



Ollscoil Chathair
Bhaile Átha Cliath
Dublin City University

DCU Climate Action Roadmap 2024

Version 3 | July 2024

Contents

Executive Summary	2
Introduction.....	3
Energy Decarbonisation Progress to date	3
Our Targets	7
Achieving the carbon emissions reduction targets.....	9
Achieving the energy efficiency target	14
Achieving our Water Conservation Target	15
Our People	16
Leadership and Governance for Climate Action.....	16
Engaging and Training	18
Our Way of Working.....	24
Energy & environmental management systems and accreditation	24
Green public procurement.....	24
Resource use	25
Our Buildings and Vehicles.....	30
Optional Content.....	28
<i>Carbon Footprint 2020-2021 Summary</i>	31
Appendix 1 : DCU Energy Policy	37
Appendix 2: DCU Energy Management System (DCU EnMS).....	38
Appendix 3: DCU ISO 50001 Certification	39
Appendix 4: Compliance with Legislation.....	40
Appendix 5: DCU 2023 Energy & GHG targets - key indicators	41

Executive Summary

This is the third edition of the Climate Action Roadmap for Dublin City University. This edition builds on our earlier Climate Action Roadmaps (Apr 2023 & Sept 2023) and our pre-existing commitments of our Climate Action Plan 2021-2023. This roadmap addresses the actions outlined in the guidance provided by the Sustainable Energy Authority of Ireland and the Environmental Protection Agency and goes beyond these to provide a holistic plan for our university and all its related communities.

DCU recognises the immense scale of the Climate Change and Biodiversity Emergency challenges and the interconnectedness of these challenges with broader challenges of climate justice and the just transition. The ambition of this iterative DCU Climate Action Roadmap is to set out the adaptation and mitigation actions that DCU can deliver to address the mandate as set out in the National Climate Action Plan 2021/2023/2024. The challenge is daunting, and we recognise that the timescales for action are short. We also recognise that the delivery of all the actions, as laid out in this current roadmap, do not meet the overarching necessary targets as set by national legislation and that further mitigation and adaptation measures will be needed. We will continue to work towards identifying and implementing additional measures appreciating that urgent action is required.

DCU and the Irish university sector has a crucial role to play in supporting Climate Action through the education and up-skilling of the current and next generations, supporting research that can inform climate action and potential mitigation measures and through our day to day operations to reduce our own GHG emissions. Sustainable Development is identified as one of the University's underpinning drivers in its Strategic Plan 2023-2028 and this Climate Action Roadmap.

The actions laid out in this Roadmap address education, training and engagement initiatives for our broad DCU community, technological solutions to decarbonise our buildings and vehicles, along with a suite of actions that examine our ways of working and our resource use and seek to reduce our indirect operational emissions.

There are substantive risks that will impact on DCU's ability to deliver on the current set of actions targeting our energy GHG emissions for 2030 include:

- **Resourcing** – the estimated scale of investment required (€115m+), just to decarbonise heating, far exceeds the current resource envelope of the University. The Irish Universities Association recently identified that the funding requirement for the IUA Universities alone is projected to cost upwards of €2.5 billion. It should be noted that DCU's attributable emission for heating (gas consumption) account for approximately 6% of our total estimated emission in 2023.
- **Electrification and grid capacity** – it remains uncertain if ESB Networks/ National Grid can provide the additional electricity capacity (Maximum Import Capacity, MIC) that will enable DCU to migrate buildings from gas to electric heat pump technology.
- **Focus on Scope 1 and Scope 2 GHG emissions** – The focus on Scope 1 and 2 GHG emission in target setting and reporting at Government/HEA/SEAI

reporting levels de-emphasise the enormous contribution of Scope 3 emissions to overall Institution GHG emissions. In 2023 DCU is reporting Scope 1 and 2 GHG emissions of 8,945 tCO₂e. This represents a 16% reduction over our 2022 GHG emissions. However, it only accounts for 13.35% of our overall GHG emission in 2023 with our Scope 3 emissions accounting for 86.65%. Further national/sectoral efforts need to be supported to address the changes necessary to reduce our Scope 3 emissions.

Introduction

Dublin City University, originally established in 1989, is located to the north of Dublin City and is the most significant and comprehensive provider of university education in the rapidly growing and economically important north Leinster region. There are six campuses - three academic (DCU Glasnevin, DCU St Patricks and DCU All Hallows), one innovation focused (DCU Alpha) and two focused on sports (Sports Campus and Morton Stadium – The National Athletics Stadium). All are within a 4 km radius with over 75 buildings (~300,000m²) on 150 acres. In 2023 DCU has over 18,000 students and 2,100 staff.

The estimated carbon emissions associated with all DCU activities in 2023 is just over 67,000tCO₂e. To provide some idea of scale of these emissions, assuming, very broadly, that 20-100 mature trees to offset 1 tonne of CO₂ emissions, depending on factors like tree species, growth rate, and local climate conditions, over 400,000 mature trees would be needed to fix our emission for 2023, needing approx. 150km² or more than half the area of Dublin County on which to host these mature trees for their lifetime. The point here is that the emission are large and planting trees is not the solution.

The DCU Climate Action Roadmap 2024 is DCU's account of the specific measures and actions being undertaken by DCU to meet its obligations under the Climate Action Legislation and mandates under the National Climate Action Plans (2021 & 2023). The scale and range of these required actions is substantial.

The DCU Climate Action Roadmap combines inputs from across DCU including our Estates team, Sustainability DCU and the DCU Executive workgroup.

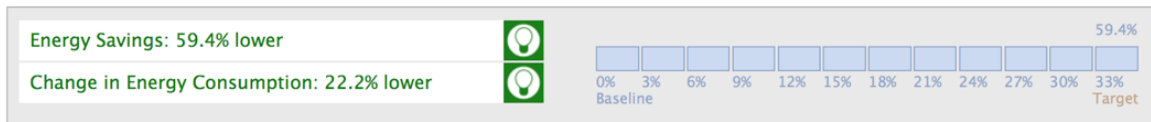
Energy Decarbonisation Progress to date

Since 2009, public bodies, under the National Energy Efficiency Action Plan, (NEEAP), and the European Communities, (EC), Regulations, set out and targeted a 33% energy performance improvement target for 2020. DCU played its part and surpassed the objective, achieving a 59.4% energy performance improvement over the target period, with an equivalent area energy performance indicator of 193kWh per square metre, the target set at 318kWh per square metre. DCU was the top performing university, and in the top tier of the public sector best performing organisations.

Along the way DCU won a number of energy and water conservation awards, and with considerable cost and carbon savings accumulated over that time too. Similarly, our

water conservation campaigns reaped significant results, with over 50% savings across all campuses.

Since Baseline to 2020



Energy Performance Indicators – 2020

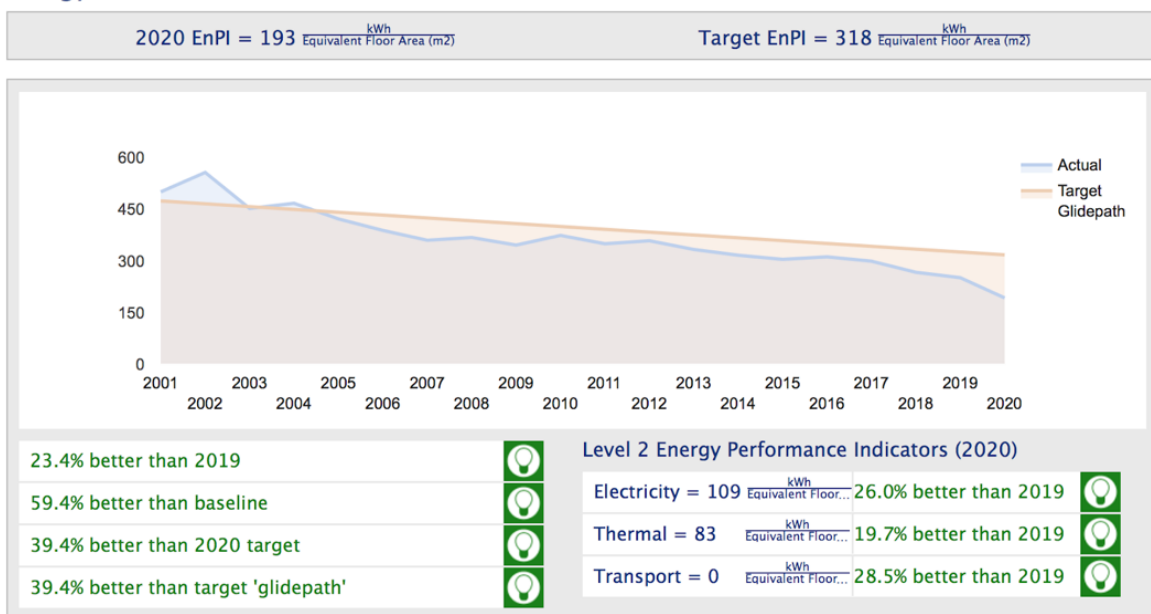


Figure 1: 20 Years of Energy Performance at Dublin City University

DCU manages its energy and water systems through a combination of a structured, motivated, forward thinking, strategic and innovative utilities management plan.

The process began with the establishment of an energy team in 2016, to combine the crucial operational elements needed to manage energy daily, while ensuring the strategic side focused on sustaining consumption, cost and carbon into the future. A four-stage approach was devised to align utilities planning across all campuses. It included the implementation (and full independent certification) of the DCU energy management system, the implementation of a multi-campus energy and water conservation strategy, the formalisation and structuring of all energy operations, and the setting up three energy management teams to manage the overall process; the estates office energy management team, the university energy management team, and the senior energy management team.

Energy and Water conservation are now fully embedded into all facilities, operational, and project activities, and focussed throughout the entire staff and student populations. Our **ISO 50001 Energy Management System certification**, of which the scope is all natural resources across all campuses, has enabled this delivery and is the bedrock for our ambitious and aggressive plans for 2030 and beyond.

COVID had a serious effect on our utilisation and consumption of energy. With the lockdowns over 2020 and 2021, there was some positive news in terms of reduced energy requirement, but safety protocol to ensure clean safe air was, and still is, provided to spaces in the post COVID environment, has meant that our efficient heat recovery air systems are disabled until further notice, and pumps and fans are running longer than ever to ensure all our learning and working environments are safe for both students and staff. This will continue into the future and is an additional challenge for us as we step up our ambitions to decarbonise our energy systems.

As of 2023, DCU is 54.5% towards achieving its 2030 energy performance objective. If energy performance is maintained at this level for the next 7 years our efficiency target will be achieved. DCU is ahead of current target.

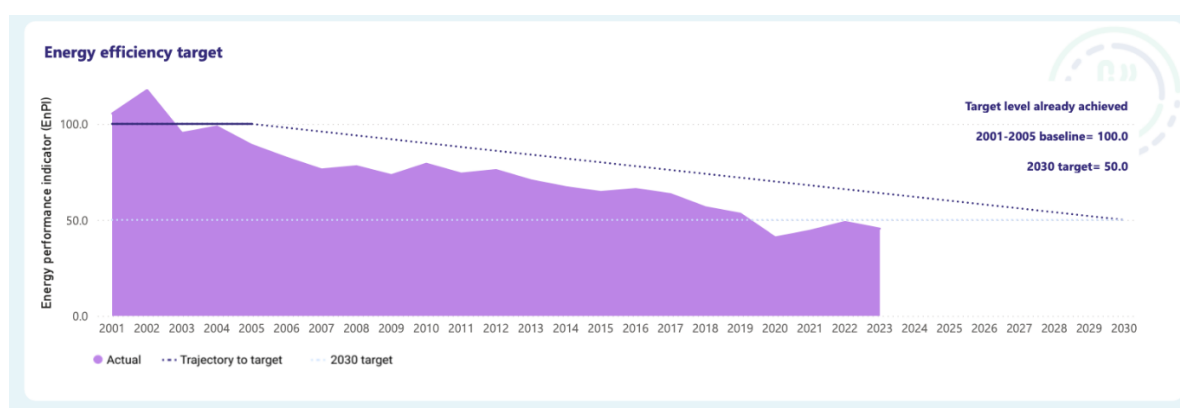


Figure 2a: 2023 DCU Energy Efficiency Monitoring & Reporting Glidepath

Our overall energy data summary as of 2023 is outlined below:



Figure 3b: DCU Energy Efficiency Monitoring & Reporting Summary (2023)

Our Targets

DCU, as a statutory body is required to undertake measures necessary to meet the National Carbon Budgets as set by Legislation 1. DCU understands that, at present, there is no mechanism to translate the National Carbon Budgets to Institutional Level. In line with the National Climate Action Plan Public Sector Mandate the current targets are :

- 51% reduction in Greenhouse emission by 2030;
- Net zero carbon emissions by 2050;
- 50% Energy Efficiency by 2030;
- Update Climate Action roadmaps annually in line with updated Public Sector Action Mandate.

However, DCU does have Greenhouse Gas/Carbon emissions data for the institution from 2018-2023 and can therefore use this data to identify and support the measures necessary to establish our internal DCU Targets. The DCU Climate Action Roadmap, openly available on our [website](#), will advance DCU on the journey to meeting these targets. DCU is committed to the open and transparent reporting of targets and actions along with an honest assessment of the impact of these actions to achieve our targets.

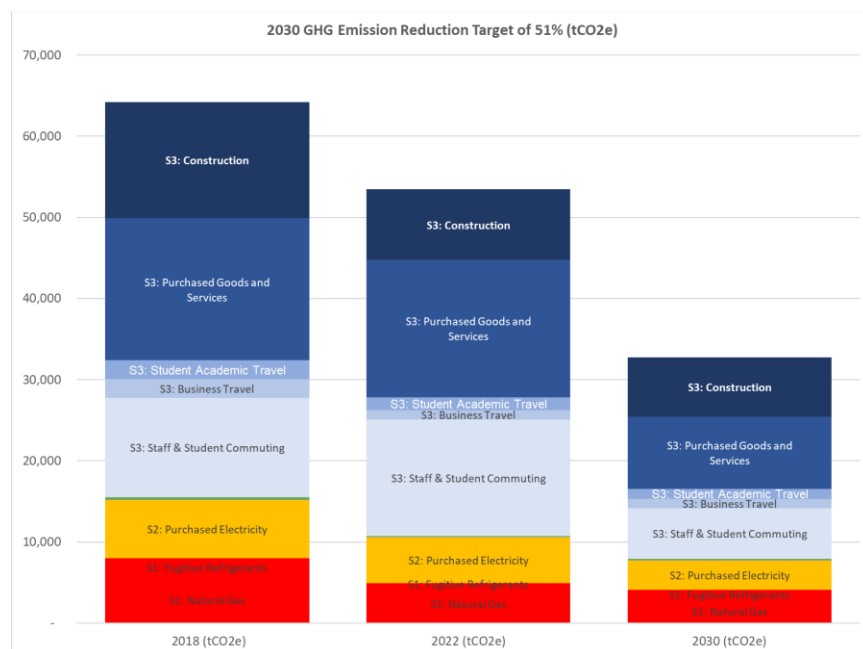


Figure 4: DCU GHG Emission 2019, 2021 and target for 2030 (Note 2050 target is Net ZERO)

¹ <https://www.gov.ie/en/press-release/9336b-irelands-ambitious-climate-act-signed-into-law/?s=03>
<https://www.irishstatutebook.ie/eli/2021/act/32/section/15/enacted/en/html>

Energy Targets

In relation to the specific energy emission reduction targets DCU has very aggressive and ambitious energy plans to reach our 2030 targets and beyond. We shall continue to try and reduce our consumption and costs but there will be an added emphasis on decarbonisation. This will be in line with EU and Irish legislation. We have a responsibility to reduce costs and consumption and be recognised by our sector and local communities as a leader in climate action. Our ambition shall be to go further than government targets and reduce our emissions as practically and as cost effectively as possible, but we again recognise the need for external resources to enable us to meet this ambition. Balancing carbon with cost, and consumption, will be a key component of our energy strategy through to the end of this decade.

We also understand that the university may expand to meet the increased needs of our students, our research and our broader local and global community engagement. By 2030 we could have up on a 40% increase in building stock. At least 25,000m² is in planning with our *Polaris* and Phase I of *Campus Residences* developments. We have to plan for these increases and build them into our energy planning. If the university continues to expand, the facilities will be designed and built to be net zero ready. All of the current University new building projects are built to nZEB+ standard, and incorporate electric heat pump heating solutions combined with PV localised power generation.

For the purposes of setting out our Climate Action Roadmap towards a more sustainable energy future, we can assume that our energy related emissions could increase by at least an additional 10,000 tCO₂e by 2030. With a *do-nothing business-as-usual* approach, our energy related carbon figures could rise to over 25,000 tCO₂e by 2030, but with a resourced aggressive plan, we can reduce our energy emissions to less than 6,000 tCO₂e, giving DCU a good platform to completely reduce our overall energy related emissions well before 2050, and all goes to plan, before 2040. That is our ambition and that is the target we are confident of achieving.

There are three drivers on which we build our carbon reduction strategy, and to enable an ambitious and aggressive plan to be defined, put in place and ultimately achieved over the remainder of this decade. These are;

- Generation,
- Conservation, and
- Decarbonisation.

As the national grid decarbonises, so will our electricity related GHG emissions. To take advantage of this national network decarbonisation, DCU plans to generate its own renewable power and heat through photovoltaics and heat pump installations and integrations. These measures will decarbonise our thermal (gas) and power (electricity) requirements, whilst conservation measures will continue to focus on fabric, plant, equipment, motor, lighting, and controls works, to continue to drive down our energy demand and consumption. Alongside these measures, awareness, behaviour, and culture change will deliver an energy conscious DCU.

Through this three-pronged approach DCU plan to achieve our own targets of close to 90% net zero electricity emissions, at least a 70% energy performance

improvement, and over 60% overall energy related carbon reduction. Our current plans set DCU on a pathway towards complete net zero energy emissions before the end of by 2037, somewhat earlier than our earlier 2040 target. .

Our new capital project developments are built to near zero energy building (NZEB) standards with innovative non-fossil fuel heating solutions de-carbonising their thermal needs. Our refurbishments to existing buildings will decarbonise the areas of the buildings being refurbished, and ensure compliance, ultimately, with ZEB requirements.

It is important to note that our targets will evolve as new legislation and more targets are included in the overall scope of government requirements. For example, we understand Staff Business Travel will be included in the Monitoring and Reporting Scheme over the next few years. It is also expected that as the decade progresses the SEAI Monitoring & Reporting System will evolve, to become a complete carbon targeting tool, for all emissions types and scopes.

Achieving the carbon emissions reduction targets (51% reduction by 2030)

DCUs glide path and 33% energy reduction for the 2020 targets has now concluded with DCU achieving an overall 59.4% EnPI Improvement relative to our baseline year.

Our 2030 targetting baseline is set at the average of our 2016-2018 time period, with base loaded emissions calculated as approximately 14,500tonnes of energy related CO₂. Our target decarbonisation glidepath is summarised below.

In terms of our overall energy related carbon emissions, DCU are 39.1% below the baseline of 14,587,030kgCO₂. Our 2030 target is set at 4,567,307kgCO₂, and to achieve this, DCU must reduce by another 48.6% over the next 7 years. DCU are ahead of target.

In terms of fossil fuels specifically, DCU are 22.8% below the baseline of 5,240,890 kgCO₂, and to achieve this, DCU must reduce by another 36.5% over the next 7 years. DCU are ahead of target.

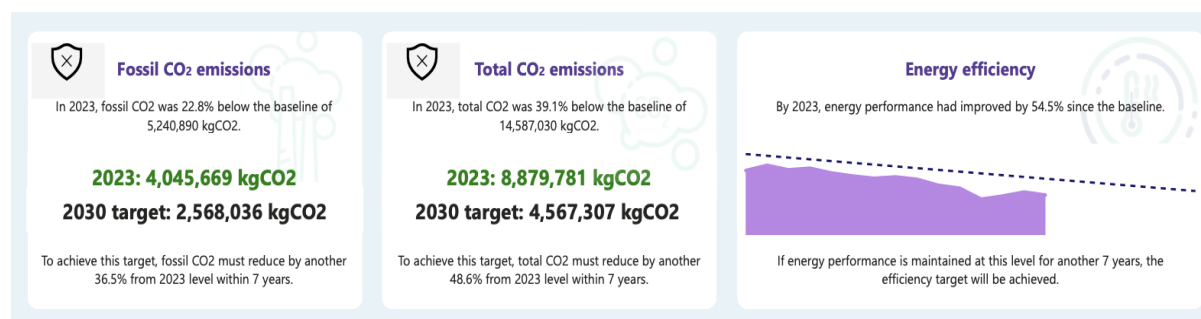


Figure 5: DCU 2030 Target Summary (CO₂ and Energy Efficiency)

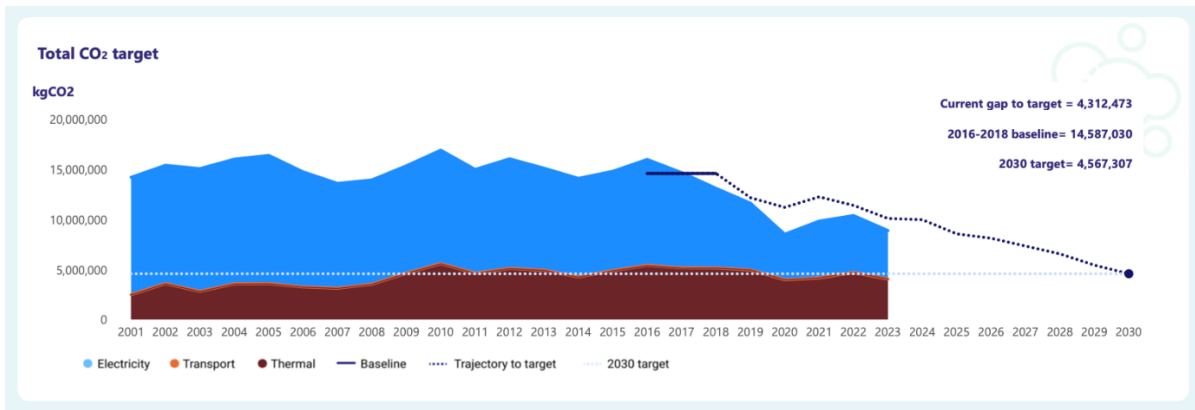


Figure 6: DCU 2030 Energy Decarbonisation Target Glidepath (Total CO₂)

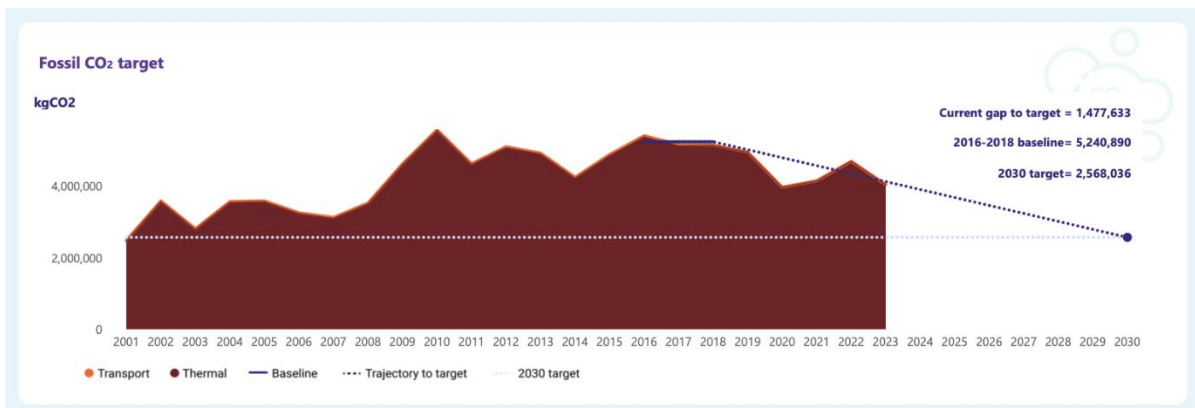


Figure 7: DCU 2030 Energy Decarbonisation Target Glidepath (Fossil Fuel)

To decarbonise gas will require significant additional power capacity, as our heat electrifies, but we intend to combat this with on-campus, decentralised, renewable power generation. Our target is to install at least 1.5 MW_p of renewable power by 2030.

2023 was the year where we baselined our consumption post-covid, through the continuation of our no and low-cost conservation projects, and our *unplugged* and *reduce your use* campaigns. Alongside these measures we finalised our conservation, renewable power, and renewable heat project planning to achieve and surpass our 2030 energy targeting.

Figure 9 below provides a summary ‘waterfall’ view of the interventions being proposed and their impact on the energy emission reduction targets.

Table 1 gives a summary outline of these projects and the estimated carbon savings and costs associated with each project. These are very basic guesstimates but it is clear that significant resources will be required to enable the delivery of this plan. Costs are associated with heat pump integrations with shallow fabric retrofit costs and do not include consultancy fees, project management fees, inflation, or decanting costs associated with the university’s requirement to continue to operate while building retrofitting is underway. They are first stage budget costs to enable a resourcing plan to be developed over the coming years and to align with pathfinder project planning..

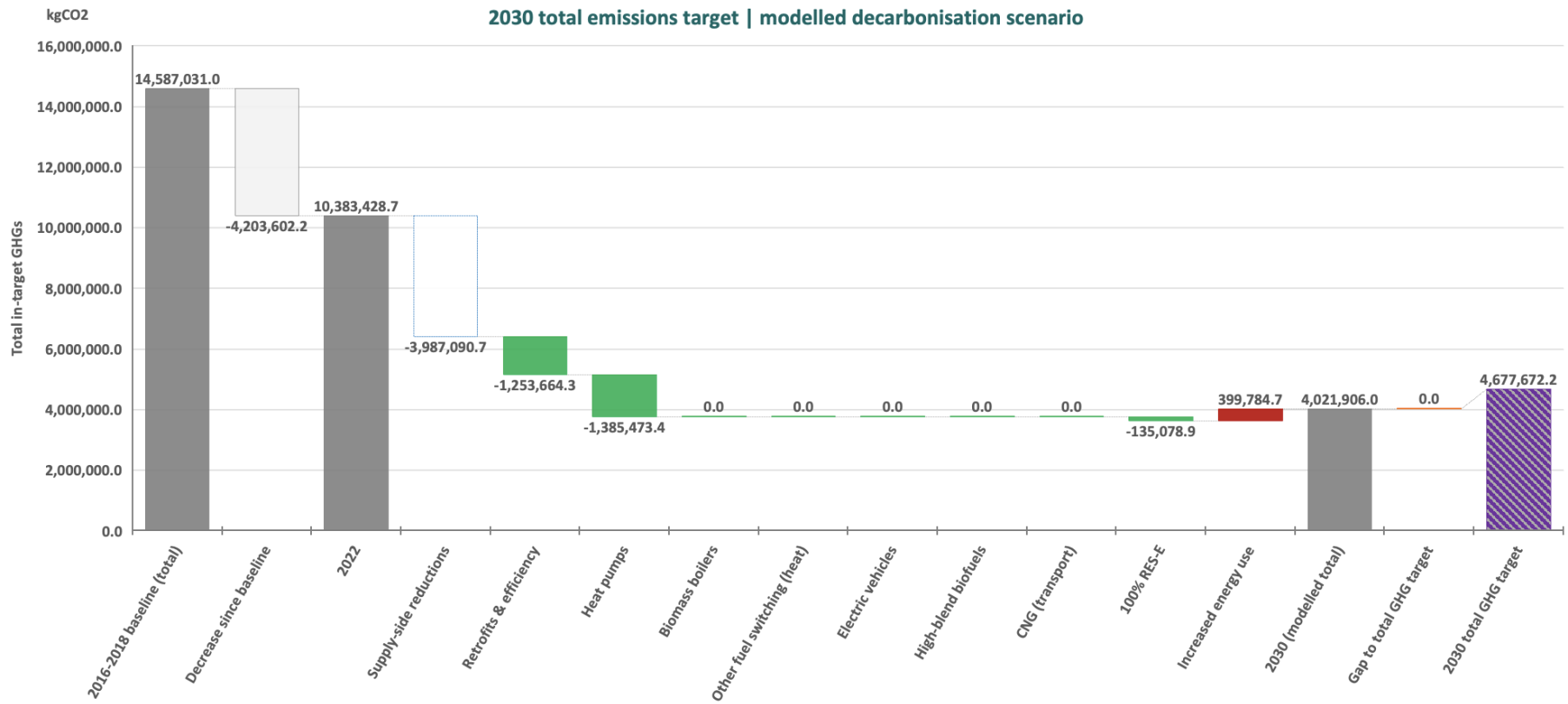


Figure 8: DCU Energy Decarbonisation Cumulative Waterfall Target Planning for 2030

Table 1: Summary of Projects with estimated carbon equivalent emission reduction and costs

Year	Campus Facility	Project	Carbon Savings (tCO2e)	Cost €
2024 2025	SPC	Fabric Retrofit, Heat Pump Integration & Renewable Power Installation	700	15,000,000
2024 2025	All Campuses	Conservation & Efficiency Projects (EAP)	200	2,000,000
2026	GLA Stokes GLA NRF	Fabric Retrofit, Heat Pump Integration and Renewable Power Installation	250	15,000,000
2026	All Campuses	Conservation & Efficiency Projects (EAP)	50	1,000,000
2027	GLA Nursing GLA Albert C.	Fabric Retrofit, Heat Pump Integration and Renewable Power Installation	300	9,000,000
2027	All Campuses	Conservation & Efficiency Projects (EAP)	50	1,000,000
2028	GLA Helix GLA Sports	Fabric Retrofit, Heat Pump Integration and Renewable Power Installation	250	15,000,000

Year	Campus Facility	Project	Carbon Savings (tCO2e)	Cost €
2028	All Campuses	Conservation & Efficiency Projects (EAP)	100	2,000,000
2029	GLA Henry G. GLA Hamstead GLA U GLA College P.	Fabric Retrofit, Heat Pump Integration and Renewable Power Installation	550	20,000,000
2029	All Campuses	Conservation & Efficiency Projects (EAP)	200	5,000,000
2030	AHC	Heat Pump Integration	50	5,000,000
2030	All Campuses	Conservation & Efficiency Projects (EAP)	200	5,000,000
2030	GLA Lonsdale GLA NICB GLA Hamilton	Fabric Retrofit, Heat Pump Integration and Renewable Power Installation	600	20,000,000
		Total	3,500	115,000,000

This above list is not definitive, and other buildings on the Glasnevin campus will be included over time, and possibly reprioritised, but for now our planning is centred on trying to finalise a list that can enable DCU to plan, budget, target, and ultimately hit our decarbonisation targets in the short, medium and longer term.

On our St Patricks Campus we plan to rationalise, recommission, and electrify the district heating network with the addition of heat exchangers and heat pumps on the sub-main building branch networks. 500kW_p of renewable power will complement the heat decarbonisation strategy.

On our All Hallows Campus we have a geothermal solution that will completely decarbonise the thermal emissions. Renewable power generation is not planned here.

Both the Alpha and Sports Campuses have numerous possibilities for heat pump integrations, and PV installations, which will be studied and developed throughout 2023 and 2024.

Our *Unplugged* and *Reduce Your Use* campaign, together with timetabling optimisation, has the potential to save 500tCO_{2e} annually across all of our buildings and facilities, but will require serious commitment from senior management, our staff and our students.

Our new Total FM contract has the potential to save 500tCO_{2e} annually. It will require new ways of operating the contract, but there is potential to have this as a significant enabler of our overall energy strategy.

In essence, our energy plan in DCU is to have multiple conservation, decarbonisation and generation targets and pathways. This can also help combat the added energy through refurbishments, new builds, additional students, further research initiatives, and general university advancements, that will contribute to added energy consumption from our current baseline. Our 2023 modelling exercise shows that this planning will enable us to reach or even exceed our targets, all things being equal. However, this excludes the Campus Residences developments, and other plans for buildings like the DCUBS. We await a decision on whether these developments will proceed, but they have to be included in our next glidepath exercise, if there is a decision to proceed.

Our glidepath exercise will be further developed and updated in 2024 to take account of as many additional energy users we can foresee. These projects will increase energy use and make the absolute decarbonisation target more difficult.

Achieving the energy efficiency target (50% improvement by 2030)

DCU's ambitious roadmap for decarbonisation with a focus on continuous energy efficiency improvement in line with the 2030 targets is now underway.

2023 has been a challenging and exciting year for us in terms of energy management as we progress our decarbonisation programme, electrifying our buildings heating systems, highlighting key learnings for future projects, while expanding our overall building stock and student population.

We are pleased to say that as of the end of 2023, DCU's glide path is currently on the right trajectory with the 2030 targets in terms of both energy performance improvement

and our ambitious absolute energy related carbon emissions target. (See figures below)

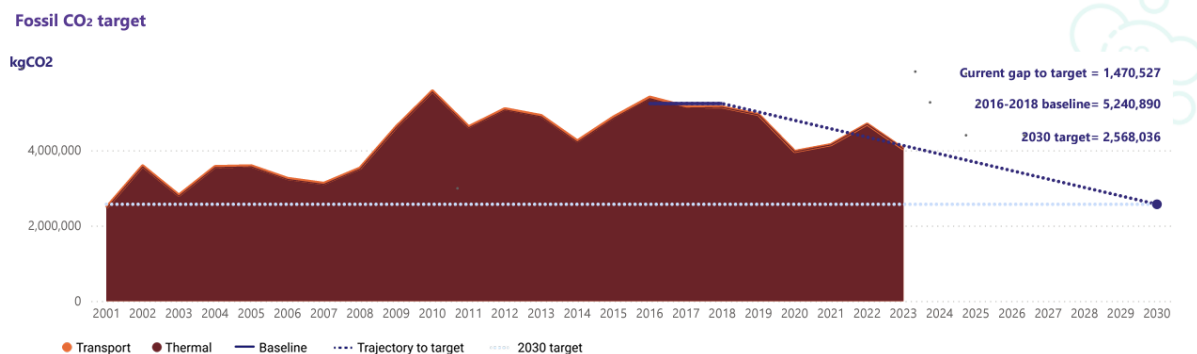


Figure 9: DCU Fossil CO₂ Actual (2001- 2023) and Targets in 2030 (SEAI Provisional data)

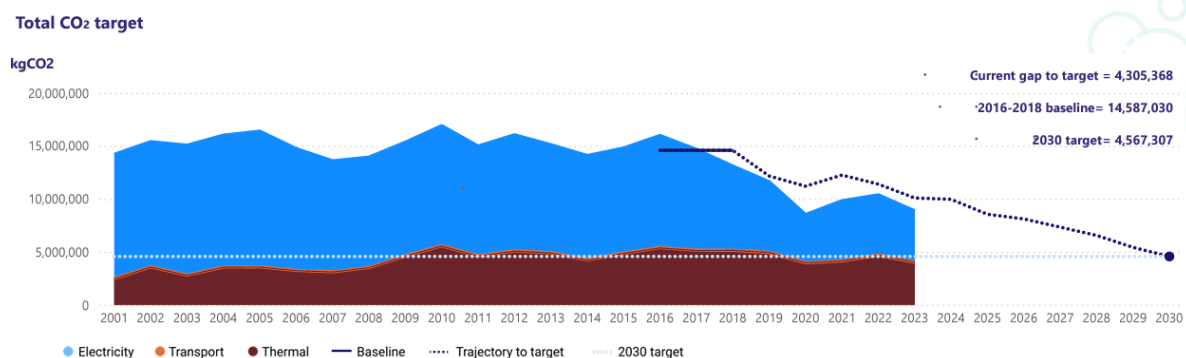


Figure 10: DCU Total CO₂ Actual (2001 – 2023) and Targets in 2030 (SEAI Provisional data)

Achieving our Water Conservation Target

In 2016, at the start of our water conservation strategy, DCU consumed approximately 250,000 cubic metres of water each year. Following an extensive leak audit survey initiative, and the associated repairs, and alongside a focus on reducing water conservation across our significant water users, the DCU usage reduced to 200,000 cubic metres by 2019. We are targeting an ambitious campus-wide overall consumption of 100,000 cubic metres for 2030. This will be a 60% reduction.

Our People

DCU's has demonstrated leadership in embedding sustainability across the institution. Our Strategic Plan 2023-2028 identifies Sustainability as an underpinning driver across the whole institution. The DCU Estates Energy team has been working for decades on the implementation of energy saving and efficiently measure right across all the DCU Campuses. In 2012 DCU was the first university to appoint a sustainability manager and went on to establish, in late 2018, the DCU Sustainability Council, chaired by the DCU Chief Operations Officer (COO) has representation from all faculties, the SU and professional support units. Together this Council have developed the DCU Climate Action Plan 2021-2026 (see Appendix for full details) and work to monitor its iterative development and implementation.

Leadership and Governance for Climate Action

In this section there is a summary of the key position and roles within DCU and their responsibilities in respect to sustainability.

- Our President, Prof. Daire Keogh, has overall responsibility for the leadership and strategic direction of DCU and is committed to demonstrating DCU continued leadership in Sustainability.
- Our Chief Operations Officer, Dr. Declan Raftery is our Climate and Sustainability Champion, and has overall responsibility for our Climate Action Mandate.
- Our Head of Sustainability, Ms. Samantha Fahy, has responsibility for Sustainability and Climate Action. The DCU Sustainability Unit has currently one additional sustainability officer and two research assistants.
- Our Energy Performance Officer and Director of Estates, Mr. Gerard McEvoy, has responsibility for Energy Performance.
- Our Energy Team, Mark Argue, Joe Fallon, and Richard Kelly, have responsibility for the management of our Energy and Water Management Systems.
- The Senior Energy Management Team consists of the Estates Manager, Richard Kelly, The Director of Estates and Energy Performance Officer, Gerard McEvoy, the Sustainability Manager, Ms Samantha Fahy, and the Chief Operations Officer, Dr. Declan Raftery.
- The Sustainability Council consists of 20-25 members from across the university with representation from all faculties and professional units and the DCU Students Union.

- The DCU An Taisce Green Team, consists of volunteers from the staff and student bodies and has currently over 70 members. The An Taisce Green Committee work closely with DCU Sustainable clubs and societies to deliver of student focused actions each year and work.
- Smarter Travel Working Group: with membership from across the university this working group actively works to address travel and transport issues across our campuses working closely with the National Transport Authority.
- Faculty Technician Green Team – drawn together over the past number of years to address in particular lab-based energy concerns, this team of technicians works closely with the DCU Estates Energy Team.

The figure below outlines the current structures at DCU.

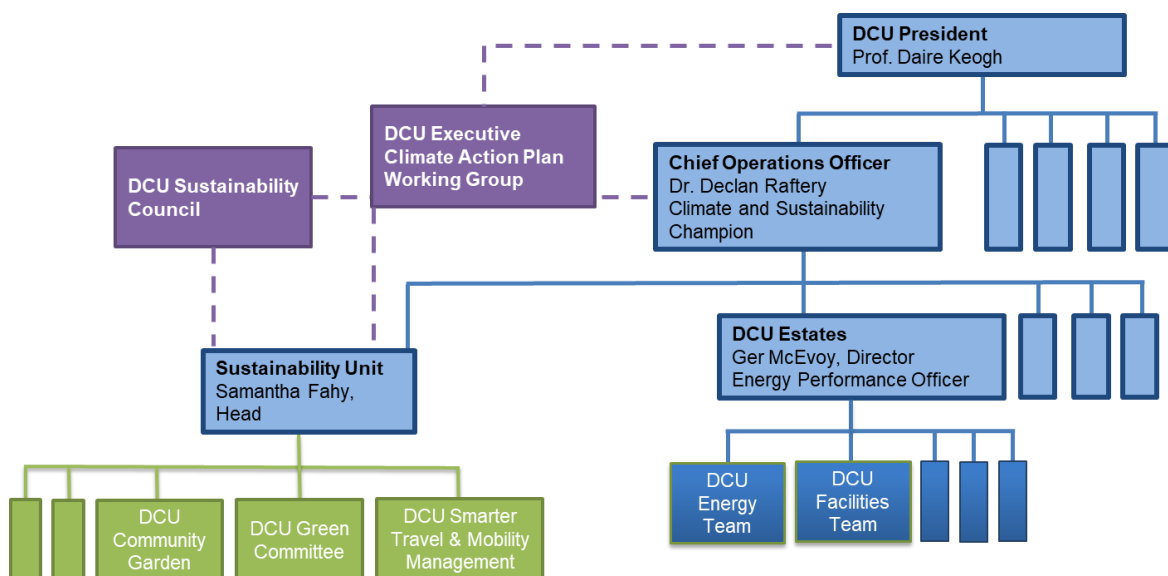


Figure 11: Organigram of Sustainability teams at DCU

DCU Strategic Plan 2023-2028: Transformation for an Unscripted Future

DCU is currently developing its strategic plan for the coming seven years to 2030 and recognising the importance of sustainability is core to this strategy with Sustainability being one of DCU's agreed primary drivers. The figure below provides a draft snapshot of the plan.

Building on the strategic intent of this plan DCU is committed to intensifying the cross-campus engagement with sustainability and to support this will seek to establish additional Green/Sustainability teams at Faculty Level as well as across the professional units (Draft terms of reference in appendices).

Draft Strategy Map

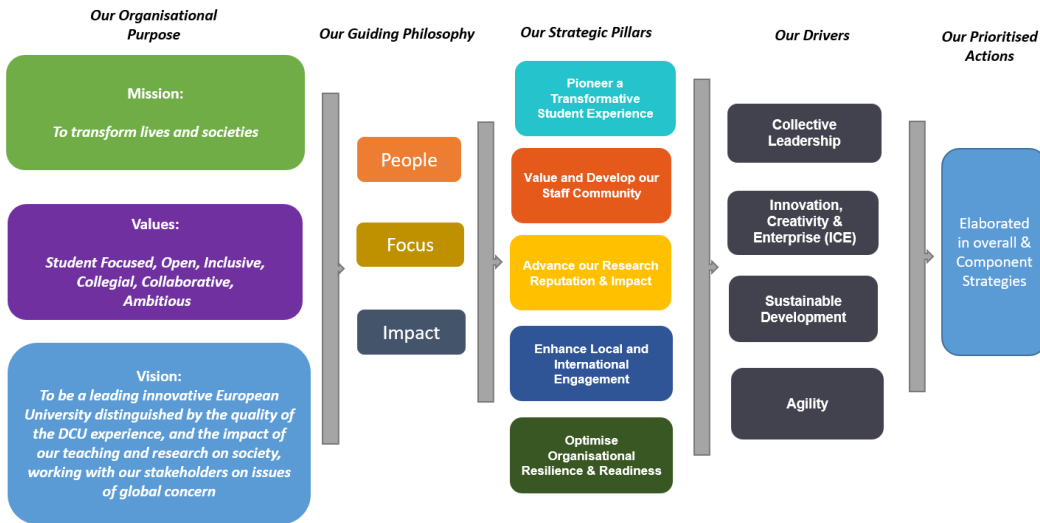


Figure 12: DCU Strategic Plan Map 2023-2028 (DRAFT)

Engaging and Training

As a higher education institution, DCU is proud to lead on the delivery of education and training for our staff, students and community, supporting all to understand the scale of the challenges we face and the urgent need for action. We will continue to work together with all stakeholders to identify the mitigation and adaptation actions necessary to transform ourselves and society to deliver on sustainability and climate justice.

Existing Engagement and Training

- Regular lectures/talks by Head of Sustainability (8/10 per annum)
- Information Sessions by DCU Estates Energy Team (1/2 per annum)
- Newsletter by DCU Estates Energy Team (1/2 per annum)
- Sustainability information session with University Senior Management & Faculty Management Boards (4/6 per annum)

DCU are committed to undertaking the following Climate action and sustainability training in 2023:

- A tailored one-day Climate Action Leadership programme was undertaken by DCU Senior Management on 17 October 2023;
- In conjunction with external experts an education and training workshop will be delivered to DCU Head and Deans (approx. 60 members of DCU Senior leaders) has been scheduled for 19 September 2024;

- DCU, in collaboration with partners across the HEI sector, is investigating the possibility of developing a cross sectoral Climate Action Leadership Training programme to meet the requirements of the public sector mandate. A cross sectoral resource for all HEI will be significantly more resource efficient than individual organisation programmes and will ensure consistent messaging across the sector.
- DCU will investigate the development of a short online course to communicate simply the requirement and implication of Irish National Climate Change Legislation. DCU has currently identified on its Sustainability Webpages education and training resources currently available to staff and students through SEAI Energy Academy, Linked In Learning etc.
- Regular information sessions from Sustainability DCU (online).
- Examine information session/training for Green Teams.

In addition, DCU will organise the following workshops open to both staff and students

- Annual Green Week Sustainability Workshop bringing together staff and students to discuss the key challenge of climate change/biodiversity loss and co-creation and gathering of potential solutions.
- The DCU Sustainability website provides information on the challenges and will encourage staff and students to submit suggestions for additional actions.
- Online DCU Community ‘jamboard’ will be created to allow staff and students identify their concerns and suggestions for actions.
- The DCU Centre for Climate and Society run several events throughout the year to engage and communicate on the topic of climate change and biodiversity loss, including hosting an annual conference that is open to all to attend. In 2024, Mrs. Mary Robinson, Former President of Ireland and Chair of The Elders delivered the keynote at the Climate Justice Across Generations Event.

Directly addressing ***Student Engagement*** is of utmost priority for DCU, while we recognise that there is enormous urgency and changes should be implemented now, we are educating our students for the next 40/50 years of their working lives – we need to ensure that we support the development of the necessary skills they will need to thrive in our climate impacted future. Education for Sustainable Development (ESD) is an important dimension of our Teaching and Learning Strategy and the DCU SATLE investment plan 2023-2025, and sustainability literacy is prominent in our flagship DCU Futures initiative.


In this context DCU is committed to the following:

- Opportunities for students to develop their competence in sustainability literacy embedded in DCU Futures programmes (as part of the Transversal Skills Competency Framework).
- An Education for Sustainable Development (ESD) mapping and integration exercise which will incorporate sustainability in a pedagogically-relevant manner, staff development opportunities for ESD, and curation of shared resources to support this work.
- Continuing to support the An Taisce Green Campus Programme.
- Supporting the Student Union as a key advocates and communication channel to the student body.
- Work with the SU to investigate the possibility for a new SU Sustainability Sabbatical Officer role.
- Work with all relevant stakeholder to investigate the need/possibility of an optional or mandatory sustainability module.

DCU is also committed to working with our Communities Local/Global/Alumni/Politicians etc. As a higher education institution we recognise that many look to us for knowledge and inspiration. We will therefore work to communicate a clear message that sustainability is an existential challenge that will require the transformational change of our current working and living models, and to increase understanding of the measures required by individuals, organisations and communities to mitigate and live with the consequences of climate change and for a sustainable future:

- Engage with communities local to global, prioritising initial actions with its large students and staff community.
- Support and promote engagement through our research centres including the Centre for Climate & Society and Centre for Engaged Research.
- Investigate potential public lecture series.
- Investigate and further develop our continuing role of engagement with our external community (local/enterprise/social..) to inform and engage on the challenges of climate change and biodiversity loss and support these communities in transition to sustainable future.

Specifically on Energy as part of our ISO 50001 Energy Management System accreditation, DCU hosts an annual energy awareness seminar for staff and students, and which comprises energy champions from across all of our buildings, facilities and




campuses. Whilst the emphasis is on Scope 1 and 2 emissions, there is additional content on the scope 3 carbon. The engagement workshops include;

- Energy Policy and its communication,
- Contributions to the effectiveness of our Energy Management System (EnMS), including achievement of objectives and energy targets, and the benefits of improved energy performance.
- The impact of our activities or behaviour with respect to Energy Performance.
- The implications of not conforming with our EnMS requirements.
- Overview of our EnMS processes and components.
- The ISO 50001 Energy Management System and its role within DCU.
- Our DCU Energy Manual – how the DCU EnMS works.
- Review of DCU Energy Performance: Past, Present and Future plans.
- Carbon Emissions in DCU; Scope 1,2 and 3.

In addition, the Estates Office hosts faculty, school and unit focus groups, and the intention is to build on our *Unplugged* and *Reduce Your Use* campaigns to organise more workshops and increase collaboration and engagement across the whole community. For this effort, both the Sustainability Office and the Estates Office will combine to ensure the wider climate agenda is included, and so that the staff and student learnings can ensure our overall organisational carbon footprint can reduce year on year through awareness, behaviour, and culture change.

In terms of training, the DCU Energy Team have Corporate Membership with the Energy Institute, and have Chartered Engineer, Certified Energy Manager, Certified Energy Auditor, and Certified Measurement & Verification Professional status. Continuing Professional Development is key and an important element in our overall system accreditation, and our planning for the future.

Our energy management system ensures that any person(s) working for, or on our behalf, and related to significant energy usage, are competent on the basis of appropriate education, training, skills and experience. This ensures that everyone that can have a significant impact on energy performance shall understand the importance of conformity with our energy policy, the procedures and the requirements of our DCU energy management system, the roles, responsibilities and authority across the university, the benefits of improved energy performance, the impact, actual or potential, with respect to energy use and consumption, how their activities and behaviour contribute to the achievement of our overall energy objectives and targets, and the potential consequences of departure from these procedures, and crucially as part of our continual improvement process.




DCU's commitment to the education and training of staff has been further enhanced through the appointment of an Education for Sustainable Development Officer in January 2024. Located within the Teaching and Enhancement Unit, the ESD Officer's role is to build commitment and capacity around sustainable development, with the aim of embedding a culture of ESD in all teaching and learning.

To date, a number of initiatives have been developed, including:

- The development of an Education for Sustainable Development (ESD) hub, offered through Loop (Moodle). This resource is designed to support all teaching staff at DCU to integrate sustainability into their practice, regardless of discipline. It includes sections on sustainability knowledge and competencies. There is also a strong focus on pedagogy and methodology, encouraging academics to integrate more active experiential and democratic activities. The importance of transdisciplinarity, where learning is developed through working with external partners, is highlighted.
- The introduction of an Education for Sustainability digital badge. In collaboration with the National Forum for Teaching and Learning, DCU will be offering all staff the chance to achieve this digital badge. The content is being specifically tailored to meet the needs of teaching staff, so will have a strong focus on integrating sustainability / climate related topics into existing modules as well as how to use innovative methodologies to develop sustainability competencies.
- The development of a Code of Good Practice for ESD. This initiative will allow Programmes at DCU to build capacity around and show their commitment to sustainability, by working towards ten key principles.
- The introduction of an ESD Ideas Exchange, which allows staff members to come together, share best practice and discuss new research and developments in the area. This is complemented by a Staff/Student Network for ESD, to ensure ideas related to teaching and learning are in line with the needs and expectations of students.

The ESD Officer also works directly with each Faculty at DCU to develop specific initiatives related to climate, sustainability, and sustainable development. These include:

- Working with DCU Business School to develop the first National Forum on ESD and sustainability for Executive MBA programmes and students throughout Ireland.
- Working with the Institute of Education to deliver a two-day upskilling symposium for all staff.
- Working with the Faculty of Humanities and Social Sciences to integrate an explicit sustainability focus into the BA Joint Honours, one of the largest courses at DCU.

- 
- Working with the Faculty of Science and Health to develop a Community of Practice for ESD and build their commitment to the GreenLabs initiative.
 - Working with the Faculty of Engineering and Computing to review and redesign all Challenge-Based Learning assessments and align them with DCU's INTRA (INtegrated TRAning) internship programme to build relationships with external partners, while allowing students to use their knowledge to address real world problems.

Our Way of Working

DCU is committed to examining all ways of working to identify both the mitigation and adaptation actions necessary to meet the climate and biodiversity challenge. DCU has for several years published its annual carbon footprint on the [DCU Sustainability website](#). It will continue this practice and also report GHG emissions and sustainability activities in our annual report.

Energy & environmental management systems and accreditation

DCU has demonstrated leadership and exemplar practice in monitoring, targeting, and documenting all our GHG emissions with annual report since 2018.

Focusing on energy and water management, the DCU Energy Team report annually DCUs energy performance through the SEAI Monitoring & Reporting mechanism and this energy performance is reviewed annually through the DCU Senior Energy Management Team and by DCU Executive. Energy and environmental management system in place or planned are:

- DCU achieved ISO 50001 certification of its energy management system in 2017 and were recertified in 2020 and again again in 2023. Accreditation is on a 3-year cycle. All campuses are within the scope of the standard up to December 2026.
- DCU has full compliance with SI No. 426, European Union (Energy Efficiency) Regulations, 2014.
- DCU is a member of the SEAI Public Sector Energy Efficiency Programme.
- As we progress our targeting of Scope 3 emissions, DCU plan to get ISO 14001 certification for our overall environmental management systems in the second half of the decade.
- DCU plan to go beyond ISO 50001 and ISO 14001 and certify to the EMAS Eco Management and Audit Scheme before 2030.
- DCU has An Taisce Green Flag certification for all Academic Campuses.

Green public procurement

The University acknowledges that its purchasing decisions have major socioeconomic and environmental implications, both locally and globally. We aim to manage our procurement activities in an environmentally responsible and sustainable manner and to achieve this we will:

- Provide guidance to staff involved in purchasing, within the university and our campus companies, to help them make more sustainable purchasing decisions;

- Consider whole life costs and environmental impacts when making purchasing decisions;
- Include environmental performance in supplier appraisal criteria during supplier selection;
- Encourage suppliers to operate cleaner production processes, supply more environmentally friendly products and help spread environmental improvements through the supply chain;
- Working with the University's Procurement Team and the OGP to take procurement decisions based on a balance between economic, social and environmental factors; &
- Encourage suppliers to minimise the use of packaging.

In addition, DCU is actively investigating the following potential actions:

- Investigate the mechanisms to improve the accuracy of our scope 3 ghg emission estimations including engaging with our top suppliers to provide carbon footprint of their product or service delivered to DCU as an initial step.
- Engage with SEAI/appropriate stakeholders regarding an agreed methodology for companies to calculate their carbon footprint and how to allocate to customers/orders. Agreed methodology to be shared with all public sector bodies to engage and inform on scale of emissions.
- Examine up coming EU and National legislation in relation to sustainability regulations and reporting requirements such as Circular Economy Act and Corporate Sustainability Reporting Directive (CSRD) and the implication for DCU.
- Examine if there is potential for finance systems to capture carbon emissions/footprint at procurement stage.

Resource use

The appropriate use of resources will be a fundamental change necessary to meet carbon/ghg emission reduction targets. As demonstrated in DCUs carbon footprints from 2018 a significant proportion of our scope 3 emission is from the procurement of goods and services. The DCU Climate Action Plan 2021-2026 (see [website](#)) outlines several of the measures being undertaken at DCU to address this. Below is a summary of actions being taken that directly address the requirements of the National Climate Action Plan 2023 but it should be noted that these are not the only actions being taken, see the DCU CAP for further details of additional actions.

Waste Management

As part of its Climate Action Plan, DCU is committed to tracking and reporting on its various waste streams (general waste, recyclables, organic and glass). Our contracted waste provider is required to provide DCU Estates with monthly reports on these waste streams across all Campuses - these monthly reports track collections and weights of lifts and form the basis of our annual statistics.

In early 2023, DCU Estates arranged for an external consultant to conduct a waste audit of its waste streams and also assess how much of its waste may be going to landfill. In April 2023, DCU was awarded a Certificate of Zero Waste to Landfill. We are the first University to have received certification in this area.

The audit also found that, whilst significant efforts are being made with waste segregation, there is a need to improve upon recycling and organic waste segregation. Some measures have been put in place to achieve this such as:

- Segregated litter bins externally on all Campuses
- Installation of larger belly bins in strategic locations on Glasnevin Campus

Additional measures going forward will be:

- In partnership with our waste provider, conduct Waste Awareness Days to inform staff and students about waste reduction and segregation.
- Improve litter bin and waste signage across the University, with the goal of having uniform signage on all waste receptacles.

In conjunction with the above and on a phased basis, each building will have waste bins removed from corridors, individual offices and teaching spaces and segregated bins or 'waste stations' will be introduced in key locations. In 2023/2024, following an external audit DCU was certified as zero waste to landfill.

Paper-based processes

Below is a summary of actions being undertaken that directly address 'paper-based processes' within DCU:

- DCU is promoting *digital first* in all communications from the Communications, Marketing and Events Department leading to a reducing the volume of material being printed. Further communications and supports are needed to translate this university wide, ensuring that the community is engaged and informed as to the need to make this change.
- Create guidelines on paper printing that engage and inform students and staff on the need to reduce consumption levels and provide guidance on what documents merit printing and alternatives to printing. These guidelines will

include full lifecycle analysis to provide the evidence base that printing documents produces more ghg emissions than the digital use/storage of the same documents.

- DCU supports a policy of centralised printing across all campuses / units where there are no individual printers in offices but central unit/school printers. This model is more efficient on energy and paper use, larger more energy efficient machines and individuals tend to print less when printer is not within arm's reach. This system also facilitates the central monitoring of paper use. DCU will investigate that mandatory implementation of this policy.
- All DCU Energy Team administration and procedures are fully digital, and the DCU Energy Management System is paperless. Any paper documentation within the Estates Office Energy Office is deemed uncontrolled and printers are prohibited.
- Establish target of 80% reduction in paper use by 2025

Single Use Items (disposal cups etc)

In 2018 DCU Executive approved the removal of all single use plastic cups/disposal cups over a phased period from 2018-2020. Significant progress has been made but unfortunately the impact of the COVID pandemic has seen the return of many of the single use items for health and safety reasons. Post COVID work has restated on the removal of all single use items. The following actions are ongoing:

- DCU to work with Trispace (DCU Catering Company)/Helix teams to enable the removal of all single use canteen ware. In March 2023, DCU Trispace introduced a new scheme for reusable canteen ware. Working with Vytal Ltd, DCU introduced an app-based scheme where reusable cups/bowls etc can be scanned out at the till, used on-site or taken away. Several models have been tried by DCU Trispace over the years, but it is expected that this scheme will prove the most effective particularly as it supports the removal of all single use disposable items.
- All DCU outlets provide a discount for 'own cup' use.
- DCU is developing an 'Events Guidelines' for small and large scale events organised on the DCU campus to include guidance on the elimination of single use catering as well as other material such as balloons (single use plastic waste and using valuable essential healthcare gas! – here are some alternatives <https://greenecofriend.co.uk/eco-friendly-alternatives-to-balloons/>) and supports on remote participation options that reduce ghg emissions and can also significantly broaden access to such events - <https://hiltner.english.ucsb.edu/index.php/ncnc-guide/#intro>

Travel & Commuting Emissions

Travel and commuting emissions are a significant proportion of DCU carbon footprint (~30-35%). This is particularly significant when compared with DCU energy emissions (~20-25%). From 2021 DCU has reported with an agreed methodology DCU Business Travel ghg emissions to SEAI. At present there is no reporting requirement or agreed methodology for staff and student commuting. DCU has developed its own methodology and shared it with other Higher Education Institutions, where data is gathered via the annual staff and student travel survey conducted in conjunction with the National Transport Authority from which an estimate of total commuting ghg emissions are identified. Measures being undertaken by DCU to address these emissions include:

Business Travel


- We have established a cross faculty Business Travel working group to examine the development and implementation of a pilot policy for reducing business travel emissions addressing potential for carbon budgets, traveler prioritisation for 2024/2025 academic year. Investigate the inclusion of student travel undertaken as part of their programmes at DCU.
- Examine the possibility of additional time/cost for those who commit to not taking flights to promote 'slow travel'.
- Examine if funding agencies have or intend to have policies/guidelines on travel/travel emissions.

Commuting

- Examine the learnings from the Remote Working Pilot and assess the related reductions in commuting emissions.
- Examine potential measures that could also lead to better space management /reduction in need for future builds /reduction in energy consumption etc including hot-desking.
- Continue to work closely with NTA/ Dublin Bus and other providers to enhance the provision of public transport connections to the DCU campuses.
- Examine car parking measures and solutions to promote active commuting and reduce single person car usage and align with proposed city and national strategies.

Green Labs

It is estimated that the GHG emissions from laboratories within Higher Education Institutions is 30-40% of the total GHG emissions. This is of course not just energy but includes all scopes. The DCU Energy team along with a team of DCU technicians



have been working on the identification and reduction of major energy users within laboratories. Technical and behavioural change actions have been implemented. DCU has also developed virtual labs and is continuing to investigate the potential for further virtual labs. DCU is also an active member of the new collaborative network of Irish Green Labs and currently chairs the SEAI Public Sector Labs Working Group. The network and working group aim to work collaboratively with all stakeholders to minimise the negative impact of work in laboratories by sharing information and knowledge including case studies and best practice. Together with others within this network DCU is supporting the following actions:

- Share and promote best practice – technical and behavioural within laboratories in DCU and communicate with all labs users to identify necessary changes.
- Encourage labs to assess their current procedures and working to identify more sustainable operating procedures (SOP2.0).
- Investigate the potential for virtual labs including an assessment of the full carbon lifecycle comparison between physical and virtual but also taking into consideration the pedagogical underpinnings of labs.
- Promoting the development and establishment of a standard for sustainable labs.

Our Buildings and Vehicles

This section covers DCU's actions to meet requirements within our buildings and with our vehicles.

- All DCU Buildings have their Display Energy Certificates and the DCU Energy Policy displayed at the entrances. These are updated annually and the DCU Estates team runs energy information sessions as well as circulating newsletters to support staff and students' understanding of this information. The DCU Energy team is open to engagement with staff and student on any energy queries.
- DCU has an F-Gas Register and is in full compliance with European Regulation (EC) No. 517/2014.
- The Estates Vehicular Fleet has begun the purchase of electric vehicles. As current leases of ICE vehicles end, they are replaced with the equivalent electric version.
- Before 2030, all DCU owned vehicles will be electric, and in compliance with the Clean Vehicle Directive.
- All new build developments and projects prohibit the use of fossil fuel. This has been policy since 2020. This includes our *Polaris* building which is currently under construction and due for completion in Qtr2 2024.

DCU have completed and submitted our Building stock plan and are awaiting feedback.

Optional Content

A copy of the DCU Climate Action Plan 2021-2026 is attached for information. Below is a breakdown of DCU's full carbon footprint for 2022-2023 for information and guidance.

Carbon Footprint 2023 Summary

The term carbon footprint refers to the measure of the total amount of greenhouse gases (GHGs) emitted across all the activities of an organisation (Carbon Trust 2012). A carbon footprint is calculated by constructing a GHG inventory, in which organisations quantify, report and manage their GHG emissions. This report constructs a GHG emissions inventory for the Dublin City University (DCU) for the 2020 & 2021 calendar years and thus estimates its carbon footprint using the internationally recognised methodology 'Greenhouse Gas Protocol Corporate Standard'².

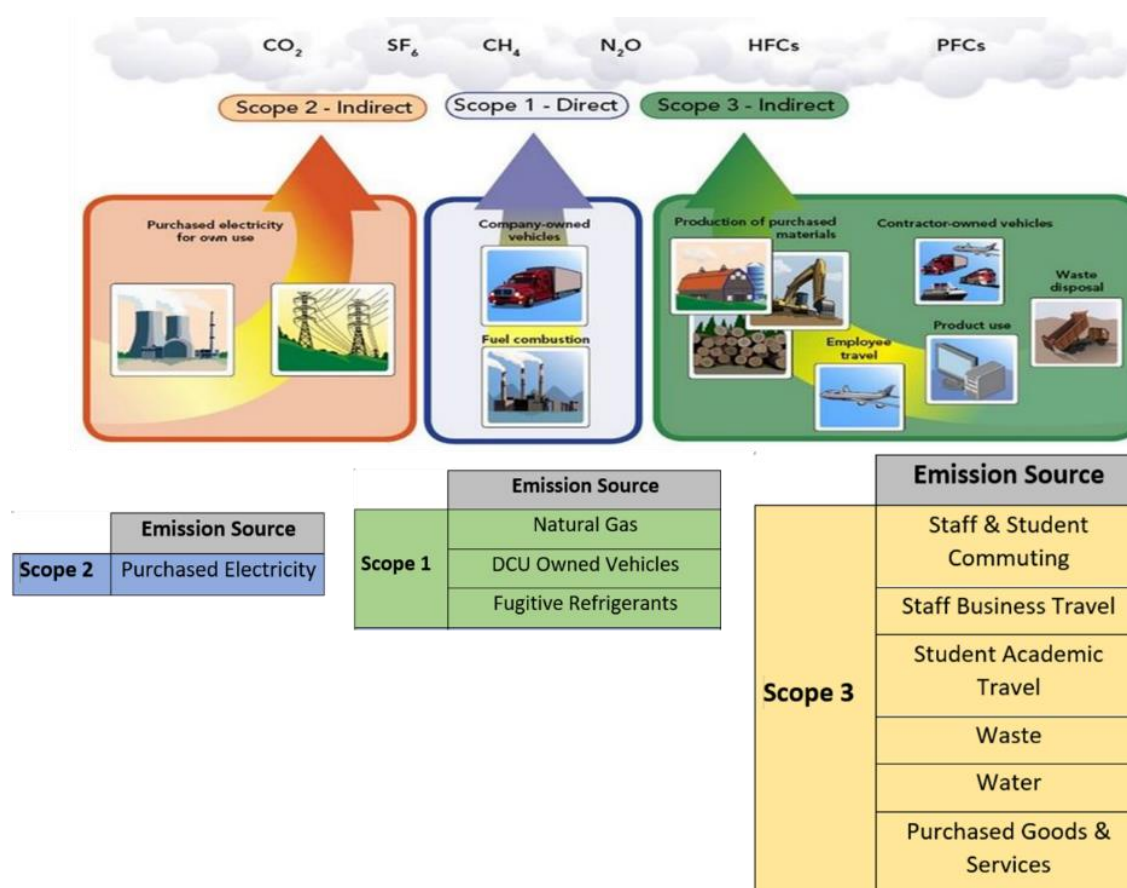


Figure : GHG Protocol model for DCU Carbon Footprint (image source : <https://www.eauc.org.uk/>)

The final figures are presented as tonnes of carbon dioxide equivalent (tCO₂e). Table 1 below, summarises the estimated GHG emissions from 2018-2021 for DCU under scope 1&2 and for scopes 1, 2 and 3. Also presented are these emission per DCU

² <http://www.ghgprotocol.org/standards/corporate-standard>

Full Time Equivalent – which is taken at the addition of Staff FTE and Student FTE for the University and its subsidiaries. Subsidiaries are included as our carbon footprint covers all activities within the university including our subsidiaries.

Table 1: Summary 2015 - 2023

	Scope 1 & 2	All Scopes (1,2 & 3)	Scope 1&2 per FTE	All Scopes per FTE	All Scopes per m2
	tCO2e	tCO2e	tCO2e	tCO2e	tCO2e
2018	15,196	64,230	1.05	4.43	0.11
2019	15,300	52,632	0.99	3.40	0.09
2020	12,180	39,466	0.80	2.58	0.07
2021	10,111	47,630	0.64	3.01	0.08
2022	10,605	53,436	0.65	3.26	0.09
2023	8,945	67,002	0.54	4.03	0.11

Table 2: Staff and student numbers and total campus area for 2015 - 2023

	Staff (FTE)	Total Students	Students (FTE)	Total FTE	Campus m2
2018	1,874	15,558	12,619	14,493	578,701
2019	2,056	16,276	13,423	15,479	578,701
2020	1,963	17,047	13,315	15,278	578,701
2021	1,883	17,317	13,956	15,839	623,891
2022	2,049	18,740	14,325	16,374	623,891
2023	2,111	18,700	14,500	16,611	623,891

Table 2 provides a summary of DCU Full time equivalents and campus areas. Staff numbers are from DCU Consolidated Financial Statements³, and student numbers from (total) HEA Statistics⁴ and (FTE) Times Higher Ranking data⁵.

³ <https://www.dcu.ie/finance/finance-office-financial-statements>

⁴ <https://hea.ie/statistics/data-for-download-and-visualisations/key-facts-figures/>

⁵ https://www.timeshighereducation.com/world-university-rankings/2023/world-ranking#!page/0/length/25/name/dublin/sort_by/rank/sort_order/asc/cols/stats

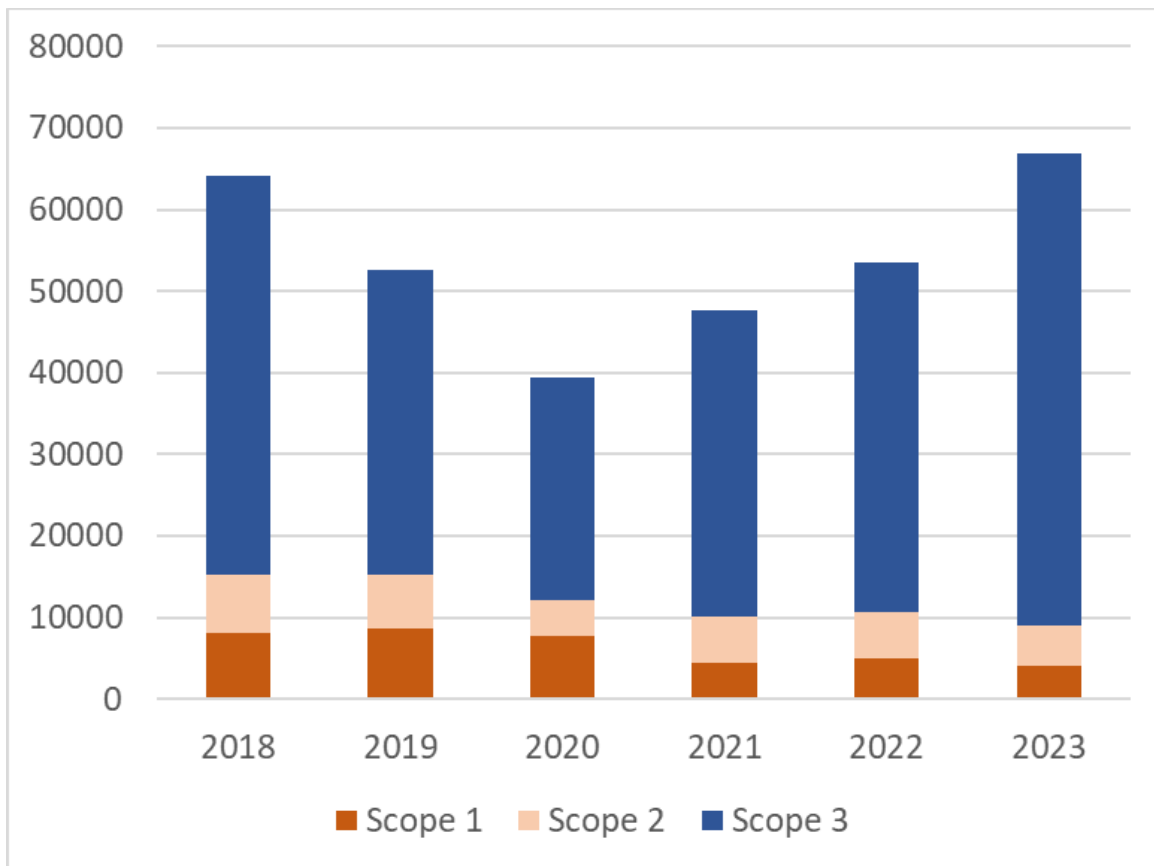


Figure : DCU Carbon Footprint 2018- 2023. (NOTE: the methodology for estimating procurement has changed from the Quantis EEIO tool to the UK EAUC / HEPA tool HESCET)

Figures 1 and 2 below presents the CO2 footprint for the Dublin City University for 2020 and 2021 respectively, identifying emissions sources and their % contribution to the total university carbon footprint.

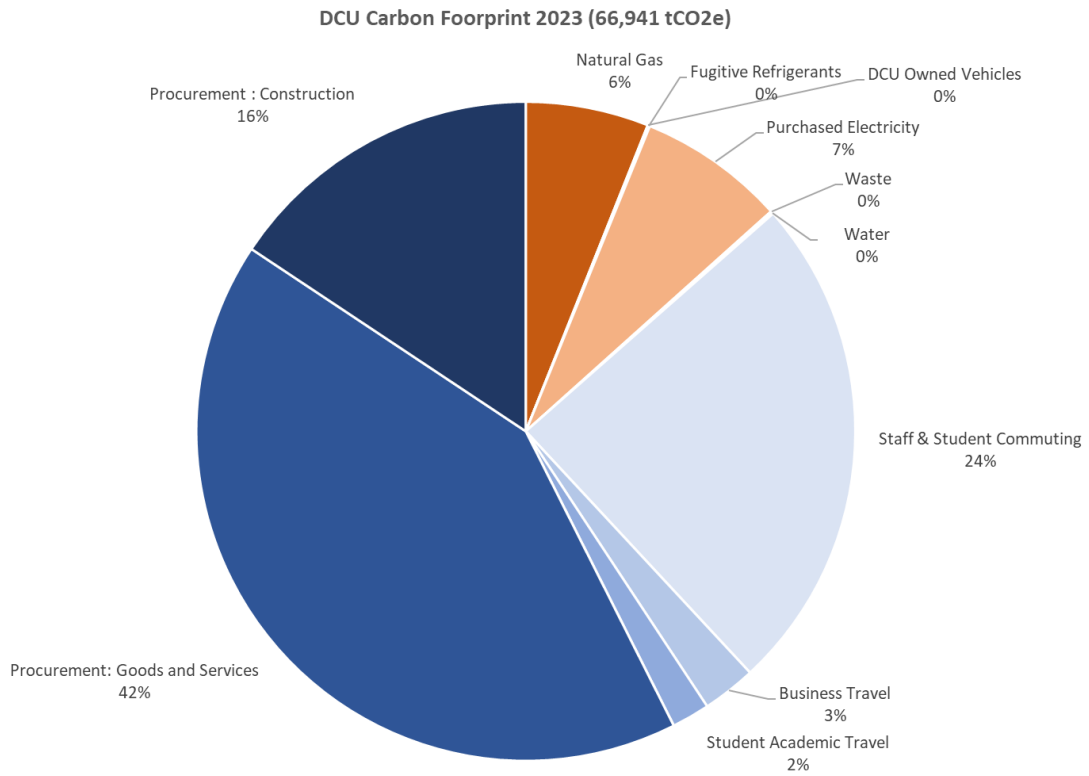


Figure 1: DCU estimates Carbon Footprint for 2022 and 2023 – total emissions (47,630 tCO₂e)

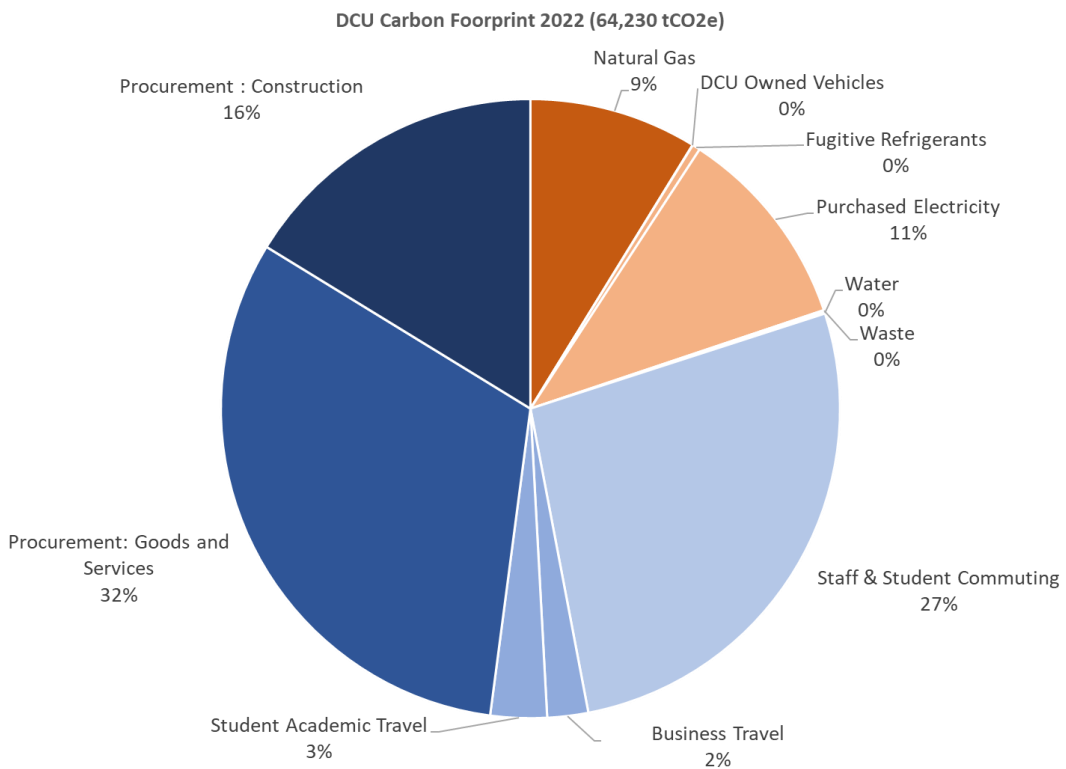


Figure 2: DCU estimates Carbon Footprint for 2022 – total emissions (39,466 tCO₂e))

A key objective of DCU in the completion of this Carbon Footprint report is to demonstrate the GHG Protocol methodology and promote it as a proposed methodology for all Higher Education Institutions (HEIs) in the measurement of their carbon footprints. To aid this discussion DCU has made the data from all our CO₂e Report open source and is opened to sharing this with those who may be interested. DCU have also submitted their 2020 data to the CDP for external validation of the methodology used.

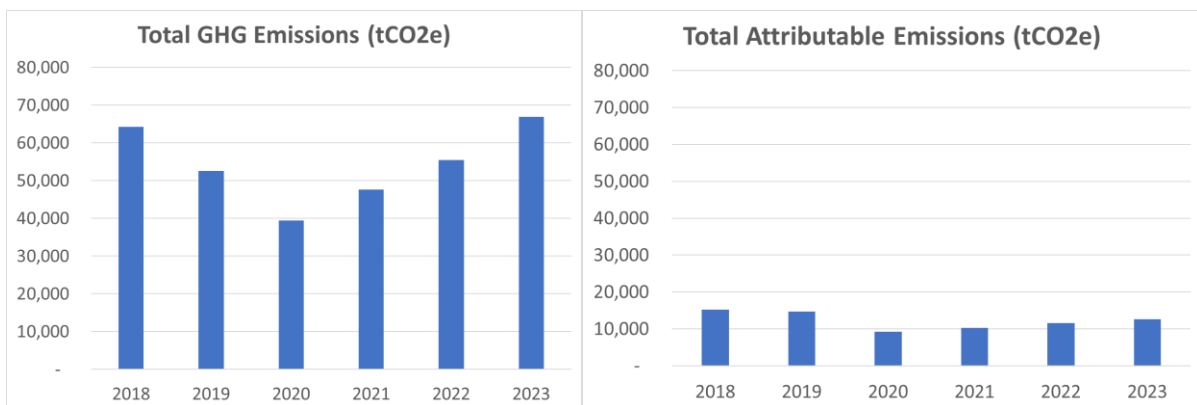


Figure : Comparative chart of DCU total attributable emissions and DCU total GHG emissions for 2018-2023



Appendices:

Appendix 1: DCU Energy Policy

Appendix 2: DCU Energy Management System

Appendix 3: DCU ISO 50001 Certification

Appendix 4: Compliance with Legislation

Appendix 5: DCU 2023 Energy & GHG targets - key indicators

Appendix 1 : DCU Energy Policy



Dublin City University is committed to responsible Energy Management and will strive to efficiently manage and reduce the consumption of Energy whilst providing an optimal Learning and Research Environment.

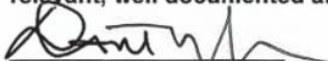
We shall continue to meet or exceed Best Practice in Energy Efficiency, and to minimise Environmental Impact as far as is practicable. In order to do this, Senior Management will ensure the availability of the necessary information and resources to continually review and achieve our objectives.

We shall use Energy in a prudent and responsible manner throughout all of our Campuses, in addition to it being a key element of our overall Sustainability and Environmental Strategies.

To Achieve our objectives, we plan to:

- Commit to Continual improvement in our Energy Performance and Management
- Comply with all relevant Legal and Other requirements
- Procure Fuels and Energy at the most favourable Economic Cost
- Utilise Energy from Sustainable Sources where practical and Promote Sustainable Energy Management Practices
- Promote Energy Awareness amongst both Students and Staff
- Support the Purchase of Energy Efficient Products and Services that impact energy performance
- Identify and implement Energy Efficiency Measures
- Incorporate Energy Efficient and Sustainable Designs for both New Build and Refurbishment Building Projects
- Target a reduction in Energy Consumption and Pollution Emissions in line with Ireland's National Energy Efficiency Action Plan
- Review our Objectives and Targets and Report on our Energy Performance

Updates and regular reviews shall be implemented to ensure our Energy Policy is relevant, well documented and communicated fully throughout the University.


Prof Daire Keogh
President
Dublin City University

Date 17 June 21

Appendix 3: DCU ISO 50001 Certification



CERTIFICATION EUROPE™

This is to certify that the

Energy Management System

Of

Dublin City University (DCU)

At

Glasnevin Campus, Glasnevin, Dublin 9
Sports Campus, Glasnevin, Dublin 9
St. Patricks Campus, Drumcondra Road Upper, Drumcondra, Dublin 9
All Hallows Campus, Grace Park Road, Drumcondra, Dublin 9
Alpha Innovation Campus, Old Finglas Road, Glasnevin, Dublin 11

Has been assessed by Certification Europe and deemed to comply with the requirements of

ISO 50001:2018

This certificate is valid for the activities specified below:

All natural resources across all campuses under the direct control of DCU.

Certification of Registration remains the property of Certification Europe Ltd.
The validity of this Certificate is maintained on the condition that the Management System is assessed through an on-going surveillance programme and continues to adequately meet the requirements of the standard.
To verify this certificate validity please contact us at info@certificationeurope.com

Date of Initial Certification: 19th December 2017 This Certificate is valid until: 18th December 2023

Chief Executive: Michael Brophy

Signature: 

Client Registration No.: 2017/2603
Certificate Reference No.: A/2
Date of certificate issue: 8th October 2020



Sarah King Digitally signed by Sarah King, DN: cn=Sarah King, o=CERTIFICATION EUROPE, email=sarah.king@certificationeurope.com
Certification Europe Ltd Block 20A Beckett Way, Park West Business Park, Dublin 12, Ireland

Appendix 4: Compliance with Legislation

Dublin City University is in compliance with the following legal requirements:

- Climate Action and Low Carbon Development (Amendment) Act 2021, which requires all public bodies to perform their functions in a manner consistent with Ireland’s climate ambition.
- SI393/2021 Energy Performance of buildings, which requires installation of Building Automation and Control by 2025, for buildings with HVAC rated output over 290kW; requires installation of electric vehicle charging points in carparks for new or refurbished buildings with more than 10 car parking spaces.
- SI381/2021 Clean Vehicles Directive, which sets targets for the procurement of clean light and heavy-duty vehicles, with the first target falling in 2025 and the second in 2030. The definition of clean vehicle changes to zero emission vehicles in 2025.
- SI4/2017 Energy Performance of Buildings, which requires all new public sector buildings built since 2018 to be “nearly zero emissions”.
- SI646/2016, which requires that public bodies procure only energy using products and vehicles that are on the Triple E register.
- SI426/2014, which requires the public sector to demonstrate exemplary energy management and requires public bodies to undertake energy audits every four years.

Fossil CO₂ emissions

In 2023, fossil CO₂ was 22.8% below the baseline of 5,240,890 kgCO₂.

2023: 4,045,669 kgCO₂
2030 target: 2,568,036 kgCO₂

To achieve this target, fossil CO₂ must reduce by another 36.5% from 2023 level within 7 years.

Total CO₂ emissions

In 2023, total CO₂ was 39.1% below the baseline of 14,587,030 kgCO₂.

2023: 8,879,781 kgCO₂
2030 target: 4,567,307 kgCO₂

To achieve this target, total CO₂ must reduce by another 48.6% from 2023 level within 7 years.

Energy efficiency

By 2023, energy performance had improved by 54.5% since the baseline.

If energy performance is maintained at this level for another 7 years, the efficiency target will be achieved.

