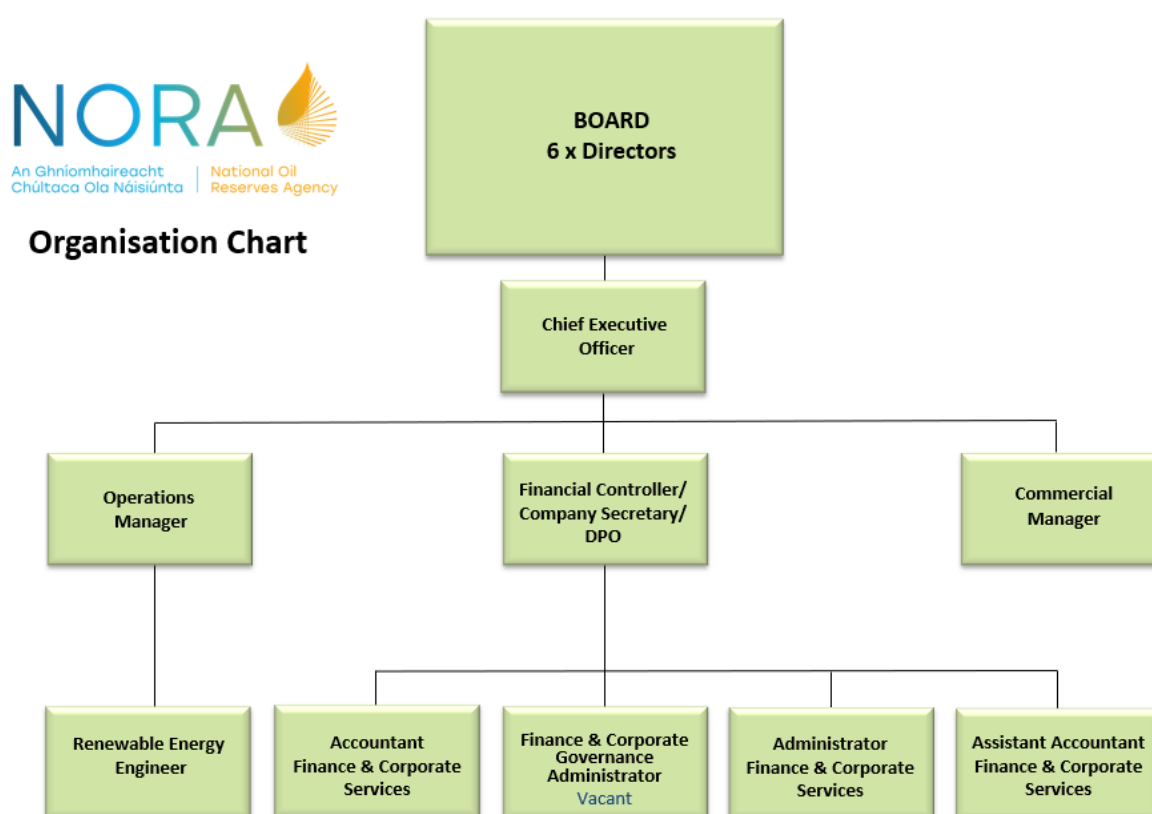
This NORA Climate Action Roadmap has been developed by NORA in response to this obligation. It outlines progress to date and our approach in continuing to reduce carbon emissions from our operations by reducing energy usage and shifting energy sources from fossil fuels towards renewable energy sources.

NORA is committed to doing our best endeavours to achieve its 2030 carbon emissions and energy efficiency targets and objectives have been included in our Strategic Business Plan 2026 -2030. This Climate Action Roadmap has been approved by the CEO and will be reviewed and updated annually. This 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 nine (one vacancy) full time staff members located at its head office in Ballsbridge Dublin 4 and owns and operates three oil storage facilities at Tarbert, Ringsend and Poolbeg. These facilities are managed by a third-party Operations & Maintenance Contractor (Sunoco LP) who report 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 in 2023, the Green Team has developed a range of actions including a 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 Energy Policy for the Agency.
- Identify and quantify its scope1, 2 and 3 carbon emissions and establish appropriate plans and actions to reduce these emissions.
- Provide appropriate climate leadership training to key staff.
- Provide training on climate action and sustainability for all staff.

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** is Frank Bergin, the Chief Executive Officer, and the **Energy Performance Officer (EPO)** is Justin Fahey, Commercial Manager. The EPO Officer is part of the management team and has decision making power with respect to facilities, budgets and procurement. The EPO is responsible for preparing this Climate Action Roadmap and presenting it to the CEO for approval.

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

Team Member	Role
Justin Fahey	Commercial Manager
Gavin Norris	Operations Manager
Lisa Mullan	Financial Controller / Company Secretary
Kim Heary	Renewable Energy Engineer

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 holds monthly team meetings and an agenda item is included to discuss energy performance, focussing specifically on energy related emissions and over time on wider climate issues and reducing the agency's carbon footprint.

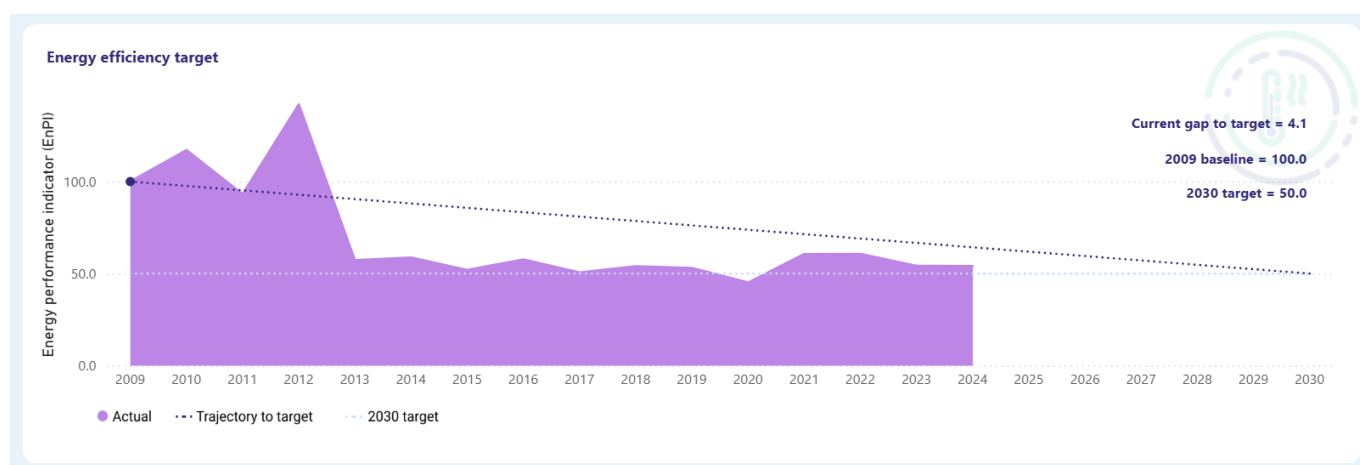
3 ACHIEVING OUR TARGETS

3.1 ACHIEVING OUR ENERGY EFFICIENCY TARGET

The target set by the Climate Action mandate is to improve energy efficiency by 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.
- Installation of shared solar panels on the roof of our existing head office building resulting in 40% reduction in electricity consumption for the whole building.

As highlighted in the energy performance graph below we are making significant progress in meeting our energy efficient target.



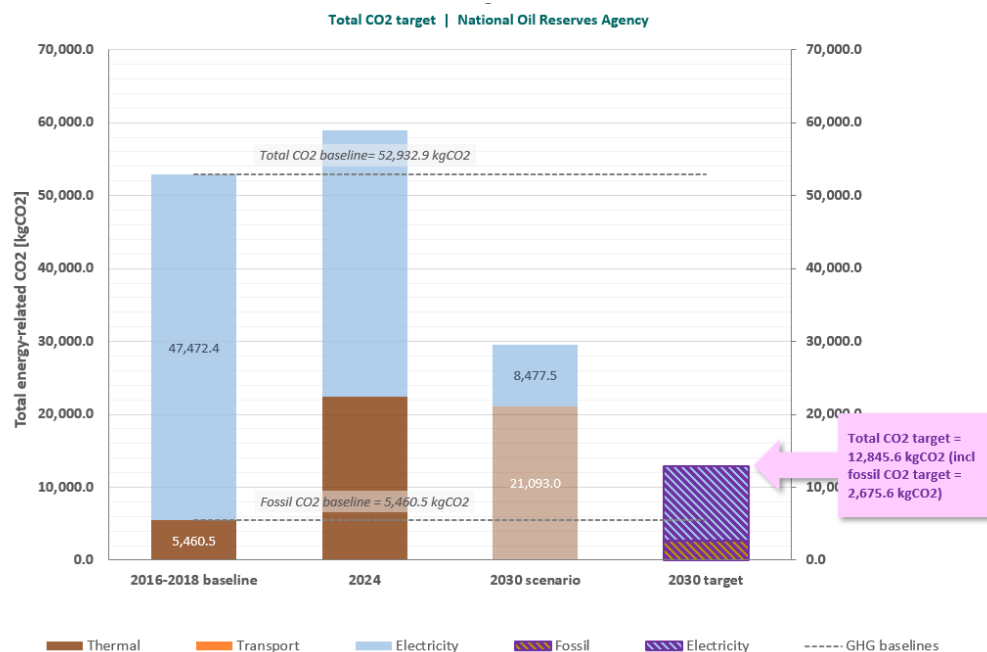
In addition, the table below outlines several projects we have in the pipeline to continue to reduce our energy consumption. We anticipate the reduction in electricity energy consumption by completing these projects could potentially be between 80-90% and this will allow us to significantly exceed the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

Project	Year	Site Consumption covered by PV. kWh/Year	Co2 Emissions Reduction kg / Year	Comments
Installation of roof mounted solar pv system at the Poolbeg oil storage terminal.	2025	20,429	12,109	26.1 kWp system, balance exported to grid
Installation of ground mounted PV Arrays system at Tarbert oil storage facility .	2026	26,479	76,397	155 kWp system subject to planning approval. Substantial export to grid of 136k kWh / year

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% by 2030. 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 2024 consumption data, we have a very challenging task to meet our 2030 target in reducing our overall GHG emissions from 58 tonnes CO₂ equivalent to 12.8 tonnes CO₂ equivalent. From 2023 the thermal energy related GHG emission has increased by c. 2 tonnes CO₂ equivalent and the electricity emissions have reduced by c. 8 tonnes CO₂ equivalent.



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 and including the addition of a new oil storage facility at Poolbeg, NORA's total emissions has increased significantly in 2023 when compared to the baseline of 2016-2018.

As mentioned previously, the projects highlighted in Section 3.1 along with the decarbonisation of the National Grid will assist us in meeting the total GHG target and reducing the Electricity component 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 arises from the use of Natural Gas to heat our head office and the use of Gasoil for running the fire water systems (i.e. pumps and generators) at our oil storage facilities.

NORA had planned to replace its Gasoil usage at its facilities with a renewable alternative - Hydrotreated Vegetable Oil (HVO) - and this would have resulted in a reduction of c. 35% in non-electricity GHG emissions. However, this is not permitted in the design regulations of the fire water pumps and generators. In addition, HVO cannot be used for decarbonisation of heating as per the latest Climate Action Mandate. An additional challenge will be 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.

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 state agency, 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 CONSTRUCTION

If NORA undertakes any construction projects, it will specify low carbon construction methods and low carbon cement material as far as practicable from 2024 whilst also adhering to the best practice guidelines for the preparation of Resource and Waste Management Plans for construction and demolition projects.

4.3 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. It will include measures that are targeted at addressing food waste with specific focus on food waste prevention and food waste segregation.

4.4 RESOURCE USE

NORA continues to review our paper-based processes and we have digitalised where appropriate. We have moved 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.

4.5 SINGLE USE

NORA will cease using disposable cups, plates and cutlery in its head office and at its oil storage facilities. NORA will progressively seek to eliminate all single use items within the Agency going forward.

4.6 WATER

NORA will provide suitable drinking water refill point for all staff and it has recently installed a more energy efficient and environmentally friendly Hydro Tap system at its Head Office. The Green Team will focus on initiatives to reducing water consumption in the Head Office and at its oil storage facilities going forward.

4.7 OTHER MATERIALS

NORA will support Ireland's Producer Responsibility initiatives in the collection and recycling of products by having waste collection services available.

5 OUR BUILDINGS AND VEHICLES

5.1 OUR BUILDINGS

NORA has completed its Stage 1 Building Stock Plan (BSP), defining the extent of our building stock and focusing on the delivery of a reduction in energy consumption in our buildings where we can. The BSP includes the initiatives designed to reduce energy reduction in these buildings and these are outlined in Section 3.1 above.

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 facilities there is a small control room of approximately 120 sq. m in size. We have received a BER rating on each of the control rooms and there are a number of recommendations to improve the energy efficiency of these buildings which we will look to implement over the next number of years.

5.2 OUR VEHICLES

NORA does not have any company provided 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's office and oil storage facilities 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 at all locations to suggest improvements and initiatives to raise awareness of climate change mitigation and adaptation.

6 NORA CLIMATE ACTION ROADMAP

As highlighted in Section 3.0, NORA uses the SEAI Public Sector Programme and Gap to Target Tool (v4.05) to evaluate its energy performance over time. The Agency uses data and methodologies from SEAI's Public Sector Monitoring and Reporting System (M&R) which includes a feature for modelling the decarbonisation of NORA's energy use over the period to 2030.

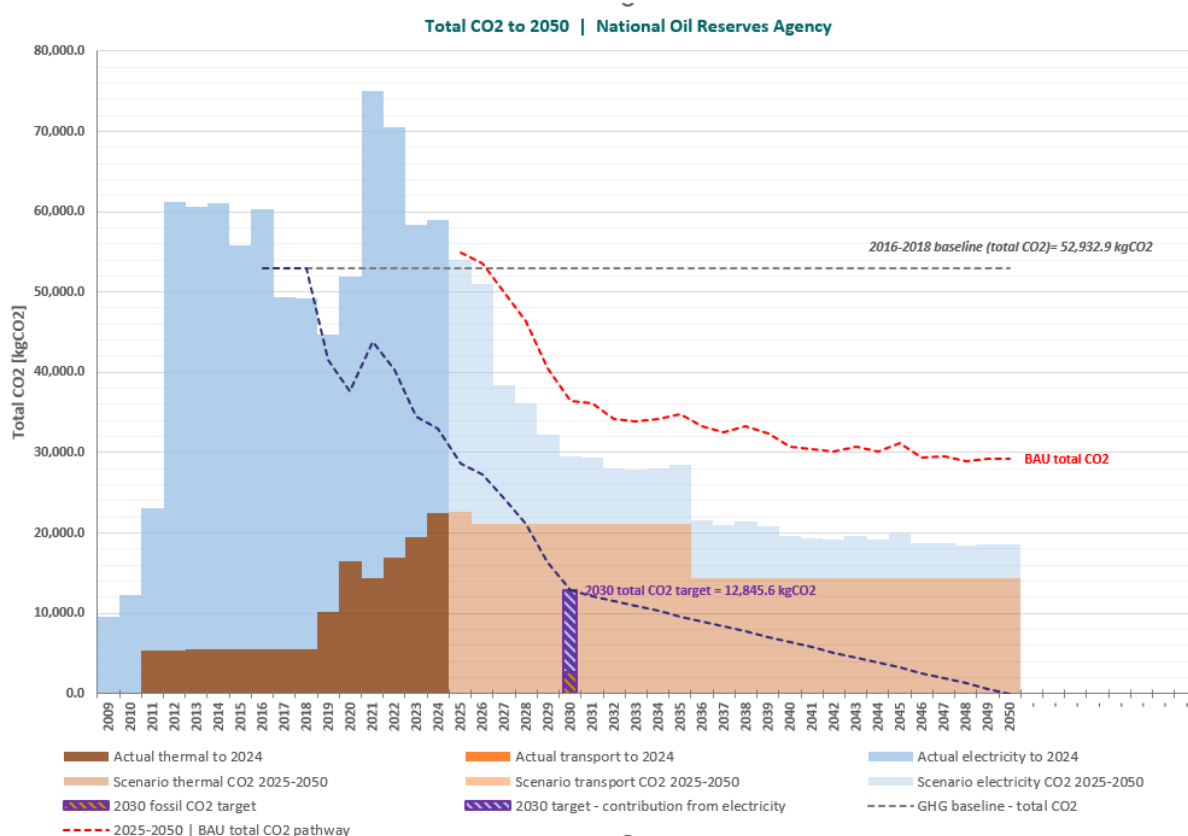
The latest version incorporates 2024 data and allows for the modelling of initiatives in terms of carbon and energy reduction towards 2030 targets.

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 still held the lease at the Clanwilliam building up until the end of January this year (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 this will greatly assist in bringing down our greenhouse gas emissions. However as stated previously in Section 3.2, it will be incredibly challenging for NORA to meet its overall targets due to the non-electricity thermal components of the business. Achieving our targets has been greatly impacted by our move to a new office building in 2020 and by opening a new oil storage facility at Poolbeg.

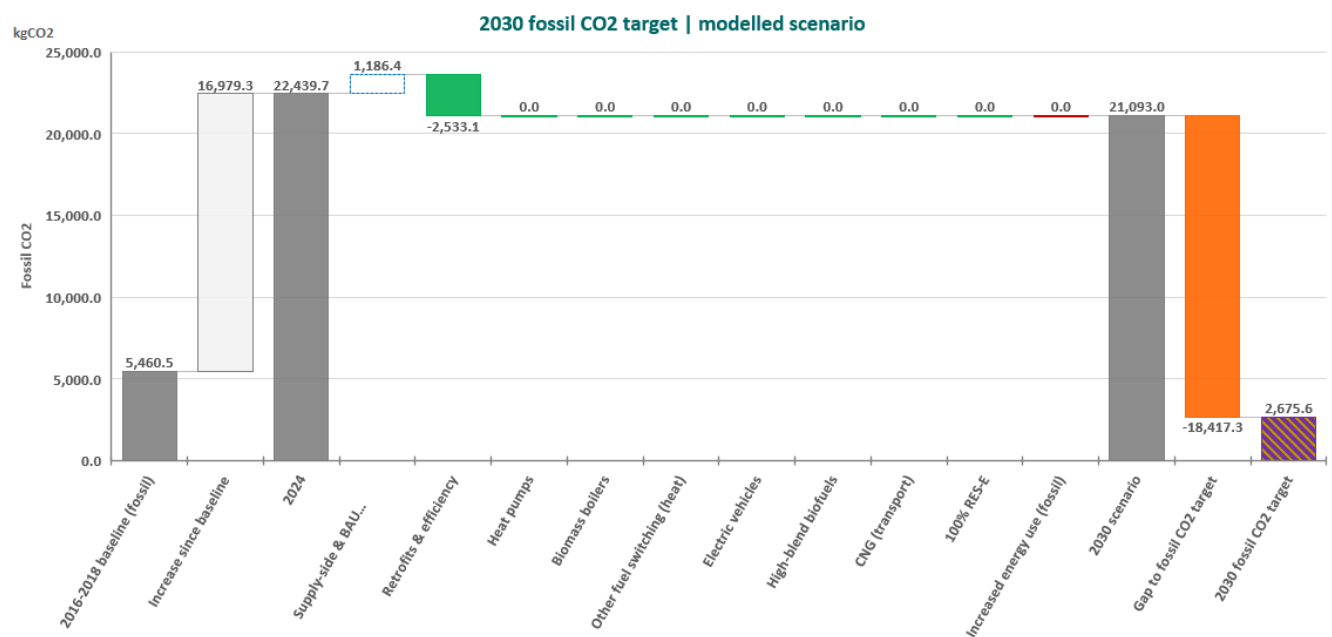


NORA will endeavour to identify solutions that will assist the team in meeting our GHG emissions target. However, it is worth noting that there are areas that are outside of our control due to;

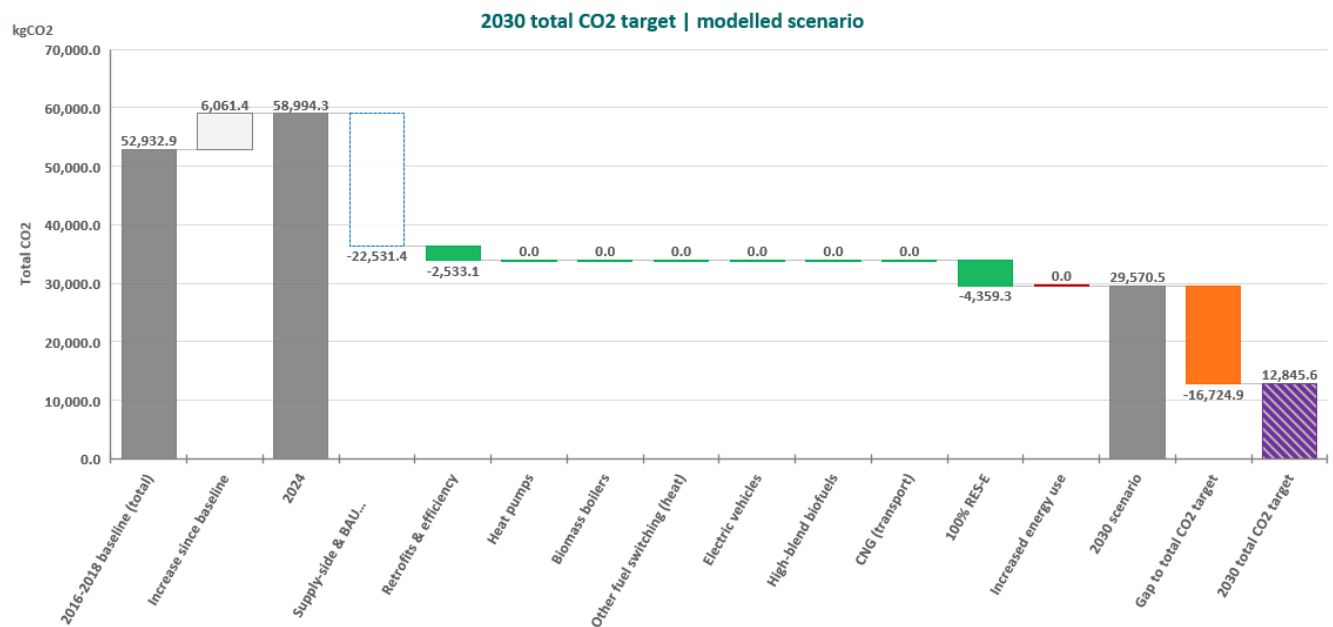
- Natural Gas consumption at our new office building which has a long-term lease until 2035. The model above highlights the expected reduction in Natural Gas consumption in 2035 if a heat pump was installed or NORA opted to move to a more energy efficient building to assist in reaching our 2050 target.
- The use of renewable fuel not being permitted in the design regulations of the fire water pumps at site, and
- the fact that HVO cannot be used for decarbonisation of heating as per the latest Climate Action Plan.

6.2 CLOSING THE GAP

At a concept level, the waterfall charts below illustrate the impact of decarbonisation initiatives we predict from the various projects planned as set out in Section 3.0.



Impact of decarbonisation initiatives on fossil CO2 emissions.



Impact of decarbonisation initiatives on total CO2 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