

CASTING A **SUSTAINABLE** FUTURE IN CONCRETE

SUSTAINABILITY STRATEGY



**Our Roadmap
to Net Zero by
2050**



CREAGH
INNOVATION IN CONCRETE

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“Creagh are very aware of the environmental impacts of our products & activities. We have developed our Roadmap to Net Zero, which through strategy & innovation we will mitigate and eliminate our carbon emissions”



Jeanus M'Keaghe

Chairman - Creagh Concrete Products Ltd

Our Net Zero Vision

Creagh is a family owned local company with several facilities throughout Northern Ireland, Scotland and England.

We view our business units as community led and work tirelessly to promote diversity and inclusion across our company. We have led and supported charitable work in remote areas of the world, predominantly through our human capital investment with Habitat for Humanity Ireland.

Our MD Seamus McKeague, pictured to the right, held the Chair of the NI region for Habitat for 11 years, with senior management support from Creagh's leadership team. Seamus continues to advocate an ethical approach to business and community; evidenced by the multitude of charitable work led by the company board and family.



The above bio has a direct link to environmental sustainability which is primarily based on ethics, or 'doing the right thing' for the local communities we operate in & the global environment. We are committed to eliminating emissions where possible, and further mitigating emissions across the company, where necessary we will offset residual emissions.

Net Zero Roadmap

We have developed our Net Zero Roadmap which strategically aims at removing carbon throughout the company (Scope 1&2 emissions) and supply chain (Scope 3 emissions)

Our base year is 2019 and we have aligned our objectives closely with our sector's Net Zero Roadmap - 2050, with 5 yearly milestones to achieve Net Zero Carbon Emissions.

The sector faces significant challenges due to the nature of cement manufacturing which is a key ingredient in our products and is outside our direct control.

We will however continue to influence change and innovation in the sector through our memberships of several industry bodies (below) which are working tirelessly to eliminate entrained carbon from cement and subsequently our products.



Along with industry stakeholders, including customers, our collective aim across the sector is to decarbonise the build environment through novel design and collaborative research with industry partners and academics at leading universities.

Current progressive measures in place include a reduction in cement content from Cem I to Cem II which reduces the percentage content of cement in products by using an alternative lower carbon ingredient.

Cem I is a traditional Portland Type Cement

Cem II is a novel cement developed by industry and presents the same robust characteristics for our Products as CEM I with 22% lower embodied Carbon

Since adoption of the Cem II in cement in 2020 (Northern Ireland) we have eliminated over 17,000 tonnes of carbon from our products and continue to promote this and further innovation in our Roadmap.

By innovating in the 'Ready Mix' segment of our product offerings we have established a technical methodology which reduces the carbon intensity of our product whilst retaining the robust characteristics required by our customers.

This innovation was introduced in 2023 and is projected to reduce carbon emissions by 544 tonnes annually.

In 2023 our Technical Team in collaboration with a leading local university developed a process which enables a further 5.3% reduction of Cem II cement in our product lines resulting in an annual carbon reduction of 1528 tonnes*.

* subject to production volume



Our Net Zero Roadmap plan illustrates our commitment to achieving Net Zero Emissions from our operations with 5 yearly milestones designed to ensure our trajectory and strategy are in line with the objective.

Table 1. below lists examples of the techniques and technologies we will deploy and manage throughout our Roadmap journey to decarbonizing our company.

Table 1.

| |
|--|
| Procure zero low carbon cement from carbon capture & storage based suppliers |
| Invest in hardware and software to monitor, measure & report on energy use |
| Procure renewable electricity across the group |
| Implement a company car policy resulting in low & zero carbon vehicles within the fleet |
| Convert heavy plant vehicles to hydrogen, renewable fuel or electrical power when viable |
| All thermal energy switched to renewable sources when technologically & economically viable |
| Large motor replacement programme to high efficiency motors |
| Expand renewable electricity generation technology complimented with battery storage |
| Reduce or replace steel in our products with alternative low / zero carbon products |

Deployment Net Zero Roadmap

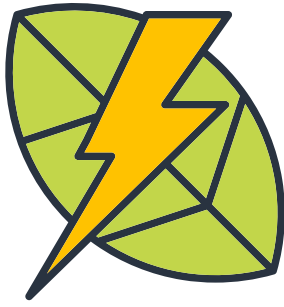
The deployment of our Net Zero strategy will depend on a number of variables. Specifically; emerging technological transformations and the economic viability of other improvement opportunities.

Other opportunities such as policy developments, energy management, responsible sourcing, renewable energy procurement, materials reuse, repurposing and recycling. Behavioral change techniques are at the forefront of our early action plans with energy management driving efficiency aligned with the international standard for energy management; ISO 50001 underway.

The board will review progress against tactics annually and adjust strategy to align with developments within our business sector whilst continuing to grow Creagh's space in the market which is predominantly innovative product offerings created for leading edge clients across UK & Ireland.

Appendices 1-5 demonstrate carbon reduction and management actions completed and ongoing under the auspices of Operational Excellence and implemented through Continuous Improvement assessments.





Energy Policy

Creagh Concrete Products Ltd are committed to the principle of excellence in Energy Management.

Our Energy Management processes are aligned with the international energy management standard ISO 50001 which parallels with our Environmental Standard Certification to ISO 14001.

We have invested in 'on site' renewable electricity generation resulting in zero carbon emissions from this technology, excess generation is exported to the electricity grid contributing to lowering grid carbon. This compliments our strategic approach to our procurement of renewable electricity.

Monitoring & Measurement technology: The company has invested in a 'pilot' scheme of automatic monitoring of significant energy users, the technology provides granular energy use data which enables analysis for targeted energy reductions. We have a strategic plan to expand this technology across the group.

Transport energy is a major contributor to our energy use profile and forms a key area for energy efficiency. Truck replacement policy; new trucks will meet the latest Euro Standard for safety and efficiency. Company cars and vans are transitioning to full electric where practical and hybrid as a minimum. We are investing in an electric charging station available to employees and the public at one of our facilities located on a major transport route supporting the national charging infrastructure and Government policy on decarbonising the transport sector.

Driver behavioral performance is managed through driver efficiency training and analysis enabled through vehicle telematics providing a tool to celebrate and improve efficient & inefficiency driving practices.

Everything we do at Creagh is predicated on being the best, reducing and decarbonising energy forms a pivotal aspect of how we do business and is subject to continuous improvement of our performance. This policy is available to all stakeholders internally and externally through usual communication platforms.

Chairman - Creagh Concrete Products Ltd



Energy Efficiency



Here at Creagh the executive team are aware of their responsibilities to demonstrate the company's commitment to reduce the environmental impact of its products and activities.

As part of Creagh's drive towards Net Zero Carbon Emissions the company are continuously investing in energy efficiency enhancements manifested through embracing innovative technologies and predictive maintenance practices.

Through a dedicated Predictive Maintenance Programme our site engineers optimised absorbed power from our electricity supply by replacing deteriorating capacitors this optimised power usage by 8% reducing the total power required from the national grid resulting lower carbon emissions

135
135 tonnes of carbon eliminated over 5 years equates to:



24 large detached family homes electricity use in one year





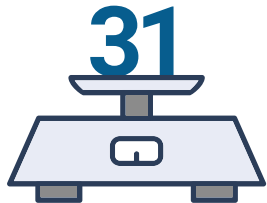
Heavy plant investment

As part of Creagh’s drive towards Net Zero Carbon Emissions the company are continuously investing in high efficiency heavy plant.

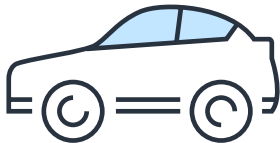
Over the company’s 50 year history strategic investment has positioned the business an optimal ‘Vertically Integrated’ status, as such the company owns and operates several quarries, enabling Creagh’s strict policy criteria for Responsible Aggregates Sourcing, such as high quality sand and gravel. In Northern Ireland aggregates are all sourced within a 25 mile radius of the main product facility at Toome, Co Antrim, thereby eliminating significant transport miles compared with competitors, importantly delivering lower embedded carbon build choice for

Creagh’s valued customers who continue to push the boundaries in the Sustainable Build Environment.

Digger replacement for higher fuel efficient model reducing fuel demand, resulting in lower carbon emissions.



31 tonnes of carbon eliminated equates to:



72,902 miles in a standard family car

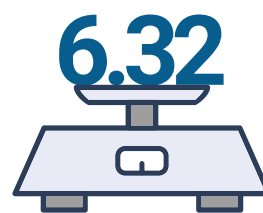
High Efficiency Air Compressor

The air compressor was installed with optimal design characteristics in mind, during the scoping stage the internal engineering team determined how to produce maximum energy from the compressor and utilise resulting heat which is a by-product of compressing air.

As cold air is denser than warm air it requires less energy to compress, it was important to ensure intake air was drawn from outside the manufacturing building avoiding warm air, the team ducted the air intake manifold to an exterior wall to achieve the objective. Given the production facility requires heat to expedite the cement curing process the heat byproduct was directed internally thereby supplementing the heating systems used in the manufacturing processes.

Through a dedicated Predictive Maintenance Programme our site engineers invested in a high efficiency air compressor deployed in our stairs manufacturing facility at our Toome Site.

This innovative investment forms part of Creagh's commitment to decarbonising the build environment as communicated through the Company's Net Zero Roadmap.



6.32 tonnes of carbon eliminated equates to:



Equal to replacing 24,000 household bulbs to LED bulbs

Download a copy of our Net Zero Roadmap



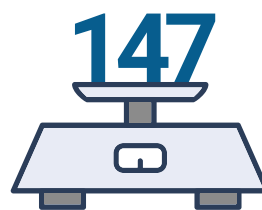


Renewable Energy

Here at Creagh the Executive Team are aware of their responsibilities to demonstrate the company's commitment to reduce the environmental impact of its products and activities.

As part of Creagh's drive towards Net Zero Carbon Emissions the company has invested in Zero Carbon electricity generation via a Wind Turbine. This strategic investment forms part of Creagh's commitment to decarbonising the build environment as communicated through the company's Net Zero Roadmap the global drive to decarbonise our atmosphere contributing to cleaner air and limiting global warming.

In 2022 the company produced 662 Mw of renewable electricity enough to power 98% of its largest flooring manufacturing factory. This directly reduces the electricity supply pressure from the national grid by 662 Mwh. The facility exported 388 Mwh electricity to the grid supporting the global initiative to decarbonise electricity. Reducing 147 tonnes of carbon.



147 tonnes of carbon eliminated equates to:



Fly 56 people return from London to LA

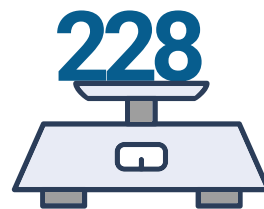


Natural Gas Conversion

Here at Creagh the executive team are aware of their responsibilities to demonstrate the company's commitment to reduce the environmental impact of its products and activities.

As part of Creagh's drive towards Net Zero Carbon Emissions the company has invested in new modern plant & equipment converting LPG fueled boilers to natural gas for heating energy. (LPG contains higher carbon per unit of energy than natural gas).

This strategic investment forms part of Creagh's commitment to decarbonising the build environment as communicated through the company's Net Zero Roadmap.



228 tonnes of carbon eliminated equates to:

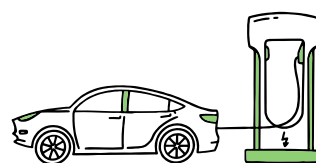


Equal to to 527 barrels of oil consumed

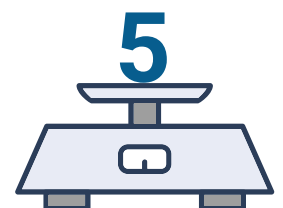
Electric Vehicles

To continuously decarbonise our business we have introduced electric charging at our largest site enabling charging during working hours. We are at advanced planning stages to install a publicly available fast charge station at our facility adjacent to a major traffic route.

Shape by allocating space within our facility we are supporting & encouraging our employees, and the wider public with the transition to the low carbon transport mandated by government policy.



Each electric company car eliminates approximately:



5 tonnes of carbon



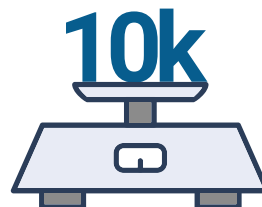
Project Repurpose

Project Repurpose identified three levels of recovering wood production products used to form and transport concrete products.

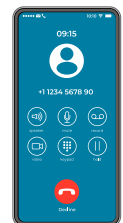
The project team lead by the site continuous improvement lead has reduced the amount of virgin timber used within the business by 52 % at one of our facilities and 27% at the our largest site.

By recovering and repurposing these timber byproducts we have reduced the equivalent of 522 trees from our supply chain.

UK Sitka spruce grown in the UK for timber, the sequestered carbon of these trees equates to over 10,000 tons of Carbon over the period.



10,000 tonnes of carbon eliminated equates to:



1.1 billion charges of a smart phone







Sustainability Policy

Policy & Scope

Dedicated management and incremental elevation of safety, health, environment, quality, energy, carbon reduction and responsible sourcing is paramount to the economic sustainability of our company, employees, contractors and suppliers.

We have an overarching sustainability policy reviewed annually to reflect changes and adjust strategy where appropriate. Our minimum standards are reflected by our values, we 'do the right thing' and comply with applicable legal and regulatory requirements. Working sustainably is a condition of employment at Creagh Group.

Business & Product Innovation

We will develop business and product innovation by: Collaborating with academic partner universities, trade bodies and stakeholder groups supported by consulting experts as necessary.

To create value within our business systems we will deploy models of Operational Excellence to meet our customers' needs not only in products but in lowering the embedded carbon within our products. Our sustainability performance will be measured by aligning with and attaining certification to ISO & other relevant management standards. Providing stakeholders with appropriate performance information against our certifications to the following standards:





Health, Safety & Wellbeing

We are committed to the maintenance of a safe & healthy workplace for all. We assess, mitigate and eliminate risks in the workplace by continuously improving our performance and implementation of standard operating practices guided by our Certified ISO Standard 45001. We operate an occupational health programme designed to support our Team.



Environmental Stewardship

We have and continue to maintain highest standards of environmental stewardship throughout our company. This commitment has been evidenced by the approved Biodiversity Charter award from BiTCNI for the exemplary work carried out at two of our quarries, specifically the translocation of newts into a protected environment years before works begin at the facility.

In addition; the Local Environmental Agency supervised and approved the successful translocation of blanket bog and smooth newts, maintaining a natural habitat and flora & fauna within the facility.

Group Timber

As part of Creagh's drive towards Net Zero Carbon Emissions the company are continuously investing in Policy Strategy to continuously improve how we conduct business at Creagh these policy decisions manifest through strict responsible sourcing procurement criteria, designed to ensure our purchasing activities are aligned with best practice within our sector and benchmarked against Ethical Sourcing Standards.

Ethical Sourcing: Through Creagh's responsible sourcing criteria we ensure all of our timber purchases are certified to FSC or PEFC certification. Supplementing these standards we also endeavour to source 'minor' timber products from 'Locally Controlled Forests' (LFC) if they are with a predefined distance from our manufacturing facilities. Our objective with this prerequisite is designed to encourage local community entrepreneurship and sustaining existing SMEs in areas we create jobs and do business.

By sourcing from Locally Controlled Forestry we are guaranteed low road miles with significantly reduced environmental impacts such as shipping emissions from timber sourced overseas.

Certified & accredited suppliers ensure the carbon balance is negative or neutral through carbon sequestration* calculations and is actioned by replanting programmes.



*** Sequestration: the process of carbon absorption by trees and other plants during their growing cycle. Saplings sequester a higher proportion of carbon than mature trees.**

Net Zero Carbon Roadmap

As a responsible company we are absolutely committed to achieving Net Zero carbon emissions from our operations and activities by 2050 with 5 yearly milestones along the Roadmap ensuring checks and balances measuring performance and strategic direction, also ensuring emerging technologies and process opportunities are embraced and adopted where possible. In our supply chain carbon reduction is outside our direct control however we will influence and lobby our suppliers to continuously improve their performance in carbon reduction and elimination from their products and services.

Our commitment illustrates ownership to share of the responsibility to keep the global temperature rise below 1.5° celsius.

We are accredited to BES 6001, 'Responsible Sourcing in Construction', we ensure our aggregates are sourced in compliance with all related COP and best practice guidance.

Along our Net Zero Roadmap we will transition energy and fuel sources containing carbon to supplies which are and will be carbon neutral. In the interim we will will continually improve energy efficiency by frequent energy surveys and deployment of funds and resources to operate energy efficient plant and equipment.



Casting a Sustainable future in concrete




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