

SETU Climate Action Roadmap

23rd October 2023

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Abbreviations:

SETU	South East Technological University
CAP	Climate Action Plan
EPO	Energy Performance Officer
GHG	Green House Gases
CAP21	Climate Action Plan 2021
GTT	Gap to Target
OPW	Office of Public Works
SEAI	Sustainable Energy Authority of Ireland
M & R	Monitoring and Reporting
tCO ₂	Tonnes of Carbon Dioxide
kWh	Kilowatt hour
LCC	Performing Life Cycle Costing
LCA	Life Cycle Analysis
GPP	Green Public Procurement
TFI	Transport for Ireland
EEDPP	Energy Efficiency and Decarbonisation Pathfinder Programme
BEC	Better Energy Community Scheme
DEC	Display Energy Cert
EV	Electric Vehicle
M&R	Monitor and Reporting
kgCO ₂	Kilograms of Carbon Dioxide
SDG	Sustainable Development Goals
EDI	Equality, Diversity, and Inclusion
UDL	Universal Design for Learning
N-TUTORR	National Technological University Transformation for Resilience and Recovery.

Definitions

ISO 50001	EN ISO 50001:2018 is the international standard for energy management.
Green Public Procurement (GPP)	Green Public Procurement (GPP) (or Sustainable Procurement) is a process where public authorities seek to source goods, services or works with a reduced environmental impact.
Sustainable Energy Authority of Ireland (SEAI)	The SEAI is Ireland's national sustainable energy authority and works with householders, businesses, communities, and government to create a cleaner energy future.
Climate Action Plan 2021 (CAP21)	CAP21 provides a detailed plan for taking action to achieve a 51% reduction in overall. Greenhouse gas emissions by 2030 and setting Ireland on a path to reach net-zero emissions by no later than 2050, as committed to in the Programme for Government and set out in the Climate Act 2021.
Decarbonisation	Decarbonisation is the removal or reduction of carbon dioxide inputs from human activity into the atmosphere which is important for limiting global warming. The main levers for decarbonisation are the development of renewable energies, switching fuels and the improvement of energy efficiency.
Gap to Target model (GTT model)	The gap-to-target model (GTT model) is a spreadsheet model for use by public bodies to evaluate their energy efficiency (EE) performance and energy-related greenhouse gas (GHG) emissions over time, using data and methodologies from SEAI's Public Sector Monitoring & Reporting (M&R) system
Energy Efficiency	Energy efficiency is a reduction in the energy used to do the same task. Retrofitting options can be used to reduce energy usage. These may include switching to LED lighting and energy efficient appliances or upgrading insulation. Energy efficiency has a variety of benefits including reducing GHG emissions, reducing demand for energy imports, and lowering energy costs.
Display Energy Certificate (DEC)	A Display Energy Certificate (DEC) shows the energy performance of a building based on actual energy consumption recorded over the last 12 months. It compares the actual energy use against the energy use for a benchmark building of the same type. Similar to a domestic Building Energy Rating (BER), DEC's are displayed on a scale from A to G, with an A rating being the most efficient and a G rating being the least efficient.

1. Introduction & Progress to Date

South East Technological University (SETU) is the first technological university in south east Ireland. The University was formed in May 2022. The SETU Climate Action Roadmap 2023 sets out the University's plans to reduce emissions and meet decarbonisation and energy efficiency targets as directed by Government. The Roadmap has been prepared in accordance with guidance from the Sustainable Energy Authority of Ireland (SEAI), [the Climate Action and Low Carbon Development \(Amendment\) Act 2021](#) and the [subsequent measures and goals for the public sector set out in the Climate Action Plan \(CAP\) 2019 including both updates and actions contained in CAP21 and CAP23](#).

The Climate Action Plan stipulates that the public sector will lead by example in delivering on Ireland's decarbonisation commitments. This Roadmap demonstrates how SETU will achieve emissions reductions to 2030. As a public sector organisation SETU has two targets under CAP21 focused on energy:

- Target 1 Decarbonisation: To reduce greenhouse gas (GHG) emissions from energy by 69.5% to 1786.9 tonnes of Carbon Dioxide (tCO₂) by 2030, compared to a 2016-2018 (average) baseline of 5853.2 tCO₂; and
- Target 2 Energy Efficiency: To improve energy efficiency by 50% by 2030 compared to a 2009 baseline. These targets focus on the emissions and energy performance within SETU's control; from electricity purchased by the organisation, and emissions produced from fossil fuels used for heating and hot water.

Using the "Gap To Target" (GTT) model tool, SETU is estimated to achieve a 70% GHG emissions reduction by 2030. Presently, SETU have two gap-to-target models (Carlow and Waterford Campuses) which will be merged in 2024 on the SEAI's M&R system. The SETU Climate Action Roadmap will be reviewed and updated to reflect this. The emissions targets will be achieved by;

- electricity grid decarbonisation,
- completion of decarbonisation and energy efficiency projects, subject to funding and resources,
- availability of technological solutions.

Using the Internationally recognised GHG Protocol, emissions are categorised into three scope definitions: scope 1 (direct emissions from sources that are owned or controlled by an organisation), scope 2 (indirect emissions from electricity), scope 3 (indirect emissions). Please see table below -

Figure [1.1] Overview of GHG Protocol scopes and emissions across the value chain

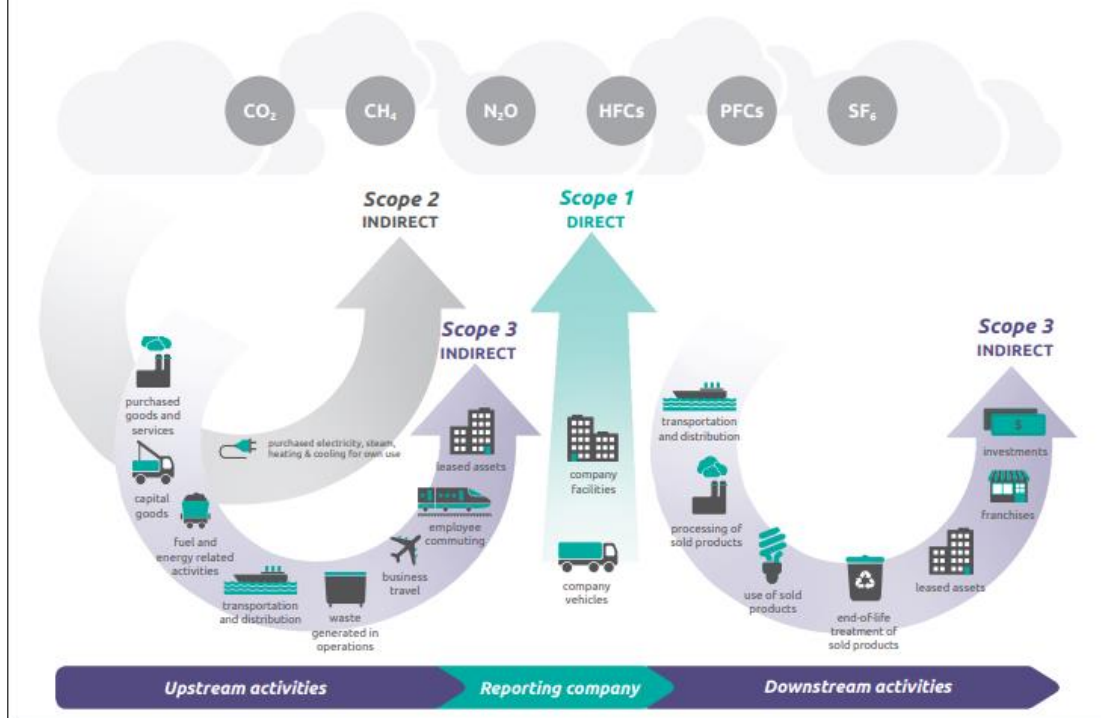


Table 1: GHG protocol Scope 1, 2 and 3 emissions

Source: <https://ghgprotocol.org/corporate-value-chain-scope-3-standard>

The SETU Roadmap is a live document, which will be updated annually or as required, to reflect SETU's progress and to respond to requirements under the Climate Action Mandate.

2. SETU People

2.1 Our People

As part of the SETU Strategic plan 2023 to 2028, SETU will ensure sustainable development is embedded in SETU's leadership, governance and operations, and the SETU community of staff and students are sustainably aware and incorporate sustainable practice into their daily University life.

As part of the Climate Action Mandate, SETU are required to nominate and identify the roles of the following:

Role	Name	Position/Grade
Energy Performance Officer	Elaine Sheridan	Vice President of Corporate Affairs and Finance
Climate and Sustainability Champion	Elaine Sheridan	Vice President of Corporate Affairs and Finance
Green Teams	Staff and Student Volunteers	Reporting to EMT

The oversight and monitoring of the SETU Climate Action Roadmap is a priority for the President and Executive Management Team (EMT). Within the next twelve months a Climate and Sustainability champion will be appointed, who will have responsibility for implementation and reporting on the Climate Action Roadmap.

As required by the Public Sector Energy Strategy the role of Energy Performance Officer has been held by the Vice President of Corporate Affairs, who is a member of the EMT of the University.

2.2 Leadership & Governance of Climate Action

The Leadership and Government structure outlines the structure of key SETU members that are focused on delivering the SETU Climate Action Strategy. The following chart shows the Governance structure:

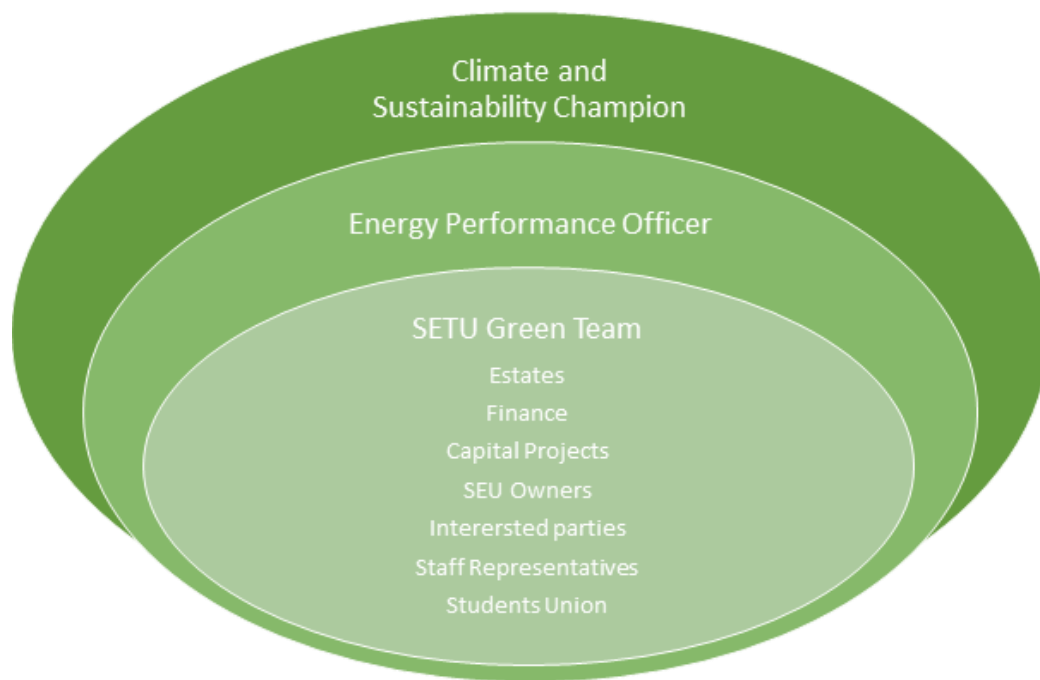


Chart 1: SETU Climate Action Leadership and Governance framework

Please refer to Appendix 1 for the proposed governance structure which includes the titles and roles of the SETU personnel responsible for progressing SETU's climate action targets.

SETU will utilise established energy and environmental teams to form a new SETU Green Team. The Green team will include representatives from Estates, IT, Finance/Procurement, Capital Projects, Students Union, Staff representatives and other interested parties.

SETU climate action Leadership and Governance structure will ensure that annually 'green days' are held to engage on climate issues, including a focus on decreasing the Universities carbon footprint. **For the Academic year 2023/2024 Green Day is schedule for Q1 2024. These events will include information stands, and provide an opportunity for students, staff and the wider community to engage on climate related issues.** All members of Green Teams and those who can significantly affect the Universities carbon footprint will undergo appropriate training **in 2023/2024 academic year.** take the

SETU will also use the training resources provided through Sustainable Energy Authority of Ireland (SEAI) Training Academy. **Training for Executive Management Team is scheduled for Q1 2024.**

To endorse the SETU Climate Action Roadmap a SETU Climate Action Policy will be approved by the end of 2023. Please see appendix 2 for draft policy.

2.3 Engaging our People

SETU aims to engage our student body, staff and wider community in becoming active citizens for climate change and motivate students and staff to commit to learning more about our climate action targets and taking responsible action to achieve them.

The University will utilise training opportunities through programmes such as N-TUTORR. The N-TUTORR programme is designed to transform learning, teaching and assessment by focussing on transforming the student experience and developing the capabilities of all staff to address a sustainable pedagogical and learning environment with particular and critical focus on the Sustainable Development Goals (SDGs); equality, diversity, and inclusion (EDI) and universal design for learning (UDL).

SETU is part of the OPW's Optimising Power @ Work Campaign. The core principle of Optimising Power @ Work is to work with staff and students to encourage behavioural change regarding energy usage, with the overall aim of identifying and eliminating waste. Working with Optimising Power at Work Campaign and SEAI, SETU will engage with staff and students through:

- Annual Energy Awareness Day - This day will consist of an energy conservation information stands with targeted site-specific information and insights. Interactive displays and challenges such as the Watt Challenge.
- Annual Awareness Day talk for students and staff with promotional and presentational materials. The purpose of the talk is to present climate change, promote climate action and encourage peer participation.
- Workshops for Department Working Groups (SEUs). Meet with high-SEU, Mid-SEU and Low SEUs, review metrics, develop ideas to optimise, trial and report.
- Green Team Meetings. These meetings will be used for planning, strategizing, reviewing activities and updating the register of opportunities.

SETU is a participant in in SEAI’s Public Sector Partnership Programme. The Partnership Programme is a comprehensive support package, that provides expert support to identify and assess the potential savings and guidance to develop, execute and maintain energy reduction plans. Partnership Support Managers are appointed to SETU and they engage on a high level to deliver long term savings in energy usage.

All SETU campuses to be certified to the international energy management standard ISO50001:2018. Currently 5 campuses are included within the scope of the Certification and this will be extended to all campuses, within the next twelve months. ISO 50001 standard contributes to the following Sustainable Development Goals (<https://www.iso.org/sdgs.html>).



The SETU Climate Action RoadMap will be made available to all staff, students, visitors, contractors, stakeholders and members of the public.

3 Our Targets

3.1 SETU’s Modelling Approach

The following sets out the decarbonisation and energy efficiency 2030 targets that apply to SETU and summarises SETU’s forecast GHG emissions from energy consumption; and the organisation’s expected energy efficiency by 2030. It includes a summary of the planned projects that will contribute to SETUs decarbonisation and energy efficiency.

The SEAI’s gap-to-target model was used to forecast SETU’s GHG emissions and energy efficiency. The gap-to-target model consists of a decarbonisation component (‘decarbonisation model’) and an energy efficiency component (‘energy efficiency model’). The energy modelled includes electricity, gas and oil used in the operation of SETU, with conversion factors as per the SEAI gap-to-target model. The results presented in this chapter represent modelling

outputs, based on the gap-to-target SEAI version 3.09 released September 2022. As further decarbonisation and energy efficiency projects are developed and progressed, the modelling will be updated to reflect their impact, and results will be reported in future Roadmaps. Modelling is used to project future scenarios based on currently available information and is therefore subject to change.

SETU is a newly formed Technological University and as a result has two gap-to-target tools to model from. SETU are in the process of merging the data on the SEAI's M&R system, this will be in place before the end of 2024 and will enable the creation of one gap-to-target model. Until then SETU will continue with both gap-to-target tools for modelling purposes. **The GtT model aims to develop a pathway for SETU to achieve the targets set out in Chapter 9 of CAP21.**

3.2 Project Scenarios

SETU has comprised a list of potential future projects, which will be required to meet our obligated 2030 emissions targets. This list of projects is subject to change as there is future, plans for campus consolidation and proposals for newer buildings.

Please refer to Appendix 3 for the list of proposed projects and Gap to Targets.

3.3 Project Funding

It is proposed that the projects would be implemented over the period 2023-2030. However, all solutions proposed are based on what is currently technically feasible, or options that can reasonably be expected to become available to SETU between now and 2030. A pathway to achieving the decarbonisation and energy efficiency targets has been identified, nevertheless there are costs, challenges, and risks associated with implementing the proposed projects. However, SETU will continue to source grant funding through EEDPP, SEAI's BEC and all other suitable areas of grant funding.

3.4 Importance of Decarbonising the National Grid

GHG emissions savings are highly sensitive to changes in the national electricity grid carbon emissions factors. These carbon emissions factors change from year to year as the efficiency of the electricity grid changes.

Ireland’s electricity grid has significantly decarbonised in recent years, and it is expected that this trend will continue, as fossil fuels are phased out of power generation. However, some years have seen a backwards shift. For example, in 2021, emissions associated with electricity production increased by 18% from 2020, due to:

- Increased electricity demand
- Less wind power availability
- The use of older plants including a coal fired plant.

The increase in GHG emissions seen in 2021 is not expected to become a trend for Ireland’s electricity production. However, it demonstrates the sensitivity of the grid to these compounded factors and impacts on energy efficiency modelling.

The SEAI publishes projections for supply-side emissions reductions, based on the decarbonisation of the electricity grid and the anticipated increased proportions of biofuels blended in liquid transport fuels. In the most recent projections, the emissions intensity of the national grid is expected to reduce by 77% by 2030, from the 2016-2018 (average) baseline. The forecasts incorporate many variables and assumptions. SETU’s modelling relies upon these SEAI-provided inputs.

3.5 Obligated Targets and Current Emissions.

Please see table below which shows GHG thermal and electrical emissions from baseline to 2022 in kgCO₂.

Waterford Campuses	Thermal (kgCO₂)	Electrical (kgCO₂)
Baseline 2016-2018 average	1,207,258.3	2,685,710.2
2022 emissions	1,110,077.1	1,780,899
Gap to Target	518,520.6	444,624.1

Carlow Campuses	Thermal (kgCO₂)	Electrical (kgCO₂)
Baseline 2016-2018 average	554,886.2	1,405,381.6
2022 emissions	623,407.1	928,253.9
Gap to Target	351,512.9	311,751.1

2030 Energy efficiency targets for both Waterford and Carlow as of 2022 are as follows; Waterford currently at 47.6% improvement since baseline and Carlow currently at improvement since baseline 47.9%.

Please Appendix 3 for Projects current and forecasted models to achieve 2030 targets.

4 Our Way of Working

From 2023 onwards SETU will report GHG emissions and sustainability initiatives on the annual report.

As part of integration of processes and procedures SETU is examining further opportunities to digitalise information, therefore reducing the requirement for printing. Currently the University use online learning platforms (Moodle & Blackboard) enable students to access information in a digital / online format, reducing the need for printing. This has been in place for several years.

SETU Energy management systems have formal ISO50001:2018 certification for 5 of the campuses, which will be extended to all campuses.

5 Green Public Procurement

SETU plans to develop a green procurement plan and processes where goods, services and works will be sourced ensuring that their environmental impact is considered, understood and reduced where feasible. This procurement plan will consider criteria that support the inclusion of sustainable and green practices into the university's procurement procedures. The following but non-exhaustive criteria will be evaluated:

- Road Transport Vehicles & Services.
- ICT Products & Services.
- Food & Catering Services.
- Indoor Cleaning Services.
- Office Building & Design.
- Construction & Management.
- Indoor & Outdoor Lighting.
- Heating Equipment.
- Energy Related Products.
- Paper Products & Printing Services.

- Textile Products.

Performing Life Cycle Costing (LCC) and Life Cycle Analysis (LCA) will also be a key feature when reviewing any procurement proposal at the award stage of a tender.

The plan will consider scenarios where selection and award criterion can be supplied when procuring all goods and services with reference to public sector Green Public Procurement (GPP) guidance and criteria sets.

The procurement plan will consider, in collaboration with our Finance Departments, how to record data on GPP. This will include the development of specific guidance and reporting mechanisms.

6 Resource Use

6.1 Paper

As part of the Climate Action Mandate, SETU are committed to further reducing unnecessary paper usage by reviewing existing paper-based processes and transitioning these processes into digitalised methods.

As this University is made up of many separately operated departments and offices, it is challenging to adopt a single strategy to suit each of the department's specific requirements. It is proposed by SETU to communicate to all staff the need to go paperless and allow them (whether individual or department) to identify, strategize and implement changes to their specific paper usage processes.

SETU will propose the following steps be implemented by each individual / department:

a) **Identify**

- Identify processes where new paper printing and filing can be digitalised.
- Identify existing files that can be scanned & digitalised.
- Select leaner processes for essential printing e.g., print on both sides.
- Identify practicality of digitalisation of certain processes. Some paper process will need to be maintained.

b) **Agree a Strategy**

- Confirm and agree on new workflows, paper processes and procedures.
- Communicate the new processes to all relevant personnel. Provide Training as needed. Create written guidelines and operations.
- Agree a timeline for change-over within each department.
- Choose a software to assist in digitalisation of documents.
- Devise a new paperless filing system. i.e., documents will need to be indexed with logical naming procedures that allow for files to be more easily found when searched on a digital platform.
- Assign an optional department supervisor to oversee transition.

c) **Implementation**

- Implement new paperless process workflows and digitalisation methods.
- Implement and monitor digitalisation change over.
- Appoint a person responsible for digitalisation of all essential historical document.
- Communicate and encourage behaviour changes.
- Measure reduced paper usage.

d) **Review and Revise**

- Identify weakness in strategy.
- Identify barriers including staff behaviour and resistance.
- Revise strategy if required.

The following workflow strategy is proposed:



The time taken to undertake these changes could vary depending on each department differing processes and operations, however SETU would envisage the length of a full academic year to be a sufficient time to identify and implement any new digitalisation processes.

6.2 Water

Currently water usage is measured using meter data and information from Irish Water. SETU will record and track this information to monitor water usage. Locations of water inlets to buildings will be identified and where possible

additional water meters will be added. SETU aims to decrease water usage by 10% to 2030.

Drinking water will be provided via centrally located refillable water fountains, therefore reducing reliance on bottled water and single use plastic cups.

6.3 Waste

As part of overall waste reduction SETU will continue to track waste regularly and increase recycling to achieve an 80% recycling rate by 2030.

SETU will continue to consolidate and reduce amount of individual bins in offices and areas.

SETU will provide more opportunities for reduction of waste at source. We will work with catering providers to eliminate single use beverage cups by 80% by promotion and incentivisation of 'bring your own cup' and 'coffee2go' reusable cups and delph cups. SETU will work with all suppliers to reduce single use plastics at source and where these are required to ensure this plastic is segregated and recycled.

7 Our Buildings and Vehicles

7.1 Bicycle Friendly Campuses

SETU has committed to creating bicycle friendly campuses for all its employees and staff. Dedicated bicycle parking is currently available on all campuses including many off-street bike shelters. Many of the bike shelters are located centrally beside campus buildings that promotes accessibility and security.

To promote cycling, the SETU website has a dedicated "Cycling" webpage that displays each campus bike parking map locations, means of access, rental schemes, and bike safety information. Shower facilities are available to cyclists and SETU will continue to improve these facilities.

Through programmes such as the "Smarter Travel Scheme", "Ready, Set, Cycle" and "Bike Week", SETU are continuously promoting behavioural change towards cycling. By encouraging staff to participate in the "Cycle to Work Scheme", staff can avail of tax incentives to purchase a new bicycle.

The Waterford campuses are involved with the Transport for Ireland (TFI) Public Bike Scheme and have several “Pay as You Ride” public bikes with docking stations located throughout the city and campus.

<https://www.bikeshare.ie/waterford.html>

Carlow campuses are now served by the Carlow town electric bikes scheme.

This scheme allows staff and students to rent electric bikes and drop off at various locations across Carlow town. Students are encouraged as part of orientation to register for these bike rental schemes.

(Should we be committing to and highlighting where people can use dedicated showering facilities)

7.2 Zero Emissions Vehicles

SETU recognise the need for electrification of all its vehicles. Currently, SETU use a small number of diesel-powered transport vans and smaller vehicles such as forklifts.

When vehicles are due to be replaced, SETU will look to purchase zero emitting vehicles where operationally feasible to ensure CAP21 targets are met and in compliance with the SI381/2021 Clean Energy Directive.

7.3 Building – Display Energy Certificate (DEC)

SETU will ensure Display Energy Certificates are in entrances to all SETU buildings (over 500m²) by Q1 2024.

7.4 Future Fossil Fuel Heating Systems

All new and future SETU buildings will not install heating systems that use fossil fuels unless there is no other technical viable non-fossil alternative, for example in older listed buildings. Exceptions would include:

- Fossil fuel use only through the electrical grid.
- The installation of renewable space heating that would increase CO₂ emissions.
- As a backup or for emergency maintenance purposes.

SETU is committed to updating the procurement and design procedures to ensure that the scope for any future builds do not contain fossil fuelled heating systems.

SETU understand the need to reduce the reliance on burning fossil fuels to provide heat to the current buildings and will pursue all avenues to decarbonise legacy heating systems in all the existing buildings. This will include a proposed program to replace the existing fossil fuelled heating systems with more sustainable options such as electric powered heat pumps and renewables. SETU are continuing to engage with SEAI in support of retrofitting the existing heating systems with more environmental and sustainable options.

8 Conclusion

SETU is committed to Energy Efficiency and Sustainability. SETU recognise the scale of the challenge to achieve the step changes required to meet the national emissions reduction targets, alongside tackling the biodiversity crisis. SETU will look to actively contribute to reducing GHG emissions and stay focused on guiding SETU towards a more sustainable and green university.

9 Appendices

Appendix 1 - Governance Structure – Roles & Responsibilities

Role	Responsibilities
<p style="text-align: center;">Climate & Sustainability Champion</p>	<ul style="list-style-type: none"> • Ensuring that the gap to target model & climate action roadmap are complete. • Approving the universities climate action strategy. • Communicating the importance of climate action. • Ensuring public sector targets are achieved. • Reporting to the President and/or governing Body on performance against targets.
<p style="text-align: center;">Energy Performance Officer</p>	<ul style="list-style-type: none"> • Ensuring sufficient resources are in place to achieve climate action targets. • Approval of annual project plans. • Allocation of project funding. • Reporting to the Climate & Sustainability Champion on performance against targets.
<p style="text-align: center;">Estates Manager/s and/or Sustainability Manager/s</p>	<ul style="list-style-type: none"> • To promote sustainability and energy awareness • To communicate and implement the SETU energy and Sustainability policy. • Establish and review action plans. • To ensure operational control of Estates Office maintenance activities is consistent with SETU Energy and Sustainability policy, objectives, targets and action plans. • Ensure appropriate communication of operational controls to personnel working for, or on behalf of SETU. • Tracking and recording of non-conformances. • To ensure energy performance improvement opportunities and operational control is considered in the modification of renovated facilities, equipment, systems, and processes that can have a significant impact on SETU energy performance. The result of energy performance evaluation should be documented. • To plan and promote awareness campaigns; green days etc.

<p>Capital Projects Manager/s</p>	<ul style="list-style-type: none"> • To ensure energy efficiency forms an integral part in the client brief for all new SETU buildings and refurbishment projects. • To ensure energy performance improvement opportunities and operational control is considered in the design of new, modified and renovated facilities, equipment, systems and processes that can have a significant impact on SETU energy performance. • The result of energy performance evaluation shall be incorporated where appropriate into the specification, design and procurement activities of the relevant project/s • To ensure appropriate communication of operational controls to personnel working for, or on behalf of SETU.
<p>Students Union President</p>	<ul style="list-style-type: none"> • To keep student body briefed about energy and sustainability initiatives and encourage student participation. • To plan and promote awareness campaigns; green days etc. • Lead by example and challenge behaviours • To create, drive and promote energy and sustainability awareness.
<p>Energy Officer</p>	<ul style="list-style-type: none"> • Ensuring that the gap to target model & climate action roadmap are complete. • To maintain and publish the Register of Opportunities (ROO) of energy initiatives which are suggested by the SETU community. • To establish baselines, update and report on EPI tracker, and deviations of energy performance at the University. • Update legal register at planned intervals.
<p>Staff Representatives and interested parties</p>	<ul style="list-style-type: none"> • To act as a link between staff and energy and sustainability initiatives. • To promote energy awareness among staff and students in SETU. • To update Green Teams on new research and advancements in Energy and sustainability topic. • To provide assistance for staff to take action on operational energy efficiency throughout SETU • To plan and promote awareness campaigns; green days etc.

<p>SEU's (Significant Energy Users) Manager</p>	<ul style="list-style-type: none"> • To review data on energy usage and consumption at SETU. • To provide feedback on possible improved energy efficiency measures available for example IT networks, equipment and associated systems. • To operate and maintain facilities, processes, systems and equipment in accordance with operational criteria. • To ensure operational control of maintenance activities is consistent with SETU Energy and Sustainability policy, objectives, targets and action plans. • To ensure appropriate communication of operational controls to personnel working for, or on behalf of SETU. • To ensure energy performance improvement opportunities and operational control is considered in the design of new, modified and renovated facilities, equipment, systems and processes that can have a significant impact on SETU's energy performance. The result of energy performance evaluation shall be documented.
<p>Finance Representative</p>	<ul style="list-style-type: none"> • To ensure evaluation of green criteria included in tenders where appropriate. • To ensure SETU purchase only zero-emission vehicles where available and operationally feasible from end of 2022, enabling Ireland to go beyond the requirements of the Clean Vehicle Directive and act as an international leader in this area. • To ensure procurement and design procedures in place to comply with the requirement for no fossil fuel heating after 2023.
<p>Departmental Energy and Sustainability Champions</p>	<ul style="list-style-type: none"> • To provide expertise in relation to energy and sustainability initiatives. • Lead by example and challenge behaviours • To create, drive and promote energy and sustainability awareness. • Keep up to date with Policies and procedures which effect energy and sustainability at SETU.

Appendix 2 – Draft Terms of Reference SETU Green Team

1. **Title of Committee:** SETU Green Team
2. **Status of Committee:** Sub-committee of the EMT (Executive Management Team)
3. **Guiding principle of SETU Green Team:** To promote activities, procedures and policies that will ensure sustainable development and management of the Universities resources, to serve as a change agent and to serve as a source of information for others with similar aspirations.
4. **Responsibilities delegated to SETU Green Team from EMT:**
 - a. The SETU Green Team will be chaired by a member of the EMT as nominated by the President. The Green Team can appoint a deputy Chair if chair is not available for meeting.
 - b. The Green Team will review, revise and be guided by the Universities Energy and Sustainability Policy, and any other relevant legislation, as appropriate.
 - c. To ensure continual improvement in line with SETU Strategic Objectives.
 - d. To identify and encourage areas of collaboration across all SETU communities and ensure effective communication on sustainability issues affecting University activities.
 - e. The prioritisation and timely delivery of Sustainable development aims and objectives by responsible persons.
 - f. To be responsible for ensuring that the University complies with, and where possible exceeds, all applicable legislation, guidelines and any other relevant requirements.
 - g. The setting of targets, use of indicators and the annual review of activities.
 - h. To enable SETU to provide leadership for other public sector organisations.
5. **Arrangements for the SETU Green Team to report to EMT:**

- a. The Committee shall report significant (those with financial implications) decisions to the EMT, and any further committees where relevant following each occasion on which it takes action.
- b. The SETU Green Team will submit a report on key activity on an annual basis to EMT.

6. *Arrangements for the performance of the functions, duties and responsibilities delegated:*

- a. The business of the SETU Green Team are conducted through meetings but can be done by conference call, TEAMS and e-mail etc. subject to the Chair's requirements.
- b. To pass a motion will require two thirds. Casting vote held by Chair.

7. *Membership of SETU Green Teams*

The proposed membership of SETU Green Teams are:

EMT Representative

Energy Officer,

Estates Office

Finance Office

Capital Projects Office

SEU's (Significant Energy User's) Owners

Students Union

Staff representatives and interested parties

Green Team can invite additional members/experts as required

8. *Frequency of meetings*

- a. Meetings will be scheduled on a six-weekly basis during semester time.
- b. Meetings will require a quorum of 50% plus one.
- c. Meetings will not be held during the months of July and August.

Appendix 3 - Project Scenarios

The table and graphs below illustrate where SETU is on the road to 2030 as of 2022. All figures obtained using the latest gap to target tool (GTT) available.

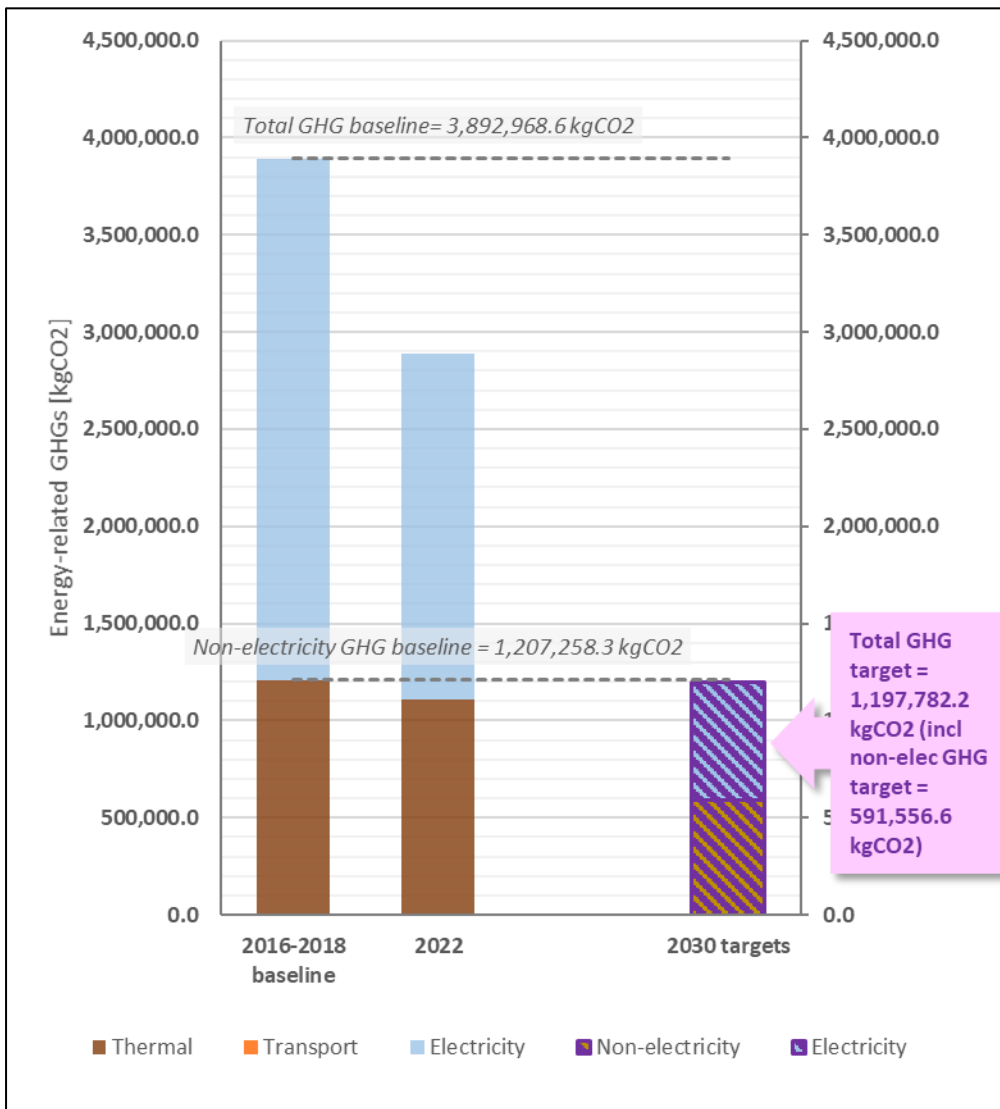


Figure 1; Total 2022 emissions for Waterford Campuses.

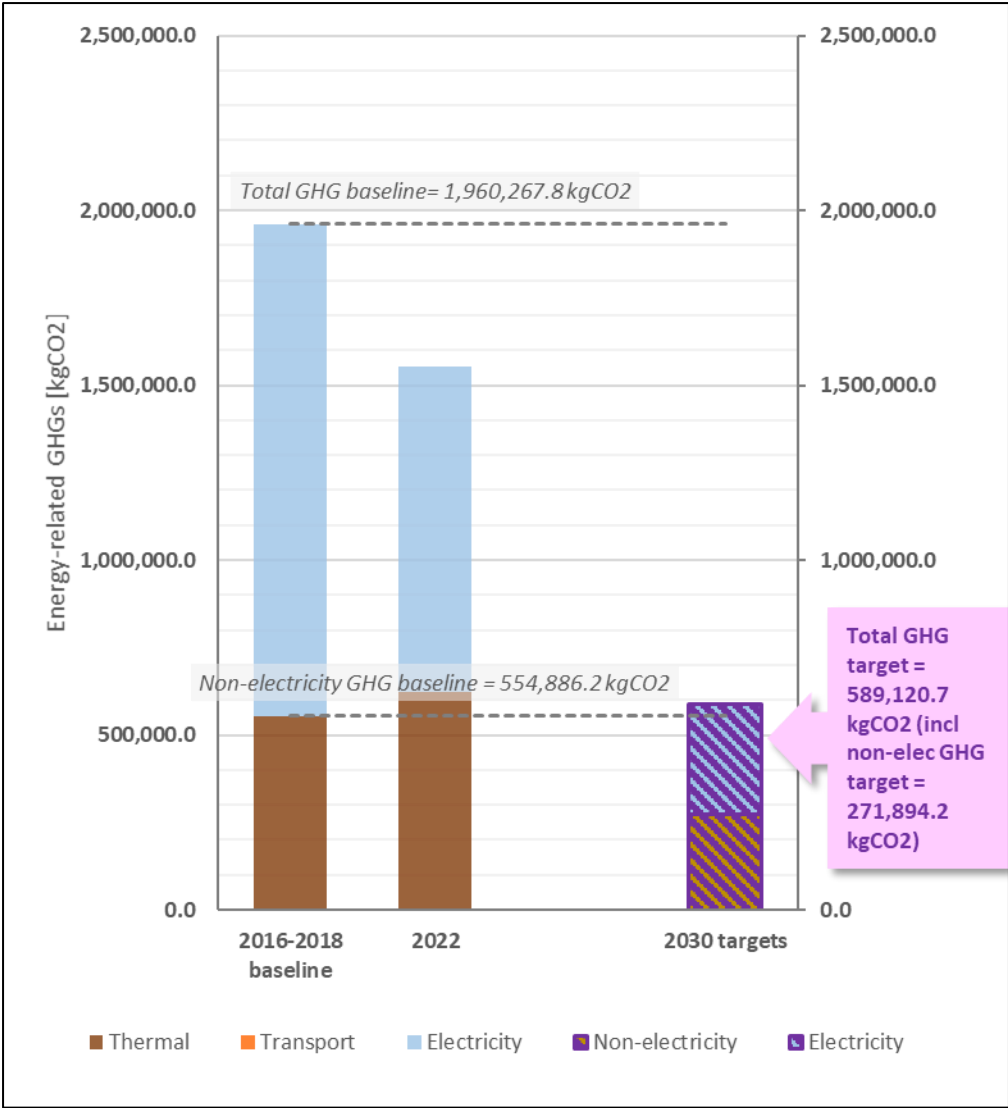


Figure 2; Total 2022 Emissions for Carlow Campuses.

To address this gap SETU completed two scenarios using the latest GTT for both Campuses. The following graphs and associated list highlight the extent of reduction required to achieve targets for both Campuses.

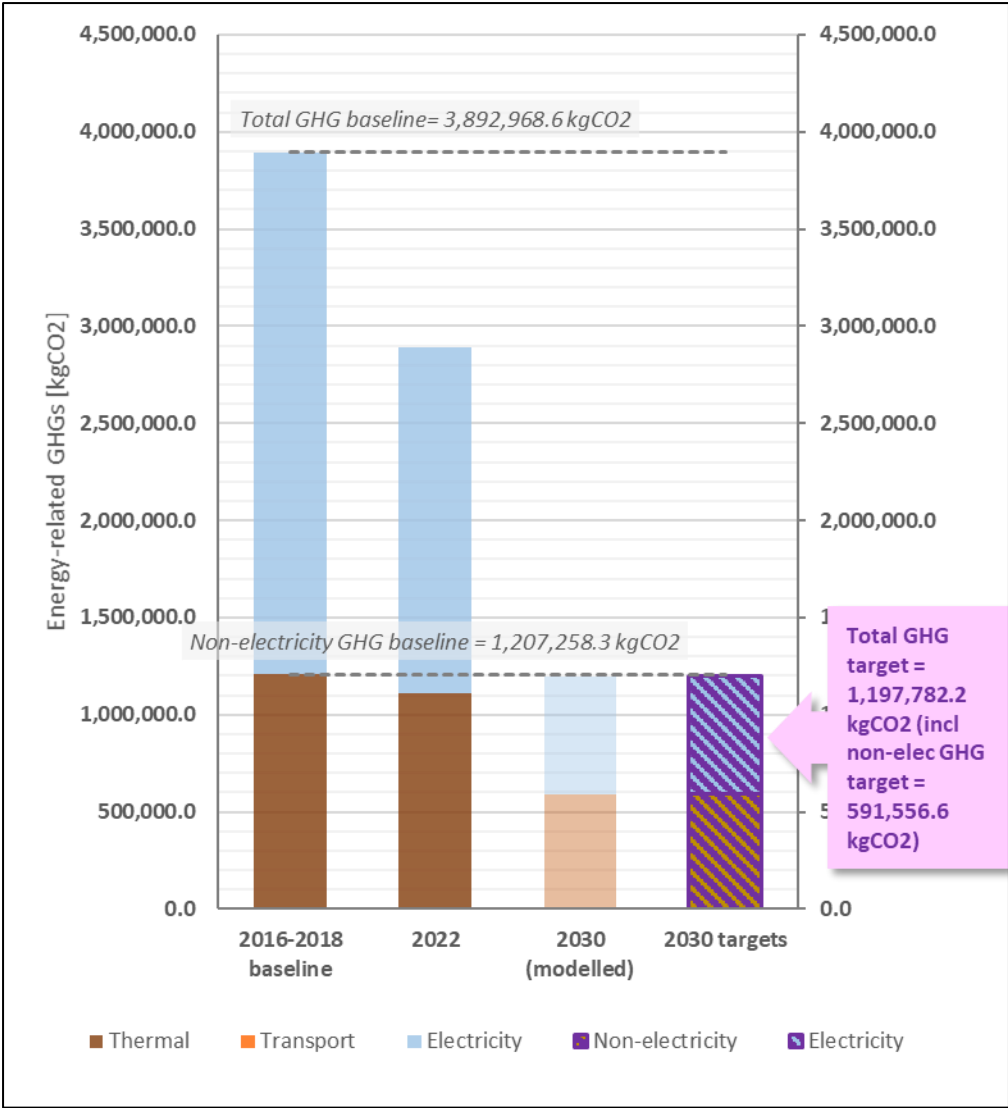


Figure 3; Modelled Total Emissions to 2030 (Waterford Campuses)

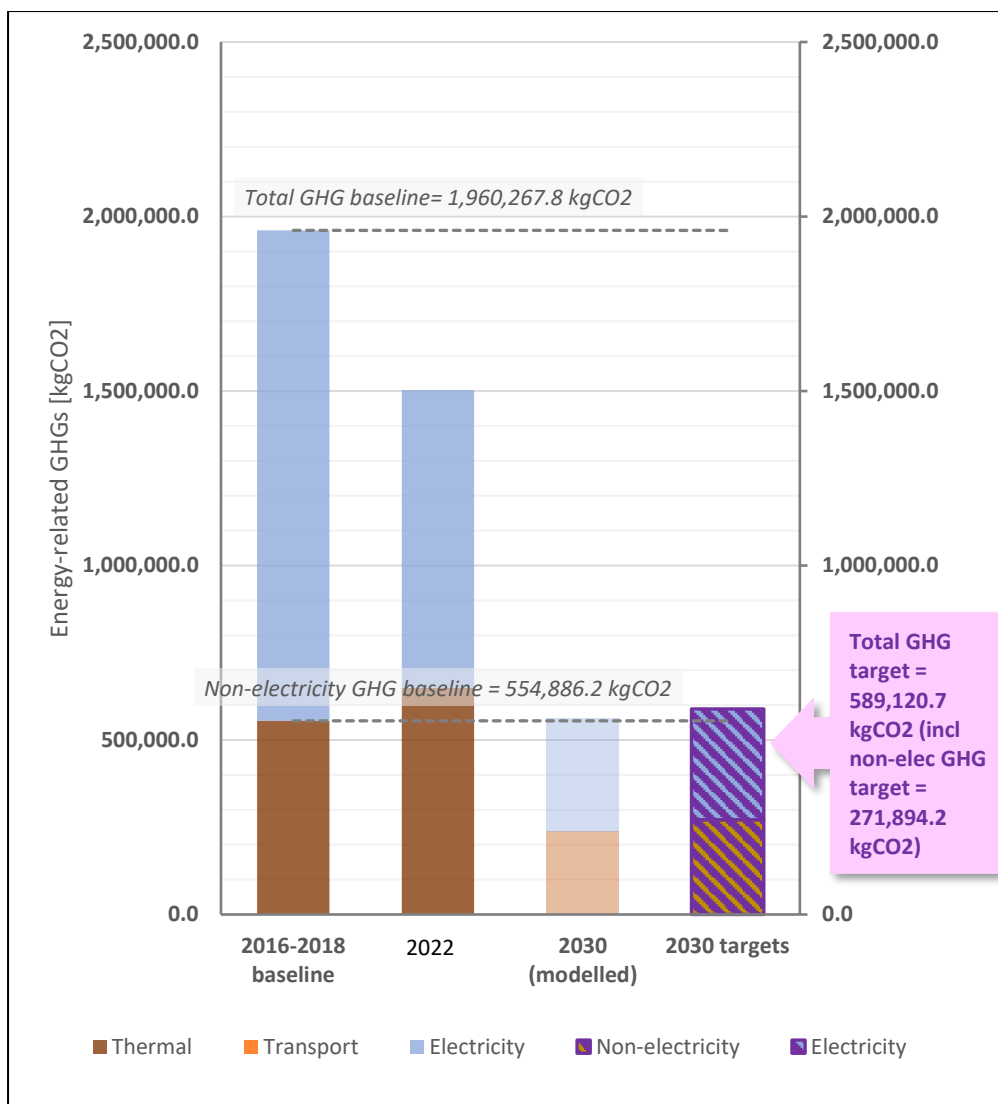


Figure 4; Modelled Total Emissions to 2030 (Carlow Campuses)

SETU Projects required to meet 2030 Targets						
Project name	Implementation Year	kWh	Energy Type	Funding & Resources Committed	Upgrade Design Complete	Update
Business School Deep Fabric Retrofit through EEDPP	2023	23,203	Gas	Yes	Yes	Project Completion Q4 2023
Business School Deep Fabric Retrofit through EEDPP	2023	11517	Electricity (grid)	Yes	Yes	Project Completion Q4 2023
Burrin Building Retrofit - Installation of High Temperature	2023	34120	Gas	Yes	Yes	EEDPP application

Air Source Heat Pump, and new circulation pumps						submitted to HEA
EEDPP Burrin Building Retrofit - Installation of Heat Pumps for hot water	2023	9500	Gas	Yes	Yes	EEDPP application submitted to HEA
SETU Thermal Policy to reduce heating to buildings outside core hours and eliminate reliance on electric heaters.	2024	54246	Gas	No	No	EMT and GB approval.
Eng & Science Second Floor deep fabric retrofit.	2025	29215	Gas	No	No	EEDPP application submitted to HEA
Eng. & Science Building Deep Fabric Retrofit, remainder of building.	2025	100862	Gas	No	No	EEDPP application submitted (design stage).
Killeshin Building Demolition - Gas	2025	20244	Gas	No	No	Exchequer funding required
Killeshin Building Demolition – Electricity	2025	30181	Electricity (grid)	No	No	Exchequer funding required
Burrin Building Retrofit - Roof Upgrade	2025	9500	Gas	No	No	Exchequer funding required
Burrin Building Retrofit - Lighting Upgrade	2025	35128	Electricity (grid)	No	No	Exchequer funding required
LRC Building Retrofit - Fabric Upgrade	2025	50719	Gas	No	No	Exchequer funding required
LRC Building Retrofit - Lighting Upgrade	2025	53052	Electricity (grid)	No	No	Exchequer funding required
LRC Building Retrofit - Air Conditioning Upgrade	2025	25050	Electricity (grid)	No	No	Exchequer funding required

LRC Building Retrofit - AHU Upgrade Heat Recovery	2025	44953	Gas	No	No	Exchequer funding required.
LRC Building Retrofit - AHU Upgrade Fan Energy Efficiency	2025	71920	Electricity (grid)	No	No	Exchequer funding required.
Walton IT – 30% Fabric Improvement	2025	25921	Gas	No	No	Exchequer funding required
SETU Arena 50% Improvement in Fabric & Plant Upgrade	2026	46443	Gas	No	No	Exchequer funding required
T&L, H&S and Library fabric upgrade 30% thermal Improvement across Buildings	2026	79331	Gas	No	No	Exchequer funding required
Nore Building Retrofit - Installation of Air Source Heat Pump, and new circulation pumps	2026	124396	Gas	No	No	Exchequer funding required.
Nore Building Retrofit - Lighting Upgrade	2026	66665	Electricity (grid)	No	No	Exchequer funding required.
Upgrade Existing Plant/AHUs & Improved plant efficiency	2026	65500	Electricity (grid)	No	No	Exchequer funding required
Upgrade of Existing Plant and AHUs	2026	20470	Gas	No	No	Exchequer funding required
BMS and Optimised Controls to all buildings	2028	51175	Gas	No	No	Exchequer funding required
Arclabs_ deep fabric retrofit of fabric & heat pump.	2027	23214	Gas	No	No	Exchequer funding required
ATB Fabric Upgrade 50% Improvement Fabric and Mechanical and Electrical improvements.	2027	33706	Gas	No	No	Exchequer funding required.

Eng & Science Top Floor Upgrade_ Install Heat Pumps	2027	29067	Gas	No	No	Exchequer funding required.
Walton IT Remove Boilers_ Install Heat Pumps	2027	42987	Gas	No	No	Exchequer funding required.
Addition of PPP Building (addition to emissions)	2027	524000	Electricity (grid)	Yes	Yes	Exchequer funding required.
CSB & Burrin AHU Upgrade - Fan Energy	2028	6689	Electricity (grid)	No	No	Exchequer funding required.
CSB & Burrin AHU Upgrade - Heat Recovery	2028	4181	Gas	No	No	Exchequer funding required.
Barrow Building - Lighting Upgrade	2028	40187	Electricity (grid)	No	No	Exchequer funding required.
GAA Building - Lighting Upgrade	2028	11348	Electricity (grid)	No	No	Exchequer funding required.
Carpark Lighting Upgrade	2028	8280	Electricity (grid)	No	No	Exchequer funding required.
Apprentice Building Lighting Upgrade	2028	5761	Electricity (grid)	No	No	Exchequer funding required.
ERIC Building Lighting Upgrade	2029	1789	Electricity (grid)	No	No	Exchequer funding required.
CIM, Avionics, Innovation, Rugby, Chemical Store	2029	12418	Electricity (grid)	No	No	Exchequer funding required.
PV Addition_ Arena, West Campus & Cork Road	2029	163750	Electricity (grid)	No	No	Exchequer funding required.
PV Addition for Carlow	2029	65500	Electricity (grid)	No	No	Exchequer funding required.

Figure 5; SETU Projects timeline to meet 2030 carbon reduction targets