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ENVIRONMENT NEWS

State bodies have paid out €170,000 of taxpayers' money to offset carbon emissions from official flights

overnment departments and public bodies paid more than €170,000 in carbon offsets to make up for flying on official business over two years.

The money was paid into the national Climate Action Fund, which is used to grant aid education, enterprise, community and creative projects that tackle climate change.

But the value of the gesture has been questioned as critics say offsets can never make up for the damage caused by carbon emissions.

The figures were supplied to Sinn Féin climate spokesperson Senator Lynn Boylan and are the first since the Government introduced the policy for all public bodies in 2020.

Ninety-two departments, agencies and bodies paid over sums for air travel in 2020 ranging from €3.81 paid by Leitrim County Council to €17,832 by the Department of Foreign Affairs. All the money paid in respect of travel in 2020 came to €77,831.

Slightly fewer bodies, totalling 80, paid sums for travel in 2021 ranging from \notin 3.03 paid by the Institute of Public Health to \notin 36,689 by the Department of Foreign Affairs. Total payments for 2021 came to \notin 93,212.

In both years, the Department of Defence made the second highest payments: \notin 14,308 and \notin 16,361. Details of payments for 2022 were to be lodged with the Climate Action Fund administrators within the past few weeks.

The policy was brought in by the Department of Public Expenditure and Reform which said the state faced "challenging greenhouse gas emission reduction targets" and the public sector must "play a demonstrative role" on climate action.

Ms Boylan questioned the value of the policy, saying she accepted that some official air travel was necessary but claimed that offsets were "indulgences to clear one's conscience".

She sought assurances that efforts were being made to reduce

the number of flights.

The Department of Public Expenditure, in introducing the policy, issued an instruction to all departments that: "Heads of departments should appraise, monitor and ensure that only essential air travel is undertaken and that the number of officers on any official journey is kept to the absolute minimum."

Minister for the Environment Eamon Ryan had addressed the issue at a recent Oireachtas committee where he also accepted Ms Boylan's concerns.

"I agree we cannot rely on offsetting as the way of addressing the bigger problem we have," he said.

"Post Covid, one of the changes has been the use of online, virtual meetings and that has been of much benefit.

"Meetings still need to be held in person as well and it is not that we will never fly or have to go abroad, but my view is the more we can reduce that, the better it will be for all concerned." He also said: "It is no fun being on a 6am flight."

Mr Ryan's departments, Environment and Transport,

collectively paid \in 1,621 to offset air travel in 2020 and \in 862 for travel in 2021.

The offset payments for flights taken with commercial airlines are worked out using an online calculator run by the International Civil Aviation Organisation.

Offsets for flights taken on the government jet are calculated based on the current level of carbon tax. The tax when the scheme was introduced was \notin 26 a tonne of carbon but is currently \notin 48.50.

Other high emitters over the two years were the Department of Enterprise which paid $\notin 14,082$ in 2020 and $\notin 8,047$ in 2021. An Garda Síochána paid $\notin 3,260$ and $\notin 6,642$ respectively, and Bord Bia paid $\notin 6,138$ and $\notin 4,152$.



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ENVIRONMENT NEWS Eamon Ryan to co-chair global energy body for key talks on ramping up renewables

nvironment Minister Eamon Ryan has been elected to cochair the International Energy Agency (IEA) next year as it begins key talks to speed up the replacement of fossil fuels with renewables.

The intergovernmental body monitors global energy trends and policy for its 31 member countries and 11 association countries, including the world's biggest energy users, the USA, China and India.

The major oil producing nations of the Middle East are not members but are in regular communication with the agency.

Mr Ryan will share the chair with France's Minister for Energy Transition, Agnès Pannier-Runacher and together they will head up the main meeting of 2024, the annual gathering of energy and climate ministers.

Mr Ryan is minister for the environment, climate action, transport, communications and energy.

The Department of the Environment said his election was based on "his extensive experience during two terms as Ireland's minister with responsibility for energy and his internationally acknowledged expertise in renewable energy and climate change."

"The IEA recognises that climate action is intrinsically linked with the shift away from polluting fossil fuels to clean and sustainable renewables, while also ensuring security of supply of energy, particularly taking account of the current geopolitical situation," the Department said.

A spokesperson for Mr Ryan said the position complemented the work he was already doing as energy minister and would not interfere with his duties at home.

"He has been to the annual IEA ministerials the past two years and he is across the agency's work as part of his brief.

"In fact his election is a recognition of his work and of Ireland's



standing in the renewables field.

"The Minister has done a lot of work on the North Seas Energy



Cooperation which is about countries in Europe working together on renewables and that's the way the IEA know things have to internationally."

Mr Ryan will begin working on preparations for next year's ministerial meeting almost immediately.

The gathering, which will also mark the 50th anniversary of the agency's establishment, will aim to push governments further and faster along the clean energy transition.

Mr Ryan worked on energy policy in Europe during his time out of politics and was appointed lead negotiator for the EU on key talks at last year's COP27 UN climate summit in Sharm El-Sheikh.

As chair of the North Seas Energy Cooperation group he negotiated the reentry of the UK after its Brexit departure, securing important agreement that Britain will be part of future offshore wind interconnection projects.

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Crystal Lean Solution deploy Last Planner System (LPS) to Clancy Construction

lancy Construction is a leading construction company dating back to 1947 and have used the past 75 years of experience to deliver a service that reflects their customer's needs.

Crystal Lean Solutions (CLS) were identified as the best fit to work with the Clancy team. CLS have supported Clancy's as they invested in their teams and completed significant work on their approach to Last Planner System (LPS) deployment and Lean deployment.

Clancy's appointed 2 Directors as program sponsors and a Contract Manager as leader of the initiative with responsibility to guide the development to a successful conclusion. This team recognised early on that a key to the LPS development strategy was sourcing an industry recognised consultancy to provide clear and expert direction, not just on the tools but also on the approach for effective change management.

The deliverables set out in partnership with CLS were as follows:

- Develop a LPS standard to meet Clancy Construction requirements through a collaboration with all the Contracts Managers;
- Complete LPS training with Contracts Managers;



• Develop a roll out plan for deployment across Clancy (including engagement with Project Managers & Site Managers).

To date, Clancy's have trained all their staff on LCI White Belt, Lean in Construction and are on Wave 6 of Yellow Belt training to support the transformation of their business. Clancy Construction are providing CLS the unique opportunity to support onsite also, where we are completing LPS assessments to support systematic, consistent LPS deployment to transform project delivery.

The company has taken a change management approach to LPS deployment, engaging their exemplary leadership team and now supporting their Site Managers on a standardised LPS across the organisation.

About Crystal Lean Solutions

Crystal Lean Solutions (CLS) recognise the cost competitive pressures of Irish based organisations operating within markets that won't stand still. CLS offer a flexible, yet innovative, approach to Lean deployment with a real energy and enthusiasm for your future.

Crystal Lean Solutions experienced team will guide you through our process based approach to deliver results, on time every time. CLS specialise in delivering unique and tailored Lean Training, Coaching, Mentoring and Consultancy at both a strategic and tactical level within your organisation.

Based in Limerick, Crystal Lean Solutions are enablers of Enterprise Lean Transformation to meet your future business needs.

https://crystalleansolutions.ie/



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02/05/2023 22:41

Lean Construction Ireland Launch Training Course Portfolio

ean Construction Ireland, with over 1,700 members, continues to deliver practical support and knowledge to the Irish construction industry as more and more companies embrace Lean thinking and practices to deliver efficiencies within their projects as well as to achieve operational improvements within their organisations.

Lean Construction Ireland (LCi) is a notfor-profit, membership-based organisation with a vision to transform the Irish construction sector through the adoption of Lean thinking and practices as part of the design and construction process, and move the industry towards more efficient, cost effective and collaborative approaches where projects are Delivered Better, Faster and Together. With over 1,700 members, LCi has developed key resources to assist the construction sector adapt lean, including monthly webinars, annual national conferences and book of cases.

A review of case studies from the LCi book of cases 2022, revealed that a wide array of lean tools is being used in Ireland, and all cases indicated benefits from the lean initiative, the most common being an improvement in quality, then cost, followed by time and safety. Training of staff has been identified is a key enabler to lean adoption and was referenced in eleven of the sixteen companies (69%) as key enablers to lean implementation and continuous improvement.

To address Lean training requirements, Lean Construction Ireland would like to announce the launch of the LCi Course Portfolio, consisting of a suite of training programmes that promise to become the standard for the sector in Lean training and certification within the Irish construction sector. The Portfolio is made up of the LCi White Belt and Yellow Belt which are currently available, as well as the Green Belt that will be launched in the coming months. These courses are delivered by a short list of LCi approved independent training bodies.

The Course Portfolio was developed to provide the Architecture, Engineering, Construction and Facility Management (AECFM) sector and Clients/Owners with a suite of standardised Lean Construction corporate training courses. These courses are primarily designed to enable Lean Construction for capital project design and delivery purposes, as well as for internal organisational operational excellence. As part



Trevor McSharry - Director with LCi and Head of Department of Civil Engineering and Construction at ATU Sligo

of its strategy for capability development, LCi secured funding from the ICBE Advanced Productivity Skillnet to develop the course portfolio training material in Lean Construction.

Trevor McSharry, Director with LCi and Head of Department of Civil Engineering and Construction at ATU Sligo who is leading this initiative explained; "It was a pleasure to have worked on this initiative and to have developed a robust training process with comprehensive training material to assist the LCi approved training partners. The LCi Course Portfolio may only be delivered by LCi Registered Course Trainers, and I was extremely impressed with the depth and breadth of lean knowledge shown by these training partners. Their approach to continuous improvement and the high level of commitment to further developing lean in the construction community, highlights the appetite and drive overall within the industry to deliver quality projects Better, Faster and Together."

The primary aim of the LCi White Belt Course is for Client/Owner and AECFM participants to understand the fundamentals of Lean and to speak the same Lean language on-site and/or in the office. Upon completion, participants will be able to:

- Understand the benefits of Lean in Construction.
- Describe the differences between Value and Waste.
- Understand and reduce/remove the 8 Types of Waste.
- Provide examples of Productive Work and Waste.
- Provide examples and suggestions on how to improve their own working environment using 5S methodology.
- Understand the "Business Why" and the "Individual Why" of Lean.

The primary aim of the LCi Yellow Belt Course is for Client/Owner and AECFM participants to develop into frontline practitioners capable of improving the process and workplace.

Upon completion of the Yellow Belt course, participants will be able to:

- Monitor and manage performance and highlight constraints.
- Apply the basics of Last Planner System (LPS).
- Lead Gemba walks and process improvement in the workplace.
- Engage in frontline problem-solving teams using scientific method and the basic set of problem-solving and root cause analysis tools.
- Provide high-integrity data for any issue that is escalated.

If you are a professional trainer and wish to apply to be an LCi Registered Course Trainer, please email training@ leanconstructionireland.ie for further information on the application process.

For further information on how to join Lean Construction Ireland please visit; www.leanconstructionireland.ie or contact info@leanconstructionireland.ie + 353 46 9773434.



At the launch of the Capability Development initiative was (From Left to Right) Derek Sinnott, Gordan Darcy, Richard Fitzpatrick and Trevor McSharry.

SSE Renewables completes Arklow Bank Wind Park Phase 2 survey with Green Rebel

Completion of the survey is a key milestone for the Arklow project

Oth February 2023: SSE Renewables, in partnership with Green Rebel, has completed a survey of the seabed off the east coast of Ireland, to collect high resolution geophysical data at the proposed 800MW Arklow Bank Wind Park Phase 2 Wind Park site. Green Rebel, a Cork based offshore survey service company, was awarded the tender following a competitive process.

The completion of the survey is a key milestone for the Arklow Bank Wind Park Phase 2 project and will help progress the ongoing design development of the project. The data collected from the survey will inform important engineering decisions and help to de-risk the project which will make a significant contribution to Ireland's climate action target of 7GW of offshore wind by 2030.

While the Arklow Bank Wind Park Phase 2 is a challenging site to survey due to the metocean conditions in this area of the Irish Sea, Green Rebel successfully managed to acquire almost 2000km of data supported by its vessels, the Roman Rebel and the Lady Kathleen (a specialist nearshore survey

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vessel).

The collaboration was built on the value that the two companies share on putting safety first, highlighted by the nomination of Green Rebel for a prestigious internal SSE health and safety award. This collaborative approach extended to other stakeholders in the area, as demonstrated by the team diverting from surveying activities to help local fishers identify lost fishing gear.

John O'Sullivan, Project Manager for SSE Renewables, said: "The completion of this phase of survey work represents another important milestone for the Arklow Bank Wind Park Phase 2 project. Green Rebel's support has allowed us to secure this important site data to progress design development and keep the project on track to support delivery of the Irish Government's target of 7GW of offshore wind by 2030. The Arklow Bank Wind Park Phase 2 team is now focussed on bidding into ORESS ahead of making a planning application to An Bord Pleanála later this year. We will also be running a public consultation in the coming months.'

Eoin Cotter, Head of Business



Pictured (L-R): Eoin Cotter, Green Rebel and John O'Sullivan, SSE Renewables on board the Lady Kathleen specialist nearshore survey vessel used by Green Rebel during the survey of the Arklow Bank Wind Park Phase 2 project. The completion of the survey is a key milestone and will help progress the ongoing design development of the project. Photo Darragh Kane.

Development with Green Rebel said: We were delighted to partner with SSE Renewables on this project which will play a significant role in helping Ireland to make the transition from fossil fuels. While the Arklow Bank presents unique challenges as a site, the local experience and industry expertise of our offshore and onshore teams ensured the successful and safe completion of the survey works. Using non-invasive sensors and Green Rebel's fleet of survey vessels, our team collaborated with multiple stakeholders to ensure we acquired and processed the data to the highest international standards. This will enable SSE Renewables to progress with the environmental and engineering design of this critical project for Ireland's energy transition."

About SSE Renewables

SSE Renewables is the UK and Ireland's leading renewable energy developer, owner and operator with plans to expand in selected international markets to deliver the green energy the world needs. Its strategy is to lead the transition to a net zero future through the worldclass development, construction and operation of renewable power assets and is building more offshore wind energy than any other company in the world.

SSE Renewables is part of SSE plc, the UK-listed integrated energy group which is investing £12.5bn over five years, or £7m a day, to deliver a Net Zero Acceleration Programme to address climate change head on.This includes plans by SSE Renewables to double its installed renewable energy capacity to 8GW by 2026 and ambitious targets to treble capacity to over I3GW by 2031, increasing output fivefold to over 50TWh annually – enough to be able to power around 20 million homes each year.

Irish Distillers announces sustainable step change for packaging across its portfolio of Irish whiskeys

Jameson will progressively remove gift boxes from its family of products, resulting in the removal of approximately 4 million single use cartons by the end of 2025, all Irish Distillers' secondary packaging will be recyclable, reusable, compostable or removed.

ublin, 14th February 2023: Irish Distillers, producer of some of the world's most well-known and successful Irish whiskeys, has today announced that as part of its sustainability and responsibility roadmap, all Irish Distillers' secondary packaging across its portfolio of Irish whiskeys will be recyclable, reusable, compostable or removed entirely by the end of 2025.

The Jameson portfolio will drive the change with the progressive removal of gift boxes, ultimately resulting in the removal of approximately 4 million units between now and the end of 2025. Consumers can expect to see a gradual reduction of secondary packaging in markets over this timeframe.

The move supports Irish Distillers' sustainability and responsibility ambitions and will reduce the environmental impact of brand packaging by reducing waste. The move also aligns with Pernod Ricard's circular making strategy which applies five key principles at each step of product lifecycle: Rethink, Reduce, Reuse, Recycle and Respect.

Gift packs containing secondary items such as hipflasks or drinking glasses will be 100% recyclable and FSC certified* and any new products will be put through an ecodesign tool to ensure that they are designed according to the key principles of Pernod Ricard's circular making strategy.

Further sustainable innovations and changes to packaging within Irish Distillers' portfolio will see the removal of gift boxes across Powers, the Spot family and Knappogue Castle portfolio by the end of 2025.

Sustainable changes are already being rolled out across the portfolio. Midleton Very Rare 2023, which is due for release in February, will come in a new, high quality recyclable box** instead of the wooden box previously used. The development of the new paper packaging has reduced fossil fuel emissions by 53%, greenhouse gas emissions by 53% and water usage by 39% across the production life cycle in comparison to the previous wooden packaging. **

Jameson 18 Years was also recently

AMESON AMESO BLACK LAMESO RESTED BARRE

redesigned and is now presented in a lightweight and fully recyclable cardboard box with Jameson Bow Street 18 Years due to follow suit over the next year. Similarly, Redbreast's ultra-premium offerings, Redbreast 21 and Redbreast 27 will transition from wooden boxes to fully recyclable secondary packaging by the end of 2025.

Nodjame Fouad, Chairman and CEO, Irish Distillers "Operating and thinking sustainably is not an option; it is a necessity. In recent years, we have made a number of changes across our operations to support our sustainability and responsibility ambitions. Today, we are announcing new sustainable packaging changes across our portfolio of whiskeys to help reduce waste. We understand that reducing our impact at all stages of our value chain is critical and this includes packaging waste such as cardboard and choosing more sustainable packaging materials. We will continue to apply Pernod Ricard's key principles: Rethink, Reduce, Reuse, Recycle and Respect, minimising waste at each step of our product lifecycle."

*FSC - Certified by the Forest Steward Council as 100% recyclable in Ireland and markets where recycling facilities are available **The new paper box is recyclable in Ireland

and markets where recycling facilities are available

*** Figures based on indicative numbers calculated during the design based on the production cycle

About Irish Distillers

Irish Distillers is Ireland's leading producer of some of the world's most well-known and successful Irish whiskeys. Led by Jameson, our brands are driving the success of Irish whiskey globally. Jameson is the world's fastest-growing Irish whiskey, selling 10.4 million cases in our latest fiscal FY22. Our brands are exported to 130+ markets around the world. Irish Distillers was formed in 1966, when a merger took place between John Power & Son, John Jameson & Son and Cork Distilleries Company. In 1988, Irish Distillers joined Pernod Ricard, gaining access to unprecedented levels of investment and an extensive global distribution network.

We employ over 800 people across our operations in Cork and Dublin.



ACTIONZERO WINS OVERALL AWARD AT SEAI ENERGY SHOW

Prestigious industry awards bring good news for Cork-headquartered company

high temperature heat pump developed and manufactured by Munster climate-technology company ActionZero has been named product of the show at the SEAI Energy Show at the RDS in Dublin.

ActionZero won Best Innovative Product and received the Overall Product of the Show award for its patented EscoPod high temperature and high efficiency heat pump technology. The system decarbonises heat and provides hot water and chilling without the need for fossil fuels or a deep retrofit, which can be costly and disruptive

The SEAI Energy Show is Ireland's largest free energy event attracting more than 100 exhibitors and 4,000 visitors over two days. The awards recognise the most innovative products and services presented by exhibitors. They're judged by a panel of experts from the sector. The event was officially opened by Minister for Environment, Climate, and Communications, Eamon Ryan TD.

It's the second award win for the Corkheadquartered company in as many months, in February, the EscoPod scooped the Green Technology Award at the 2023 Green

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Awards.

CEO of ActionZero, Denis Collins said, "We're delighted to see our EscoPod technology recognised at the SEAI Energy Show. The event is largely acknowledged as the pinnacle location for manufacturers to introduce their latest innovations. It is an honour to have our technology selected by the panel of experts. We work with some incredible industrial, commercial and public sector organisations in both Ireland and the UK who want to eliminate the use of fossil fuels, whilst minimising business disruption. Together we are making a difference and working towards a net-zero emissions world."

ActionZero was established in 2021 following the merger of Energy Services and Straightline Energy Solutions. It works with a range of companies in healthcare, industry and enterprise including the Bons Secours Hospital, several agri-food companies and public sector bodies.

In recent weeks, ActionZero announced a new partnership with Dunbia, a division of Dawn Meats, to help eliminate fossil fuel use at the company's processing facility in Llanybydder, Wales.

The EscoPod is manufactured at ActionZero's research and development facility in Tralee, Co Kerry.

About ActionZero

ActionZero is an Irish climate technology company dedicated to decarbonising commercial businesses and industry. Our innovative heat pump technologies decarbonise heat by completely removing fossil fuels from a particularly challenging sector. ActionZero designs, builds, installs and operates the EscoPod thermal energy system which delivers ongoing performance validation through their online data analytics platform. Through our patented design and engineering integration, the EscoPod provides fossil fuel free heating and chilling at higher temperatures, efficiencies and reliability avoiding the need for expensive building retrofit costs and business interruption.



Minister for Environment, Climate, and Communications, Eamon Ryan TD; Denis Collins, CEO, of Action Zero, who were named SEAI Product of the show winners for their high temperature heat pump and Margie McCarthy, Director of Research and Policy Insight SEAI. Pic: Naoise Culhane Photography.

Pinergy SolarElectric appoints Ronan Power as Chief Executive Officer (CEO)

1 March 2023 – Pinergy SolarElectric, one of Ireland's fastest growing solar energy businesses, has today announced the appointment of Ronan Power as Chief Executive Officer (CEO). This new senior appointment will see Ronan focus on growing the Wexfordbased Pinergy SolarElectric business and the scaling of the business through a period of further sustained growth.

In this new role, Ronan will oversee delivery of all business functions including sales, operations, supply chain, people and revenue as it delivers on its exciting growth ambitions supporting businesses and homeowners in their energy transition.

Ronan's aim is to build a company culture based around strong ethics on behalf of its customers, employees and all other stakeholders. Ronan is passionate about building a working environment where people can learn, grow and thrive together while delivering the highest standards of customer experience.

Speaking about the new appointment, Enda Gunnell CEO of Pinergy said: "Ronan has been a member of the Pinergy leadership team since 2020 and in that time, he has demonstrated his key abilities. Ronan's passion for delivering sustainable services & solutions to the market and his years of experience in management and operational roles make him the ideal person to shape & lead the Pinergy SolarElectric business into the future."

The past year has highlighted the need for change in the energy sector in Ireland. As the energy transition gathers pace, Pinergy SolarElectric is well positioned to deliver Solar PV systems to the domestic, commercial and agricultural markets in



Ronan Power, appointed CEO of Pinergy SolarElectric. Ireland.

Commenting on his appointment, Ronan Power said: "I'm delighted to be starting this new role with Pinergy SolarElectric. I truly believe, as a country, we need to accelerate our journey towards a greener more sustainable energy future. We are experiencing high levels of demand for our range of solar PV solutions and the company has seen significant growth in the last 12 months. There is huge opportunity for further growth in the solar market and I am very passionate about enabling homeowners and businesses to take control of their own sustainable energy future."

Prior to becoming CEO of Pinergy SolarElectric, Ronan held the position of Head of Operations at Pinergy. Prior to that he was the Director of Operational Performance and Transformation at Abtran, Management Consultant with KPMG and Programme Director at Actavo. Ronan has since become a board member of



the Enniscorthy Chamber of Commerce demonstrating his commitment to further integrate Pinergy SolarElectric into the local community.

Pinergy SolarElectric recently moved into its new offices in Enniscorthy Technology Park becoming the first occupant in Senan House which a Passive Building with a BER rating of A2. A passive building is a design standard that means Senan House will use very little energy for heating purposes and in addition Pinergy SolarElectric has installed a significant Solar PV project on the roof of the building to support all the businesses in the building to reduce their grid energy needs. The new Pinergy SolarElectric offices were fitted out using local tradespeople and suppliers from the Enniscorthy area, cementing the business' decade long legacy in the region.

In addition, Senan House is powered by 100% Green electricity and has a public EV charging station for Electric Vehicle drivers working or visiting the building, both solutions have been provided by Pinergy.

About Pinergy Solar Electric

Pinergy SolarElectric are an innovator in the Irish renewable energy sector. The company was the first to scaleup and offer high-yield PV systems to the domestic, commercial and agricultural markets in Ireland. One of their key differentiators has been to provide clients with the data & insights as to how much electricity they are saving with their PV system. www.solarelectric.ie

ENVIRONMENT & ENERGY MANAGEMENT APRIL/MAY 2023

Irish Deep Tech Uses Artificial Intelligence to Monitor Invasive Insect Species in Europe

Automated insect monitoring will help prevent huge amounts of crop loss and save both time and money for farmers.

yndall National Institute, in partnership with Teagasc, is conducting a collaborative European research project named 'HALY.ID', which aims to monitor and sustainably manage Halyomorpha halys (HH) the brown marmorated stink bug, a highly invasive insect species. The project is using drone technology and Artificial Intelligence to automate the monitoring process, which was traditionally managed manually.

Halyomorpha halys (HH), is an invasive shield bug native to East Asia, which has been detected in Europe with sporadic transient identifications in the UK since 2018. This is a worrying development as the insect can cause malformed fruit when feeding, and potentially damage significant amounts of tree fruit crops, as well as some vegetable and arable crops. Brown marmorated stink bugs can also be an annoyance when they migrate into dwellings to hibernate, where they emit a foul odour.

The bug was first seen in Italy in 2012, resulting in significant economic losses within just two years. The invasive species has continued to spread northwards, with sightings of two adult male Halyomorpha halys in the UK in 2020.

The arrival of this species in Europe is concerning, as huge amounts of crop production are already lost each year due to insect pests. Insect monitoring plays a crucial role in the mitigation of crop damage. Traditionally, farmers use pheromone-loaded sticky traps to monitor insect pest species, with these traps manually checked periodically, to estimate the type



The invasive insect species, 'Halyomorpha halys', also known as 'brown marmorated stink bug'.



Technology used to monitor Halyomorpha halys/brown marmorated stink bug

and quantity of the insect.

This is a time-consuming and labour intensive task, which often requires a high level of entomological expertise. To combat this challenge, the HALY.ID project is automating the insect monitoring process.

The automated method involves the use of drone technology, image analysis, and a low-cost and low-power Microcontroller Unit (MCU) device that performs all data processing using Artificial Intelligence.

The system uses an algorithm to extract regions that the invasive insect is suspected to be, and then runs a lightweight Deep Learning on them for classification.

It is a low-power battery device used during growing seasons. The images are taken at night to control light intensity and minimize other sources of illumination.

Brendan O'Flynn, Head of Group, Tyndall said: "As the world's population grows, food security is becoming increasingly important. We are proud to collaborate with international partners to develop a smart sensing system, ensuring our European orchards continue to provide high-quality food produce. We are working alongside international experts in agriculture; Teagasc in Ireland, as well as European partners Imec, the Italian Universities in Perugia and Modena and the Technical University of Braunschweig in Germany, to develop impactful technologies."

Michael Gaffney, Entomologist and Senior Research Officer, Teagasc said: "Monitoring for Pest and Diseases is a fundamental first step in the successful implementation of Integrated Pest Management strategies in commercial horticultural production. Developing technologies that automate the detection of harmful pests, reducing the time and labour input required, while also reducing the gap between monitoring events to a single day, will hopefully assist growers in detecting the pest early in the Spring when the pest numbers are low, where crop protection interventions are most effective."

This newly developed automated Insect monitoring tool was deployed in an Italian Orchard in February 2023.

About Tyndall National Institute

Tyndall is a leading European deeptech research centre in integrated ICT (Information and Communications Technology) materials, devices, circuits and systems and a research flagship of University College Cork. Tyndall is Ireland's largest Research and Technology Organisation (RTO) specialising in both electronics and photonics. Tyndall works with industry and academia to transform research into products in its core market areas of electronics, communications, energy, health, agrifood and the environment. With a network of over 200 industry partners and customers worldwide, Tyndall is focused on delivering human and economic impact from excellence in research. Tyndall is home to a multidisciplinary research community of over 600 people of 52 nationalities, including over 150 postgraduates.

Sustainability leader AIB is the first bank globally to secure a scientifically validated electricity generation maintenance target

• Validation of maintenance target recognises existing low-carbon intensity of AIB's electricity generation loan book

• Financed emissions targets for 75% of the AIB loan book now validated by the Science Based Target Initiative (SBTi)

• AlB commended for aligning with the more ambitious Paris Agreement target to limit global warming to 1.5°C, currently the most ambitious pathway available from SBTi

IB Group is pleased to announce it has become the first bank in the world to secure a scientifically validated electricity generation maintenance target from the global Science Based Target Initiative (SBTi). The move marks a recognition that AIB's electricity generation loan portfolio is already exceptionally green as it primarily includes renewable energy assets.

As a leader in the sustainability sector, AIB has been a very active lender to renewable energy projects across Ireland, UK, Europe and more recently in the USA supporting onshore and offshore wind, solar and battery storage technologies. The fruits of this green lending are reflected in the very low carbon emissions intensity from the bank's electricity generation portfolio which is estimated to be c. 10-15 times lower than peer banks.

SBTi has now validated AIB's target of maintaining its emissions from electricity generation at these extraordinarily low levels. The electricity generation portfolio is one of the fastest growing parts of AIB's lending portfolio representing a material

About the Science Based Targets initiative

The Science Based Targets initiative (SBTi) is a global body enabling businesses to set ambitious emissions reductions targets in line with the latest climate science. It is focused on accelerating companies across the world to halve emissions before 2030 and achieve net-zero emissions before 2050. The SBTi defines and promotes best practice in science-based target setting, offers resources and guidance to reduce barriers to adoption, and independently assesses and approves companies' targets. See www.sciencebasedtargets.org



Rosheen McGuckian, NTR CEO, and Colin Hunt, AIB CEO at AIB's Molesworth Street headquarters at the signing last year of a Corporate Power Purchase Agreement (CPPA) with NTR to source energy generated from two solar farms NTR will construct in County Wexford. The farms will provide 80% of AIB's energy requirements.

part of AIB's €10bn Climate Action Fund.

AIB Group has also obtained validation from the SBTi for the financed emissions targets it has set for 75% of its lending portfolio. The bank is aiming for a reduction in emissions intensity of 58% per square metre on homes funded by \notin 29.4 billion of residential mortgages and 67% per square metre on commercial real estate funded by \notin 5.6 billion of loans.1

By setting these targets, AIB is aligning with global banking best practice and the most ambitious Paris Agreement target to limit the global average temperature increase to 1.5°C above pre-industrial levels. SBTi has commended AIB's 1.5°C aligned target, currently the most ambitious available through the SBTi process.

AIB CEO Colin Hunt said: "The International Panel on Climate Change reminded us in recent weeks that while it may still be still possible to limit the global temperature rise to 1.5°C, the world is skating on thin ice and that ice is melting fast. At AIB, we have set ambitious goals for our loan book and our own operations to meet the challenge of climate change head-on. We know that enabling our customers to lower their carbon footprint is a priority that can only be achieved through major investment in energy and climate action infrastructure, while supporting our personal customers with discounted mortgages to buy energy efficient homes and green personal loans to fund retrofits or the purchase of electric vehicles.

"Already in 2022, AIB's green lending book accounted for 26% of all new lending reflecting our sustained focus on giving customers more choice and making it easier for them go green. We are pleased that our ambitious financed emission targets have now been independently validated giving our stakeholders further independent assurance on our pathway to deliver our ambition that green or transition lending will account for 70 per cent of new lending by 2030. In terms of becoming net zero on our own operations by 2030, we last year signed a Corporate Power Purchase Agreement (CPPA) with NTR plc to source energy generated from two new solar farms in Co Wexford which will provide up to 80% of AIB Group's electricity needs."

ENVIRONMENT & ENERGY MANAGEMENT APRIL/MAY 2023

We won't have access to clean drinking water sourced in Ireland' damning report on state of nation's environment

Citizens Assembly report on Biodiversity Loss published

reland risks losing access to clean drinking water here if it fails to act to protect its biodiversity, the Government has been warned.

The head of the Citizens' Assembly on Biodiversity Loss outlined the implications of not taking steps to preserve the natural environment as a report on its work was published.

And all citizens "must be encouraged to consume a more plant-based diet," the group stated.

Ireland's current "food policy" also needed to be examined, it added, in the "context of the biodiversity crisis," with a particular focus on agriculture and marine sectors to "balance the affordability and quality of food."

The assembly of 99 randomly selected citizens, who met over the course of 10 months to analyse the state of the country's biodiversity, has made 159 recommendations.

It was billed as the first such national citizens' assembly anywhere in the world to explore the issue.

Assembly chair Dr Aoibhinn Ni Shuilleabhain outlined the main findings at an event in Dublin on Wednesday. The report expresses "clear disappointment" at the state's failure to adequately fund, implement and enforce existing laws and policies on biodiversity.

Members questioned whether the Government was taking seriously its response to what it has declared as a biodiversity crisis.

Dr Ni Shuilleabhain said the state was the worst offender when it came to breaching laws aimed at protecting the natural habitat.

"The first two recommendations here say that the state has fundamentally failed to protect nature, and one of the most worrying things about that was that it was the biggest transgressor of its own laws and EU laws," she told the PA news agency.

"Now, that's not to say it's this Government - it's actually decades of governments.

"And so, while we're so proud of our countryside and our land in Ireland, it's actually something we start needing to protect now - 50pc of our fresh waters are in poor condition, if we don't act now, we actually won't have access to clean drinking water on this island.

"So things like that, when you hear them, it's very worrying. It's kind of disconcerting, you wouldn't necessarily know unless you're asking questions, because things look lovely



Dr Aoibhinn Ni Shuilleabhain, chair of the Citizens' Assembly on Biodiversity Loss.

and green outside, but just looking under the hood a little bit, the statistics are very clear, we're going in one direction and it's the wrong one.

"But if we start acting now, with the 159 recommendations that we have, that's a clear plan of what we can do in the next five to 10 years and looking onwards, because this is really about future generations and leaving Ireland in a condition where our children and our grandchildren will have this land to enjoy."

Meanwhile new houses and office blocks would be policed by staunch ecoplanning regulations, with nesting bricks introduced and artificial grass banned, if the Citizens' Assembly's recommendations are implemented.

All future property developments would need to have biodiversity legislation and regulation at the heart.

The panel voted to make radical changes to the constitution, to completely overhaul the economic and socioeconomic face of Ireland.

The Assembly also recommended for the "substantive rights of nature, recognising nature as a holder of legal rights".

A review "must take into consideration vulnerable sections of the population and ensure reasonable standards of living, and result in a plan to address these issues," it added.

The report also proposes a series of changes to the Constitution to ensure people have "a right to a clean, healthy, and safe environment."

Dr Elaine McGoff, natural environment officer with An Taisce, said it is now "up to the Government to listen to the voice of the Irish people and to champion biodiversity protection on the national and European stage."

The Irish Wildlife Trust (IWT) welcomed the publication of the report, stating the Assembly had confirmed the "State has abjectly failed to protect nature, including breaking laws and ignoring its own policies." A IWT spokesperson said: "This can't be

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just another report and the Government must move rapidly to implement its recommendations."

Dr Ni Shuilleabhain said she had a commitment from Taoiseach Leo Varadkar that the report would go to an Oireachtas subcommittee before the summer recess, with a formal Government response to the findings due before the end of the year.

Mr Varadkar said the publication would help the Government take action on biodiversity loss and restoration.

"The Recommendations & Report will be sent to an Oireachtas Committee for their consideration and to make recommendations to Government," he tweeted.

'We must protect Ireland's biodiversity for future generations."

Dr Ni Shuilleabhain said she did not want to alarm people about the potential implications of not taking action, and added: "The positive thing about biodiversity is if we act now we can really conserve this."

She also highlighted the importance of farmers in protecting biodiversity, saying: "Agriculture accounts for almost 70% of our land area and farmers are at the heart of the solution to this.

"Farmers can be mobilised at scale because they see themselves as custodians of the land - the most important thing that farmers want is to hand over their land in good condition.

"So we have to support them with the right policies and we can't subsidise unsustainable agricultural practices, we need to use our money to subsidise sustainable practices and we heard that directly from farmers."

The report includes 73 high-level recommendations and 86 sectoral-specific actions and priorities.

Central to the report is the call for the state to take "prompt, decisive and urgent action" to address biodiversity loss and restoration.

Dr Ni Shuilleabhain added: "The

assembly's recommendations are a call to action. They ask us all to re-evaluate our current practices across the whole of society and in industry, agriculture, social enterprise, local government, national agencies and government departments.

"Future generations are depending on us to act now. Some sectoral interests and lobby groups may resist attempts to address biodiversity loss, but it is urgent that our policy makers, in particular our politicians, are supported in making bold decisions to protect, conserve and restore the natural environment in the interest of all of the people, present and future, of the island of Ireland.

"The reassuring greens of our landscape mask the loss we are experiencing of so many key elements of our natural environment. The figures that the assembly heard are stark. And the problems are getting worse.

"Things must change."

New-look Dart trains promise passengers greater space, comfort and technology

ew-look commuter trains have been unveiled in Dublin in a sneak-peak of the first tranche of hi-tech Dart carriages ordered for the city.

The new carriages are designed to be wheelchair accessible and family friendly with room for bicycles and a mix of fixed and flip-down seats for greater flexibility at busy and quieter times.

Digital information displays will keep passengers updated on where they are, where they are going and where they should get off.

It will also let them know if there are other parts of the train with more space and access between carriages will be easier so that people move the length of the train if needed.

All carriages will have an automatic retractable step and low-height doorway thresholds for easier access by people using wheelchairs and other mobility aids.

Ease of access will vary between stations and platforms, however,

although 'platform enhancements' are promised to boost the places where unassisted access is possible.

Inside, there will be designated wheelchair spaces, priority seating for people who need extra legroom, bike areas and bike stands.

Charging facilities for personal devices will be much improved and an enhanced CCTV security system is promised.

Irish Rail said the needs of sensory impaired passengers had been factored in.

The carriages are a mix of cable electric and battery electric, with fast-charging facilities to be installed at key stations.

An order for 185 of the carriages has been placed with manufacturers Alstom who make them in Poland, and a total of 750 will be bought over the next decade.

The first are to be delivered next year and put into service in 2025 on the Dart carriages ordered for the city.

existing Dart route but over the next ten years, the Dart+ programme will see Dart services expanded to the west and south-west of Dublin.

They will run in five-carriage sets, with a two-set train able to accommodate at least 1,100 passengers.

Minister for Transport Eamon Ryan checked out a prototype of the new carriages at Irish Rail's Inchicore rail yard where focus groups will be brought over the coming weeks to give their views on the design.

"The Dart+ programme will transform our commuter system, vastly increasing the number of passengers who will have access to a quality and reliable rail network," he said.

If all Dart+ schemes go ahead, the number of people living within 1km of a Dart station will increase from around 250,000 to 600,000.



New-look commuter trains have been unveiled in Dublin in a sneak-peak of the first tranche of hi-tech

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Farm bodies decry Nature Restoration Law as bad for incomes and land values

arming organisations have voiced strong opposition to the proposed Nature Restoration Law, saying it would breach their property rights, hurt incomes and reduce the value of their land.

The Irish Farmers Association (IFA) complained there was a rush to finalise the law and said they did not trust politicians or the Government to look after their best interests.

A spokesman for another group, Vincent Roddy of the Irish Natura and Hill Farmers Association (INHFA), said the law would amount to "a gravy train for ecologists, environmentalists, and administrators".

Mr Roddy claimed the law would damage the reputation of Irish food exports because it implied there was something wrong with the land on which it was produced.

He also said an online poll that found 97pc of people in favour of the move was "comparable with results delivered by Vladimir Putin in his sham elections last autumn".

The litany of objections was presented to the Oireachtas Environment and Climate Action Committee at a meeting to discuss the proposed legislation.

The Nature Restoration Law, an EU initiative, would require at least 20pc of Europe's struggling lands and seas to be restored to healthy habitats for nature by 2030.

It also proposes that 25,000km of rivers across the region be returned to their natural free-flowing status, unimpeded by flood barriers, culverts and other artificial structures.

The proposal is an attempt to arrest the dramatic decline in nature and ecosystems and simultaneously strengthen landscapes to help tackle climate change by allowing them to act as natural carbon sinks.

In Ireland that would mean rewetting drained bogs and leaving aside land for nature, with major implications for Irish farmers who control 67pc of all the land in the country and a further 6pc which they have in forestry.

Environmental organisations attending the meeting sympathised with farmers' concerns about the potential impact on their livelihoods but took issue with claims that the science behind the proposal was in doubt.

Tadhg Buckley of the IFA said the science was still evolving while Mr Roddy said there was too much reliance on international scientific studies and he believed if Irish bogs were rewetted they would not sequester much carbon.

"We need the science from Irish context on Irish lands we don't have that," he said.

Sadhbh O'Neill of the Stop Climate Chaos coalition said the science was well proven by both the Intergovernmental Panel on Climate Change and the Land Use Review recently published by the Department of Agriculture and Department of Climate Action.

Fintan Kelly of the Environmental Pillar said the science was indeed still evolving but not in a way that backed the farm groups' claims.

"The science that is emerging is that the impact [of peatland drainage] is worse than we understood," he said.

The meeting also heard from Dr Elaine McGoff of An Taisce and the Sustainable Water Network (SWAN) who cited recent Environmental Protection Agency reports showing half the country's rivers and lakes and two-thirds of estuaries to be polluted.

Agriculture was the lead cause, followed by artificial interference with the water sources, forestry and urban wastewater.

"Waterways are very much a product of their landscape. They're the ultimate truth tellers," she said.

"Whatever is happening in the surrounding landscape will ultimately show up in the water quality and that's what we're seeing in an Irish context."



ENVIRONMENT & ENERGY MANAGEMENT APRIL/MAY 2023

Warning that cost of failure to meet climate targets could hit €8bn by 2030

he estimate, prepared by officials in two government departments, shows the potentially enormous financial consequences if the measures in the latest Climate Action Plan are not implemented.

The figure is the cost of buying carbon credits to make up for failing to reduce greenhouse gas emissions in line with EU regulations, and making other compensatory payments for failing to meet EU renewable energy targets.

Minister for Climate Action Eamon Ryan will today ask the Dáil to approve the purchase of 4.1m carbon credits costing $\in 2.9m$ to make up for breaching the 2020 emission reductions target.

Ireland overshot that target by 7 million tonnes of carbon in 2020 and so requires 7 million credits.

The Government had already banked 2.9 million credits in anticipation of exceeding the target and the 4.1 million extra will

ensure compliance.

For Ireland to buy its way out of trouble under much tougher EU targets coming into effect would cost multiples of that, however, depending on how poorly the country performs.

That is based on a very poor performance and the rapidly escalating cost of carbon credits and other payments known as "statistical transfers".

These are payments to countries that are exceeding their renewable energy targets and so are contributing more to the EU-wide effort than countries that are falling short.

Ireland is doing reasonably well on renewable electricity but the targets take into account total energy use, including for heat and transport, and on that basis, 85pc of the country's energy still comes from oil, gas, coal and other fossil fuels.

Ireland had to spend €50m buying statistical transfers from Denmark and Estonia to make up for missing the 2020 target.

Under the Climate Action Plan and the Climate Act, Ireland has a target of halving carbon emissions by 2030 which, if achieved, would meet EU requirements.

Emissions continued to rise last year, however, and the best forecast for this year is a stabilisation or modest reduction.

The paper warns that buying credits in the event of a substantial overshoot would come with both financial and environmental costs.

The Department of Environment and Climate Action said it was important to note the costing was based on a scenario where the 2023 Climate Action Plan was not implemented.

"In order to avoid any costs arising from failing to comply with targets, Ireland must ensure full implementation of the policies and measures set out in Climate Action Plan 2023," a spokesperson said.



ENVIRONMENT & ENERGY MANAGEMENT APRIL/MAY 2023

European institutions combine knowhow on energy storage to unlock the full potential of renewable energy

New collaborative project to Advance Innovative Energy Storage Grid Integration includes the participation of the Dublin based institution EPRI Europe (Electric Power Research Institute).

ublin, Ireland (Feb. 9, 2023)– As companies decarbonise to meet clean energy targets, and society's dependence on electricity grows, energy storage will become an increasingly important technology to ensure continued grid stability and reliability. Today, fourteen leading European energy groups, research organizations, and universities launched a new, four-year project to help energy companies rapidly deploy renewables through the advanced integration of innovative energy storage technologies.

Participants in the "Advanced Grid Interface for Innovative Storage Integration" (AGISTIN) project include: EPRI Europe DAC, University of Kassel, RTE, Fraunhofer Institute for Wind Energy Systems IWES,

Fraunhofer Institute for Energy Economics and Energy System Technology IEE, CARTIF, CIEMAT, Shell Global Solution International B.V., CITCEA-UPC, Geyser Batteries, Infraestructures de la Generalitat de

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Catalunya, European Association for Storage of Energy (EASE), RINA Consulting, and ETH Zurich. The project runs through the end of 2026.

Specifically, the AGISTIN project will focus on:

Reducing pressure on grid connection capacity and grid reinforcement requirements to account for and support new renewables and industrial demand;

Enabling major clusters of industrial grid users to economically integrate significantly more on-site renewables than traditional integration approaches;

Providing advanced grid services such as grid forming control, fast frequency response



The AGISTIN project's kick-off meeting held on January 11th brought together the project partners in Brussels, Belgium.

and balancing flexibility to support grid operators when managing low inertia grids and reducing curtailment of renewables.

These efforts could help the European Union meet its commitment to a 55 percent economy-wide reduction in carbon emissions by 2030. What's more, the project could help avoid delaying the electrification and decarbonisation of society.

"As the European electricity grid continues to decarbonise, it must be better prepared to integrate more renewables, storage, and low carbon industrial processes," said Eamonn Lannoye, managing director of EPRI Europe. "The outcomes of this project could inform energy providers throughout Europe and beyond, assisting even more stakeholders as they work towards realising the 'Fit for 55' goals."

"We are excited to join the AGISTIN consortium and kick-start the design, development, and deployment of advanced grid interface for battery storage, which can seamlessly integrate renewables with industrial uses, contributing to the renewable



energy system of the future," said Yin Sun, senior electrical engineer, Shell Projects & Technology.

"For a startup like ours, the AGISTIN project is a great opportunity to bring the technology one step closer to the enduser," said Andrey Shigaev, CEO at Geyser Batteries. "Geyser Batteries offers numerous advantages for industrial users on both sides of the meter and having such a strong partner network of AGISTIN will help to use the potential of this technology through advanced grid integration. Eventually, this project enables us all in achieving the overarching goal of 100 percent renewablesbased power grids and moving towards a carbon-neutral society."

AGISTIN is supported by the European Union's Horizon Europe program agreement no. 101096197. Follow the project for updates on LinkedIn [linkedin.com] and Twitter [twitter.com].

About EPRI Europe

Ireland-based EPRI Europe DAC was established in 2019 by EPRI International Inc. as its European research arm. Founded in 1972, EPRI is the world's preeminent independent, non-profit energy research and development organization, with offices around the world. Our trusted experts collaborate with more than 450 companies in 45 countries, driving innovation to ensure the public has clean, safe, reliable, affordable, and equitable access to electricity across the globe. Together, we are shaping the future of energy.

Demonstration of innovative forms of storage.

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Veolia advance carbon reductions for one of the largest teaching hospital trusts in England

Major projects will help the Trust towards the NHS net-zero goal by cutting CO2 by a further 3,847 tonnes per year across two large hospitals using heat pump and solar technologies

eolia has marked 85 years of providing energy management to the healthcare sector with major new projects to help decarbonise two acute hospitals for the University Hospitals Birmingham NHS Foundation Trust, one of the largest teaching hospital trusts in England that treats over 2.8 million patients each year. Using a £22 million investment from the Salix Public Sector Decarbonisation Scheme (PSDS) Phase 3a, and additional Trust funding, the Good Hope Hospital and Queen Elizabeth Hospital Birmingham will gain from an extensive range of energy upgrades that will further cut carbon emissions.

The works are being delivered through the Energy Performance Contract with Veolia that was awarded through the Carbon Energy Fund framework, which provides project management and technical support to the projects. Designed using the whole building approach, these will help the Trust achieve the NHS net-zero goal by saving 3,847 tonnes of CO2 each year.

Located in Edgbaston, the Queen Elizabeth Hospital Birmingham will lower its carbon footprint by 2086 tonnes per year through conversion from the use of steam for heating, and replacing this with a hot



water system backed by the integration of a 1MW multistage heat pump system. To ensure the efficiency of the new system 2,000m2 of roof insulation will be installed and the control systems optimised. Installation of а 314kWe solar array will further help to



decarbonise the hospital's electricity supply, by adding renewable power, and electricity consumption will be reduced by fitting more than 2962 LED luminaires in the buildings.

Upgrades at the Good Hope Hospital in Sutton Coldfield will mirror those being implemented at the Queen Elizabeth hospital with a similar conversion from steam to hot water heating. To achieve a total annual saving of 1760 tonnes of CO2 the hospital will use a 650kW multi-stage heat pump system, new efficient hot water boilers, installation of 9,500m2 roof insulation, and new building energy management systems. Electricity use will be cut by 1992 LED luminaires that will replace existing internal lighting. These measures will add to the efficiency of the existing combined heat and power based supply that has been delivering financial savings and efficient energy, secure generation since 2013.

Commenting on these latest decarbonisation projects for the NHS, Gavin Graveson, Veolia Senior Executive Vice President Northern Europe Zone said:

"As the NHS became the world's first health service to commit to reaching carbon net zero, these projects will help the Trust meet this target by cutting reliance on fossil fuels and will advance their progress to eliminate carbon emissions by 2045. Our whole building approach, and expertise gained over 85 years of delivering energy efficiency to healthcare, will deliver major benefits including savings on critical energy costs, reduced emissions, and enhanced patient facilities. By working in partnership we will enable the Trust to meet their sustainability goals and deliver a net-zero future for healthcare in the UK."

Vicky Marshment, Sustainability Lead at University Hospitals Birmingham NHS Foundation Trust, said;

"Working with Veolia on these projects will make a significant difference in reducing the Trust's carbon footprint, as we move towards our net zero target. We are committed to our sustainability goals, whilst making sure we continue to provide the treatment, support and care our patients need."

Managing energy in hospitals since 1938, Veolia now provides secure on-site energy, FM and recycling services to over 230 UK hospitals. Using wide-ranging carbon management strategies the company is at the forefront of delivering significant cost and emissions reductions using proven energy efficient technology, and best practice optimisation. This backs Veolia's aim to tackle climate change by expanding the use of existing and new innovative solutions, with a target of becoming the benchmark company for ecological transformation.

For more information visit www.veolia. co.uk



An Post lauded for environmental and social leadership at 2023 Business & Finance ESG Awards

State-owned carrier sees two wins including the ESG Grand Prix Award, alongside accolades for Dublin Bus, Aviva, SSE Airtricity and more

RELAND: Business leaders from across the country gathered at the Mansion House in Dublin today, for the 2023 Business & Finance ESG Awards. Over 300 attendees turned out for the event and gala luncheon, which aims to recognise and celebrate individuals and groups actively striving to address environmental, social and governance issues. With 14 categories, the Awards showcase the accomplishments of ESG initiatives across all sectors.

Among the winners was An Post, which won the ESG Company Awards (Enterprise) as well as the overall ESG Grand Prix award; Dublin Bus took the Biodiversity Award in recognition of its efforts to help grow Dublin's bee population with new hives in its depots. The Social Responsibility Project Award was won by SSE Airtricity and the ESG Investment Award was won by Aviva, while Luke Deasy of Copper Coast Renewable was named ÉSG Future Leader. Meanwhile, Iseult Ward, Founder and CEO of FoodCloud, received the special recognition ESG Leader Award for her work connecting charities and communities where they are needed most. (*For the full list of winners, please see below).

Iseult is co-founder and CEO of the awardwinning social enterprise FoodCloud, which redistributes large quantities of surplus food across Ireland. The platform also connects food businesses directly to local charities. Working with over 600 Irish charities, an average of 2,200 tonnes is rescued annually with an estimated value of €6.7m.

Iseult has a history of inspirational leadership. In 2017 she was included on Forbes' 30 under 30 Social Entrepreneurs European list and is a deserving recipient of the ESG Leader Award.

Growing climate change concerns, the increasing importance of sustainability, the rising cost of living, the war in Ukraine and soaring energy prices mean increasing numbers of businesses are recognising the need to adopt ESG as an element of company policy. With this in mind, the awards were established to commend and encourage companies to become more ESG-aware by recognising those who are surpassing expectations and setting a high standard for all.

The judging panel for the 2023 ESG Awards includes notable business leaders such as Kathy Ryan, Head of Responsible Investment, Irish Life, Tomas Sercovich,



CEO, Business in the Community Ireland, and Jackie King, Executive Director of International Business, Ibec.

Speaking at this afternoon's ceremony in The Round Room at Dublin's Mansion House, Tracey Carney, Managing Director, ESG Awards, congratulated the winners:

"The entries for the second annual ESG Awards set the bar even higher than the inaugural event in 2022. Every company nominated has displayed truly impressive credentials across the board, reflecting the high level of importance placed on ESG standards across policy, production and everything in between. We congratulate all of the winners, and we look forward to seeing further progress in their companies and in Ireland's wider business community."

Accepting the ESG Leader Award, FoodCloud founder Iseult Ward said: "It is a huge honour to win this ESG Special Recognition Award. FoodCloud has been focused on creating a positive social and environmental impact since we started 10 years ago by rescuing surplus food. Today, the equivalent of more than 200 million meals has been donated to community organisations across four countries, a reduction of 270,600 CO2 Eq. We can only achieve this level of impact working with a significant number of businesses and community partners who also recognise the increasing importance of ESG. I would like to thank the Business & Finance team for this award and recognition of our global community committed to tackling food waste and food insecurity."

About Business & Finance ESG Awards

The Business & Finance ESG Awards recognise organisations and individuals who are actively striving to address environmental, social and governance issues. The ESG Awards is one of several events on the annual Business & Finance Awards Programme. Business & Finance was launched in 1964 as Ireland's first business magazine, with the Awards Programme established a decade later. Business & Finance Events has created recognition platforms in key global markets including Dublin, London, New York, Washington DC, Hong Kong, and Shanghai. The Business & Finance Awards is Ireland's premier business awards programme and includes among its previous honorees, outstanding leaders of our time across business, politics and wider society. For more information please visit businessandfinance.com

SETU launches MSc in Building Regulatory Compliance to ensure safe and sustainable buildings into the future

ndustry leaders and representative organisations joined South East Technological University (SETU) faculty to officially launch the Master of Science in Building Regulatory Compliance, a programme focusing on how regulations and standards affect a positive, healthy and safe environment where peoples' best interests are at heart.

The Building Regulatory Compliance Masters programme is designed to meet the growing demand for qualified professionals who can ensure compliance with building regulations to deliver high quality and sustainable buildings.

The postgraduate programme is ideal for a wide variety of professionals seeking to enhance their skills and knowledge in the areas of building control, regulation and compliance, including fire service professionals, architects, engineers, construction managers, building surveyors and regulatory officers. It will also be of interest to recent graduates who wish to specialise in this rapidly growing field.

Dr Derek Sinnott, Programme Director, said that the programme was developed as a direct response to a number of reports highlighting future skills gaps, in particular the Building Future Skills Report – Sept 2020.

This report calls for an 'enhanced culture of competence and compliance in the construction sector' where the programme 'will ensure a level of competency for builders, improve standards, and promote the attainment of qualifications within the sector'.

The Masters degree is specifically designed to give participants the knowledge and skills to interpret and apply building regulations, conduct site inspections, and evaluate compliance. Students will learn how to navigate the complex legal and technical aspects of building regulation, and how to communicate effectively with stakeholders, including clients, contractors, and regulatory authorities.

Dr Ken Thomas, Dean of Engineering at SETU Waterford, said "We are delighted to announce the launch of our new MSc in Building Regulatory Compliance. With the construction industry experiencing significant growth, there is a need for qualified professionals who can support compliance with building regulations, standards, and performance. This programme will equip students to excel in this exciting and rewarding field".

Hubert Fitzpatrick, Director General Designate of the Construction Industry Federation, said "The CIF is delighted to support the launch of the Building Regulatory Compliance programme at SETU. We believe that this programme will play a vital role in developing the skills and knowledge required to ensure that our built environment is safe, sustainable and fit for purpose".

Bob Jordan, CEO of the Housing Agency, said "The launch of the MSc in Building Regulatory Compliance is very timely and directly aligns with the Government's Housing for All strategy, which seeks to drive high standards and quality in construction. This new programme at SETU will make a welcome contribution to an enhanced culture of competence and compliance in the construction sector".

The programme starts in September 2023 and is offered as a one year full time programme or over two years in blended mode. More information on the programme can be found on www.setu.ie/courses and applications can be made through www.pac. ie.



Photo: L to R - Dr Richard Manton – Interim Registrar & Chief Risk Officer, Engineers Ireland; Colin Gallagher – Senior Engineer Fingal County Council, Kathryn Meghen – CEO, RIAI; Sean Downey – Director of Specialist Contractors, CIF; Dr Derek Sinnott – Programme Director, SETU; Mairead Phelan – Head of NBCO; Keith Graham – Architect, NBCO, Dr Ken Thomas – Dean of Engineering, SETU; Bob Jordan – CEO, Housing Agency; Hubert Fitzpatrick – Director General Designate, CIF.

Allianz Ireland launch new Climate Safe Homes initiative to futureproof Irish homes

• New €1 million investment aims to streamline and accelerate climate adaptive home building in Ireland

• Insurer aims to pioneer new home building model with experts from the Irish Green Building Council and across the construction industry

ublin, Ireland - 20th April 2023: Allianz Ireland, a part of the world's leading insurance group, today announced the launch of its new Climate Safe Homes initiative to accelerate climate adaptive home building in Ireland. The programme is a first-of-its-kind for the Irish insurance industry and includes a new $\notin 1$ million investment to help drive sustainable solutions and collaborative innovation across the financial services and home construction sectors.

As part of Climate Safe Homes, Allianz Ireland will bring together key stakeholders across construction, engineering, and architecture to pioneer and develop a new home building model designed specifically to withstand the effects of Ireland's changing climate. The project will initially focus on developing a climate resilient three bed semidetached home, ensuring that affordability is taken into account. This approach will also ensure that climate adaptive solutions identified by the project can be retrofitted to existing housing stock. In addition, solutions developed through Climate Safe Homes aim to align with future approaches to housing in Ireland such as climate adaption for higher density housing.

"Climate change is one of the main challenges facing our society today, and while every effort must be taken to mitigate future climate change, we are already seeing the effects of changing weather patterns," said Ursula Murphy, Chief Transformation Officer at Allianz Ireland. "At Allianz Ireland, protection that gives people confidence in tomorrow is at the core of what we do. Climate Safe Homes will allow us to help provide that by helping to transform Irish homes through climate adaptive building.

The initiative comes as Ireland continues to experience more incidents of extreme weather leading to devastating effects for homes and communities across the country. According to data from 2020 almost 70,000 homes and premises are at risk of coastal flooding. Other climate related issues posing a risk to homes across Ireland include changing rain patterns, increasing temperatures and storm frequencies.

As a leading insurer of Irish homes and business, Allianz Ireland is partnering with the Irish Green Building Council and others to establish a cross industry working group to provide a home-grown solution for building and renovating sustainable, climate ready homes in Ireland.

Speaking on the announcement Pat Barry, CEO of the Irish Green Building Council said "In Ireland, we are currently facing a dual crisis – housing supply and climate change. By working collaboratively through initiatives such as Climate Safe Homes





with Allianz we have the opportunity to influence the construction of thousands of climate adaptive homes for the future while also safeguarding Ireland's existing housing stock, hence contributing to a reduction in our carbon emissions".

The Climate Safe Homes programme forms just one part of Allianz Ireland's commitment to helping build a secure and sustainable future. Today the insurer also published the Allianz Ireland 2022 Sustainability Brochure to provide an overview of its ESG efforts and progress todate including the reduction of its GHG emissions by 29% in 2022 and its goal of becoming Net-Zero by 2030.

"By engaging our incredible employees and working closely with our partners, Allianz Ireland has made significant progress in reducing our carbon footprint. As we look ahead, we are excited to go even further over the coming years to enable our customers to have confidence in tomorrow and our Climate Safe Homes initiative will be a key part of that." said Ursula Murphy.

By leveraging the innovative design and construction techniques, Allianz Ireland believes homes designed through its Climate Safe Homes initiative could also help lower emissions through more sustainable construction methods and increasing energy efficiency in Irish houses.

For more info go to allianz.ie/climate-safe-homes

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Viatel Technology Group partners with Cisco to offer sustainable networking solutions for Irish enterprises

iatel Technology Group, a leading provider of networking solutions and digital services, has announced an initiative to help its customers reduce their carbon footprint and be more sustainable when refreshing their networks. Viatel customers can now return used hardware to be responsibly reused and recycled. By recycling end-of-life equipment, companies will reduce e-waste, helping them to achieve their sustainability goals and reach their targets for a circular economy.

Access to this takeback scheme is a result of Viatel recently being awarded Cisco's Sustainability Certification. The certification recognises that Viatel, a Cisco Partner, is committed to providing sustainable networking and IT infrastructure solutions that are not only good for the environment,

About Viatel Technology Group (Viatel)

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Viatel Technology Group is an independent digital services group with market leading capabilities in cloud, communications, connectivity, security and digital transformation. Impressive organic growth and a series of acquisitions has accelerated Viatel Technology Group's evolution from a long-established business telecoms company to a rapidly expanding digital services powerhouse. The Viatel customer base spans many industries, but it is notably strong in the fintech, healthcare, and retail sectors. Powered by passionate people, extensive infrastructure and global partnerships, Viatel's purpose is to enable our customers to operate, grow and transform. A Deloitte Best Managed Company, Viatel employs 290 experienced staff who embody our values of customer service, excellence, trust and care as they serve thousands of enterprise customers, including many multinational corporations and household names. A proud Guaranteed Irish member, Viatel has global capabilities including an international network and transatlantic data centre facilities. To discover how Viatel can give your company the competitive edge, email us on getstarted@viatel.com **=**



Viatel Technology Group CTO, Eilish O'Connor, launches new sustainability initiative with Cisco.

but also reduce operational costs and increase efficiencies. Cisco, the worldwide leader in technology that powers the internet, has committed to achieving 100 % product return on end-of-use hardware globally, a goal that Viatel has now pledged to support.

Eilish O'Connor, CTO with Viatel Technology Group, said "We are very proud to have been awarded the Sustainability Certification by Cisco and to be in a position to help our customers to be more sustainable in their network refresh efforts. Like so many companies, our customers have become more environmentally conscious. When discussing network refreshes and updating IT infrastructure, the sustainability of our proposed solutions has become part of the conversation for the first time. Achieving this specialisation allows us to operationalise environmental sustainability practices in a meaningful and practical way."

Eilish continued, "Viatel Technology Group's commitment to sustainability is part of its broader mission to deliver reliable, cost-effective, and innovative network solutions to our customers. By prioritising sustainability, the company is not only reducing its impact on the environment but also helping our customers to do the same."

Viatel Technology Group CEO, Paul Rellis, congratulated the team on this latest accreditation, "Our team is constantly upskilling to stay on top of the latest innovations from our global partners. The sustainability certification is special because it resonates so strongly with our own company values. As a responsible corporate citizen, we are committed to our communities and our environment and to reducing our own carbon footprint."

Viatel Technology Group delivers its award-winning fully managed SD-WAN service exclusively on Cisco Meraki technology. Earlier this year, Viatel published Ireland's first SD-WAN Report, supported by Cisco.

Hurling legend Joe Canning and Limerick hurler Gearóid Hegarty team up with Bord Gáis Energy to launch 'It's Anyone's Game'

• New campaign aims to celebrate and support inclusivity in hurling

• Bord Gáis Energy extends its partnership with the GAA and the Senior Hurling Championship until at least 2025.

onday, April 18, 2023: Bord Gáis Energy, Ireland's leading home energy management and services provider has today launched 'It's Anyone's Game', a new campaign that will see the brand use its sponsorship of the GAA All-Ireland Senior Hurling Championship to celebrate and support the diversity and inclusivity that hurling brings to communities throughout the country.

With an exciting season of hurling ahead, Bord Gáis Energy also announced it will extend its sponsorship of the GAA All-Ireland Senior Hurling Championship until at least 2025.

It's Anyone's Game forms part of Bord Gáis Energy's ongoing commitment to using its high-profile sponsorship to champion hurling across the country, create positive discussion around inclusivity and demonstrate that hurling is a place for everyone. It follows on from its award winning 'State of Play' campaign which saw the brand use its sponsorship platform to drive a conversation around inclusivity and champion allyship in team sports during Pride last year.

This year, Bord Gáis Energy has once again teamed up with hurling legend Joe Canning and Limerick hurler Gearóid Hegarty. Other high-profile personalities taking part in the initiative include activist and sports journalist Joanne O'Riordan, former Leitrim hurler Zak Moradi and former Cork hurler Seán Óg Ó hAilpín.

As part of the campaign, Bord Gáis Energy is launching a new competition to uncover and spotlight personal stories from across the country celebrating inclusivity within the game. Each week throughout the championship, listeners of Newstalk's Off The Ball will be invited to share their 'It's Anyone's Game' story via WhatsApp.The competition will run from 24 April – 14 July with weekly prizes to include match tickets and signed jerseys and one overall prize of much coveted All-Ireland Final tickets.

To enter simply WhatsApp 086 786 9642 by text message or voice note and share your hurling story and why you believe hurling is anyone's game. For full competition details visit www.bordgaisenergy.ie/home/bge-gaa for all the competition information.

Commenting on the launch of the campaign, Limerick hurler Gearóid Hegarty said: "I'm delighted to team up with Bord Gáis Energy once again to launch this year's championship and to lend my support to this campaign which celebrates the important role hurling plays in fostering diversity and inclusion. Sport is a great unifier and as a game that is played in schools, towns, and



villages up and down the country, hurling plays a key role in Irish society and brings communities together. This campaign aims to celebrate the passion that people up and down the country have for the sport and uncover the stories of what hurling means to fans both old and new."

Managing Director of Bord Gáis Energy Dave Kirwan said: "At Bord Gáis Energy we believe in an open and equal society where each and every person can thrive. As a longstanding and proud partner of the GAA and sponsor of the All-Ireland Senior Hurling Championship, we're uniquely positioned to use our high-profile platform to celebrate and support inclusion in hurling.

We're delighted to announce an extension of our sponsorship of the championship until at least 2025. We look forward to continuing to make a real difference with our platform and supporting the GAA in this regard.

Our new campaign aims to support and celebrate diversity and inclusion in hurling by driving awareness that hurling is anyone's game whether you're a fan, a player or even helping out behind the scenes. Throughout the Championship, we'll be shining a spotlight on the people and the stories behind the game which celebrate the unifying power of the sport."

Uachtarán Chumann Lúthchleas Gael, Larry McCarthy added: "Bord Gáis Energy has been a very significant sponsor of the GAA Senior Hurling Championship since 2017 and we are delighted that they will be continuing this partnership with us until 2025. Their commitment to the promotion of the sport has been unwavering and we look forward to continuing our work with them.

It's Anyone's Game is a reflection of their inclusive and inspiring work which will no doubt bring about yet another very successful year for all involved. We are very grateful to Bord Gáis Energy for their ongoing support and the passion they bring to the promotion of hurling."

Fans can visit Instagram.com/bgegaa for news, and additional content or head to www.bordgaisenergy.ie/home/bge-gaa for all the competition information.

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New Met Éireann maps will guide future construction developments

nalysis can be used to inform public policy, particularly relating to the built environment, such as the building of bridges, roadways and buildings

Met Éireann, in a joint initiative with the Department of Housing, Local Government and Heritage's building standards team, has unveiled a series of climate maps and design weather files in a series of new research reports which will guide the design and construction of Irish building projects into the future. This is an important action of our Climate Action Plan as well as the National Adaptation Framework – the strategy to reduce the vulnerability of the country to the negative effects of climate change.

The reports and maps can be accessed here and here.

Based on official international methods, Met Éireann has produced new reports which utilise the driving rain index (an important climatological consideration when designing buildings) and maps extremes in temperature, soil temperature, snow loadings and rainfall frequencies. Climate data for use in building design consisting of past and future weather files for overheating risk assessment are also presented. The outputs of this analysis can be used in numerous ways to inform public policy and to futureproof investment, particularly relating to the built environment - such as the building of bridges, roadways and buildings.

The work was completed in consultation with a steering group made up of representatives from the National Standards



Keith Lambkin.

Authority of Ireland, Sustainable Energy Authority of Ireland and members of the Department's Building Standards committee under Climate Action Plan 2021. The output of this research will be used to inform national standards and guidance documents relating to the built environment to ensure Irish buildings continue to be climate resilient over their full design life.

Keith Lambkin, Head of the Climate Services Division at Met Éireann, said:



"This joint initiative is a great example of the joined-up working and collaboration to get the best from the climate services that Met Éireann is uniquely equipped to coordinate for Ireland. Blending climate knowledge with sectoral specific expertise has allowed us to tailor climate insights to support Irish decision makers".

This work showcases Met Éireann's broader role in the development of climate services to benefit wider society as part of their Strategic Plan 'Making Ireland Weather and Climate Prepared', which focuses on assisting Irish society to be ready for and responsive to weather and climate risks.

Mr Lambkin added:

"Climate and weather impact our built environment in many ways. For example, planners can use the specialised temperature maps in this research to help improve the resilience of structures against factors such as possible future temperature extremes. As Ireland's climate changes, these new services will support climate change adaptation and will assist a variety of sectors, allowing planners and policy makers to make decisions now that will help protect against climate and weather risks in the future."

Met Éireann coordinates Ireland's National Framework for Climate Services (NFCS), which along with its many partners, supports climate adaptation by providing tailored information and consultancy support on Ireland's changing climate. This allows Irish decision makers to build resilience into their forward planning, helping to protect built assets, local economies and lives.

Decentralised Electrolyser Technology the Answer to Green HGV Infrastructure Concerns

ecentralised polymer electrolyte membrane (PEM) electrolyser technology could address the lack of hydrogen refilling stations across Europe ahead of the deadline to end fossil fuel truck sales by 2040.

The Society of Motor Manufacturers and Traders (SMMT) has urged the UK Government to set out plans for HGV hydrogen refilling stations, as the logistics and transportation sectors strive to cut emissions in line with net zero targets.[1] Claiming decarbonisation as 'impossible' for most operators without public investment in infrastructure, the SMMT is concerned that the deadline will be missed without immediate action.

According to engineering specialists at IMI Critical Engineering, the development and uptake of PEM electrolyser technology could bridge the gap between the current lack of hydrogen refilling stations and future fleet decarbonisation. Specifically, the company is highlighting the importance of decentralised solutions that produce green hydrogen onsite at logistics and transportation firm depots.

"Transitioning HGVs to sustainable fuels will be crucial to ensuring the UK's and Europe's logistics and transportation industries hit key emissions and decarbonisation targets," says Jackie Hu, Divisional Managing Director for IMI Critical Engineering. "The SMMT is right to voice its concerns about a lack of hydrogen refilling stations, which is being echoed in other European markets. However, regardless of insufficient infrastructure, immediate solutions must be found to ensure the sector can make the change as smoothly as possible.

"Deploying small, turnkey electrolyser solutions that draw power from green energy sources at fleet depots and business premises could, therefore, be a vital first step



for organisations looking to use hydrogen for power-to-mobility purposes. Combined with other on-site equipment, such as lowpressure buffer tanks for storage and highpressure compressors required for refuelling, these solutions could help alleviate the sector's concerns."

The IMI VIVO PEM electrolyser, which produces green hydrogen from renewable sources such as solar and wind power, has been designed for organisations with power demands between 100kW to 5MW that may fall below the threshold for larger solutions in the market. According to Mr. Hu, this smaller size, alongside IMI Critical Engineering's technical expertise in developing and providing ancillary equipment, makes it well-placed for businesses looking to implement hydrogen into their energy mix and ongoing operations.

"Hydrogen is going to play a crucial role in the transition to cleaner and more sustainable energy sources, and electrolyser technology will be key to this," Mr. Hu adds. "It cannot be denied that there are challenges ahead when it comes to decarbonising the HGV and logistics sector, which is why businesses must seek out suppliers who can assist with these efforts.

"As regulations become stricter in the UK

and Europe, businesses must adopt greener practices. IMI Critical Engineering can help by providing low-pressure hydrogen storage technology and smaller electrolysers. This partnership can give proactive organisations a competitive advantage securing bv their hydrogen supply and lead the way towards a better world.' To find more about the IMI VIVO Electrolyser and IMI Critical Engineering, www.imiplc.com

About IMI Critical Engineering

IMI Critical Engineering (IMI Critical) has long been recognised as a worldleader in the provision of flow control solutions. Our products allow vital industries to operate safely, cleanly, reliably and efficiently, so that they can provide us with the energy, resources and materials that underpin modern lives.

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IMI Critical's family of specialist companies design, manufacture and service bespoke valves and actuators that precisely control the flow of steam,gas and liquids under extremes of pressure and temperature, as well as intensely abrasive or corrosive operating conditions.

Our valves can be found in a myriad of industrial plants and processes around the world, enabling the production of oil and gas, power, petrochemicals, metals, pharmaceuticals, cosmetics, food and beverages, water and sanitation, pulp and paper, ethanol and sugar. Our products are also widely deployed on ships and submarines.

Our engineering expertise means that we can make hazardous processes safer, cleaner and greener. By helping clients reduce emissions, improve safety, and make processes more efficient, we have a direct and positive impact on the world. That is why we describe our purpose as 'breakthrough engineering for a better world'.



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Ireland's seafood economy worth €1.3 billion in 2022, despite volatile year

Higher prices, full reopening of foodservice and an increase in consumption of seafood in Ireland contributes to 4% annual growth

he value of the Irish seafood economy increased to €1.3 billion in GDP terms last year, an increase of 4% compared to 2021. This was largely driven by an increase domestic consumption in of seafood in Ireland in the foodservice sector as well higher prices, both domestically and on the main export markets. There was also a significant increase Government investment in in 2022 as funding under the Brexit Adjustment Reserve (BAR) began to come on stream. The Bord Iascaigh Mhara (BIM) Business of Seafood report, launched by Minister for Agriculture, Food and the Marine, Charlie McConalogue T.D today reveals a 10% increase in Government investment (€255 million) in 2022. This includes the opening of several Brexit Adjustment Reserve (BAR) schemes to support the industry in the latter half of the year.Speaking at the launch event today, Minister McConalogue

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referred to the significant challenges facing the industry in 2022 - including the conflict in Ukraine - which led to rising energy costs as well as reduced quotas and difficult trading conditions with the UK in the aftermath of Brexit:

"Following from the economic shocks in 2020 and 2021 from the global pandemic and Brexit, 2022 brought with it a new set of challenges created by the war in Ukraine. This has seen energy prices rise to unprecedented levels and created a difficult trading environment for the whole seafood sector adding to challenges brought on by Brexit. However, the industry has once again shown is resilience to such shocks and continues to be a key socio-economic driver in coastal communities, employing more than 15,000 people. I recognise the pressure those working in the industry have faced in the last year, and that is why I have delivered significant funding under the Brexit Adjustment Reserve to assist the sector."

Strong price growth for Irish seafood The report reveals how market inflation has resulted in strong price growth for Irish seafood, particularly wild caught fish. The value of the overall Irish seafood sector increased by 13% to \in 703 million, while the overall value of Irish aquaculture products



increased by 10% to €196 million.

Dublin Bay prawns surpassed mackerel as the most valuable wild caught species for the industry, having more than doubled in price (+53%) in 2022. Irish rock oysters (+8%)and rope grown mussels (+7%) all benefitted from strong price growth last year within the aquaculture sector.

Caroline Bocquel, CEO BIM, also acknowledged the enduring strength of those working in the seafood industry and noted that it played a vital role in coastal communities in Ireland:

"The strong reputation of Irish seafood is evident in the figures released in this latest Business of Seafood report. Last year saw significant market volatility and disruption, following so soon after Covid and Brexit. The dedication and resilience of those working in the industry is reflected in the increased value of the sector as a whole. BIM remains steadfast in its commitment to support industry to navigate the fast-changing global landscape."

While the volume of seafood produced by the Irish sector didn't match previous years, there was very strong price growth, particularly in the sea-caught fish sector, which saw prices increase by 38%. During 2022, a total of \notin 507 million worth of seafood was landed at Irish ports, which was a 14% increase on 2021 in value terms.

Killybegs in Co Donegal was the State's largest fishing port in 2022 by value, with landings worth €135 million, closely followed by Castletownbere in Co Cork, with €129 million worth of catch landed. The value of landings also increased significantly in the ports of Ros an Mhil, Clogherhead and Greencastle, as a result of higher prices for whitefish and prawns. The top-selling species on the Irish market during the year were salmon (€119 million) and cod (€44 million). Organic salmon was the top species produced by the aquaculture sector - accounting for 13,500 tonnes worth €124 million – while Dublin Bay prawns were the top species landed by the Irish fleet, accounting for 6,200 tonnes with a value of €82 million.

The sector employed about 15,300 people in 2022, with 1,993 registered vessels, over 10 seafood processors and just under 300 aquaculture sites. More than 8,200 people are directly employed in the sector, with a further 7,100 jobs supporting the sector indirectly.

The 2022 Business of Seafood report is available for download by visiting https://bim.ie/publications/corporate-and-other-reports/

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EPA announces increased funding of €16m for new research to address climate and environmental challenges

- EPA announces increased funding of €16m for new environmental and climate research
- Research proposals are invited for research across the following areas:
- nature-based solutions that can benefit the environment and society
- advancing climate science in an Irish context
- identifying effective options to adapt to climate change
- the use data of and digitalisation for environmental protection and
- how society can be enabled in its transition to a sustainable future

uccessful researchers will work closely with policy makers and other relevant stakeholders to ensure that the research is impactful and effectively informs environmental policy in Ireland.

Environmental and climate research in Ireland today received a boost with the announcement by the EPA of up to $\in 16$ million in funding for new research projects, representing a significant increase over previous years. The EPA is inviting proposals from the research community for innovative research projects to support the development and implementation of environmental policies in Ireland.

Announcing the EPA funding call, Dr Eimear Cotter, Director of the Office of Evidence and Assessment said:

"Scientific research and innovation are playing an increasingly important role in informing how governments and society can respond to the challenges posed by climate



change and environmental degradation. Today's EPA research call will address knowledge gaps, both current and future, and ultimately will provide robust evidence to support the implementation of effective environmental policies in Ireland."

Areas of research include exploring how nature-based solutions can benefit the environment and society, advancing climate science in an Irish context, and identifying effective options to adapt to climate change. Cross-cutting areas are also highlighted, such as how data and digitalisation can be utilised for environmental protection and how society can be enabled in its transition to a sustainable future.

Dr Darragh O'Neill, EPA Research Manager, said,

"In this year's call, we are pleased to include both targeted and open topics to support the research community to address specific evidence needs as well as to explore emerging research areas relevant to environmental policy. With up to €16m available under this call, we look forward to receiving proposals for innovative and impactful projects."

The EPA Research Programme is a Government of Ireland initiative funded by the Department of the Environment, Climate and Communications. Under this year's call, the EPA is delighted to be partnering with the Geological Survey Ireland, National Parks and Wildlife Service and Met Éireann to co-fund projects in areas of mutual interest.



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For the 8th consecutive year, Johnson Controls is named to the Clean200, the top 200 companies leading the transition to a sustainable global economy

- Johnson Controls has been named to the Clean200 every year since its inception in 2016, joining the list of 200 companies putting sustainability at the core of their business.
- Of 6,720 global companies, 200 were selected for the high proportion of their revenues earned through sustainable business.
- For fiscal year 2022, 54% of Johnson Controls revenue was generated from low carbon products and services based on the Corporate Knights Sustainable Economy Taxonomy standard, up from 48% in 2020.

ORK, Ireland, April 24, 2023 -- For the 8th consecutive year, Johnson Controls (NYSE: JCI), a global leader for smart, healthy, and sustainable buildings, has earned a place on the Clean200, a list of 200 companies that As You Sow and Corporate Knights say are leading the transition to a sustainable global economy by "putting sustainability at the heart of their products, services, business models and investments."

Out of 6,720 global companies, 200 were selected for the high proportion of their revenues earned through sustainable business, including energy efficiency, use of recycled content, and low-carbon products. For fiscal year 2022, 54% of Johnson Controls revenue was generated from low carbon products and services based on the Corporate Knights Sustainable Economy Taxonomy standard, up from 48% in 2020 – with a focus on delivering end-to-end net zero building advisory, products, and services. Johnson Controls provides the technology to make old and new buildings carbon neutral and even net energy positive.

"We are honoured to have been on the Clean200 list every year since it was launched," says Mark Reinbold, Vice

President of Sustainable Infrastructure, Johnson Controls. "Sustainability and decarbonisation are the core of our business. We are out in front and are aggressively tackling the 40% of emissions buildings contribute globally with "Net Zero Buildings as a Service", the industry leading, fully integrated building decarbonisation offering. We offer carbon footprint assessment and advisory. We also deliver the entire smart building trifecta of energy-efficient equipment, electrification of building systems, and digitalisation with our OpenBlue connected ecosystem. We remove financial barriers with as-a-service financial models that make it possible for all building owners to start the net zero journey without upfront capital outlays. And finally, OpenBlue offers advanced digital tracking of energy and emissions, so organisations can report their progress accurately for certification and compliance frameworks."

"For over 20 years, we have been working towards decarbonisation and reporting on our progress. We were an early signatory to the UN Global Compact in 2004, and we have committed to the most ambitious 1.5 C scenario goals in our Science Based Targets (SBTi) for scope 1 and 2 emissions,



as well as committing to ambitious scope 3 reductions," says Renae Kezar, Vice President of Corporate Sustainability and Regulatory Affairs, Johnson Controls. "We are honoured, again, by the Clean200 recognition, underscoring our continued focus on both internal sustainability, and on supporting our customers through the carbon transition, by delivering products and solutions that help to reduce the carbon footprint of buildings. We are also seeing the return on investment for the planet and our business with 75%+ of our annual R&D investments focused on sustainable product innovation."

Johnson Controls Recognition for ESG & Sustainability:

- Ranked on 2023 Global 100 Listing of the World's Most Sustainable Corporations by Corporate Knights
- World's Most Ethical Companies by Ethisphere for the 16th time In 2022:
- Distinguished as a Global Climate Leader by the Climate Disclosure Project
- Awarded platinum sustainability rating by EcoVadis, placing it in top 1% of companies evaluated
- Named as Microsoft's Global Sustainability Changemaker
- Fortune Change the World list
- Fortune Most Admired Companies
- Forbes Best Employers for Diversity
- 100 Best Corporate Citizens by 3BL Media for the 17th year in a row
- AAA rating by MSCI for the fourth year in a row
- ESG Industry Top Rated by Sustainalytics
- ISS Prime Corporate ESG Performance, #1 in our GISC industry
- Named to Financial Times European Climate Leaders list
- Received HRH The Prince of Wales' Terra Carta Seal.

To read more about Johnson Controls commitment to sustainability, please visit: https://www.johnsoncontrols.com/ corporate-sustainability/environment

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West coast wind could power country, but technology needed still a decade away

irGrid chief Mark Foley says producing 80 per cent of Ireland's energy needs from renewable sources by 2030 is 'a meaty challenge'

Ireland's west coast could generate more than enough wind energy to power the country, but it will take at least 10 years and probably longer to develop the required technology, EirGrid boss Mark Foley has said.

Ireland is aiming to produce 80 per cent of its energy from renewable sources by 2030 with 45 per cent coming from onshore wind farms, another 45 per cent from offshore wind farms while the growing solar sector would contribute 10 per cent.

Mr Foley said it took Ireland 20 years to get to the point where it was producing 40 per cent of its energy needs from renewables in 2020 but the challenge was to continue to grow the proportion coming from renewable sources over the next seven years.

"The Government ask is that we get the amount of energy coming from renewable sources to 80 per cent by 2040 – that's an anchor pillar in the Government's climate action plan and it's going to be a meaty challenge to double the present rate from renewables and to do so while demand is growing."

Speaking in Cork at the opening of |

EirGrid's first office outside Dublin, Mr Foley said the next phase of expansion would rely heavily on offshore wind around Ireland.

"The big heavy lifter for 2030 is offshore wind because offshore wind will completely transform the renewables capacity in the Irish system because offshore wind potentially produces an awful lot more energy than an onshore wind farm because it's out at sea.

"Offshore wind is a critical component in our strategy to deliver on the climate action plan and EirGrid is launching a major consultation programme in respect of how we are going to design and build the next phase of our offshore sector off the south coast, off Cork and Waterford."

Mr Foley said the plan was that by 2030, Phase L of offshore wind generation off the east coast would contribute 5 megawatts of electricity to the Irish grid while Phase II off the south coast would contribute just under 1 gigawatt – 900 megawatts – to the Irish grid.

"Take a 2030 window. We have a target of 5 gigawatts from the east coast, why? Because the east coast is the easiest place to start because the seabed is not deep, the sandbar is out there so you can deploy very proven technology so there is no technology risk here. "It's been done all around the world and you can anchor the wind turbine into the seabed and all the way from Dundalk down to Wexford, you have a perfect bed for putting in large turbines, so we are targeting 5 gigawatts from that sector.

"Now, Phase II is off the south coast and we are again targeting a 2030 timeline though it may run slightly over that and we are aiming to produce 900 megawatts – waters here are getting deeper and the technology, including in relation to floating wind turbines, is evolving all the time.

"That technology is not commercial yet, but we do see a situation coming towards the end of the decade where wind farms will be floating on platforms and the advantage of that is that they are further out at sea, and they can capture even better wind."

Mr Foley said a lot of the innovation in relation to the development of floating wind farms came from the experience of the oil and gas sector where they were used to locate platforms in deep waters but the plan for 2030 was for wind farms to be based on proven technologies.

Capture for image: Ireland is aiming to produce 80 per cent of its energy from renewable sources by 2030, with 45 per cent coming from offshore wind farms.



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ENVIRONMENT & ENERGY MANAGEMENT APRIL/MAY 2023

Allow solar panels on agricultural buildings without planning, says Oireachtas committee

Committee says renewable power 'microgeneration' on farms could be crucial support for agricultural revenues in the future

n Oireachtas committee has called on the Government to allow solar panels on agricultural buildings without planning permission in a bid to help farmers meet new climate targets. In a report on Thursday the joint committee on agriculture said such measures were required to help meet the goal of installing solar panels on "every appropriate farm building" in the drive to cut carbon emissions. The report comes amid controversy in the farming world over binding targets on the sector to achieve a 25 per cent cut in emissions from 2018 levels by 2030.

The committee said renewable power "microgeneration" on farms could be a crucial support for agricultural revenues in the future. "The adoption and deployment of solar technology on farms has been identified as a key element in meeting these targets given its potential to offset input costs and act as a revenue generator, enhancing family farm incomes," said Fianna Fáil TD Jackie Cahill, committee chairman.

Sinn Féin TD Matt Carthy, who drafted the report, criticised the lack of a "coherent strategy" for solar power in agriculture. "While farmers in principle have the opportunity to generate solar energy at every scale a disjointed regulatory and support framework can make adoption seem overly burdensome and in practice limit or even disincentivise adoption."

The committee said it heard from several stakeholders that planning requirements were a limiting force on "solar ambition" because they led people to opt for smaller systems than would be optimal.

"The committee recommends that the Department of Housing, Local Government and Heritage proceed as a matter of urgency regarding proposals to exempt solar panels on farm buildings from requiring planning permission, with a view to enacting an exemption without delay," the report said.

It also called on the agriculture and climate departments to formulate a new strategy so that all suitable farm buildings could be used for solar power. Such departments were urged to hold talks with electricity companies and financial institutions to assess the viability of measures to offset upfront costs with lowinterest loans or a tariff on excess electricity sold on to the national grid.

"The committee believes that a complex

regulatory framework and disparate departmental responsibility over aspects of on-farm solar relating to regulation, microgeneration, and supports has resulted in a lack of transparency in relation to levels of adoption and the success of overall Government policy in achieving such," the report said.

It also called on the Sustainable Energy Authority of Ireland, the State body responsible for clean energy, to establish a bespoke scheme to back farmers using solar technology.

In addition, the committee called on the Government to explore potential to use battery or "alternative storage measures" with solar panels installed on agricultural buildings.

"The committee recommends that the Department of the Environment, Climate and Communications examine the potential of delivering a mechanism whereby farmers are able to store excess electricity generated through the national grid, receiving a comparative amount of energy or credit in return as needed."



The committee report calls on the Sustainable Energy Authority of Ireland to establish a scheme for farmers using solar technology

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ENVIRONMENT & ENERGY MANAGEMENT APRIL/MAY 2023

Ireland joins European project to scale up offshore wind energy

Taoiseach Leo Varadkar says investment in wind will bring about profits of 'tens of billions'

reland's inclusion in a North Sea plan to rapidly scale up offshore wind energy generation and build an international grid is key to avoid being left out of European plans to create a vast power generation network, the Taoiseach has said.

Ireland joined a group of eight European countries in a pledge to quadruple wind energy generation and develop "islands" linking offshore energy infrastructure, declared in the coastal Belgian city of Ostend on Monday.

Ireland's inclusion extends the scope of the plans as far as the Atlantic Ocean, and the potential for the country to become a major wind energy exporter was highlighted at the summit.

"We're very glad to be added to the group, because there's a risk that everything would happen in the North Sea and we'd be kind of left out on a limb and then trying to connect in later," Taoiseach Leo Varadkar told The Irish Times. "But this means as things get built out in the North Sea, we'll be part of that."

The North Sea is seen as a prime area for the construction of offshore wind facilities because it is relatively shallow, making construction easier.

However, if Ireland can develop the technology to build in the deeper and wilder waters off its coast, there is significant potential for energy generation due to higher wind speeds and frequent storms.

Mr Varadkar told a press conference at the conclusion of the summit that Ireland aimed to build wind energy farms with the capacity to produce roughly five times the entire current national electricity demand, meaning that the country would become a major energy exporter.

He described it as a "huge economic opportunity".

"The fuel that powers the energy is free, and all you need to do is install the equipment and install the grid," Mr Varadkar said.

"When it comes to the investment, we're going to need a combination of private investment and public investment. It's going to take many billions, tens of billions we believe. But crucially, I think we need to understand that this form of public investment is public investment that will pay for itself," he continued.

"A lot of public investment that we make is really important and really valuable, but it never turns a profit. Investment in energy will turn a profit."

In a sign of warming relations and greater post-Brexit co-operation, Britain's state secretary for energy security Grant Shapps joined the conference and announced a deal with the Netherlands to build a large interconnector line to carry wind farm energy between them.

Leaders from Norway, Luxembourg, Denmark, France, and Germany also joined the conference, which was hosted by Belgium Prime Minister Alexander De Croo.

Delegates representing the wind energy industry also attended the summit, which was aimed to encourage standardisation of wind turbine technologies and grid interconnections so that production can be scaled up and energy shared.

Minister for the Environment, Climate and Communications Eamon Ryan said that the development of wind energy resources would lead to cheaper electricity costs for consumers.

"That's the cheapest power supply in the world. And it's also the most secure, it's also the cleanest, it's also the one where we have advantage," he told reporters.



The North Sea is seen as a prime area for the construction of offshore wind facilities because it is relatively shallow, making construction easier, those attending the conference heard.

Ireland's power generation and industrial emissions decreased by four percent in 2022

- In 2022, greenhouse gas emissions from Irish power generation and industrial companies, covered by the EU Emissions Trading Scheme, decreased by four percent.
- Emissions decreased by two per cent from the electricity generation sector.
- The decrease in industrial emissions is over seven per cent, with the cement industry emissions decreasing by almost nine per cent.
- In contrast, greenhouse gas emissions from aviation increased dramatically by approximately 94 per cent compared to 2021, which reflects continued growth in this sector after the impact of Covid-19.

he Environmental Protection Agency (EPA), as the Competent Authority in Ireland for the EU Emissions Trading System (EU ETS), today released its preliminary analysis of greenhouse gas emissions in 2022 from the ETS sector. Emissions from Irish power generation and industrial companies decreased by four per cent (more than 600.000 tonnes) in 2022. This compares with a decrease of approximately 1.2 per cent across Europe, according to preliminary analysis by carbon analysts of the data released today by the EU Commission.

Ireland's ETS sector delivered a decrease in emissions in 2022 due to a combination of factors, including increased use of renewable electricity and renewable fuels as well as a decrease in cement production. In the electricity sector there was less use of coal and peat fired generation compared to the previous year, as conventional gas generation was available along with renewable energy. Fossil fired power stations continued to play a strong role in meeting a high electricity demand.

Laura Burke, EPA Director General said:

"While the decrease we are seeing for 2022 from the emissions trading sector is welcome, 2022 emissions are in fact slightly above the pre-pandemic levels in 2019.



Laura Burke, EPA Director General.

Much more needs to be done if the sectoral targets under the 2023 Climate Action Plan are to be reached.

The challenges faced in the power generation sector are in sharp focus at the moment. Decisions taken now must recognise the urgency of the climate change challenge and support the delivery of reductions in emissions through the development and roll out of a range of low carbon and renewable solutions."

Aside from power generation, the decrease



in industrial emissions is seven per cent.

- Cement industries recorded a nine per cent decrease overall due to a drop in production and a small increase in the use of biofuels;
- Emissions from pharmachem industries decreased by almost three per cent.

Aviation emissions from flights within the European Economic Area reported to Ireland by 31 March increased by 94 per cent compared to 2021, to over 10 million tonnes. This is still lower than the prepandemic levels of 12.8 million tonnes. While some restructuring of routes has taken place - and some operators previously reporting to UK are reporting to Ireland nevertheless the emissions data reflect that there was a strong recovery of the sector in 2022.

Dr Maria Martin, EPA Senior Manager, said:

"The increase in aviation emissions highlights the need to reduce the carbon intensity of air travel, including through the use of sustainable aviation fuels. In addition to other EU initiatives, the revised ETS Directive, shortly to be published, will incentivise the use of such fuels."

In Ireland, 107 major industrial and institutional sites were required to report their emissions for 2022 by 31 March 2023 in the EU Emissions Trading System. These include sites operating in the power generation, cement, lime, and oil refining sectors. Also included are large companies in sectors such as food & drink, pharmaceuticals and semi-conductors.

Details of the verified emissions of greenhouse gases in 2022 are available on the EU's website. The data are not complete for all Member states. Analysis of the EU data can be found in Carbon Pulse.

Further details about Emissions Trading are available on the EPA website. Further information about Ireland's overall greenhouse gas emissions is also available on our website and the EPA has developed useful infographics and published the detailed greenhouse gas inventory here.

ENVIRONMENT & ENERGY MANAGEMENT APRIL/MAY 2023

• ENERGY POINT • TRIALLING GREENER FUELS TO HELP BUILD THE SUSTAINABLE TRANSPORT NETWORK OF THE FUTURE

arnród Éireann and its network mechanical maintenance contractor Rhomberg Sersa Ireland Ltd have commenced trialling the use of Hydro-Treated Vegetable Oil (HVO) in ontrack maintenance machinery.

HVO, a renewable diesel replacement, is produced using vegetable oils and fats, and has the potential to be a direct alternative to traditional diesel currently used in many rail maintenance vehicles and existing diesel locomotives.

For Iarnród Éireann, trialling HVO as a diesel alternative is a key milestone in its ambitious decarbonisation plan, essential to building the sustainable transport network of the future and meeting the Government's target of a 51% reduction in carbon emissions for the transport sector by 2030.

If the trials are successful, the use of HVO for Iarnród Éireann vehicles will mean

- 90% less carbon emissions on HVO fuelled vehicles when compared to diesel
- Potentially saying farewell to the use of traditional diesel to power corporate vehicles and diesel locomotives, subject to wider successful trials

The trial, currently being conducted during March and April of this year, started with fuelling an on-track ballast cleaning machine with a 75% diesel, 25% HVO fuel mix and the machine operated normally without any performance issues. The blend of HVO is now being increased and performance continually appraised. Ultimately, the intention is that the machine will be operated with 100% HVO and demonstrate no adverse outcomes. Subject to a successful trial, other maintenance vehicles will then be converted to HVO fuel.

The three on track ballast maintenance vehicles being used in this trial, account for approximately 45% of the annual on track machine fuel usage, consuming 61,500 litres of diesel in 2022. The transition of these three vehicles alone to HVO would result in a carbon emission saving of 148,500kg CO2 eq per annum compared to continued use of diesel.

In addition, Iarnród Éireann is currently in discussions with fuel companies to undertake a rail HVO trial on some existing diesel locomotives.

larnród Éireann decarbonisation initiatives The HVO trial is in addition to various other decarbonisation





initiatives being carried out by Iarnród Éireann currently:

- The planned trebling of the electrified network under the DART+ Programme is key to reaching 2030 decarbonisation goals. Longer term plans underway to extend this further ultimately seeing electrification of some of the major national rail lines.
- Delivery of new rolling stock as part of a 10-year framework agreement with rail manufacturer Alstom to supply up to 750 new rail carriages under the DART+ Fleet project, will mean Iarnród Éireann have the ability to retire older diesel fleet, subject to the relevant funding approvals and critical infrastructure upgrades being achieved
- A B7 bio-fuel blend has recently been rolled out for the existing diesel rail fleet, with further plans in progress to use of B20 or higher, subject to successful trials, cost considerations and fuel availability.
- Trials are underway to modify the existing Intercity fleet engines, including gearbox / transmission upgrades and hybrid components and battery packs.
- Works are ongoing to develop a fleet specification to replace the existing Enterprise fleet
- Green Hydrogen is also being considered as a fuel source with an ongoing project underway to convert two locomotives to Hydrogen fuel for trial operations on Tara Mines freight trains.
- Review underway of Iarnród Éireann's building stock to establish the potential for local renewable energy generation through the installation of solar panels. Depending on the outcome of initial case studies, this could be rolled out across the network on a phased basis, subject to funding, with a view to harnessing renewable energy to help contribute to the company's electricity usage.
- A Corporate Power Purchase Agreement (CPPA) consultant has been engaged to assist in procuring a partner to enter into a Power Purchase agreement with to support sustainability ambitions
- Ongoing building stock assessment to establish the energy upgrades required to improve existing building energy ratings typically from BER-G to BER-B/C
- Trials of HVO in our road fleet are underway, with an aim to transition all vehicles to electric or HVO.

• ENERGY POINT • UCC engineering programmes praised for embedding sustainability

ngineers Ireland, the professional membership body, and accrediting body for engineering in Ireland, has introduced new sustainability criteria for third-level institutions to meet the challenges posed by climate change.

The Engineers Ireland accreditation is an objective evaluation and approval of engineering programmes, ensuring that they meet international standards, the needs of the engineering profession and broader responsibilities to society, environment and economy. University College Cork is the first third-level institute in Ireland to be accredited under Engineers Ireland's new criteria.

Dr Richard Manton, Interim Registrar at Engineers Ireland, said: "Students, graduates, third-level institutions, industry and the entire engineering profession benefit from a properly accredited pool of engineering programmes. Whether you are an engineering professional seeking a job, an employer seeking qualified engineering professionals, or a student choosing a programme, accreditation maintains a consistent standard and international recognition in education programmes across all the disciplines of engineering in Ireland."

Dr Manton continued: "UCC was the first university to complete a full accreditation under Engineers Ireland's new accreditation criteria. The new criteria emphasises sustainability, engineering management, data analytics and the ethical usage of technology and data, along with Engineers Ireland's long-standing criteria on engineering science, design, ethics, teamwork, and communication. I would like to thank UCC staff, students, and graduates for their engagement throughout the accreditation process."

UCC achieved the Chartered Engineer accreditation standard for its Bachelors and Masters programmes in Civil, Structural and Environmental Engineering, Electrical and Electronic Engineering, Energy Engineering, and Process and Chemical Engineering. Accreditation parchments for each programme were presented by the President of Engineers Ireland, John Power, at a ceremony in The Hub in UCC.

Professor Brian Ó Gallachóir, Associate Vice President of

Sustainability and Director of Environmental Research Institute, said: "It's a proud day for UCC, to see our eight engineering programmes securing full accreditation. One aspect that was particularly noted by the accreditation panels was the recognition of the strengths of our programmes regarding sustainability. One example is our recently introduced Masters programme in Energy Engineering, which was accredited for the first time. The accreditation panel highlighted as a notable aspect that 'this is an important programme dealing with a key area of national policy on climate change and sustainability."

Professor Brian Ó Gallachóir continued: "Likewise, the progression of sustainability in enterprises and circular economy subjects in the other programmes was noted, especially Civil, Structural & Environmental and Process & Chemical Engineering - the latter had received the IChemE Sustainability Teaching award (UK + Ireland) in 2017. Engineering in UCC has been pioneering education for sustainability, which is now reflected also in UCC's strategic plan 2023-2028, with an enhanced focus on developing innovative sustainability solutions for local, national, regional and global impact, and embedding sustainability into education."

Professor Stephen Byrne, UCC Deputy President and Registrar, added: "The School of Engineering have had a leading role within the HEI sector in Ireland with the introduction of their integrated five-year Master's degree progammes, with a common entry pathway. Other professional degree programme such as Pharmacy took inspiration from Engineering with the implementation of their five-year integrated degree in 2015. Both Professional Accreditation Bodies have played a significant role nationally and internationally in enabling change in the educational programme but also in ensuring the quality assured work integrated learning opportunities are embedded within the degree offerings."

Engineers Ireland accreditation creates, maintains and ensures a consistent standard of engineering programmes in Ireland. For more information, see: https://www.engineersireland.ie/ Professionals/Membership/Become-a-member/Accredited-thirdlevel-courses



At an event in The Hub, UCC the President of Engineers Ireland, John Power CEng FIEI, presented the Accreditation Parchments for the 8 Engineering Degrees from the School of Engineering, UCC. Seated are: Head of School of Engineering Professor Jorge Oliveira, John Power, President of Engineers Ireland, Deputy President and Registrar of UCC Professor Stephen Byrne and Michal Dymet, Chair of the Cork Region of Engineers Ireland. Standing: Professor Brian Ó Gallachóir, Dr Dominic O'Sullivan, Professor Peter Parbrook, Dr Richard Manton, Interim Registrar of Engineers Ireland, Dr Kevin McCarthy, Dr Fatemeh Kavousi, Professor Jerry Murphy, Dr Denis Kelliher and Professor Edmond Byrne. Photo By Tomas Tyner, UCC.

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Commercial electricity users can get paid for reducing electricity usage between Monday – Friday, during 4:30pm – 9:00pm.

To find out more scan the QR code or visit www.esbnetworks.ie/daily



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