



An Roinn Fiontar,
Turasóireachta agus Fostaíochta
Department of Enterprise,
Tourism and Employment

Driving Cost Savings for Business Through Industrial Decarbonisation





Ministers' Foreword

**Minister for Enterprise, Tourism and Employment, Peter Burke T.D., and
Minister for Climate, Energy and the Environment, Darragh O'Brien T.D.**

Since taking office, this Government has committed more than €300m¹ in funding to drive the decarbonisation of Irish industry. We are doing so because investing in energy efficiency, renewable heat, electrification and innovative low-carbon technologies reduces energy costs, which mean companies become more competitive and, crucially, have greater energy security.

These industries have long been central to Ireland's economic growth. Be it manufacturers, life sciences companies, technology firms or food producers, many have been rooted in Ireland for decades, and employ thousands of people across the country. Notwithstanding their success, since 2018 industrial emissions are no longer tied to economic growth. This step change is due to industry reducing their Scope 1 direct emissions and Scope 2 indirect emissions, for example, those power sources they buy to run or heat their factories.

The case studies highlighted in this report show the high degree of innovation involved in the decarbonisation projects that companies have undertaken. In

¹ Since January 2025, €321m has been committed through the range of funds available for industrial decarbonisation offered by IDA Ireland, the Sustainable Energy Authority of Ireland and Enterprise Ireland.

some, Ireland has been the test bed for work which has informed global projects elsewhere. Back home, through the Shared Island Fund, it has also been an opportunity for companies to work collaboratively on a cross-border basis.

All have been incentivised through government funding allocated by three state agencies: the Sustainable Energy Authority of Ireland, Enterprise Ireland and IDA Ireland. These agencies have been instrumental in supporting these large-scale projects, not least through their technical knowledge and expertise.

Through the decarbonisation funding our two Departments have provided to industry, we can see the appetite and ambition among Industry to decarbonise. Moreover, we recognise the importance of working with these industries to make them more competitive and, amid global fuel volatility, give them greater energy security.

Go raibh maith agaibh.



A handwritten signature in blue ink that reads "Peter Burke".

Peter Burke T.D.

Minister for Enterprise,
Tourism & Employment



A handwritten signature in blue ink that reads "D. O'Brien".

Darragh O'Brien T.D.

Minister for Climate, Energy
and the Environment



Introduction

For decades several Irish industries have been at the vanguard of investment in sustainability. Since industrial emissions peaked, Irish based companies have been among the first movers internationally to switch the heating of their plants and processes from coal to gas, and now to renewable fuels. Funded by the Sustainable Energy Authority of Ireland (SEAI), IDA Ireland and Enterprise Ireland (EI), these companies have not only installed cutting edge wind, solar and biofuel technologies, they have also significantly increased their energy efficiency.

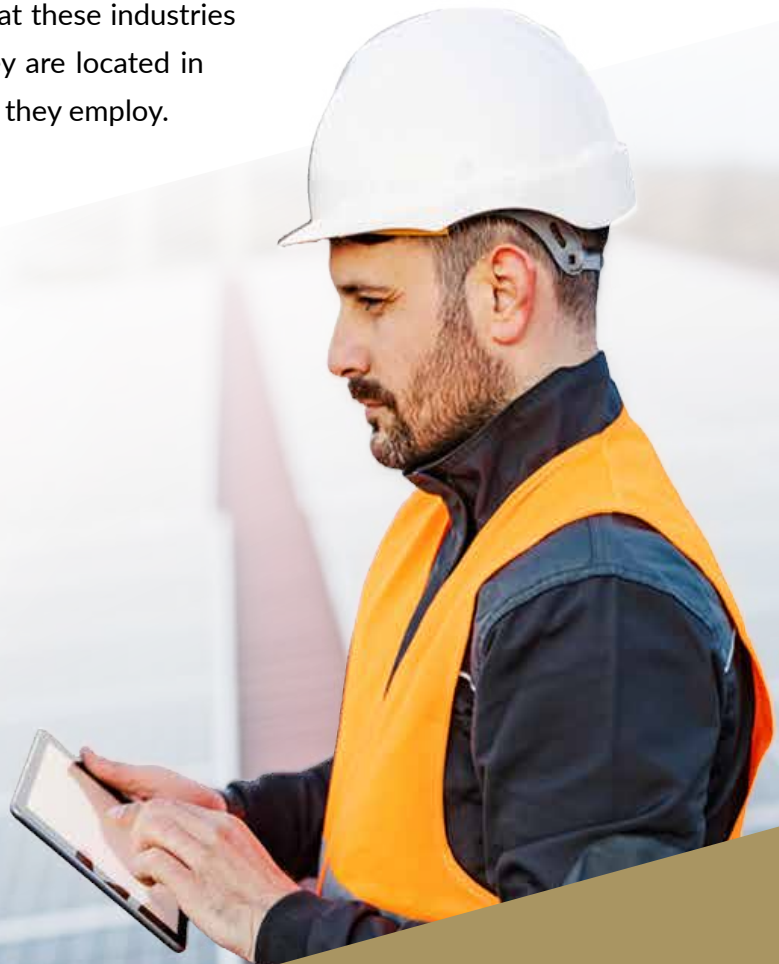
This drive to electrification, renewable fuels, and greater energy efficiency, has reduced Ireland's industrial emissions by 15.9% on 2018 levels to date. It has also made these industries more competitive as by switching to renewable fuel sources they have cut their energy costs. Crucially too it has also given them greater energy security, as they are no longer solely reliant on fossil fuels. The impact of Ireland's exposure as a fossil fuel importer was once again brought into sharp focus when oil prices rose following the war in Iran, just as they did when Russia invaded Ukraine, affecting both businesses and consumers.

In recognition of the benefits brought by decarbonisation, Minister Burke made circa €300 million available through his Department's capital plan for the client companies of IDA and Enterprise Ireland for large-scale investments. As a result, over the past two years, the scope and pace of these investments have accelerated with more than half of this fund already allocated to support 43 investments in

decarbonisation. These grants are backed by more than €1bn of private investment from the companies involved, which is a clear indication of how important these decisions are taken at the highest levels in these organisations.

Furthermore, many of these investments are so technologically advanced, that they are the first of their kind for some multinational organisations, with their global sustainability leads often Irish based. The SEAI's industry and commercial grants have been supported by the Department of Climate, Energy and the Environment's capital plan, which will provide up to €200m to the SEAI schemes out to 2030. Some industries are even going a step further and, with the support of the Shared Island Fund through the Department of An Taoiseach, EI and their counterparts in Northern Ireland, are investing in technologies never before used in Ireland.

This report gives examples of how Irish based industries are investing in decarbonisation, and from a company perspective, why they are doing so. It also sets out the return on the investment for the State, and the business, and makes the case for this progress to continue so that these industries can continue to grow and invest in the towns they are located in across the country, and in the thousands of people they employ.





Industrial Decarbonisation

Ireland's largest industrial emitters are primarily in the cement, alumina, food & beverage, pharmaceutical and chemicals sectors. From advanced manufacturing in the Midlands to life sciences in the West, Dairy in the South and tech clusters in Dublin, these industries employ thousands of people across the country, generate billions in revenue annually, and are critically important for the Irish economy.

Many of Ireland's leading manufacturers compete globally on the energy and carbon efficiency of their production processes. Their customers and global strategies are requiring even greater innovation and competitiveness in these supply chains. For Irish production to continue to compete in these markets, and lead in product innovation, a step change in investment will be required.

Currently however, much of Ireland's energy system and manufacturing sectors are highly dependent on imported fossil fuel, and natural gas in particular. This reliance on fossil fuels puts Ireland at a strategic disadvantage compared to other developed nations whose scale of decarbonisation far outstrips Ireland's.

The principal of decarbonisation as a driver for competitiveness was recognised by the European Union in its flagship 2024 report *The Future of European Competitiveness*, while the Government's *Action Plan on Competitiveness and Productivity*, identified that Ireland's future economic growth will be constrained unless new and existing industries can be offered reliable renewable energy sources.

In addition, under the Climate Action Plan, the Government has committed to reducing emissions by 51% across all sectors of the economy by 2030, compared to 2018 levels, and to become net zero by 2050. Under the agreed Sectoral Emissions Ceiling (SECs), the Minister for Enterprise, Tourism and Employment has responsibility to reduce industrial on-site emissions in the manufacturing sectors by 20% by 2025 and by 35% by 2030, relative to 2018 levels.

Enterprise Agencies

To meet these complementary competitiveness and decarbonisation objectives, the Department of Enterprise, Tourism and Employment's developed a *Roadmap for the Decarbonisation of Industrial Heat*, and the Minister for Enterprise, Trade and Employment announced a circa €300m Fund in June 2024. Using the Environmental Aid Scheme, the Fund is being used by Enterprise Ireland and IDA Ireland to support investment in energy efficiency; to promote the uptake of energy from renewable sources and to encourage environmental studies.

More than half of this Fund has now been allocated, some to sectors which up until recently had not made largescale decarbonisation investments. Others to ones which have been continuously innovating and looking for decarbonisation solutions. They are often long-term projects which can take up to five years to realise.

The EI and IDA Environmental Aid commitments will have an associated emissions savings of approximately 214,210 tonnes of CO₂ equivalent following completion. Both agencies have other decarbonisation commitments in place worth €141m, which are funded through other streams including some projects which began prior to the introduction of the circa €300m Fund. These have an expected emissions savings of 132,167 tonnes of CO₂ equivalent. This brings the total commitment to abate emissions through investment in industrial decarbonisation since 2022 to more than 346,377 tonnes of CO₂ equivalent. The cost per tonne of carbon abatement varies depending on how advanced the decarbonisation projects are and differs from sector to sector.

SEAI's Large Industry Energy Network

Most of the companies supported by EI and IDA, are also part of the Sustainable Energy Authority of Ireland's (SEAI) Large Industry Energy Network (LIEN) which has more than 200 active members. Now thirty years in existence, the Network has been working with industry in Ireland to improve energy performance, reduce emissions and build competitiveness. Its members employ over 140,000 people and spend over €2.2 billion on energy annually.

Falling Industrial Emissions

Another key feature of Ireland's industrial emissions is that they are now decoupled from economic growth. Since industrial emissions peaked in 2021² Ireland's population³ and economy (GNI⁴) have grown significantly but industrial emissions have consistently declined.

In 2025, industrial emissions dropped to 6.0 Mt CO₂eq., which is a 15.9% decrease on 2018 levels. Manufacturing combustion was the main source of industry emissions in 2025 at 4.2 Mt CO₂eq. (67% of total industrial emissions). Process emissions, mostly from the cement sector made up the balance 1.83 Mt CO₂eq.

This is ahead of the Environmental Protection Agency's (EPA) with additional measures estimate of an 11.8% decrease from 7.1 to 6.3 Mt CO₂eq. between 2018 and 2030. Hard to abate sectors such as the cement sector achieved a reduction of 24.1% since 2018, from 2.9 Mt CO₂eq. in 2018 to 2.20 Mt CO₂eq. in 2025.

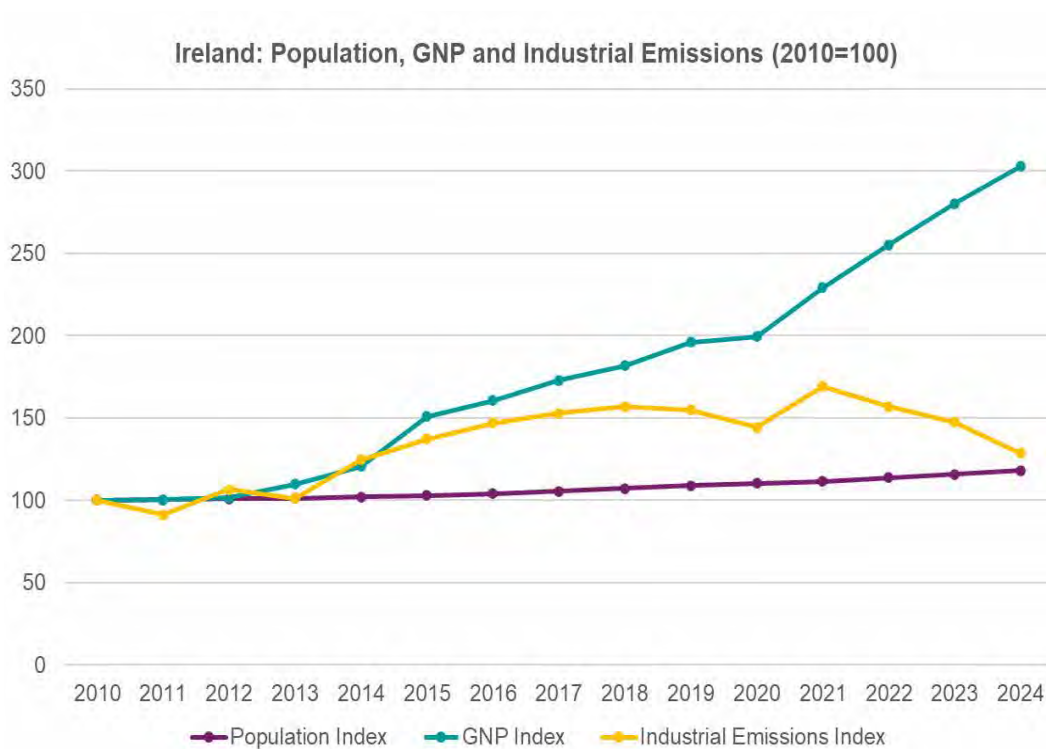
² [Ireland's Provisional Greenhouse Gas Emissions 1990 - 2025](#)

³ [Population Changes Census of Population 2022 - Summary Results - Central Statistics Office](#)

⁴ [Modified GNI - CSO - Central Statistics Office](#)



The Environmental Protection Agency (EPA) makes projections for industry and other sectors using a structured modelling framework, detailed assumptions, and policy-based scenarios, however they do not include the impact the investment commitments made by the client companies of EI, IDA and the SEAI will have on emissions' levels.





Case Study

Kepak is an Irish based food company serving international markets, restaurants and household food service names. Employing more than 2,500 staff, Kepak is a long-time member of SEAI's Large Industry Energy Network, and an Enterprise Ireland client. It is committed to reducing absolute Scope 1 & 2 Greenhouse Gas (GHG) emissions by 52.3% by 2030 and has focused on developing a culture whereby energy metrics are managed in the same way as other KPIs.

In addition to a local site efficiency management system, Kepak has made several large investments supported by SEAI grant funding, including: the installation of a wind turbine at Watergrasshill, and a thermal water tank which uses the excess electricity generated by the turbine. Kepak developed *Robotic Process Automation* technology to manage the variables within this system.

As a result, Kepak has reduced energy costs by over €430,000 per year across all seven sites, a 12.2% reduction. Carbon emissions have meanwhile fallen by 41.8% and water consumption by 15.2% since the baseline year of 2018.



For us, decarbonisation is about building a more competitive and resilient business over the long term. The key is integrating energy efficiency, operational discipline and data led decision making into everyday performance, rather than treating sustainability as a separate agenda.

That approach allows us to reduce emissions while ensuring investment in low carbon technologies delivers real operational and commercial value."

Brian Torney, CEO of Kepak's Meat Division



All Island Approach

Enterprise Ireland has also taken their decarbonisation brief a step further by building productive links with their counterparts in Northern Ireland, Invest NI, using the Shared Island Fund. In 2024, the two agencies received €20m in funding through the Department of An Taoiseach to operate a Sustainability Demonstrator Fund which is designed to support novel solutions in sectors that are particularly difficult to decarbonise.

This Demonstrator approach is particularly significant in Ireland, as it allows sectors to test the efficacy of innovative low-carbon alternatives. Furthermore, if the technology is proven by one company, it has the potential to transform the sector it is operating in if others adopt it.

The first project is a biomass burner that will be an All-Island first demonstrator of a new reliable dynamic high heat source for industrial dairy processing plants. The burner will remove fossil fuels from the heating process and will significantly reduce emissions on site. The second is a move to using unrecyclable glass, North and South, as a supplementary cementitious material as a part high-carbon cement replacement. The projects combined will remove approximately 37,500 TCO₂.

Given these successes EI and Invest NI submitted a fresh application to the Shared Island Fund and have been awarded funding for a new sustainability challenge fund which will support first-of-a-kind industrial sustainability projects in defined

challenges areas, Flexible Industrial Electrification, Hard-to-Abate Climate Tech, Water Efficiency and Circularity. These are key areas of opportunity for industry to accelerate decarbonisation and strengthen competitiveness with high potential for replicability across the Island.

Not only does access to the Shared Island Fund build productive links between State agencies and industries North and South, but it may also give companies greater access to EU funding.





Case Study

Enterprise Ireland (EI) has made significant progress in decarbonising its large industry clients, with a 23% emissions reduction achieved in 2025 against the 2018 baseline level. Among Irish industry, the cement sector is the largest single CO₂ emitter, with four production plants ranking in the top five of industrial emitters in the country⁵.

The Environmental Aid fund has allowed EI to engage with cement producers to develop deliverable and investible emissions reduction strategies supporting more than €40m in expenditure at Mannok Cement, Irish Cement, Techrete and Ecocem. These first investments will reduce emissions by 90,000 tonnes of CO₂ per annum, the equivalent of almost twenty thousand households⁶.

⁵ Enterprise Ireland clients accounted for an estimated CO₂ footprint of 4.05 Mt CO₂ in 2018, primarily from the manufacturing sector and process emissions from the production of cement which accounted for 2.9 Mt CO₂ on its own.

⁶ In 2022 the average home emitted 4.6 tonnes of energy-related CO₂.



Mannok is actively working with global partners and collaborating with cross-industry specialists to utilise, and help develop, innovative technology in our emissions reduction efforts.

Decarbonising production will require significant investment, but it will also drive innovation, competitiveness and sustainable growth. The transition to net zero will depend on innovation in alternative fuels, carbon capture, low-carbon products across the construction value chain.

Public policy, industry investment and technological innovation must work together if Ireland is to achieve its climate ambitions while maintaining a resilient and low carbon construction sector.”

Kevin Lunney, COO at Mannok



Accelerating Industrial Decarbonisation

There is a clear appetite from industry to become more competitive and achieve greater energy security by switching to renewable fuels. What is more, companies are approaching decarbonisation with a strong financial commitment and an innovative mindset, open to new technologies.

Undoubtedly a catalyst for this has been the funding provided to businesses by Government. There remains however several structural barriers to electrification, including:

- The higher costs of electricity, which makes electrification expensive compared to using natural gas (the Spark Gap).
- Delivery of electricity grid infrastructure, grid connection times and costs.
- Development of a biomethane sector.

These barriers are reflected in the recently published International Energy Agency's (IEA) Report on Ireland's power sector *Powering Ireland's Energy Future* which acknowledges the need for 'faster permitting, proactive supply chain management, as well as incentives and connection requirements for higher demand flexibility to ensure grids, generation and flexibility resources are ready when needed'.

The Government's plan to address them is set out in: the *Roadmap for the Decarbonisation of Industrial Heat* which gives industry a pathway to the renewable fuel best suited to their business; the *Accelerating Infrastructure Report* which commits to major reforms to Ireland's planning, legal and regulatory systems; and the *Large Energy User Action Plan* which shows how future large industries will develop sustainably.

The implementation of these policies along with reducing the cost of electricity and working with Industry to allow them to benefit from flexible use are key to encouraging greater rates of electrification. Continued State investment in industrial decarbonisation is also pivotal to not just reducing Ireland's emissions, but also to making these important regional employers more competitive by reducing their energy costs and ensuring they have greater energy security.



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