

Climate Change Advisory Council 2023 Review

Carbon Budget Targets – A Timely Report

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Summary

This Briefing updates the ongoing climate policy development in Ireland. Previous LGiU briefings on the National Climate Action Plan 2023 (CAP 23) Parts 1 and 2 detailed ambitious plans by Ireland for meeting the Country's 2030 carbon emission targets with the wider public sector designated to assume a leadership role in the process. The question, which is addressed in this current Briefing, of how Ireland is progressing the 2023 plan is examined thanks to a recent review of the Climate Change Advisory Council. The review indicates that there is a considerable amount of work still to be completed before Ireland can be seen to meet its international climate obligations. In addition to Local Government senior management teams, the following briefing will be of interest to senior policy makers across government, all of whom are currently involved in advancing actions under CAP 23 and its predecessor in 2021.

Introduction

Although now into the third year of the first five-year carbon budget cycle, the Climate Change Advisory Council (CCAC) has, through its Annual Review 2023, sounded alarm regarding the slippage from the Plan's targets saying bluntly '*... Ireland will not meet the targets set in the first and second carbon budget periods unless urgent action is taken immediately, and emissions begin to fall much more rapidly.*'¹

Now in its seventh year and set against the statutory background of the Climate Action and Low Carbon Development (Amendment) Act 2021, the Annual Review reports on Ireland's performance of the previous year with respect to achieving national climate adaptation and mitigation targets and compliance with EU and international climate obligations. Working closely with the Environmental Protection Agency (EPA), the Review draws on the multiple

¹ Climate Change Advisory Council, Annual Review 2023 Summary P IV

global and local records that have been broken. They include the warmest June ever combined with unprecedented average sea temperatures for the same month, followed by the warmest daily temperature on 7th July.

Informed by the data, the Review sets out a comprehensive set of recommendations that cascade from ‘Overall’, to ‘Adaptation’, ‘Mitigation’, and down to ‘Sectoral’ level. This briefing focusses primarily on the Review recommendations in so far as they impact the Local Government Sector and their consequent implications. It also examines the ability of the wider public sector to deliver on policy implementation at the scale required to deliver on the ambitious 2030 emission targets set for the Country and the potential for collaborations between public sector agencies and the private sector as a means of accelerating a reduction in emissions.

CCAC Annual Review 2023 – A Synopsis

The tone of the Review is set at the outset stating that the ‘...*Council is concerned that the necessary national actions are not taking place or being enabled at the speed and with the level of coordination across Government and society that is required*². A noticeable feature of the Review is the equal attention afforded to the climate change adaptation challenges in contrast to CAP 23 which focussed mainly on mitigation, with adaptation only being addressed in Chapter 22. With regard to mitigation, it acknowledges Ireland’s primary task as the reduction and ultimate prevention of greenhouse gas emissions.

The ‘Overall’ recommendations make for stark reading, stating the Government needs to identify and remove barriers to policy implementation by ensuring adequate funding and planning reform at scale and speed. While the wider public sector has a good record on policy formulation, it unfortunately falls down on implementation and this recommendation cuts to the heart of the problem i.e., provision of adequate funding and planning reform at scale and speed.

² Climate Change Advisory Council, Chapter 1. Introduction.

Other ‘Overall’ recommendations point to the need for:

- Immediate action to prevent longer term damage and increased costs both to society and the economy.
- New approaches to address emission reductions, create investment and enhance skills across the economy, particularly in areas such as retrofitting and renewable energy.
- Creation of the Just Transition Commission to ensure fairness, equity and protection for vulnerable individuals and communities.

Adaptation Issues and Recommendations

Four of the six ‘Adaptation’ recommendations contained in the Review have extensive implications for the Local Government Sector and follow familiar themes i.e., provision of resources, sea level rise, policy coherence, collaboration and engagement with communities and non-governmental organisations (NGOs). Reference in the recommendations to the current Local Authority process for the formulation of Climate Action Plans (LACAP) generates an expectation of what should be included in the LACAPs, all of which will have significant corporate, operational, and budgetary implications. The relevant recommendations are detailed in Table 1. below.

CCAC Chapter 3 Recommendation No.:	Adaptation Recommendation:
3.1	Previous Council recommendations remain critical, namely that an adaptation budget is set for 2030 and an assessment of what is required to make Ireland resilient by 2050 and beyond is undertaken, based on agreed consistent criteria. Specific funding for adaptation is needed from relevant departments, regulators, and local authorities. Investment from the private sector is essential to leverage the level of public finance currently available for adaptation.
3.2	Erosion, sea level rise and coastal storm events are being magnified by the changing climate. A clear and fit-for-purpose Coastal Management Strategy is urgently needed to help actively manage our changing coastlines and to support communities, businesses and households most at risk to build resilience.
3.4	It is essential that the Department of the Environment, Climate and Communications ensures policy coherence between the new National Adaptation Framework, the next iteration of sectoral adaptation plans and the local authority climate action plans that are currently under development.

3.5	There is a greater need for a mixture of top-down and bottom-up approaches and to engage communities, non-governmental organisations and the private sector in adaptation planning and implementation. This should be promoted through the new National Adaptation Framework, the next iteration of sectoral adaptation plans and the local authority climate action plans.
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Table 1. CCAC Review 2023, Chapter 3, Adaptation Progress in Ireland, Recommendations impacting Local Government

Chapter 3 of the Review contains an Adaptation Scorecard³ and results of all 11 sectors from which it should be noted that Local Government has achieved a ‘Good’ score. Although a welcome development reflective of the pro-active sectoral approach taken to date, it masks Local Government’s involvement in other sectoral areas that are scored as ‘No Progress’ or ‘Limited’ and ‘Moderate’. Local Government’s role in Biodiversity, Water Quality & Services Infrastructure, and Agriculture is well established and the sector will ultimately be expected by the relevant Government Departments to assist in the delivery of their obligations. The Adaptation Scorecard is reproduced hereunder.

Sector (department/of office responsible)	Risk, prioritisation and adaptive capacity	Resourcing and mainstreaming	Governance, coordination and cross- cutting issues	Overall	Trend
1. Flood risk management (OPW)	Advanced	Good	Good	Good	↔
2. Transport (DoT)	Advanced	Moderate	Good	Good	↑
3. Built and archaeological heritage (DHLGH)	Good	Good	Good	Good	↑
4. Local government (CCMA)	Good	Good	Good	Good	↔
5. Agriculture, forestry and seafood (DAFM)	Moderate	Good	Moderate	Moderate	↑
6. National adaptation framework (DECC)	Moderate	Moderate	Moderate	Moderate	↔
7. Water quality and services infrastructure (DHLGH)	Limited	Moderate	Moderate	Moderate	↔

³ CCAC Review 2023, Table 3-1 Adaptation Scorecard 2023 results for all 11 sectors

8. Communications networks (DECC)	Limited	Moderate	Limited	Limited	↔
9. Electricity and gas networks (DECC)	Moderate	Limited	Limited	Limited	↑
10. Health (DoH)	Limited	Limited	Limited	Limited	↔
11. Biodiversity (DHLGH)	No progress	Limited	Limited	Limited	↑

Table 2. CCAC Review Adaptation Scorecard

Scorecard findings highlight that impacts and results of some positive changes will only be realised in the coming years and are dependent on ongoing implementation. Further, reports from Local Government of inadequate human and financial resources present key challenges for adaptation. With regard to the former, long-term policy implementation often clashes with the shorter-term political cycle – an issue exercising the UK government presently – while recruitment issues and guarantees of multi-annual budgetary allocations have often manifested as system blockages. With regard to the latter, stronger political commitment to adaptation is advocated, as is leading by example with clear definitions of adaptation budgeting and impact, including designated adaptation budget spending.

Despite progress in certain areas, the CCAC is scathing in its view that there is limited evidence of the urgency necessary for the implementation of concrete adaptation actions. Pointing to a finding of the Department of Transport’s project management approach to monitoring, reporting, and evaluation of actions, the CCAC encourages other sectors to adopt a similar approach. In its view, the absence or non-functioning of strong internal co-ordinating structures is closely linked to poor performance and non-achievement of the actions outlined in sectoral adaptation plans.

Leadership buy-in and strong internal governance such as steering and other co-ordination structures is advocated, as is sectoral co-ordination, engagement with communities and NGOs and collaboration with the private sector. Indeed, a specific scorecard finding related to a greater need for a mixture of top-down and bottom-up approaches and for involvement of communities, non-governmental organisations and the private sector in adaptation planning and implementation.

On the positive side, the Department of Transport has received an overall ‘Good’ rating under the Adaptation Scorecard for its climate action efforts to date. More advanced than other Government Departments, it is engaging with other organisations and agencies in advancing its’ climate action agenda. Local Authority staff are currently undergoing training for the development of a Sustainable Mobility policy, which is being rolled out by the Department in collaboration with the National Transport Authority and Regional Assemblies. The sector can expect to engage with similar programmes as other Government Departments get up to speed.

Mitigation Issues and Recommendations

Reference is made throughout the Review of emission projections being ‘With Existing Measures’ (WEM) and ‘With Additional Measures’ (WAM). The WEM scenario assumes no additional policies and measures beyond those already in place by the end of the latest national greenhouse gas inventory year (2021) at the time of the projection's compilation. The WAM scenario assumes implementation of the WEM scenario in addition to, based on current progress, further implementation of planned Government policies and measures adopted after the end of the latest inventory year.

Table 3. below provides a summary of reported and projected emissions compared with carbon budgets for the period 2021-2030 (Mt CO₂eq). Project emissions are extracted from the most recent EPA ‘With Additional Measures’ scenario.

Carbon budget period	Sectoral emissions ceiling	Reported emissions 2021–2022	Projected emissions for remaining budget period	Cumulative emissions during budget period	Projected exceedance of sectoral emission ceiling
2021-2025	295	137	194	331	36
2026-2030	200	-	280	280	80
2021-2030	495	137	474	611	116

Table 3. Reported and projected emissions relative to Carbon Budgets for period 2021-2030.

Even at this early stage in the first carbon budget cycle, it is clear that the existing measures are insufficient to remain within the carbon budgets assigned. Furthermore, and based on

the most recent EPA projections, it is considered that even with WAM, emissions will exceed both the first and second carbon budget allocations.

Key messages in respect of mitigation reflect that Ireland has largely rebounded from the effects of the Covid-19 pandemic, resulting in 2022 emissions only reducing by 2.7% from 2018 levels and a modest 2% relative to 2021.⁴ Aside from missing the 2030 targets, it will result in a failure to meet our obligations under the EU Effort Sharing Regulation. It also notes that high growth together with high inflation and interest rates, supply chain issues, and skill shortages in key sectors, risk delays in making decisions to invest in low-carbon transitions on the ground.

As with Adaptation, the Mitigation recommendations that impact on the Local Government sector are detailed in Table 4 below. It should be noted that the majority of recommendations are addressed to the Government in the first instance. This should not be interpreted as absolving Local Government or other public sector agencies from their responsibilities as they will ultimately be required to deliver on the actions. Resources, co-ordination, integration, and engagement continue to feature as themes throughout the recommendations.

CCAC Chapter 4 Recommendation No.:	Mitigation Recommendation:
4.2	Government must redouble efforts to accelerate the deployment and prioritisation of key mitigation measures across departments and their agencies to make up lost ground.
4.3	The Council strongly recommends that urgent action is taken to reform and resource planning, licensing and regulatory systems across all levels of Government to achieve the level of investment, particularly in infrastructure, required to reduce emissions at the pace required by 2030.
4.5	Government must increase efforts to support all members of society in making the transition through the prioritisation, adequate resourcing and delivery of meaningful dialogue with civil society.
4.6	Government must increase and better coordinate efforts to support all members of society in making the transition through the prioritisation, adequate resourcing and delivery of meaningful dialogue and engagement with civil society to help individual and societal behavioural change.

⁴ Environmental Protection Agency, 'Ireland's Greenhouse Gas Emissions Projections 2020–2040', 2021. [Online]. Available: <https://www.epa.ie/publications/monitoring--assessment/climate-change/air-emissions/EPA-Irelands-Greenhouse-Gas-Emissions-Projections-report-2020-2040v2.pdf>

Table 4. CCAC Review 2023, Chapter 4, Mitigation – National and International Contexts, Recommendations impacting Local Government.

The CCAC does not mince its words when discussing exceedance of the carbon budgets stating:

A major barrier to Ireland meeting its objective of reducing greenhouse gas emissions at rates consistent with the carbon budgets is the current regulatory systems applying in many sectors. It is the responsibility of Government to deal with this; however, NCAP does not respond adequately to these barriers. This is not to underestimate the challenges in addressing these issues, which can involve national and EU legislative reform and perhaps raise other legal questions.⁵

Displacement of fossil fuels has been very gradual from 98% from the early 1990s to 87% of the energy supply in 2022.⁶ CAP 23 envisages a reduction to 57% by 2030. Such a target seems unattainable without a radical change to current policies and practice and the slow rate of progress to date does not instil confidence that it can be achieved.

Local Government will also play an important role in the bio and circular economy where the Review advocates an integrated and systems-based approach. Such an approach will be required to planning and development when the transition to a low-carbon, climate-resilient economy will see the emergence of greater and more renewable resources.

Sectoral Issues and Recommendations

Specific sectoral recommendations supplement the ‘Overall’, ‘Adaptation’ and ‘Mitigation’ recommendations. I have extracted those that relate or will impact on the Local Government sector and reproduced them in Table 5 below.

No.	Sector	Recommendation
1.	Electricity	<ul style="list-style-type: none"> • Government needs to conclude work on laying out where and what type of onshore wind should be allocated across the country. • Local Authorities need more assistance to help deliver onshore and offshore renewable energy applications more efficiently.

⁵ Annual Review 2023, Chapter 4, Poin4.2. Progress on Carbon Budgets

⁶ Sustainable Energy Authority of Ireland, ‘National energy balance 1990–2021’, 2023. <https://www.seai.ie/data-and-insights/seai-statistics/key-publications/national-energy-balance/> (accessed 5 July 2023).

2.	Transport	<ul style="list-style-type: none"> • Motor tax should be redesigned to promote energy efficient vehicles and should increase year on year. • Government should increase investment in public transport including the electrification of our bus fleet. In addition, there should be a focus on improving the reliability and efficiency of services. • The Local Authority in each of our main cities should introduce Park & Ride schemes along major roads and plan to reduce the number of public parking spaces. • Commuters should be motivated to opt for public transport and active travel. This would include updating the Tax saver commuter ticket and cycle to work schemes, and the introduction of parking levies at workplaces in our main cities. • Locating homes closer to businesses and services can help to reduce our dependency on private cars. The new national planning framework needs to better reflect our climate ambitions.
3.	Enterprise & Waste	<ul style="list-style-type: none"> • Government should urgently update building regulations to increase the use of timber in construction and also encourage greater usage of lower carbon cement and concrete. • Government should work to find ways to help industry to become more energy efficient and less reliant on fossil fuels. • Public education campaigns and economic incentives for businesses and households are required to achieve targets on food waste and food packaging waste.
4.	Built Environment	<ul style="list-style-type: none"> • More urgency and ambition is required in developing district heating schemes, taking on board lessons from other countries where they already supply a significant proportion of heat. • Large energy users, including data centres, should be obliged to supply their excess heat to local communities to support district heating schemes. • Budget 2024 should set a target of all social housing being upgraded to a building energy rating of B2 or connected to a district heating network by 2030. • The numbers of retrofits being carried out each year needs to increase. Homes that use peat or coal as their main heating fuel should be prioritised.
5.	Adapting to the impacts of Climate Change	<ul style="list-style-type: none"> • Government should set out a budget for developing our resilience to the effects of climate change. Given rising sea levels, a Coastal Management Strategy is urgently needed to help actively manage our changing coastlines. • Communities, non-governmental organisations and the private sector must be involved in adaptation planning and implementation.

Table 5. CCAC Review 2023, Sectoral Recommendations impacting Local Government.

Comment

Ireland's policy response to the challenges is contained in the National Climate Action Plan 2023 (a more ambitious successor to the earlier 2021 Climate Action Plan). Notwithstanding the State's record and ability in formulating and adopting good national policy, the CCAC Review 2023 highlights poor performance and inability to implement that national policy effectively.

Two years into the first five-year sectoral carbon budgets, the Review has succeeded in prioritising climate issues within the wider public sector and successfully raised awareness of the scale of the challenge, stating clearly that Ireland is set to exceed the emission targets. It is evident from the data that agencies on their own cannot meet their obligations. The existing way of doing business is not addressing the climate issues and is failing the climate agenda.

To redress the situation, public sector organisations and agencies, who by their nature are slow to change, are effectively being challenged to advance a culture change at an unprecedented rate. They operate in accordance with the statute that established them, which is often on the basis of long-standing tradition, custom and practice. Yet the 2030 targets remain and are unlikely to be changed.

Public sector agencies are legislatively required to meet emission targets and are encouraged to assume a leadership role in respect of climate action. For most organisations, the climate challenges are relatively new and operate largely outside their traditional functional remit. Operating in accordance with their statutory limitations, agencies have limited experience in collaborations or initiatives of a type required or envisaged in CAP 23 or Review 2023. Nor do they have the required human or financial resources, raising questions as to their preparedness for such organisational pivots. Difficulties also exist when implementing long-term policy objectives within short-term political cycles, and bureaucratic and system blockages have been identified that require attention.

Such reasons may explain implementation failure and missed targets, but they won't absolve agencies from their obligations. It seems inevitable therefore that the oversight architecture

established under CAP 23 will be brought to bear on the wider public sector and climate action will feature more prominently at both strategic and operational levels throughout the sector.

What then are the solutions and is the climate agenda being seen as an opportunity or threat to public sector agencies? Notwithstanding the undoubted threats, there is a strong argument that considerable opportunities exist. Capitalising on the opportunities and encouraging behavioural change requires not only urgency and ambition as recommended in the Review, but also:

- Creation of multiple collaborations and partnerships,
- Identification of and quick resolution of system blockages,
- Provision of human and financial resources, and
- Extensive engagement and consultation with non-governmental organisations and local communities.

Ample opportunities exist across the spectrum of public sector organisations for the establishment of strategic alliances capable of accelerating the climate action agenda beyond the current slow rate of progress and identification of bureaucratic and system blockages. For the purposes of this briefing, a focus on the potential for an alliance between Local Government and the Sustainable Energy Authority of Ireland (SEAI) is worthy of consideration.

In existence for over a century, Local Government concerns the operation of democracy closest to the people and whose reach into every parish and community is unparalleled among public sector agencies. Community involvement is formalised through the operation of a Public Participation Network (PPN) in each Council. The PPN for its part is comprised of local community leaders from resident associations, community councils, local development companies, tidy towns committees and environmental groups among others, and contributes to policy making through representation on each Council's statutory Strategic Policy Committees (SPC).

Having established itself nationally within a short timeframe, SEAI is a relatively new agency with an impressive array of well-designed mitigation schemes and incentives targeting specific audiences and backed by Government funding. But it has yet to achieve the reach of Local Government into all sections of the community and as such, it is worth exploring the merits of an alliance between the agencies for the advancement of climate actions of mutual interest and concern. Considerations for an alliance include effectiveness and efficiency gains arising from joint action, community, and other benefits to be accrued, rate of acceleration of climate action among the community, potential for generation of momentum for climate friendly practices, contribution to positive behavioural change, and the ability to meet the 2030 targets.

Some of the potential areas of collaboration include assistance with the development of the SEAI's Sustainable Energy Community scheme (SEC)⁷ of which there are currently 750 throughout the country, and rollout of their One Stop Shop (OSS)⁸ network. A potential for a rapid expansion of SECs exists by tapping into the Local Government's long-standing relationship with local communities.

Other benefits include district heating, which is well established within Europe but new in an Irish context. Given this background, South Dublin County Council demonstrated leadership and innovation when collaborating with Amazon Web Services to harness excess heat from a newly constructed data centre for use in a local district heating scheme with technical advice being provided by Codema, the Energy Agency operating primarily in the greater Dublin region. Meanwhile, SEAI has been tasked by Minister Eamon Ryan with establishing a district heating centre of excellence within SEAI. As district heating networks will be located underground in public lands, the involvement of Local Government would seem to be critical to the rollout of such schemes across the country.

For Ireland to develop competency in district heating, co-ordination, and collaboration between Local Government and SEAI would appear to be a critical success factor and prerequisite for its development and roll out. Technical aspects of district heating will be the

⁷ <https://www.seai.ie/community-energy/sustainable-energy-communities/>

⁸ <https://www.seai.ie/grants/home-energy-grants/one-stop-shop/>

easiest to resolve. Other issues will be more difficult. They include but are not limited to availability of renewable energy sources, finance, public private partnerships, governance structures, pricing and charging mechanisms, and establishment of Designated Activity Companies (DAC) for the ongoing operation and management of district heating schemes.

Technological University Dublin (TUD) has identified a geothermal energy source on its Grangegorman campus. Harnessing the source for use on campus will contribute to TUDs' zero carbon objectives but requires significant investment from the private sector, Government, or both. Should the geothermal energy source be sufficient, it's worth considering whether it could be fed into a district heating scheme that could benefit other public sector agencies within the area. Multiple agencies operate within a one-kilometre radius including Dublin City Council high density social housing schemes, four national and two second level schools, Kings Inns, District Court, Arbor Hill Prison, Bus Eireann depot, and HSE offices. Extending another kilometre would take in the Bridewell Garda Station, Four Courts, Mater and Rotunda Hospitals, and Mountjoy Prison.

All of the above agencies have a CAP 23 obligation to address their carbon footprint, all will incur significant retrofitting costs and if they proceed on an individual basis, and all will have to design and separately procure contractors to undertake the retrofit. Given the potential renewable energy source, there is merit in comparing the costs and benefits for each agency proceeding individually as against the agencies collaborating in a district heating scheme for the benefit of all. It will be a matter for the agencies themselves to decide who will take the initiative and lead on such a project but involvement of both Local Government and SEAI would appear to be a prerequisite.

Similar collaborative opportunities exist outside of Dublin. Kildare County Council is examining a potential 'Grass to Gas' project where cut grass is used as a raw material for an anaerobic digester (AD) producing renewable energy gas. Likewise, Monaghan County Council is seeking to collaborate with the private sector to use poultry litter as a raw material in an AD plant. An alliance between the agencies would be equally beneficial for these initiatives and present the possibility of being scaled up throughout the country in tandem with the proposed CAP 23 action to develop a network of AD plants.

Local Authorities are required to advance Decarbonised Zones (DZ) within their administrative areas. As with district heating, a DZ is a new concept requiring considerable co-ordination and collaboration with local communities and a variety of local and national agencies. While varying in complexity, district heating schemes will likely feature as part of the decarbonising process and a collaboration with SEAI in that context would also prove beneficial.

With regard to social housing and the Review's recommendation for an increase in housing retrofits, additional benefits could be gained from the suggested alliance. As Local Authorities advance their regeneration and retrofit plans for social housing estates, the application of SEAI's Warmer Home Scheme (WHS)⁹ to eligible households in privately owned houses – often former Council houses purchased under a tenant purchase scheme – within those estates will facilitate greater economies of scale and streamline procurement obligations.

The WHS is structured and targeted at private households in fuel poverty. Operating through different budget lines and different Government Departments, Local Government cannot apply the WHS to its retrofit and regeneration projects resulting in each national agency having to separately design and procure separate contractors for similar work in the same estate. Adjustment of the Warmer Home Scheme will be required as will agreement between two Government Departments having regard to the funding arrangements.

Development of strategic alliances between public agencies will identify these and other bureaucratic blockages, all of which will require to be addressed urgently. By way of a further example, Limerick City & County Council has developed a tidal turbine project to harness renewable energy from the Shannon but cannot put it into operation due to a delay (deemed to be 18-months before it could begin to be assessed) in acquiring a Foreshore Licence. Identifying and addressing these bureaucratic and system blockages quickly is essential if innovative solutions contributing to lower carbon emissions are to be mainstreamed. Strategic alliances will assist the identification process.

⁹ <https://www.seai.ie/grants/home-energy-grants/fully-funded-upgrades-for-eligible-homes/>

In summary, a strategic alliance between Local Government and the SEAI would appear to be appropriate, timely, and an astute move in furtherance of the 2030 carbon budget targets. Given the potential for benefits in this case, the issue of other strategic alliances should be urgently pursued by all public sector agencies.

Conclusion

CAP 23, an all-inclusive and ambitious policy aimed at addressing climate action, was adopted by Government on 21st December '22. Some seven months later, the CCAC launched its Annual Review on 25th July '23 and although acknowledging and giving credit for the climate action progress made, was blunt in its overall assessment, concluding that even with additional measures, Ireland will fall far short of its emission targets by 2030.

An assessment of the CCAC Annual Review 2023 indicates a lack coordination, action, collaboration, ambition, finance, and human resources to reach our carbon emission targets. It reinforces the view that Ireland is good at forming policy, but poor at implementation and creates a perception of a lack of leadership within the public sector on climate related issues.

Such an assessment however masks the nature and extent of climate related activity currently underway within the public sector and the momentum now evident for further climate action. While the 2030 targets are set and immovable, it remains to be seen whether the public sector can assume the leadership role envisaged and through innovation, co-ordination, collaboration, and strategic alliances, close the emissions gap during the second five-year carbon budget period.