

Climate Action Roadmap

Public Sector Climate Action Mandate - PSCAM

Iteration 2 - Q4 2025 / Q1 2026

“Buildings have long lifetimes. Therefore, it is important that decisions made by public bodies now consider the long-term viability of building portfolios, and of specific buildings, in the context of progressively more restrictive carbon constraints in the 2030s and 2040s. Public bodies should critically review their building portfolios in the context of the targets and their long-term accommodation needs. This should inform a strategic approach to managing their portfolios over the next decade, and beyond. Public bodies should only retain buildings that can meet their accommodation needs in a carbon-constrained environment. Public bodies must adopt an energy service culture. Identifying what accommodation is required to provide the service will firstly require challenging the need for the service and whether a building is needed to provide it, and if required, what is the minimum energy needed to provide the service.” **(Public Sector Climate Action Strategy 2023-25; p.23)**

Climate Action Roadmap – City of Dublin Education & Training Board

Iteration	Date	Approval
1	Q4/24-Q1/25	15/01/2025
2	Q4/25-Q1/26	

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Executive Summary

Since the publication of our first Climate Action Roadmap (Q4/24-Q1/25), 99% of City of Dublin ETB's CO2 emissions remain directly related to our buildings and the manner in which we heat and power these building to deliver an extensive range of educational and community services.

Work has continued to further quantify and analyse the existing energy and emissions profile of our diverse built estate. This exercise continues to underpin the roadmap to achieving the 51% emissions reduction target and the target for a 50% improvement in our energy efficiency by the year 2030, as set out in Ireland's Public Sector Climate Action Mandate (PSCAM).

Previously acknowledged challenges remain. Significant investments will be required and these investments will need to be strategically considered and directed. 2030 2050

A modelled and ambitious estate-wide energy management / reduction program, that potentially maps almost 30% of the road, remains the only foundation on which those strategic decisions and investments can be built.

The completed SEAI "Gap to Target" tool and the associated data sets used to populate that tool are now annexed to this roadmap. (Annex 1 & Annex 2 respectively) . Energy management /reduction potential is modelled across data-set 2.

City of Dublin ETB are resourcing the Training, Green Teams and Structures that will be required to deliver those "energy management" reductions over the coming years. Important, new devolved "green" funding streams have become available that will assist in resourcing that ambition. External industry resources have also become available that will further assist in the task.

The remaining 70% that has been modelled remains partly illustrative, dependent as it is on external stakeholder funding. Live and large scale active building / refurbishment projects have been modelled. Active Minor building and refurbishment projects have been modelled and these minor projects have been further leveraged within the model to demonstrate the potential for further and required reductions. These models are included in the annexed "gap to target" tool and associated data sets (Annex 1 & Annex 2 respectively).

These, required and significant, remaining reductions are modelled for the purposes of quantifying and emphasizing the significant level of fossil fuel energy demand that needs to be eliminated or transitioned to an appropriate renewable heating regime.

On the School side, which is subject to a separate mandate, the roadmap identifies large energy consumption profiles where investments will be needed to achieve required fossil fuel energy demand reduction. Potential projects are modelled in the annexed "gap to target" tool and associated data sets.

On the Further Education side, this roadmap will inform further iterations of City of Dublin ETB's developing FET Estate Strategy as it seeks to refine that strategy, in partnership with all stakeholders. The intent is to define and realise an ideal built estate that aligns with the ambition to remain world leaders in this sector, while recognising the realities of a "carbon constrained environment".

1 Introduction

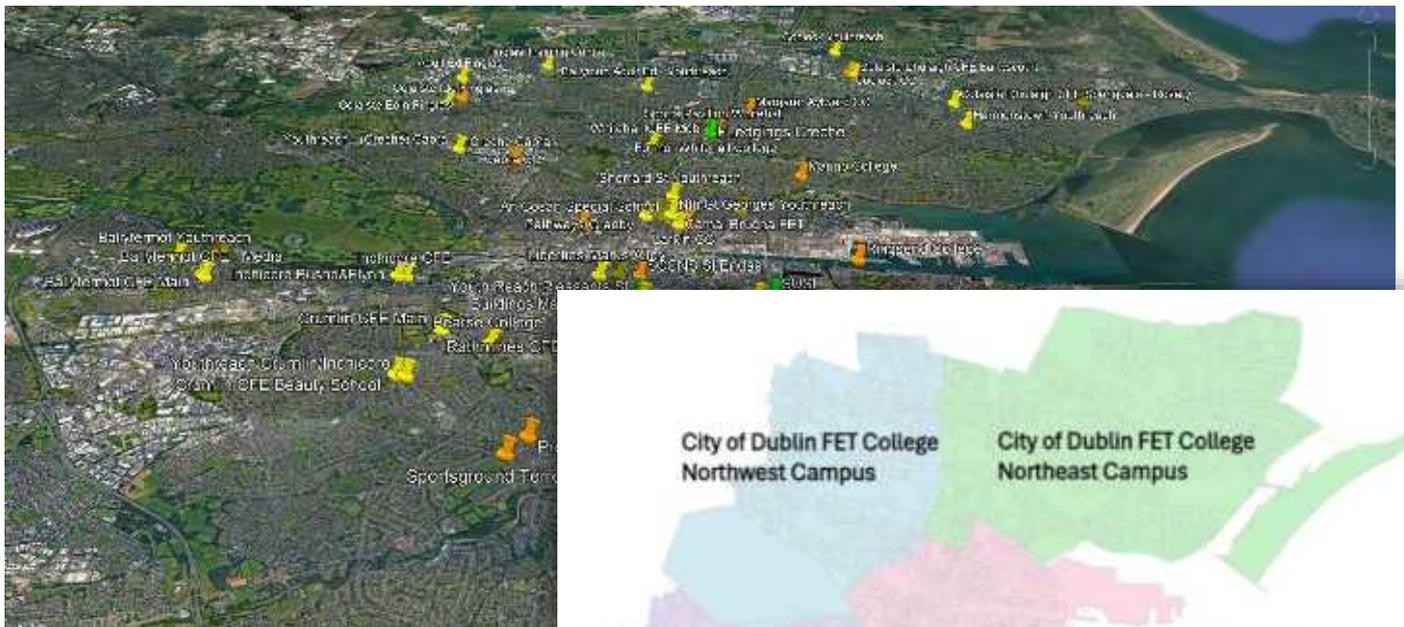
1.1 Organisational Context

City of Dublin ETB was established on 1st July 2013 under the Education and Training Boards Act, 2013. We are the state education and training authority for Dublin with over 3,000 staff who provide education and training opportunities for over 50,000 people across Dublin city.

We do this through running Community National Schools, Community Special Schools, Community Hospital Schools and 11 Community Colleges across the city. Our City of Dublin FET College operates across four campuses in the city providing PLC, apprenticeships, traineeships and a range of further education and training opportunities for adults.

We are also responsible for SUSI, the national awarding authority for student grants in Ireland., City of Dublin ETB supports the provision, coordination, administration and assessment of Youth Services in Dublin city and is the lead partner in Music Generation Dublin City.

This provision is supported by a range of services including a psychological service, a curriculum development unit, a buildings maintenance unit and the Head Office administrative staff in Ballsbridge.



Above shows the geographic spread of selected buildings within the limits of Dublin's M50.

- FET Buildings
- School Buildings
- Admin & Support Buildings

To the Right shows the Estate Strategy shift to a campus model of provision within the Further Education Sector

2 Our People – Leadership and Governance

2.1 Senior Management Commitment

While recognising significant challenges ahead, City of Dublin ETB’s Senior Management Team are committed to meeting their obligations under the Public Sector Climate Action Mandate (PSCAM).

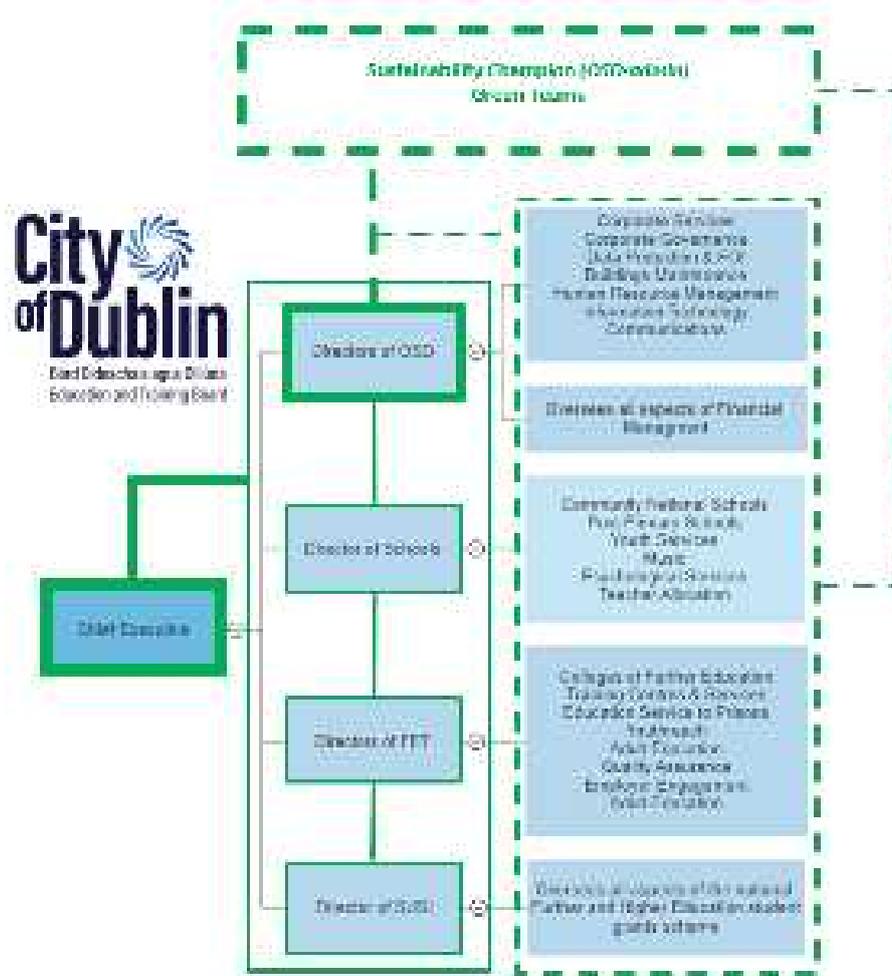
City of Dublin ETB have signed a partnership agreement with the Sustainable Energy Authority of Ireland (SEAI) committing to:

- Working with SEAI to achieve our 2030 and 2050 energy decarbonisation targets and deliver on the wider Public Sector Mandate.
- Embedding an energy management programme appropriate to the size of our organisation
- Developing a project pipeline towards 2030 energy decarbonisation targets and plan strategically towards achieving net zero by 2050.
- Reporting annually on our organisation and building stock energy performance.
- Working with SEAI to undertake an annual review of our energy management and energy decarbonisation actions.
- Reporting our energy efficiency and greenhouse gas emission reductions progress annually to SEAI.
- Considering energy efficiency and greenhouse gas emission reductions when procuring and designing equipment and facilities.
- Collaborating with SEAI to communicate the benefits of energy-related climate action.

2.2 Nominated Climate and Sustainability Champion

As mandated, City of Dublin ETB have nominated a member of the Senior Leadership Team as “Climate and Sustainability Champion”. The Director of Organisation Support and Development (*OSD-admin*), as Champion, continues to work closely with the Senior Leadership Team, Buildings Team, and wider organisation, leveraging both in-house and external expertise to ensure that the significant challenges associated with the mandate are disseminated and understood across the organisation and to ensure that our working practices evolve and develop in alignment with the broad aims of the Climate Action Mandate.

2.3 Governance structure



2.4 Staff Training and Engagement

A broad range of training has been offered and undertaken by staff across the organization. Training includes , Energy in Education, Energy Map, Climate Action Certification, NZEB Fundamentals, SI 426 Audits...

City of Dublin ETB have developed a program at level 3 in climate justice and action. This has been made available to all ETBs to encourage a national approach. The handbook for the program was developed by City of Dublin ETB to support the tutors delivering the program.

In 2022 staff went on an Erasmus mobility to look at how SDGs are embedded into the FET centres and curriculum. A committee was established to develop a cohesive approach across the organisation.

2.5 Senior Leadership Training

Members of the Senior leadership Team have undertaken a range of training. Assisted by ETBI and IPA all members of the Senior Leadership Team are undergoing the “LA CARO” type Climate Action training program.

2.6 Green Teams

The structure of Energy / Green teams is progressing and will be formalised during the course of 2026. The primary focus is directed towards an ambitious, estate wide Energy Management program, particularly Boiler Management and fossil fuel reduction. A draft summary of our proposed “Green Teams” charter is included at appendix G.

2.7 Staff Workshops

Staff workshops will continue during the course of 2026 to ensure that the implications of the mandate’s specific emissions reduction and energy efficiency improvement targets are disseminated and understood across the organization as well as to ensure that the broader objectives of the mandate are embedded across the organisation.

3 Our Ways of Working

3.1 Energy and Environmental Management Systems and Accreditation.

Based on annual energy spend, City of Dublin ETB has fallen within the terms of section 3.3.1 of the roadmap guidance. To compliment our Green Team and Staff Workshop initiatives, during 2026 we will be working with external consultants to achieve ISO 50001 (Energy Management) certification, an internationally recognised standard that provides a systematic framework for organisations to enhance their energy management practices and improve their energy use.

ISO 50001:2018 Requires Organisations to:

- Understand internal and external Issues and the needs and expectations of Interested parties related to energy management
- Determine the boundaries, applicability and scope of the energy management system
- Demonstrate leadership commitment to energy management
- Establish an energy policy, energy objectives and an energy planning process
- Develop and conduct an energy review and establish an energy baseline
- Identify EnPIs (Energy Performance Indicators) appropriate for monitoring and measuring energy performance
- Establish & maintain documents required by the standard
- Encourage participation of employees in energy management
- Demonstrate continual energy performance Improvement

We will also, on a sectoral level, continue to work with ETBI and wider stakeholders, to leverage and strengthen resources to further assist in that task.

3.2 Paper Based Processes

City of Dublin ETB maintains paper based processes under constant review.

In the last 3 years City of Dublin ETB has been successful in transitioning our Payroll, Human Resources, and Ordering and Invoicing management systems, from paper based processes to

online cloud based systems. In the last year we have successfully migrated our expenses system to a fully online cloud based system.

3.3 Green Public Procurement

City of Dublin ETB includes environmental criteria in all major Tenders for Goods and Services.

City of Dublin ETB has a number of large scale Building Projects at development stage that will be realised over the next number of years. The requirements of “Green Public Procurement” as it relates to Building Projects and in particular low carbon construction methods and the inclusion of low carbon cement will be followed where applicable.

3.4 Our vehicles

City of Dublin ETB’s reported transport emissions represent less than 1% of our total reported CO2 emissions. The emissions are from a number of maintenance support vehicles and school mini buses. In this iteration of the roadmap we have modelled an 80% reduction in the fossil fuel emissions associated with this transport.

4 CO2 Emissions – Target (kgCO2)

4.1 CO2 -Target reductions

Under the Public Sector Climate Action Mandate, City of Dublin ETB is required, by the year 2030, to reduce our CO2 Emissions by 51% from a fixed baseline of our average annual CO2 emissions for the years 2016-2018. This target must be achieved in the context of the longer term ambition of achieving a decarbonised building stock by 2050.

As of our latest data, approximately 99% of these CO2 emissions relate directly to our buildings and the manner in which we heat and power these buildings to support and deliver an extensive range of services. The remaining 1% of reported CO2 emissions relate to transport which was reported, as required to the M&R database for the first time in 2022.

City of Dublin ETB’s baseline CO2 emissions are our average annual emissions for the years 2016 to 2018. It is a fixed baseline from which a 51% reduction is required to be achieved by 2030 irrespective of how the organisation may grow and develop over the coming years.

Our baseline and target CO2 emission numbers (for both iteration 1 and iteration 2 of the roadmap) are set out in two tables below showing a split into what are termed scope 1 (on-site fossil/transport) and scope 2 (grid electricity) emissions along with a corresponding total.

From Climate Action Roadmap – Iteration 1 Q4/24/Q1/25 (2022 M&R Data)

Baseline Emissions (average for years 2016-2018)			Target Emissions
Type	Source	kgCO2	(51% Reduction by 2030)
SCOPE 1 Emissions	On-Site (fossil) Thermal & Transport	2,274,827	1,114,665
SCOPE 2 Emissions	Grid Electricity	3,283,690	1,609,008
TOTALS		5,558,517	2,723,673

Baseline Emissions (average for years 2016-2018)			Target Emissions
Type	Source	kgCO2	(51% Reduction by 2030)
SCOPE 1 Emissions	On-Site (fossil) Thermal & Transport	2,396,171	1,174,133
SCOPE 2 Emissions	Grid Electricity	3,400,800	1,666,392
TOTALS		5,796,991	2,840,525

The small change in our baseline position, reflected in the 2024 data can be attributed to the continuing improvement in data collection and reporting. As set out in Section 7 below, the level of confidence in the data remains high and above 90% and will be subject to continuing improvement.

The two tables are included above primarily to emphasise that irrespective of the data presented the challenge remains the same.

4.1.1 Scope 1 & Scope 2 Emissions

Scope 1 refers to CO2 emissions that occur directly on-site and transport , (i.e. boiler houses or transport vehicles).

Scope 2 emissions occur off site at the power stations where the electricity is generated.

The distinction between Scope 1 and Scope 2 Emissions is important.

4.1.2 Scope 2 Emissions - Assumptions and Business as Usual (BAU)

Built into the SEAI Gap to Target Tool (GTT) is an assumption that our SCOPE 2 (electrical) emissions will benefit significantly from the continued decarbonisation of Ireland’s Electricity Supply grid.

The assumed and modelled benefit from the supply side decarbonisation of Ireland’s Electricity grid is set out in the table below and would equate to an approximate 78% reduction in our scope 2 CO2 emissions. The comparison of the 2022 and 2024 data again show a small shift but does not alter the challenge.

Baseline Emissions (average for years 2016-2018) (2022 M&R Data)			Scope 2 Supply side Assumptions to 2030
Type	Source	kgCO2	kgCO2
SCOPE 2	Grid Electricity	3,283,690	617,674

Baseline Emissions (average for years 2016-2018) (2024 M&R Data)			Scope 2 Supply side Assumptions to 2030
Type	Source	kgCO2	kgCO2
SCOPE 2	Grid Electricity	3,400,800	627,714

4.1.3 Scope 2 Emissions – Gap to Target Tool and Business as Usual (BAU)



2 graphical extracts from the SEAI Gap to Target tool set out above, compare “business as usual” (BAU) scenarios based on both 2022 data (to the left) and latest 2024 data (to the right). The scenarios progressively show our baseline position, progress at 2022 (& 2024 latest data¹), a business as usual scenario (with scope 2 supply-side assumption) and finally our mandated target position.

Again the comparison is made to emphasise that, irrespective of which data is used the challenge remains identical, while noting the supply side improvement in scope 2 (electrical emissions).

In the Business as usual (BAU) 2030 scenario the Scope 2 (electrical emissions) target has been reached and exceeded. This leaves potential for appropriately² considered growth in these Scope 2 emissions in parallel with the challenge of charting a roadmap to 2030 to achieve our scope 1 (fossil fuel) emissions target.

As set out in the following sections and associated appendices and annexes, City of Dublin ETB has mapped the road to the Scope 1 emissions target and, in parallel, has recorded and charted the accompanying change in the Scope 2 emissions profile of our built estate.

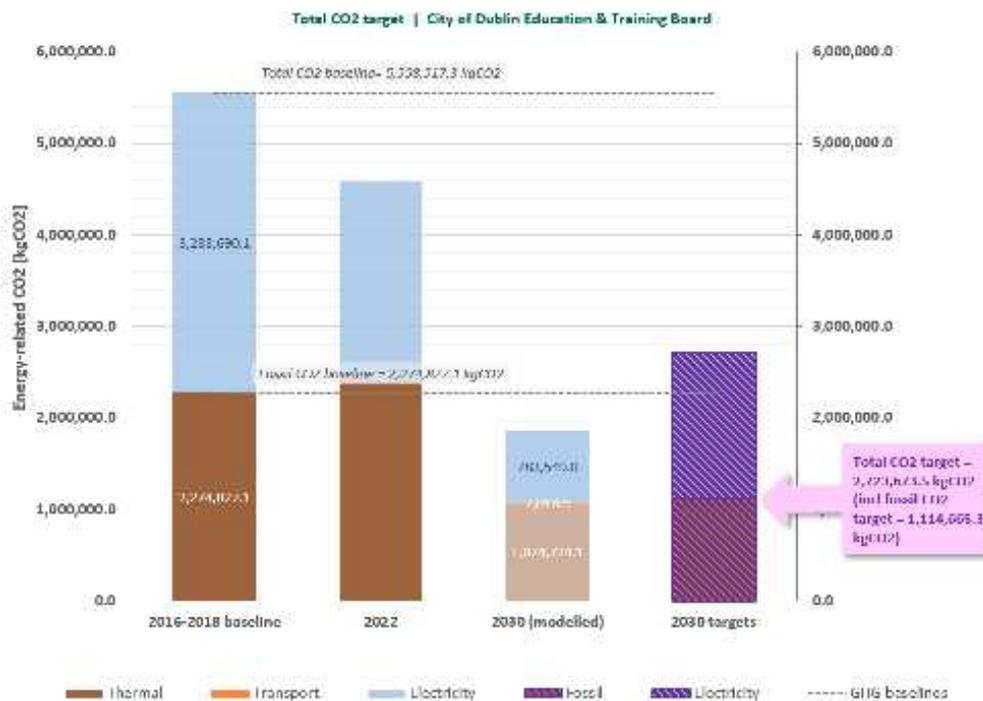
The SEAI “gap to target” model and all associated data sets are annexed to this roadmap (at Annex 1 & 2 respectively).

¹ Note Data for 2024 from the Monitoring & Reporting database is under review prior to fully integrating with the latest “gap to target” tool to ensure a consistency across both models.

² While keeping in mind both Energy efficiency obligations and the 2050 ambition for a decarbonised building stock.

4.2 CO2 Emissions – Modelled Roadmap (kgCO2)

4.2.1 CO2 Emissions Target - Modelled Overview (Totals)



The graphical extract above, taken from the SEAI gap to target tool, shows an overview of City of Dublin ETB’s modelled roadmap to achieving the mandated 51% reduction in Scope 1 and 2 CO2 Emissions.

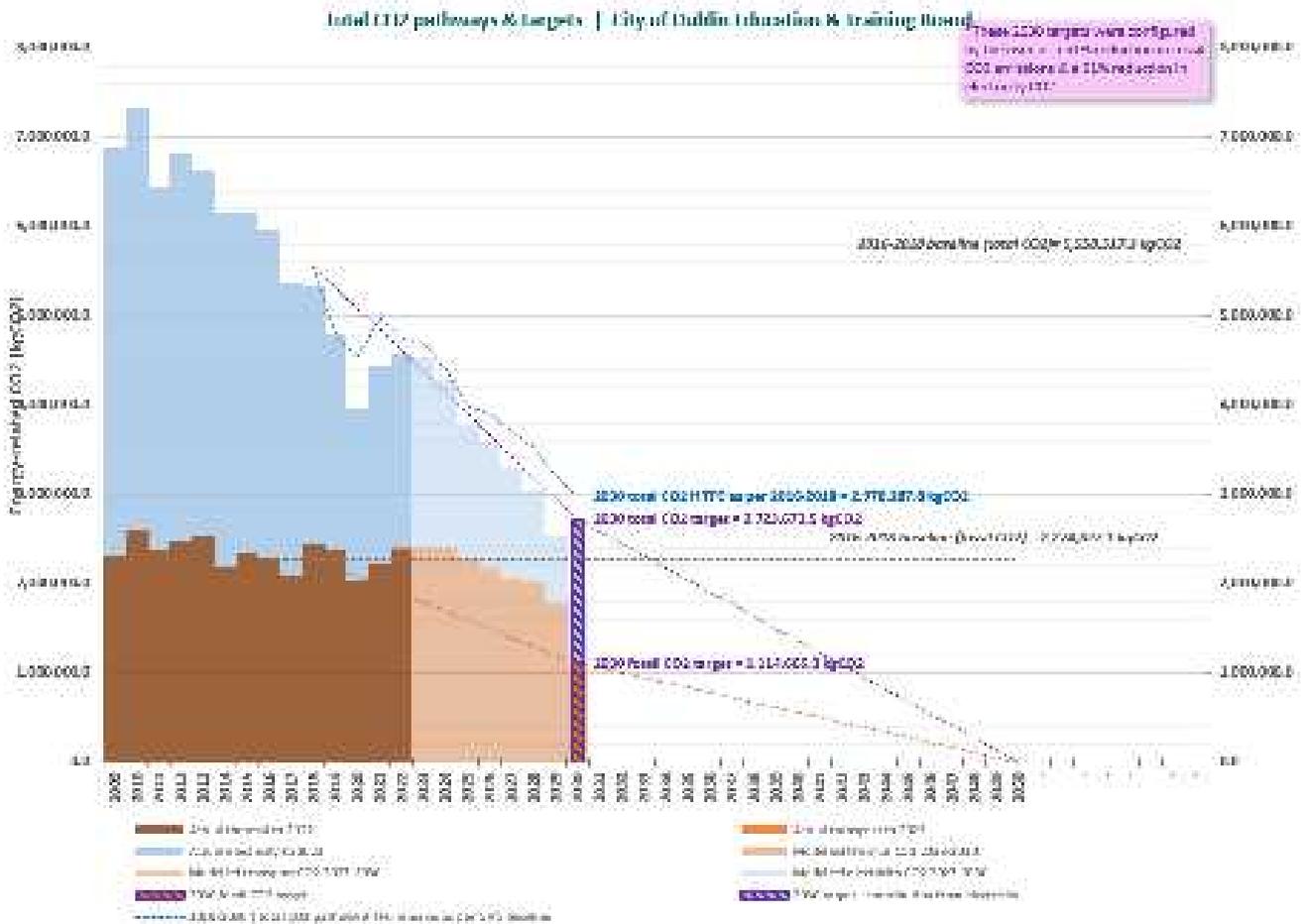
The extract progressively shows our baseline position, progress at 2022³, our modelled scenario to 2030 with targets achieved and finally our mandated target position.

The table below shows the Scope 1 & Scope 2 figures extracted and set against the mandated target figures.

Modelled Scenario with Targets achieved			Target Emissions
Type	Source	kgCO2	(51% Reduction by 2030)
SCOPE 1 Emissions	On-Site (fossil) Thermal & Transport	1,081,761	1,114,665
SCOPE 2 Emissions	Grid Electricity	783,549	1,609,008
TOTALS		1,865,310	2,723,673

³ Note data above is based on 2022 Data. 2024 Data from the Monitoring & Reporting database is under review prior to fully integrating with the latest “gap to target” tool to ensure a consistency across both models. The required minor shift to the above figures would not alter the challenge in any significant way.

4.2.2 CO2 Emissions Target – Total CO2 Pathways - Modelled Scenario

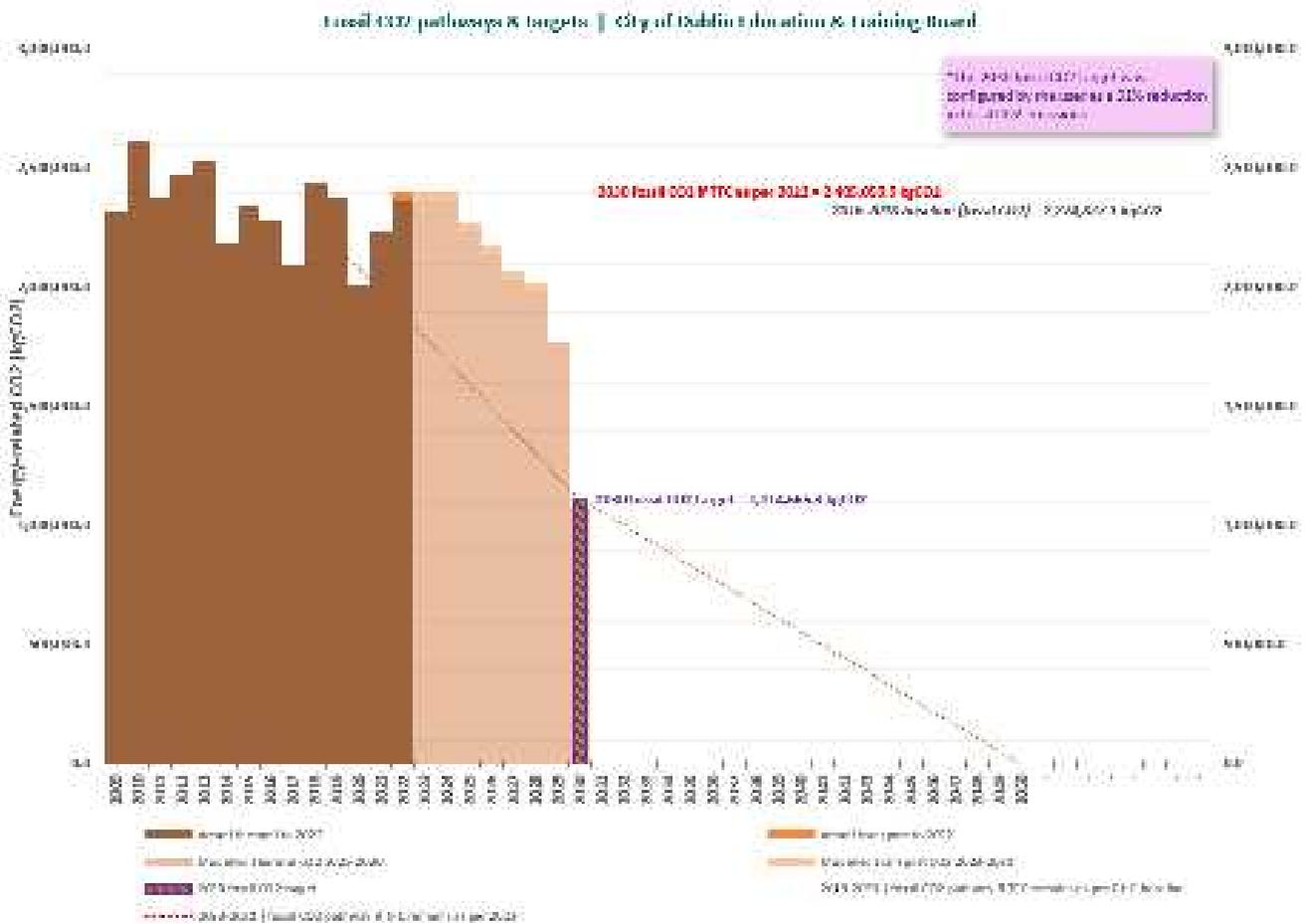


The graphical extract above, taken from the SEAI gap to target tool, shows an overview of City of Dublin ETB’s modelled pathways to achieving the mandated 51% reduction in Scope 1 and Scope 2 CO2 Emissions. The modelled pathways are set against historical reported data and also set against the mandated targets.⁴

The tabulated data associated with the mapped pathway for Gas (GPRN) and Electricity (MPRN) consumption is set out in appendices A & B, the SEAI “gap to target” tool (Annex 1) and the associated data sets can be found at Annex 2.

⁴ Note data above is based on 2022 Data. 2024 Data from the Monitoring & Reporting database is under review prior to fully integrating with the latest “gap to target” tool to ensure a consistency across both models. The required minor shift to the above figures would not alter the graphical output or challenge in any significant way

4.2.3 CO2 Emissions Target – Scope 1 (FOSSIL) CO2 Pathway - Modelled Scenario

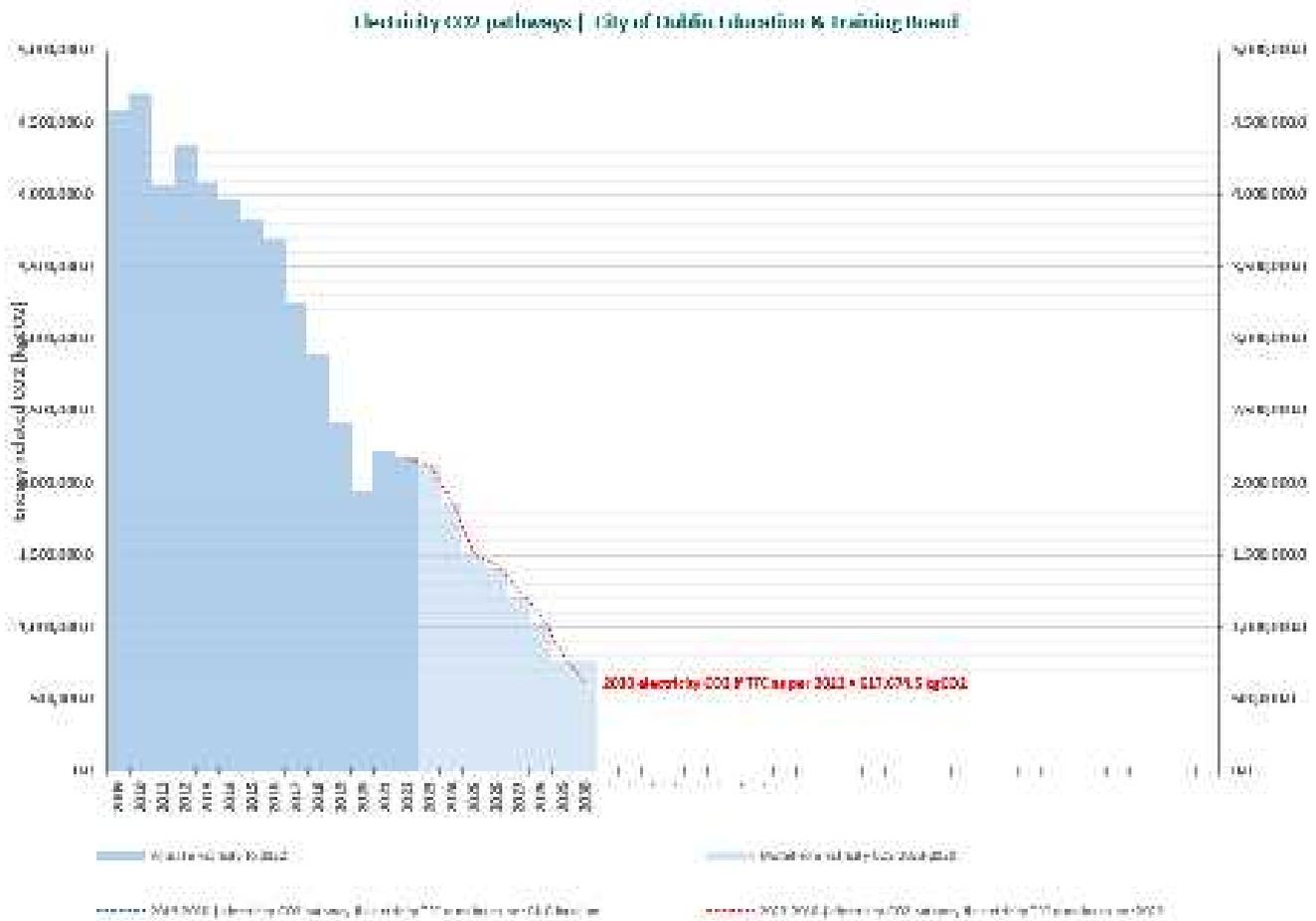


The graphical extract above, taken from the SEAI gap to target tool, shows an overview of City of Dublin ETB’s modelled pathways to achieving the mandated 51% reduction in Scope 1 (Fossil) Emissions. The modelled pathway is set against historical reported data and also set against the mandated Scope 1 target.⁵

The tabulated data associated with the pathway for Gas (GPRN) consumption is set out in appendix A, the SEAI “gap to target” tool (Annex 1) and the associated data sets can be found at Annex 2.

⁵ Note data above is based on 2022 Data. 2024 Data from the Monitoring & Reporting database is under review prior to fully integrating with the latest “gap to target” tool to ensure a consistency across both models. The required minor shift to the above figures would not alter the graphical output or challenge in any significant way

4.2.4 CO2 Emissions Target – Scope 2 (ELECTRICITY) CO2 Pathway - Modelled Scenario



The graphical extract above, taken from the SEAI gap to target tool, shows an overview of City of Dublin ETB’s modelled pathways to achieving the mandated 51% reduction in Scope 2 (Electricity) Emissions. The modelled pathway is set against historical reported data.⁶

The tabulated data associated with the pathway for Electricity (MPRN) consumption is set out in appendix B, the SEAI “gap to target” tool (Annex 1) and the associated data sets can be found at Annex 2.

⁶ Note data above is based on 2022 Data. 2024 Data from the Monitoring & Reporting database is under review prior to fully integrating with the latest “gap to target” tool to ensure a consistency across both models. The required minor shift to the above figures would not alter the graphical output or challenge in any significant way

4.3 CO2 Emissions Reductions -Data Modelling Approach

The approach taken to populate the SEAI gap to target tool is set out in the following project descriptions and the data associated with each type is tabulated in the appendices. A snippet of appendix A is included below.

- **Recently Vacated Buildings.**
Depending on the energy consumption profile of the vacated building, the contribution of the modelled reductions in CO2 can be significant. Refer to tabulated data set out in appendices A & B.
- **In House Energy Management.**
City of Dublin ETB have modelled, over the period 2025-2027, an annual 5% reduction in fossil fuel energy with a further 2.5% reduction modelled for the year 2028. In parallel an annual 2.5% reduction in electricity use has been modelled for the years 2025-2028. The contribution that this would make to the 2030 targets when set beside the reductions available through investments required for new build and retrofit projects emphasises the importance of a structured approach to in-house Energy Management to build on the progress already made. Refer to Appendices C for the data set associated with the Scope 1 Energy Management data.
- **Minor works - active projects.**
These are active projects at varying stages of development. They involve identified works to individual or combined fabric elements of a building, such as roof and glazing retrofitting. These measures will deliver important but modest CO2 reductions. All of the projects have been leveraged (*further investment required*) within the model with further retrofit measures and 80% of the residual heating demand is transitioned to electric heating. All involve a parallel and associated modelling of changes in the profile of our Scope 2 (electric) CO2 emissions.

For the purposes of this roadmap these projects have been modelled in the following 4 step sequence and a typical and associated data set is included at **appendix D**.

▪ Scope 1 CO2 reductions from retrofitting 2 combined fabric elements of a building. (modelled as a 17-28% reduction in Fossil fuel demand).
▪ Scope 1 CO2 reductions available through leveraging an active project with further fabric and airtightness improvements to achieve a 40-60% reduction in the original fossil fuel heating demand.
▪ Scope 1 CO2 reductions available through transitioning the residual heating demand to a 20/80% split between fossil fuel heating and high efficiency electric heating.
▪ A further step, on the Scope 2 side of the model, records the additional Scope 2 CO2 emissions from electricity.

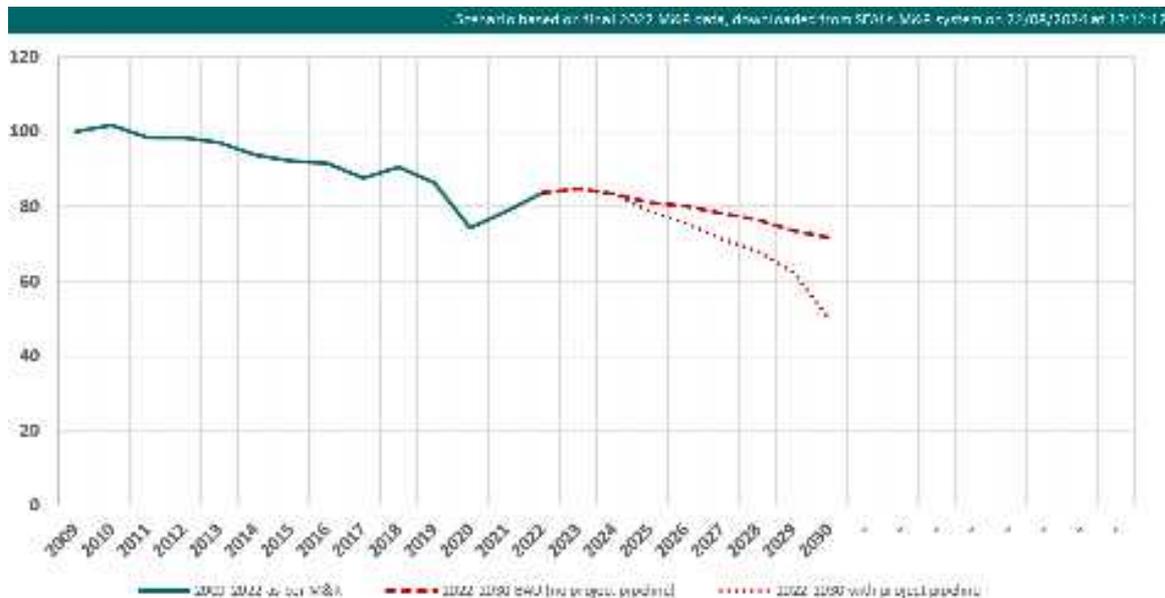
5 Energy Efficiency Target (kWh/m²)

City of Dublin ETB’s present Energy Efficiency metric measures Energy use (kWh) per square meter (m²) of the floor area of our buildings (kWh/m²). It is derived from the Total Primary Energy Requirement (TPER) as reported to The SEAI’s Monitoring and Reporting Database (M&R).

Our baseline and latest available Energy Efficiency data is set out in the table below. The last row sets out the mandated 50% improvement in Energy Efficiency required by 2030⁷.

	kWh/m ²	normalised %
2009 Energy efficiency (Baseline):	156.13	100
2022 Energy efficiency (Latest M&R Data):	131.53	84.24
2030 Target & Modelled Scenario	78.01	50

The demand reduction required to achieve this improvement has been modelled within the SEAI “gap to target tool” and the graphical extract below (*normalised*) demonstrates the achievement of the target (*red dotted line*).



The modelled Energy Efficiency scenario represented above traces the exact same path as that modelled for the required CO₂ reductions. These measures are tabulated in Appendix A for Scope 1 emissions and in appendix B for Scope 2 emissions.

It should be noted that having modelled the scenarios set out clearly in the 2 appendices, a significant gap to the efficiency target remained to be bridged. This remaining gap was quantified and modelled as a package of combined further demand reduction and the quantified and modelled efficiency scenario is set out in **appendix E**.⁸

Note data above is based on 2022 Data. 2024 Data from the Monitoring & Reporting database is under review prior to fully integrating with the latest “gap to target” tool to ensure a consistency across both models. The required minor shift to the above figures would not alter the graphical output or challenge in any significant way

6 Conclusion

From quantifying, tabulating and further refining a roadmap to achieving both the mandated CO2 Emissions reductions target and Energy Efficiency improvement target, it is clear that the achievement of those targets remains a significant challenge for City of Dublin ETB. The challenges remain multi-fold and are not unique to City of Dublin ETB and are widely acknowledged across both the public and private sectors.

City of Dublin ETB is not a self funded organisation. The capital investments required to achieve the mandated targets will be substantial and these investments will need to be strategically considered and directed.

City of Dublin ETB will continue to work with our partner stakeholders to both, refine and share available data and progress and develop a long term estate strategy that aligns with our mission to be world leaders in education, within the constraints of a “carbon constrained environment”.

The objectives of this 2nd iteration of City of Dublin ETB’s Climate Action Roadmap remain broadly identical to those of our first Roadmap.

The first objective is to continue to fulfil an obligation to our stakeholders to set out a clear roadmap within which the objectives of the Public Sector Climate Action Mandate (PSCAM) will be further embedded across our organisation.

The second objective remains to clearly quantify for our own organisation the implications of the two specific numerical targets that are set out in the mandate relating to both Carbon Emissions and Energy Efficiency. The targets are numerical and it only in the context a clear quantification of the implication those numbers that a map and to achieving those targets, and the resulting challenges can be fully understood.

Those challenges continue to direct a particular focus on the quantified and ambitious Energy management numbers that could potentially map almost 30% of the road that needs to be travelled.

City of Dublin ETB are resourcing the Training, Green Teams and Structures that will be required to deliver those “energy management”. Important, though modest, new devolved “green” funding streams have become available that will assist in resourcing that ambition. External industry resources have also become available that will further assist in the task.

It is intended that this in-house Energy Management program will be the foundation for the strategic decisions and investments that will be required over the coming years.

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7 Afterword and note on data

The calculations underpinning this roadmap are derived from data that has been submitted to the SEAI monitoring and reporting database (M&R). Latest figures for 2024 have recently been received from the SEAI and this data is presently under review. City of Dublin ETB has a large built estate and work to refine data associated with that estate is subject to ongoing review to ensure that all relevant data has been correctly captured. Present levels of confidence in the available data is high and would be above 90%. As further iterations of our roadmap are completed this level of confidence will increase.



APPENDIX A -SCOPE 1 EMISSIONS – TABULATED ROADMAP

Tabulating the steps modelled in The SEAI Gap to Target tool to illustrate roadmap to 51% reduction in Scope 1 Emissions

SCOPE 1 - FOSSIL FUEL EMISSIONS

Data Set	Data Sub Set				kgCO2					Target CO2 Emissions 1,114,665		Yr Modelled	Transition to Electric	some funding visibility	Tallys With SEAI Gap to Target	
		AVG (2016-18) Baseline Thermal CO2			2,274,827	cumulative kgCO2	% to Target	cumulative %	Type of Project							
		PROGRESS As Per 2022			95,139											
		2022 Rptd Increase in Thermal CO2			95,139											
		Transport Emissions (Rptd for 2022)			35,094											
		PROGRESS TO 2030														
		kWh (NCV)	kgCO2/kWh	Fuel												
		FET/DEY - VACATED BUILDINGS														
1f	a	438,607.42	-0.20474	Gas	-89,801	2,315,259	6.96%	6.96%	C - Vacated Bld (2 No) - FET	23		Kilester CFE & Identified Building	Yes			
	b	10,169.00	-0.26387	oil	-2,683	2,312,575	0.21%	7.17%	C - Vacated Bld (1 No) - DOE	23		Gaa Club (Temp capacity issue during works)	Yes			
		WHOLE ESTATE - ENERGY MANAGEMENT														
2f	a	489,646.14	-0.20474	Gas	-100,251	2,212,325	7.77%	14.94%	Energy Manage -5%	24		Whole Estate	Yes			
	b	465,163.84	-0.20474	Gas	-95,238	2,117,087	7.38%	22.32%	Energy Manage -5%	25		Whole Estate	Yes			
	c	441,905.65	-0.20474	Gas	-90,476	2,026,610	7.01%	29.33%	Energy Manage -5%	26		Whole Estate	Yes			
	d	209,905.18	-0.20474	Gas	-42,976	1,983,634	3.33%	32.66%	Energy Manage -2.5%	27		Whole Estate	Yes			
	e	51,629.55	-0.26387	oil	-13,623	1,970,011	1.06%	33.71%	Energy Manage -5%	24		Whole Estate	Yes			
	f	49,048.07	-0.26387	oil	-12,942	1,957,069	1.00%	34.72%	Energy Manage -5%	25		Whole Estate	Yes			
	g	44,568.62	-0.26387	oil	-11,760	1,945,308	0.91%	35.63%	Energy Manage -5%	26		Whole Estate	Yes			
	h	22,131.97	-0.26387	oil	-5,840	1,939,468	0.45%	36.08%	Energy Manage -2.5%	27		Whole Estate	Yes			
		FET MINOR WKS - LEVERAGED														
3f	a	41,439.81	-0.20474	Gas	-8,484	1,930,984	0.66%	36.74%	Stage 1 Retrofit (-17%) Roof & Glazing (Part)	28		Inchicore CFE Roof & Glazing (Part)	Yes			
	b	104,818.35	-0.20474	Gas	-21,461	1,909,523	1.66%	38.40%	Stage 2 Retrofit (to -60%) above + further measures	28		Leveraged Roof & Glazing (Part) +Further Measures	Yes			
	c	78,004.35	-0.20474	Gas	-15,971	1,893,553	1.24%	39.64%	Stage 2 Retrofit (to -60%) above + 80% residual demand to electricity	28	T-E	Leveraged - 80% of Residual Consumption to Electric	Yes			
		FET MINOR WKS LEVERAGED														
4f	a	56,240.58	-0.20474	Gas	-11,515	1,882,038	0.89%	40.53%	Stage 1 Retrofit (-28%) Roof & Glazing (Part)	28		Dhulaigh CFE Greendale - Roof & Glazing (Part)	Yes			
	b	64,274.94	-0.20474	Gas	-13,160	1,868,878	1.02%	41.55%	Stage 2 Retrofit (to -60%) above + further measures	28		Leveraged Roof & Glazing (Part) +Further Measures	Yes			
	c	64,274.94	-0.20474	Gas	-13,160	1,855,718	1.02%	42.57%	Stage 2 Retrofit (to -60%) above + 80% residual demand to electricity	28	T-E	Leveraged - 80% of Residual Consumption to Electric	Yes			
		FET MINOR WKS LEVERAGED														
5f	a	21,119.89	-0.26387	oil	-5,573	1,850,146	0.43%	43.00%	Stage 1 Retrofit (-17%) Roof & Glazing (Part)	28		Dhulaigh CFE Coolock - Roof & Glazing (Part)	EOI Yes			
	b	53,420.91	-0.26387	oil	-14,096	1,836,049	1.09%	44.10%	Stage 2 Retrofit (to -60%) above + further measures	28		Leveraged Roof & Glazing (Part) +Further Measures	Yes			
	c	39,755.09	-0.26387	oil	-10,490	1,825,559	0.81%	44.91%	Stage 2 Retrofit (to -60%) above + 80% residual demand to electricity	28	T-E	Leveraged - 80% of Residual Consumption to Electric	Yes			
		FET MINOR WKS - LEVERAGED														
6f	a	14,042.68	-0.26387	oil	-3,705	1,821,854	0.29%	45.20%	Stage 1 Retrofit (-17%) Roof & Glazing (Part)	28		Liberties CFE Marks Alley Roof & Glazing (Part)	EOI Yes			
	b	35,519.72	-0.26387	oil	-9,373	1,812,481	0.73%	45.92%	Stage 2 Retrofit (to -60%) above + further measures	28		Leveraged Roof & Glazing (Part) +Further Measures	Yes			
	c	26,433.28	-0.26387	oil	-6,975	1,805,507	0.54%	46.46%	Stage 2 Retrofit (to -60%) above + 80% residual demand to electricity	28	T-E	Leveraged - 80% of Residual Consumption to Electric	Yes			
		DEY EXTENSION - LEVERAGED TO MAIN SCHOOL														
7f	a	90574.00	-0.20	Gas	-18544.22	1,786,962	1.44%	47.90%	Sch Ext leveraged to School -60% Demand Reduction	28		Cabra Ccommunity College	Yes			
	b	48306.40	-0.20	Gas	-9890.31	1,777,072	0.77%	48.67%	above + 80% residual demand to electricity	28	T-E	Cabra Ccommunity College	Yes			
		DEY EXTENSION - LEVERAGED TO MAIN SCHOOL														
8f	a	131,199.21	-0.20474	Gas	-26861.87	1,750,210	2.08%	50.75%	Sch Ext leveraged to School -60% Demand Reduction	28		Presentation PP	Yes			
	b	69,972.91	-0.20474	Gas	-14326.33	1,735,884	1.11%	51.86%	above + 80% residual demand to electricity	28	T-E	Presentation PP	Yes			
		FET PATHFINDER														
9f	a	90,963.13	-0.20474	Gas	-18,624	1,717,260	1.44%	53.30%	Protected Structure - 30% Demand Reduction	28		Liberties CFE Bull Alley Protected Structure	Yes			



some funding visibility
Tallys With SEAI Gap to Target

Appendix A

DEY / FET LARGE SCALE PROJECT													
10f	a	54,120.00	0.20474	Gas	11,081	1,728,341	-0.86%	52.44%	Expansion Additional Building (temp) - Phase 1 Special School (est)	24		An Cosan Special School 1000m2 (est 60kWh/m2 Gross)	Yes
	b	54,120.00	0.20474	Gas	11,081	1,739,421	-0.86%	51.58%	Expansion Additional Building (temp) - Phase 2 Special School (est)	25		An Cosan Special School 1000m2 (est 60kWh/m2 Gross)	Yes
	c	108,240.00	-0.20474	Gas	-22,161	1,717,260	1.72%	53.30%	Replace Above (new build mapped elsewhere)	29	T-E	An Cosan Special School to Whitehall	Yes
	d	393,439.49	-0.20474	Gas	-80,553	1,636,707	6.24%	59.54%	Demol / -100% - (new builds mapped elsewhere)	29	T-E	Whitehall Masterplan Demol	Yes
DOE EXPANSION													
11f	a	67,650.00	0.20474	Gas	13,851	1,650,557	-1.07%	58.47%	Expansion SCCNS St Endas			SCCNS - ST Endas Primary School (Estimate @ 75kWh/M2)	Yes
FET LARGE SCALE PROJECT (PBC - Cathal Brugha)													
12f	a	245,425.18	0.20474	Gas	50,249	1,700,806	-3.89%	54.58%	Expansion Additional Building	24		Marlbrough St (Estimate @ 75kWh/m2 Gross) (3887m2)	Yes
	b	98,170.47	-0.20474	Gas	-20,100	1,680,707	1.56%	56.13%	Retrofit Additional Building -40%	29		Marlborough St	Yes
	c	117,804.09	-0.20474	Gas	-24,119	1,656,587	1.87%	58.00%	Retrofit Additional Building -40% and 80% Residual to Elec	29	T-E	Marlborough St	Yes
	d	18,444.80	-0.20474	Gas	-3,776	1,652,811	0.29%	58.30%	Refurb And Transition to Elec -100%	29	T-E	No 1 Parnell Sq	Yes
	e	24,188.91	-0.20474	Gas	-4,952	1,647,858	0.38%	58.68%	Refurb And Transition to Elec -100%	29	T-E	North Great Georges St	Yes
	f	10,308.94	-0.20474	Gas	-2,111	1,645,748	0.16%	58.84%	C - Vacated Bld (1 No) -100%	29		Tillys Sean Mac dermot St	Yes
	g	8.29	-0.20474	Gas	-2	1,645,746	0.00%	58.84%	C - Vacated Bld (1 No) -100%	29		Sherard Street	Yes
	h	62,561.55	0.20474	Gas	12,809	1,658,555	-0.99%	57.85%	Expansion & Retrofit NEIC	29	T-E	Cathal Brugha 1930s	Yes
FET FURTHER DEMAND REDUCTION (Identified Building-Interchangeable / Estates Strategy)													
13f	a	114,904.87	-0.20474	Gas	-23,526	1,635,029	1.82%	59.67%	Further demand reduction -40%	29		Connolly Hse	Yes
13f	b	137,885.84	-0.20474	Gas	-28,231	1,606,798	2.19%	61.86%	Further demand reduction -40% & 80% Residual To Elec	29	T-E	Connolly Hse	Yes
TRANSPORT													
14f	a	63,980.00	-0.25186	Petrol	-16,114	1,590,684	1.25%	63.11%	Transport -80%	29	T-E	Whole Estate	Yes
	b	45,332.00	-0.26387	Diesel	-11,962	1,578,723	0.93%	64.04%	Transport -80%	29	T-E	Whole Estate	Yes
FET FURTHER DEMAND REDUCTION (Identified Building-Interchangeable / Estates Strategy)													
15f	a	155,673.04	-0.26387	oil	-41,077	1,537,646	3.18%	67.22%	Further demand reduction -100%	29		Identified Building (interchangeable/ Estates Strategy)	Yes
	b	28,639.13	-0.20474	Gas	-5,864	1,531,782	0.45%	67.68%	Further demand reduction -100%	29		Identified Building (interchangeable/ Estates Strategy)	Yes
	c	130,515.31	-0.20474	Gas	-26,722	1,505,060	2.07%	69.75%	Further demand reduction -100%	29		Identified Building (interchangeable/ Estates Strategy)	Yes
	d	146,241.12	-0.20474	Gas	-29,942	1,475,119	2.32%	72.07%	Further demand reduction -100%	29		Identified Building (interchangeable/ Estates Strategy)	Yes
DEY FURTHER DEMAND REDUCTION (Identified Building-Interchangeable / Estates Strategy)													
16f	a	147,700.53	-0.20474	Gas	-30,240	1,444,878	2.34%	74.41%	Further demand reduction -25%	29		Colaiste Eoin	Yes
	b	92,916.75	-0.20474	Gas	-19,024	1,425,854	1.47%	75.88%	Further demand reduction -25%	29		kylemore College	Yes
	c	79,493.71	-0.20474	Gas	-16,276	1,409,579	1.26%	77.15%	Further demand reduction -25%	29		Larkin Community College	Yes
	d	63,873.09	-0.20474	Gas	-13,077	1,396,501	1.01%	78.16%	Further demand reduction -25%	29		Clogher Road	Yes
	e	97,658.02	-0.20474	Gas	-19,995	1,376,507	1.55%	79.71%	Further demand reduction -25%	29		Collock Community College	Yes
FET FURTHER DEMAND REDUCTION (Identified Building-Interchangeable / Estates Strategy)													
17f	a	109,082.73	-0.20474	Gas	-22,334	1,354,173	1.73%	81.44%	Further demand reduction -30%	29		Ballyfermot Training Centre	Yes
	b	130,899.28	-0.20474	Gas	-26,800	1,327,373	2.08%	83.52%	Residual Demand to Electricity	29	T-E	Ballyfermot Training Centre	Yes
	c	62,910.84	-0.20474	Gas	-12,880	1,314,492	1.00%	84.51%	Further demand reduction -30%	29		Finglas Training Centre	Yes
	d	75,493.00	-0.20474	Gas	-15,457	1,299,036	1.20%	85.71%	Residual Demand to Electricity	29	T-E	Finglas Training Centre	Yes
FET FURTHER DEMAND REDUCTION (Identified Building-Interchangeable / Estates Strategy)													
18f	a	188,913.74	-0.20474	Gas	-38,678	1,260,357	3.00%	88.71%	Further demand reduction -30%	29		Colaiste Ide Finglas	Yes
	b	27,513.61	-0.20474	Gas	-5,633	1,254,724	0.44%	89.15%	Further demand reduction -30%	29		YR Harmonstown	Yes
FET FURTHER DEMAND REDUCTION (Identified Building-Interchangeable / Estates Strategy)													
19f	a	20,401.63	-0.26387	oil	-5,383	1,249,341	0.42%	89.56%	Further demand reduction -30%	29		Pearse College	Yes
	b	68,452.06	-0.20474	Gas	-14,015	1,235,326	1.09%	90.65%	Further demand reduction -30%	29		Crumlin College	Yes

Appendix A												
FET/DEY - FURTHER DEMAND REDUCTION (Identified Building-Interchangeable / Estates Strategy)												
20f	a	54,829.51	-0.26387	oil	-14,468	1,220,858	1.12%	91.77%	Further demand reduction -30%	29	Yr Ballymun	Yes
	b	14,304.11	-0.26387	oil	-3,774	1,217,084	0.29%	92.06%	Further demand reduction -30%	29	Winstead	YES
	c	9,966.08	-0.26387	oil	-2,630	1,214,454	0.20%	92.27%	Further demand reduction -30%	29	CDU Marlborough	YES
FET FURTHER DEMAND REDUCTION (Identified Building-Interchangeable / Estates Strategy)												
21f	a	38,143.23	-0.20474	Gas	-7,809	1,206,644	0.61%	92.87%	Further demand reduction -20%	29	Rathmines CFE	Yes
	b	101,205.56	-0.20474	Gas	-20,721	1,185,923	1.61%	94.48%	Further demand reduction -20%	29	Ballyfermot CFE	Yes
FET FURTHER DEMAND REDUCTION (Identified Building-Interchangeable / Estates Strategy)												
22f	a	138,144.40	-0.20474	Gas	-28,284	1,157,640	2.19%	96.67%	Further demand reduction -30%	29	greendale main	Yes
FET FURTHER DEMAND REDUCTION (Identified Building-Interchangeable / Estates Strategy)												
23f	a	163,488.54	-0.20474	Gas	-33,473	1,124,167	2.59%	99.26%	Vacate Further demand reduction -100%	29	Identified Building (interchangeable/ Estates Strategy)	Yes
DEY TO DISTRICT HEATING												
24f	a	207,210.55	-0.20474	Gas	-42,425	1,081,742	3.29%	102.55%	To District Heating	29	Ringsend CC	Yes
Progress to Target kgCO2					1,081,742							
Gap to Target kgCO2					-32,923	negative value indicates target reached and surpassed						

Notes

All Calculations derived from M&R data

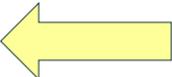
- Shading Indicates some funding visibility
- EOI Funding expression of Interest submitted
- T-E Indicates a transition to electric heating

Note data above is based on 2022 Data. 2024 Data from the Monitoring & Reporting database is under review prior to fully integrating with the latest "gap to target" tool to ensure a consistency across both models. The required minor shift to the above figures would not alter the graphical mapped pathway to a 51% reduction in CO2 in any significant way

APPENDIX B - SCOPE 2 EMISSIONS – TABULATED ROADMAP

Tabulating the steps modelled in The SEAI Gap to Target tool to illustrate the corresponding change in the Profile of our Scope 2 Emissions

Tabulated Road Map: Scope 2 - Electricity Emissions

PROGRESS TO 2030				Modelled Change to Scope 2 Emissions				Yr Modelled in GTT	funding visibility	Tallys with Gap to Target Tool	
kWh	kgCO2/kWh	Energy Type	kgCo2								
				617,674.53		Assumed BAU Scope 2 emissions as of 2030 - (refer to section 4.1.2) - Supply Side Decarbonisation					
											
VACATED -\											
1e	a	136,162.00	-0.09293	Electricity	-12,653.90	605,021	C - Vacated Bld (2 No)	23		Yes	
ENERGY MANAGEMENT											
2e	a	162,757.77	-0.09293	Electricity	-15,125.52	589,895	Energy Manage -2.5%	24		Yes	
2e	b	158,688.83	-0.09293	Electricity	-14,747.38	575,148	Energy Manage -2.5%	25		Yes	
2e	c	154,721.61	-0.09293	Electricity	-14,378.69	560,769	Energy Manage -2.5%	26		Yes	
2e	d	150,853.57	-0.09293	Electricity	-14,019.23	546,750	Energy Manage -2.5%	27		Yes	
FET MINOR WKS - LEVERAGED- 80% Residual Consumption To Elec											
3e	a	18,201.02	0.09293	Electricity	1,691.47	548,441	Stage 2 Retrofit (-17%) + lvgd to -60%	28		Yes	
4e	a	14,997.49	0.09293	Electricity	1,393.76	549,835	Stage 2 Retrofit (-28%)+ lvgd to -60%	28		Yes	
5e	a	9,276.19	0.09293	Electricity	862.06	550,697	Stage 2 Retrofit (-17%)+ lvgd to -60%	28	EOI	Yes	
6e	a	6,167.77	0.09293	Electricity	573.19	551,270	Stage 2 Retrofit (-17%)+ lvgd to -60%	28	EOI	Yes	
DEY SCHOOL EXTENSION - LEVERAGED to Main School 80% Residual Consumption To Elec											
7e		11,271.49	0.09293	Electricity	1,047.49	552,318	Retrofit (to -60%)	28		Yes	
8e		16,327.01	0.09293	Electricity	1,517.31	553,835	Retrofit (to -60%)	28		Yes	
DEY / FET LARGE SCALE PROJECT											
10e	a	40,000.00	0.09293	Electricity	3,717.31	557,552	Add An Cosan (Temp 2024) - Estimate	24		Yes	
10e	b	40,000.00	0.09293	Electricity	3,717.31	561,270	Add An Cosan(Temp 2025) - Estimate	25		Yes	
10e	c	80,000.00	-0.09293	Electricity	-7,434.61	553,835	Remove AN Cosan above (2029) -Estimate	29		Yes	
10e	d	504,802.03	-0.09293	Electricity	-46,912.60	506,922	remove plunk/clontk/white/Ellen	29		Yes	
10e	e	238,903.30	0.09293	Electricity	22,201.92	529,124	Add AN Cosan New Build	29		Yes	
10e	f	555,520.00	0.09293	Electricity	51,625.96	580,750	Add Clonturk New Build	29		Yes	
10e	g	555,520.00	0.09293	Electricity	51,625.96	632,376	Add Ellenfield New Build	29		Yes	
10e	h	457,333.30	0.09293	Electricity	42,501.21	674,878	Add Fet New Build (Plunkette/ Whitehall)	29		Yes	
DEY EXPANSION											
11e		40,000.00	0.09293	Electricity	3,717.31	678,595	Add DEY SCCNS - St Endas - Estimate	24		Yes	
FET LARGE SCALE PROJECT (PBC - Cathal Brugha)											
12e	a	260,639.86	-0.09293	Electricity	-24,221.96	654,373	PBC Vacated Buildings	29		Yes	
12e	b	33,086.03	0.09293	Electricity	3,074.77	657,448	Transition 1 parnell sq & NGGS to Elec heating	29		Yes	
12e	c	221,559.00	0.09293	Electricity	20,590.07	678,038	Add Marlborough 1990s - Estimate	29		Yes	
12e	d	14,860.00	0.09293	Electricity	1,380.98	679,419	Add Cathal Brugha 60s Elec Heat Pump	29		Yes	
12e	e	84,702.00	0.09293	Electricity	7,871.58	687,290	Add Cathal Brugha 60s Elec @57kwh/mw	29		Yes	
12e	f	448,797.00	0.09293	Electricity	41,707.91	728,998	Add Cathal brugha 30s elec & Elec heat	29		Yes	
12e	g	27,487.62	0.09293	Electricity	2,554.50	731,553	Marl 1990s retrofit -40% & 80% residual to elec	29		Yes	
12e	h	202,533.33	0.09293	Electricity	18,821.96	750,375	New Build NCRR - Sean Mc Dermot St (heat & Plug)	29		Yes	
FET FURTHER DEMAND REDUCTION (Identified Building-Interchangeable / Estates Strategy)											
13e		32,173.36	0.09293	Electricity	2,989.96	753,365	Retro-fit Connolly- Residual Heat Demand to Electric			Yes	

Appendix B									
Transport									
14e	a	25592.00	0.09	Electricity	2378.33	755742.96	80% transport emissions to electricity (petrol)	29	Yes
14e	b	18132.80	0.09	Electricity	1685.13	757428.09	80% transport emissions to electricity (Diesel)	29	Yes
FET FURTHER DEMAND REDUCTION (Identified Building-Interchangeable / Estates Strategy)									
15e		158530.37	-0.09293	Electricity	-14,732.65	742,695	Identified Bld - vacate (interchangeable/ Estates Strategy)	29	Yes
FET FURTHER DEMAND REDUCTION (Identified Building-Interchangeable / Estates Strategy)									
17e	a	30,543.17	0.09293	Electricity	2,838.46	745,534	Retrofit part Bally F TC residual heat demand to elec	29	Yes
17e	b	17,615.03	0.09293	Electricity	1,637.01	747,171	Retrofit part Finglas TC residual heat demand to elec	29	Yes
FET FURTHER DEMAND REDUCTION (Identified Building-Interchangeable / Estates Strategy)									
23e		51,281.58	-0.09293	Electricity	-4,765.73	742,405	Identified Bld - vacate (interchangeable/ Estates Strategy)	29	Yes
DEY / FET ADDITIONS - EXTENSIONS									
24e		442,727.50	0.09293	Electricity	41,143.85	783,549	DEY (2No) / FET (1 No) ADDITIONS - EXTENSIONS	29	Yes
Progress to 2030					783,549.03	Mapped change in Scope 2 Emissions of Built Estate			

Notes

All Calculations derived from M&R data

 Shading Indicates some funding visibility

EOI Funding expression of Interest submitted

Note data above is based on 2022 Data. 2024 Data from the Monitoring & Reporting database is under review prior to fully integrating with the latest "gap to target" tool to ensure a consistency across both models. The required minor shift to the above figures would not alter the graphical mapped pathway to a 51% reduction in CO2 in any significant way

APPENDIX C - SCOPE 1 Energy Management (GPRN) Data.

Modelled data for Estate wide Energy Management Program for Scope 1 (GPRN) Emissions.

APPENDIX C

SCOPE 1 (FOSSIL)- ENERGY MANAGEMENT - NATURAL GAS - (WHOLE ESTATE) -DATA SET(s) - 2f -a, b, c & d

Attributable Consumption (kWh) - all GPRNs			2a	2b	2c	2d
GPRN	Unit	2022	2025	2026	2027	2028
SCHOOLS -DEY			-5%	-5%	-5%	-2.5%
26750	kWh (Gross)	0	0	0	0	0
961333	kWh (Gross)	783,538	744361.10	707143.05	671785.89	654991.25
89311	kWh (Gross)	322	305.90	290.61	276.07	269.17
89312	kWh (Gross)	23	21.85	20.76	19.72	19.23
245344	kWh (Gross)	492,915	468269.25	444855.79	422613.00	412047.67
85319	kWh (Gross)	620	589.00	559.55	531.57	518.28
1182823	kWh (Gross)	199,584	189604.80	180124.56	171118.33	166840.37
571374	kWh (Gross)	421,707	400621.65	380590.57	361561.04	352522.01
37489	kWh (Gross)	23	21.85	20.76	19.72	19.23
245478	kWh (Gross)	338,841	321898.95	305804.00	290513.80	283250.96
1184861	kWh (Gross)	167,008	158657.60	150724.72	143188.48	139608.77
144092	kWh (Gross)	0	0.00	0.00	0.00	0.00
13287	kWh (Gross)	0	0.00	0.00	0.00	0.00
13288	kWh (Gross)	1,203	1142.85	1085.71	1031.42	1005.64
13289	kWh (Gross)	518,067	492163.65	467555.47	444177.69	433073.25
224811	kWh (Gross)	174,765	166026.75	157725.41	149839.14	146093.16
26366	kWh (Gross)	274,807	261066.65	248013.32	235612.65	229722.34
143494	kWh (Gross)	194	184.30	175.09	166.33	162.17
143799	kWh (Gross)	19,569	18590.55	17661.02	16777.97	16358.52
816263	kWh (Gross)	270,237	256725.15	243888.89	231694.45	225902.09
CENTRAL FET CAMPUS						
1031588	kWh (Gross)	380,975	361926.25	343829.94	326638.44	318472.48
110704	kWh (Gross)	0	0.00	0.00	0.00	0.00
110705	kWh (Gross)	0	0.00	0.00	0.00	0.00
161997	kWh (Gross)	216,823	205981.85	195682.76	185898.62	181251.15
24124	kWh (Gross)	402,126	382019.70	362918.72	344772.78	336153.46
314418	kWh (Gross)	30,432	28910.40	27464.88	26091.64	25439.35
5293823	kWh (Gross)	207,636	197254.20	187391.49	178021.92	173571.37
124335	kWh (Gross)	14,865	14121.75	13415.66	12744.88	12426.26
SOUTHWEST FET CAMPUS						
89308	kWh (Gross)	1,205,571	1145292.45	1088027.83	1033626.44	1007785.78
1187038	kWh (Gross)	253,427	240755.65	228717.87	217281.97	211849.92
10483	kWh (Gross)	273,008	259357.60	246389.72	234070.23	228218.48
904205	kWh (Gross)	144,673	137439.35	130567.38	124039.01	120938.04
57745	kWh (Gross)	0	0.00	0.00	0.00	0.00
977614	kWh (Gross)	28,825	27383.75	26014.56	24713.83	24095.99
237376	kWh (Gross)	294,461	279737.95	265751.05	252463.50	246151.91
37490	kWh (Gross)	-4,610	-4379.50	-4160.53	-3952.50	-3853.69
37492	kWh (Gross)	57	54.15	51.44	48.87	47.65

APPENDIX C

46731	kWh (Gross)	302,610	287479.50	273105.53	259450.25	252963.99
161070	kWh (Gross)	193,949	184251.55	175038.97	166287.02	162129.85
NORTH EAST FET CAMPUS						
1126839	kWh (Gross)	179,975	170976.25	162427.44	154306.07	150448.41
141389	kWh (Gross)	8,966	8517.70	8091.82	7687.22	7495.04
141390	kWh (Gross)	0	0.00	0.00	0.00	0.00
5397182	kWh (Gross)	165,841	157548.95	149671.50	142187.93	138633.23
71628	kWh (Gross)	266,385	253065.75	240412.46	228391.84	222682.04
71629	kWh (Gross)	610,703	580167.85	551159.46	523601.48	510511.45
71630	kWh (Gross)	0	0.00	0.00	0.00	0.00
1628	kWh (Gross)	37,982	36082.90	34278.76	32564.82	31750.70
NORTHWEST CAMPUS						
554999	kWh (Gross)	832,042	790439.90	750917.91	713372.01	695537.71
27325	kWh (Gross)	3,100	2945.00	2797.75	2657.86	2591.42
82157	kWh (Gross)	695,284	660519.80	627493.81	596119.12	581216.14
ADULT ED FET						
116357	kWh (Gross)	0	0.00	0.00	0.00	0.00
116358	kWh (Gross)	24,462	23238.90	22076.96	20973.11	20448.78
132444	kWh (Gross)	13,672	12988.40	12338.98	11722.03	11428.98
YOUTHREACH FET						
946238	kWh (Gross)	173,093	164438.35	156216.43	148405.61	144695.47
135531	kWh (Gross)	11	10.45	9.93	9.43	9.20
1024542	kWh (Gross)	121,631	115549.45	109771.98	104283.38	101676.29
110595	kWh (Gross)	32,080	30476.00	28952.20	27504.59	26816.98
ADMIN SUPPORT DOE						
135097	kWh (Gross)	16,576	15747.20	14959.84	14211.85	13856.55
26465	kWh (Gross)	19,088	18133.60	17226.92	16365.57	15956.43
118291	kWh (Gross)	30,268	28754.60	27316.87	25951.03	25302.25
871437	kWh (Gross)	17,489	16614.55	15783.82	14994.63	14619.77
Totals for year		10,856,899	kWh (Gross) 10314054.05	9798351.35	9308433.78	9075722.94
Gross savings expected from previous year			kWh (Gross) 542844.95	515702.70	489917.57	232710.84
			NCV factor 0.902	0.902	0.902	0.902
			kWh net 489,646.14	465,163.84	441,905.65	209,905.18
Carbon Intensity of Natural Gas			kgCO2/kWh 0.20474	0.20474	0.20474	0.20474
CO2 Savings from previous year			kgCO2	100,250.69	95,238.15	90,476.25
				42,976.22		

Notes

All above figures are based and derived from Total Final Consumption (TFC) as reported on M&R

Locations identified by GPRN No and shadings signify a centre or an individual building

The savings shown per year are based off the M&R reported figures for 2022

Appendix D – Typical Deep Retrofit Data approach

High level approach to data and calculation associated with a typical Deep Retrofit Project and transition to a high efficiency electric heating regime.

APPENDIX D

		data set	3f a, b, c & 3e-a	
Attributable Consumption (kWh) all GPRNs				
GPRN Location				
SOUTH WEST FET CAMPUS			Unit	2028
57745	Inchicore CFE Emmet Road Inchicore		kWh (Gross)	0.00
977614	Inchicore CFE		kWh (Gross)	24,095.99
237376	Inchicore CFE Emmet Road Inchicore		kWh (Gross)	246,151.91
Total Consumption (Gross)			kWh (Gross)	270,247.90
			NCV Factor	0.902
Total Consumption (NET)			kWh (NCV)	243,763.61
17% Energy Saving (Minor Works-Roof/Glazing-Part) - Net			kWh (NCV)	41,439.81
Carbon intensity of Natural Gas Grid			kgCO2/kWh	0.204741
kg CO2 Reduction / Saving			3f-a	kgCO2
				8,484.43
Leveraged to 60% Energy Savings			kWh (NCV)	146,258.16
Already Saved			kWh (NCV)	41,439.81
Leveraged - Balance to 60%			kWh (NCV)	104,818.35
Carbon intensity of Natural Gas Grid			kgCO2/kWh	0.204741
Leveraged CO2 Reduction			3f-b	kgCO2
				21,460.62
Residual Consumption			kWh (NCV)	97,505.44
Residual Consumption 80% to Transition to Electric			kWh (NCV)	78,004.35
Carbon intensity of Natural Gas Grid			kgCO2/kWh	0.204741
Leveraged CO2 - Reduction - Residual - 80% TRANSITION to E			3f-c	kgCO2
				15,970.70
ADDITIONAL CO2 - Transition To Electric				
Residual Consumption 80% to Transition to Electric			kWh (NCV)	78,004.35
Residual Demand to Transition @ 70% Efficiency			kWh (NCV)	54,603.05
Residual Demand to Transition @ 300% Efficiency - TRANSITION to E			kWh	18,201.02
Carbon intensity of Electricity Grid - (SEAI 2030)			kgCO2/kWh	0.092933
lv - Leveraged Additional CO2 - - Residual - TRANSITION to E			3e-a	kgCO2
				1,691.47

Notes

SHADING	Scope 2 (electric)	Scope 1 (Fossil)
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All above figures are based and derived from Total Final Consumption (TFC) as reported on M&R

Locations identified by GPRN No and shadings signify a centre or an individual building

The savings shown per year are based off the M&R reported figures for 2022 as later figures are not yet available

Above included as sample high level calculation of potential CO2 savings associated with Deep Retrofit

Appendix E – Further Demand reduction highlighted / Energy Efficiency

Energy Efficiency – Highlighting the level of further Energy Demand reduction required to meet the 50% Efficiency improvement Target.

Project details		Project categorisation					Energy savings in year after implementation [see note for explanation how to enter RE & CHP savings]			
Project name	Location	Type	Sub-type	Project scale	Project readiness	EE or RE or CHP?	Grid electricity	Thermal	Transport	Total
[-]	[-]	[-]	[-]	[-]	[-]	[-]	[kWh TFC]	[kWh TFC]	[kWh TFC]	[kWh TFC]
combined 2025		Combination/other	Deep energy retrofit	4 Asset renewal project	1 Concept	EE	-2,639.230	622,857.110	0.000	620,217.880
combined 2026		Combination/other	Deep energy retrofit	4 Asset renewal project	1 Concept	EE	118,688.830	460,091.910	0.000	578,780.740
combined 2027		Combination/other	Deep energy retrofit	4 Asset renewal project	1 Concept	EE	154,721.610	486,474.270	0.000	641,195.880
combined 2028		Combination/other	Deep energy retrofit	4 Asset renewal project	1 Concept	EE	150,853.570	232,037.150	0.000	382,890.720
combined 2029		Combination/other	Deep energy retrofit	4 Asset renewal project	1 Concept	EE	-119,965.760	1,423,801.000	109,312.000	1,413,147.240
combined 2029		Combination/other	Deep energy retrofit	4 Asset renewal project	1 Concept	EE	-2,086,548.000	2,921,062.000	0.000	834,514.000
combined additional needed - 2029		Combination/other	Deep energy retrofit	4 Asset renewal project	1 Concept	EE	1,450,000.000	1,450,000.000	0.000	2,900,000.000

Notes

Extract above from SEAI Gap to Target Tool (Energy Efficiency Project Tab)

Outlined in RED is level of demand reduction (additional to Projects modelled to achieve CO2 Reduction Target) in order for the 50% improvement in Energy Efficiency to be achieved

Appendix F – SEAI Gap to Target tool (extract from Annex 1)

Appendix G – Green Teams Charter (Draft) Summary

Green Team Charter (Draft Summary)



Purpose

- Drive sustainability, reduce emissions, and embed environmental stewardship across our large, multi-site educational estate.
- Coordinate actions that cut fossil-fuel use, improve efficiency, and support climate targets.

Scope

- Energy & carbon management
- Boiler optimisation and fossil-fuel reduction
- Waste & circular economy
- Water efficiency
- Biodiversity & outdoor spaces
- Sustainable transport
- Procurement & supply chain
- Behavioural change & engagement
- Climate adaptation & resilience
- Curriculum integration

Membership

Core:

- Sustainability Lead (Chair), Capital Projects, Teaching staff, Students, Maintenance, Health & Safety, Procurement, Communications, IT, Campus reps

Advisory:

- Finance, external partners, energy agencies, consultants

Key Objectives

Operational

- Reduce energy use and emissions
- Optimise boilers and heating systems
- Improve water and waste performance

Cultural

- Build sustainability literacy
- Lead campaigns and engagement

Strategic

- Align with Climate Action Plan
- Support low-carbon capital planning
- Ensure regulatory compliance

Monitoring

- Track KPIs and report quarterly
- Use data to drive decisions

Priority Focus: Boiler Management & Fossil-Fuel Reduction

- Optimise setpoints, flow temperatures, and schedules
- Strengthen preventative maintenance and combustion tuning
- Improve controls, zoning, and balancing
- Monitor gas use and BMS data (where available) for inefficiencies
- Train caretakers and maintenance teams
- Plan phased transition to low-carbon heating

Working Groups

- Energy & Carbon
- Boiler Efficiency & Heating Systems
- Waste & Circular Economy
- Biodiversity & Outdoor Spaces
- Sustainable Transport
- Communications & Engagement

KPIs

- Fossil-fuel consumption reduction
- Gas use per building/m²
- Boiler optimisation actions completed
- Waste diversion rate
- Water consumption
- Engagement participation
- Biodiversity improvements

Commitment

City of Dublin Education & Training Board commits to a low-carbon, resilient future.

Through collaboration, innovation, and evidence-based action, the Green Team will reduce emissions, enhance sustainability performance, and support a culture of environmental responsibility across all campuses.

Appendix H – Selected Actions - In Progress / Completed

Department of Education & Youth (DEY) - Selected - Identified Sustainability / Energy upgrade projects

		Status
Coolock Community College, Dublin 17	A-rated modular extension to existing school	Completed Q3 / 21
Coolock Community College, Dublin 17	A-rated modular extension to existing school	Completed Q3 / 23
Ringsend College, Ringsend, Dublin 4	6kW Solar photovoltaic array installed on existing roof	Completed Q4 25
Clogher Road Community College, Crumlin, Dublin 12	6kW Solar photovoltaic array installed on existing roof	Completed Q4 25
Larkin Community Coll, Dublin 1	6kW Solar photovoltaic array installed on existing roof	Completed Q4 25
Cabra Community College, Cabra, Dublin 7	6kW Solar photovoltaic array installed on existing roof	Completed Q4 25
Colaiste Eoin, Finglas, Dublin 11	6kW Solar photovoltaic array installed on existing roof	Completed Q4 25
Coolock Community College, Dublin 17	6kW Solar photovoltaic array installed on existing roof	Completed Q4 25
Marino College, Marino, Dublin 3	6kW Solar photovoltaic array installed on existing roof	Completed Q4 25
South City Community National School. - Dublin 2	6kW Solar photovoltaic array installed on existing roof	Completed Q4 25
South City Community National School. - Dublin 2	6kW Solar photovoltaic array installed on existing roof	Completed Q4 25
Ellenfield Community College, Dublin 9	6kW Solar photovoltaic array installed on existing roof	Completed Q4 25
Kylemore College, Dublin 10	6kW Solar photovoltaic array installed on existing roof	Completed Q4 25
Presentation Community College, Dublin 6 W	6kW Solar photovoltaic array installed on existing roof	Completed Q4 25
An Cosan Special Community School	6kW Solar photovoltaic array installed on existing roof	Completed Q4 25
Presentation Community College, Dublin 6 W	A-rated extension to existing school	Progressing to Stage 2A
Cabra Community College, Cabra, Dublin 7	A-rated extension to existing school	Progressing to Stage 1
Coolock Community College, Dublin 17, Ellenfield Community College, Dublin 9, An Cosan Special Community School, Dublin 7	Major new A-rated schools project planned at 17 acre Witehall Site, Dublin 9	Stage 1 Design complete Q1/26
Ringsend College, Ringsend, Dublin 4	Major Thermal Upgrade Works to Existing Roof (Scope of Works complete)	Subject to DEY Funding
Clogher Road Community College, Crumlin, Dublin 12	Major Thermal Upgrade Works to Existing Roof (Scope of Works complete)	Subject to DEY Funding
Larkin Community Coll, Dublin 1	Thermal Upgrade to External Wndows and Dors (Scope of Works complete)	Subject to DEY Funding
Cabra Community College, Cabra, Dublin 7	Changing / Wc facilities -Water Management and Thermal upgrades (Scope of Works complete)	Subject to DEY Funding
Colaiste Eoin, Finglas, Dublin 11	Changing / Wc facilities -Water Management and Thermal upgrades (Scope of Works complete)	Subject to DEY Funding
Coolock Community College, Dublin 17	Wc facilities - Water Management and Thermal upgrades (Scope of Works complete)	Subject to DEY Funding
Marino College, Marino, Dublin 3	Wc facilities - Water Management and Thermal upgrades (Scope of Works complete)	Subject to DEY Funding
South City Community National School. - Dublin 2	Wc facilities - Water Management and Thermal upgrades (Scope of Works complete)	Subject to DEY Funding
South City Community National School. - Dublin 2	Thermal Upgrade to External Windows and (Scope of Works complete)	Subject to DEY Funding
Estate Wide		
Energy Data	Energy Data collection program continuing	Ongoing
Energy Management	Energy Managemen Program in Progress	Ongoing

SOLAS / DFHERIS - Selected - Identified Sustainability / Energy upgrade projects

City of Dublin FET College – Central Campus		Status
Kilester College of Further Education, Dublin 5	Building Vacated to facilitate move to Central Campus	Complete Q3/23
FET College Cathal Brugha, Dublin 1	refurbishment of 8 Storey section of existing Building -including Lighting and watermanagement upgrades	Complete Q1/24
FET College Cathal Brugha, Dublin 1	Major refurbishment and energy efficient upgrades for 1960s and 1930s Section of Building	Prelim Business Case approved
FET College Warrenmount, Dublin 8	Building Vacated to facilitate move to A-rated building at Thomas St Dblin 8	Complete Q3/25
FET College Liberties (Marks Alley) Dublin 8	Major Thermal Upgrade Works to Existing Roof	To Commence Q1/26
FET College Liberties (Marks Alley) Dublin 8	Further Major Thermal Upgrade Works (Scope of Works complete)	Subject to Funding Approval
City of Dublin FET College – Northwest Campus		
FET College Finglas, Jamestown Rd	Upgrades to Training Centre Hot Water System	To Commence Q1/26
	Upgrades to Training Centre Hot Water System (Scope of Works in development)	Subject to Funding Approval
City of Dublin FET College – Northeast Campus		
FET College Dhúlaigh, Coolock , Dublin 17	Universal Access Works including ne LED lighting and New thermallyvefficient fabric	Complete Q4/25
FET College Dhúlaigh, Coolock , Dublin 17	Major Thermal Upgrade Works to Existing Roof & Windows (Scope of Works complete)	Subject to Funding Approval
FET College Dhúlaigh, Kilbarrack, Dublin 5	Major Thermal Upgrade Works to Existing Roof & Windows (Scope of Works complete)	Pre tender report complete
City of Dublin FET College – Southwest Campus		
FET College Ballyfermot, Chapelizod Hill, Dublin 20	nZEB Centre of Excellence for Construction Skills (Design Team tender in progress)	Funding Approved
FET College Ballyfermot, Chapelizod Hill, Dublin 20	Major Thermal Upgrade Works to Existing Roof (Scope of Works in development)	Subject to Funding Approval
City of Dublin FET College Inchicore, Dublin 8	Major Thermal Upgrade Works to Existing Roof	Complete Q4/25
City of Dublin FET College Inchicore, Dublin 8	A-rated extension to existing college	Progressing to Stage 1
FET College Ballyfermot, Ballyfermot Rd, Dublin 10	A-rated extension to existing college	Subject to Funding Approval
Estate Wide		
Energy Data	Energy Data collection program continuing	Work Ongoing
Energy Management	Energy Managemen Program in Progress	Work Ongoing
Estates Strategy	Estates Strategy development continuing	Work Ongoing