



Energy for  
generations



ESB Sustainability Report 2021

# Empowering Low-Carbon Living

## IF NOT NOW THEN WHEN?

Global emissions must peak on or before 2025 to give the world a chance of staying at or below 1.5C average temperature rise, according to the panel of nearly 3,000 scientists who contribute to reporting through the Intergovernmental Panel on Climate Change (IPCC), the UN body tasked with the role of assessing the science related to climate change. This is the stark warning issued by the IPCC in early 2022, that brings clarity to both the scale and urgency with which we need to act to decarbonise our society and economy.

## THE ROLE OF ELECTRIFICATION?

Climate change is one of the defining challenges of this generation. Its impact is evident in increasingly extreme weather patterns, rising sea levels, water shortages and disruption to biodiversity and ecosystems. Electricity has a transformative role to play in tackling climate change by eliminating carbon and other harmful greenhouse gas emissions from the energy sector, which accounts for approximately 70% of global emissions.

To this end, ESB is taking urgent and focused action to achieve net zero emissions by 2040 and putting in place the infrastructure and services to enable our customers and broader society to live more sustainably. We are balancing this with the imperative to maintain reliable and affordable electricity supplies to support customers, communities and our economy.

# DRIVEN TO MAKE A DIFFERENCE

## WHY NET ZERO?

Since 2017, there have been major shifts on climate and energy policy and sentiment at global, European and national levels (for example: European Green Deal, Ireland's programme for Government, Ireland's Climate Action Plans). Economies representing at least 70% of the World's GDP have now committed to achieving Net Zero greenhouse gas emissions by 2050 (in 2017, the EU direction of travel was an 80% reduction by 2050). The complete decarbonisation of societies will require a combination of deeper electrification (increasing demand for electricity) and greater levels of renewable energy than were envisaged in 2017. One effect of Net Zero policies has been to significantly increase investment in intermittent renewables, leaving power markets with the challenge of sustaining back-up generation capacity or other options to support the system at times of low wind. The challenge and opportunity for this decade is to deploy new dispatchable energy technologies such as large-scale storage, including hydrogen.

## WHAT IS NET ZERO?

Net Zero means ambitious reductions in greenhouse gas emissions as close to zero as possible and balancing remaining residual emissions through credible carbon removal projects and offsets. The term net zero is important because – for CO<sub>2</sub>, at least – this is the state at which global warming stops.

Net Zero requires all available technologies to be used to reduce baseline emissions. Only truly 'hard-to-decarbonise' emissions may be compensated with offsets.

For ESB, this means reducing emissions from electricity generation to zero, all other direct emissions (vehicle fleets and fugitive emissions) towards zero and working through our business activities and with strategic and supply chain partners to reduce our indirect emission to or towards zero. Remaining residual emissions would remain to be handled through a credible offset mechanism.

## SCIENCE BASED TARGETS

Targets are considered 'Science-based' if they are in line with what the latest climate science deems necessary to meet the goals of the Paris Agreement – limiting global warming to well-below 2°C above pre-industrial levels and pursuing efforts to limit warming to 1.5°C.

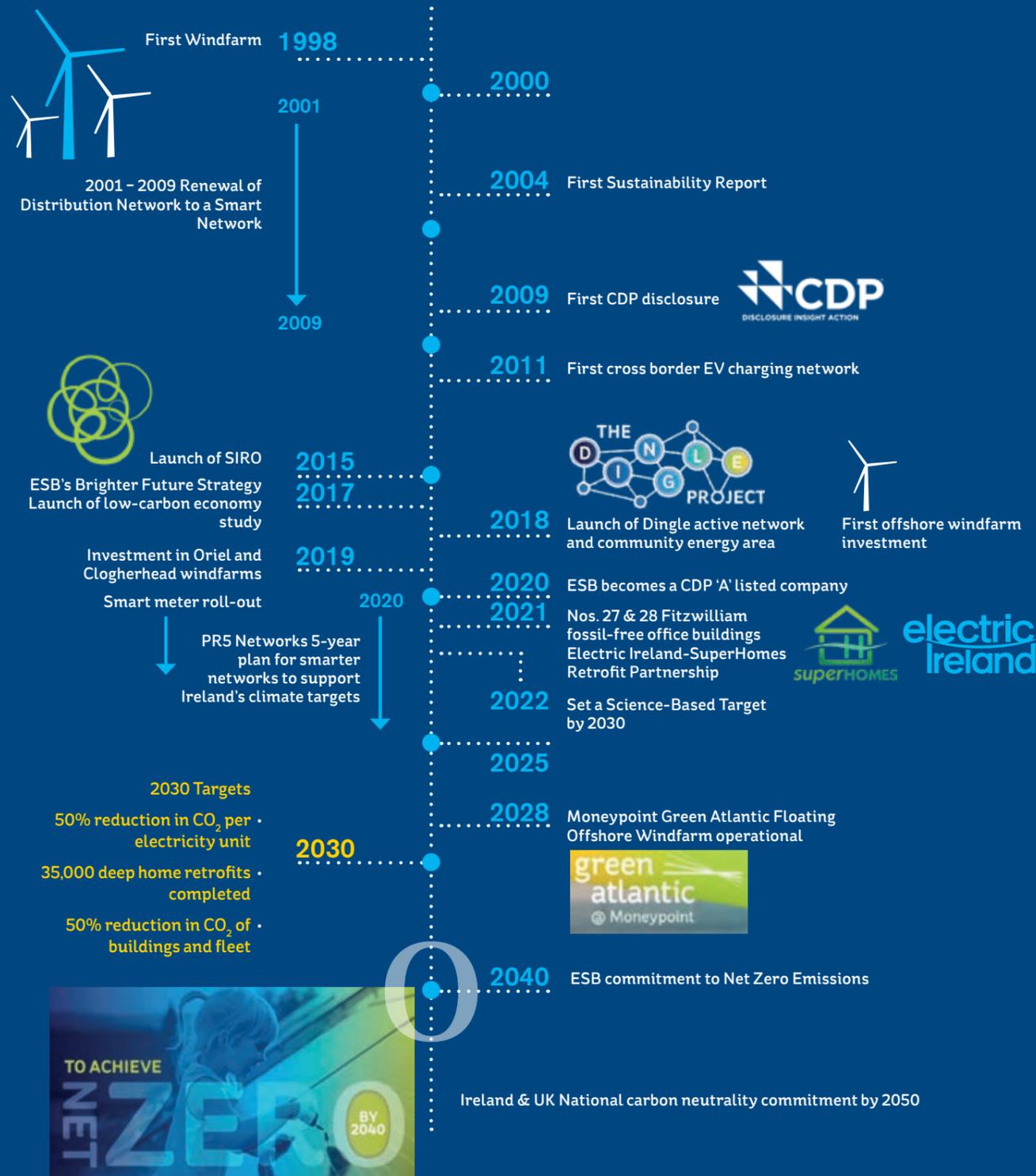
Science-based targets (SBT) provide a clearly-defined pathway for companies to reduce greenhouse gas (GHG) emissions, helping prevent the worst impacts of climate change and future-proof business growth. Net Zero claims that are not underpinned by a SBT are unlikely to be sufficient or authentic.

ESB is committed to setting a near term SBT to be achieved by 2030 to ensure that our commitment to delivery of Net Zero by 2040 is underpinned by a credible, ambitious and science-based approach to emissions reduction.



BY  
2040

# OUR Sustainability Timeline



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# Chapter 1

## Empowering Low-Carbon Living

# Message from Chief Executive

## Steps to create a brighter, more sustainable, energy future

It is clear that climate change is the challenge of a generation and that urgent action is required to combat climate change and its impacts. Clean electricity presents an enormous opportunity for positive climate action and at ESB, as a leading electricity company, we are determined to make a difference and to play our part in what will be a collective and collaborative drive to achieve Net Zero.

The UN Sustainable Development Goals (SDGs) provide a global framework for this collective action. ESB's new strategy Driven to Make a Difference: Net Zero by 2040 directly links our activities to the SDGs, focusing on Goals 7 (Affordable & Clean Energy), 9 (Industry, Innovation & Infrastructure) and 13 (Climate Action) where we can make a tangible and meaningful difference.

The new strategy strengthens our commitment to climate action consistent with 1.5 degrees. At the same time, 2021 highlighted some of the challenges that must be overcome in combatting climate change. Higher electricity demand meant that, in the absence of alternatives, coal generation increased to balance national electricity system requirements. While this resulted in an increase in carbon emissions for 2021, we remain committed to our carbon reduction targets. During the year, we started work on the next phase of our green energy hub, Green Atlantic @ Moneypoint. We also made progress on a range of renewable projects, including the second phase of the €150m Oweninny wind farm in County Mayo (a joint venture with Bord na Mona) and FuturEnergy Ireland, a joint venture with Coillte, which plans to invest up to €1 billion in onshore wind over the next decade. Separately, ESB Networks and NIE Networks continued to make investments to support the connection of higher levels of renewable

generation to the networks and the widespread electrification of heat and transport.

This Sustainability Report highlights these and other examples of the progress ESB has made over the past year in delivering and enabling secure, reliable energy. There remains much more to do. The threats posed by climate change and the biodiversity crisis were laid out clearly at COP26 in Glasgow last Autumn. By urgently developing and connecting more renewables to the network, and by supporting the customers and communities we serve to use that clean electricity to reduce their carbon footprints, ESB is determined to make a tangible difference.

Responding to the urgency of the situation and in line with recent commitments to climate action made by governments in Ireland, Northern Ireland and Great Britain, our new strategy sets out an accelerated decarbonisation programme for ESB. We are determined to achieve net zero by 2040. We have also committed to a Science Based Target for 2030, an important staging post to make sure our actions are consistent with 1.5 degrees.

This decade will be one of change, underpinned by renewable electricity and widespread electrification. Clean electricity provides an opportunity for positive climate action and a foundation for a sustainable future. At ESB, we are fully committed to playing our part. By setting out a clear and urgent timeframe to achieve net zero and cultivating a safe, sound and sustainable ethos, we want to make a difference and create a brighter future for everyone.



**Paddy Hayes, Chief Executive**  
20th June 2022

## WHAT OPPORTUNITIES DO YOU SEE AHEAD FOR ESB?

There are real opportunities for ESB to make a positive difference to society; by developing and connecting renewables to decarbonise electricity, by supporting customers and communities to achieve net zero, and by working collaboratively to enhance the resilience of the low-carbon electricity system. Through our various generation, networks and customer solutions businesses we are embracing those opportunities to make a difference, driven by our commitment to deliver a brighter future.

### SDGs where ESB can have most impact



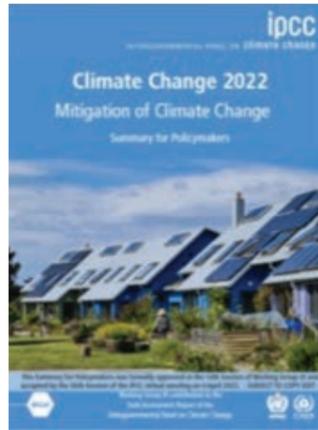
## WHAT CHALLENGES DOES ESB FACE IN ACHIEVING ITS STRATEGIC OBJECTIVES OVER THE NEXT YEAR?

Our plan involves a significant and sustained increase in capital investment and our teams have shown huge commitment, working hard to continue to build essential infrastructure despite the pandemic. We are looking for more committed people to help deliver our strategy so attracting, developing and retaining key capabilities remains essential. In the longer term, developing the capability to match electricity demand with zero carbon electricity at times of low renewable generation presents a critical challenge. It will take innovation, imagination and the collaborative support of many players in the energy sector and beyond to ensure that this capability can be delivered, supporting net zero for electricity as well as for heat, transport and the customers and communities we serve.



# Sustainability in Context

## The effects of climate change are already evident with increasingly extreme weather patterns and rising sea levels bringing consequences for society.



The third part of the IPCC's 6th assessment report, IPCC Climate Change 2022: Mitigation of Climate Change, known as Working Group III (WG3) Report, provides details on a range of ways to limit global warming in line with global climate goals. It states that current policies put the world on track for a central estimate of around or slightly below 3C warming by 2100, though climate system uncertainties mean that warming of as low as 2.3C or above 4C cannot be fully ruled out.

If countries meet their current nationally determined contributions (NDCs) for 2030 under the Paris Agreement, it would shave a few tenths of a degree off future warming. However, a large gap remains between 2030 commitments and the magnitude of emissions reductions needed to put the world on track for below 2C or 1.5C warming by 2100. It also issues the stark warning that global emissions must peak no later than 2025 if we are to stay at or below 1.5C.

Awareness of this is driving transformation in the energy industry and is reflected in large-scale shifts in policy, with a move away from fossil fuels towards renewables and other forms of zero carbon generation, alongside fundamental shifts in

public expectations regarding the social role and contributions of companies such as ESB.

Since 2017, economies representing 70% of the world's GDP have adopted net zero targets. This is up from 0% in 2017, when the EU direction of travel was an 80% reduction by 2050. In recent years, the role of electricity, and the electricity industry, in responding to this challenge has become increasingly central with, for example, the electrification of heat, transport and other sectors now viewed as essential to addressing climate change.

As societies deepen their dependence on electricity, the social and economic necessity for robust, sustainable, reliable, and secure power supplies has never been greater – as illustrated by recent potential interruptions to supply in Ireland, Britain and elsewhere, exacerbated by the conflict in Ukraine.

### EUROPE

The European Commission has published proposals on how the European Union should reach its legally binding target to cut emissions to 55% below 1990 levels by 2030. The 'Fit for 55' package includes a wide range of reforms, covering the key EU climate policies, as well as various related laws on transport, energy and taxation. The package of 13 proposals includes tightening the EU Emissions Trading Scheme (EU ETS), pricing emissions from heat and transport in a parallel ETS and adding a carbon border adjustment (CBAM) to tax high-carbon imports, such as steel and cement.

Other proposals include phasing out petrol and diesel car sales across the bloc by 2035, raising targets for renewables and energy efficiency, setting higher, binding national targets for sectors outside the EU ETS and, separately, setting binding goals for carbon dioxide (CO<sub>2</sub>) removals.

A new "social climate fund" is proposed to help vulnerable households who are disproportionately affected by higher fossil fuel prices, offering "temporary" income support and longer-term investment.

The Ukraine crisis has further intensified this debate and has brought focus to the EU's current reliance on Russian oil and natural gas.

### UK

The UK Government's plan for how the UK can protect energy security amid climate change, a cost-of-living crisis and Russia's invasion of Ukraine was published in April 2022. The Government's energy security strategy is shaped by ambitious promises for nuclear power and offshore wind, with limited focus on new measures for energy efficiency or onshore wind. It predicts that some 95% of the UK's electricity could come from low-carbon sources by 2030, ahead of the Government's existing aim of decarbonising the sector by 2035. Hydrogen will be "critical" for achieving the UK's net zero target and could meet up to a third of the nation's energy needs by 2050, according to the Government.



### IRELAND

The Irish Government's Climate Action Plan 2021 provides a detailed plan to achieve a 51% reduction in greenhouse gas emissions by 2030 and sets out a pathway to reach Net Zero emissions by no later than 2050, in accordance with the commitments and obligations of the Programme for Government and the Climate Act 2021. A key measure in the plan is to increase the proportion of renewable electricity to up to 80% by 2030, with an increased target of up to 5 Gigawatts of offshore wind contributing to this.

The recent IPCC reports and forecasts, coupled with rising energy prices and the current pace of the

development of renewable energy on the island, have led for a call on government to increase renewable energy ambitions and fully decarbonise the Irish electricity system by 2035. Eirgrid, the Irish National Grid operator, announced in early 2022 that after a ground-breaking project, up to three quarters of electricity flowing through the national electricity grid at any time can now come from variable renewable sources. This is a world leading standard and few nations can boast the wind energy potential that Ireland has. However, this ambition is not without challenges which need to be overcome to keep the pace of development of renewables so that Ireland can meet its decarbonisation targets.

### ESB

In 2017, ESB was a pioneer in terms of developing a purpose-led strategy. In the period since, societal and stakeholder scrutiny and expectations regarding the role of commercial companies in general have increased further. This trend is borne out by a greater focus on Economic, Social and Governance (ESG) performance.

At ESB, we have always cared about making a positive difference to the lives of people in our communities and elsewhere in the world. We are driven to make a difference, to achieve net zero by 2040 and to meet the highest standards of social responsibility and governance.

We operate in a multi-stakeholder environment and have a responsibility to understand and balance the needs and priorities of different stakeholder groups, while staying focused on the delivery of our Net Zero strategy. This means consulting and listening to our stakeholders and respecting the dignity and human rights of everyone impacted by our operations; our employees, customers, partners, suppliers and the communities in which we or our suppliers interact with in Ireland and around the world.

We are committed to being a consciously inclusive employer, promoting equality and creating an environment where our colleagues can thrive. This means creating a flexible and safe environment that supports creativity and innovation, and empowers people to perform at their best.

We seek to be true to our values, making a difference and maintaining a reputation that we can be proud of. ESB can and should be a place where people come to make a positive difference in the world.

# Driven to Make a Difference

## NET ZERO BY 2040

ESB's 2040 Strategy - Driven to Make a Difference: Net Zero by 2040 - builds on our 2017 Brighter Future strategy, which set a clear direction for ESB to take action and exercise leadership in tackling climate change.

While this remains our North Star, our new strategy accelerates the pace of change, providing clear deadlines and accountability for achieving net zero by 2040 and committing to a Science Based Target for 2030. Our strategy sets out a path to achieve this in a way that supports ESB's continued growth, and our financial capacity to invest in a net zero future.

## EXTERNAL ENVIRONMENT

Our strategy reflects major changes in the external environment since 2017, including a significant increase in global, European and national commitments to achieve net zero greenhouse gas emissions. This is driving deeper reliance on electricity and an associated need to ensure that zero carbon electricity is reliable and affordable.

Achieving net zero will require the deployment of new energy technologies at massive scale that can provide reliable zero carbon energy when intermittent renewable power from the wind or the sun is unavailable.

Electricity networks are playing an increasingly important role in enabling the mass adoption of low carbon technologies including heat pumps, electric vehicles and microgeneration, and the connection of large volumes of renewable generation.

This provides opportunities and challenges for network providers and increases the requirement for capital investment in networks infrastructure.

Digital and data driven technologies are also transforming the electricity sector, underpinning the development of smarter networks and giving rise to new business models, including digital only suppliers offering an enhanced customer experience at a lower cost to serve.

Other macro trends since 2017 include a much greater policy focus and opportunity in offshore wind, more intense competition (particularly from oil and

gas companies seeking new opportunities in clean electricity), and a greater emphasis by investors and other stakeholders on Environmental, Social and Governance (ESG) issues.

There have also been significant changes in the Great Britain (GB) market as the implications of the retail price cap have become clear and new technologies have gained traction. While some of these developments present challenges, they have been balanced by significant opportunities in areas such as offshore wind and in the growth of all-digital retail entrants who play a larger role in GB than in any other market in Europe. The impact of Brexit on the Single Electricity Market (SEM) is still not fully determined, and will need to be assessed on an ongoing basis.

Meanwhile, the increasing policy focus on decarbonisation and electrification in Ireland, combined with our operating experience and strong competitive position in this market, present sizeable investment opportunities for ESB and have strengthened our ability to a grow and maintain scale within the Island of Ireland. This means that the predominant focus of our 2040 strategy will be on the Island of Ireland. Exceptions will be made where there are opportunities to build operational capacity or benefit from scale in the GB market in a way that is aligned with our purpose.

## STRATEGIC FRAMEWORK

Driven to Make a Difference: Net Zero by 2040 has been developed using ESB's Strategy Framework which ensures that strategic actions and decisions are consistent with ESB's purpose and values, and that there is a clear and consistent 'line of sight' both for those within the organisation and for our external stakeholders.

Organisational alignment with the strategy will be achieved through the Integrated Business Planning (IBP) process, which integrates strategic, financial and people planning at Group- and Directorate/ Function- level. ESB's values will guide the behaviours, actions and decisions we will take in implementing this strategy.



For additional details on ESB Strategy, Driven to Make a Difference, please see Strategy Section of [ESB Annual Report 2021](#)

# ESB's Task Force on Climate Related Financial Disclosure (TCFD)

## Core Elements of Recommended Climate-Related Financial Disclosures



### Governance

The organisation's governance around climate-related risks and opportunities

### Strategy

The actual and potential impacts of climate-related risks and opportunities on the organisation's businesses, strategy, and financial planning

### Risk Management

The processes used by the organisation to identify, assess, and manage climate-related risks

### Metrics and Targets

The metrics and targets used to assess and manage relevant climate-related risks and opportunities

With a large number of assets spread across Ireland and GB and operating in a sector that is undergoing a historic climate driven transition, ESB faces a range of risks and opportunities arising from physical and policy changes. These are generally addressed in normal business planning especially in an industry with long asset lives and a practice of long-term planning. At the same time, it is important to bring a structured approach to looking at climate impacts in the short, medium and longer term and to disclose the company's approach to stakeholders. This section describes ESB's processes around climate risk and opportunity. It follows the format and guidance of the Task Force for Climate Related Financial Disclosure (TCFD). It is planned to build on and develop processes and the detail of these disclosures over the next few years.

## GOVERNANCE OF ENVIRONMENT AND SUSTAINABILITY

### ESB Board of Governance



To assist the Board with its responsibilities in relation to:

- Financial reporting
- Internal control and risk management
- Compliance, whistleblowing and fraud
- External and internal auditors

- To advise the Board on health, safety and environmental, cultural and diversity matters
- Monitor progress against agreed health, safety and key environmental performance indicators and risk management in these areas

Governance of Climate Risk

Climate risk and opportunity is integrated into the strategic review process in ESB. It is also linked to the enterprise risk management process through a principal risk on climate and emerging risks.

The Safety, Environment and Culture Committee of the Board monitors the management of safety, environment and climate risk and climate opportunities.

The Audit and Risk Committee oversees the overall enterprise risk management in the company.

The Environment and Sustainability Leadership Team, a group of senior managers from across the company receives regular updates on environmental, sustainability and climate issues. The Group Safety, Health and Environment Manager and the Environment and Sustainability Manager are members of this group. The Environment and Sustainability Managers group provide day to day updates on environment and sustainability and pool knowledge across the Group.

## CLIMATE AND SUSTAINABILITY STRATEGY

ESB's strategy is a climate and sustainability strategy. It is a response to policy and physical changes brought about by climate change and is anchored in our purpose to Deliver a Brighter Future for the Customers and Communities we serve. The Strategy is driving transformation in every part of the Group, with new product and service offerings and investments in infrastructure that will empower both business, retail and industrial customers to reduce emissions and operate more efficiently and sustainably. ESB's EV infrastructure network has been refurbished and extended to help serve the current public network needs of EV owners. ESB's generation business has set a target for reduced carbon intensity by 2030 and net zero by 2040. Our networks businesses in Ireland and Northern Ireland

(ESB Networks and NIE Networks) are investing in smart reliable infrastructure to increase resilience and reliability, enable widespread electrification and meet the changing needs of our customers. To date 750,000 (March 2022) smart meters have been rolled out in the Republic of Ireland, improving the efficiency of the network and giving customers access to smart technologies that will enable them to manage their energy use more sustainably. ESB is also investing in emerging technologies with the potential to play a key role in the future decarbonised energy system, such as battery storage and green hydrogen. All of these initiatives to support climate targets and policies feed into ESB's financial planning through our integrated business planning process. Annual capital investment has increased significantly to support the delivery of ESB's new Strategy, as increased investment in renewables,

electricity infrastructure and customer solutions is needed to mitigate climate risk and capitalise on new opportunities presented by the energy transition. ESB's strategy is the subject of regular dedicated reviews by the Executive Director team (EDT). Scenarios, including climate scenarios are used as part of this review. Progress on strategic goals is monitored, reviewed and actions considered for new developments in the environment as well as the status of climate risk and opportunities. The strategy is relatively resilient to climate risks as it is in effect, a climate-led strategy. The strategy is regularly reviewed by the EDT in the light of changing conditions to assess potential impact and any need for new actions in response.

## CLIMATE RISK

ESB has identified the main transition and physical

climate risks and opportunities across the Group. Three climate risk scenarios were used in this assessment: one physical scenario, based on the Inter-Governmental Panel on Climate Change (IPCC) representative carbon pathway (RCP) 4.5 and two transition scenarios, one based on the Irish Government's 2019 Climate Action Plan and the second on the more ambitious climate commitments for 2030 in the 2021 Climate Action Plan and Climate Act, respectively. The IPCC RCP 4.5 scenario is based on global carbon emissions peaking in 2040 followed by a moderate decline thereafter. This is seen as a suitably severe possibility but more realistic than the no mitigation pathway. The transition scenarios broadly align with the EU's Clean Energy Package and the EU Green Deal, respectively.

## Summary of Higher Scoring Climate Risks and Opportunities

Type	Risk/Opportunity	Potential financial impact	Likelihood	Timescale (years)
Physical Risks	Increased frequency of severe storms	Increased repair costs and penalties for networks and station assets	Likely	0-5
	Increased riverine flooding and episodes of intense rainfall	Higher frequency of hundred year plus flood events on rivers with dams	Likely	0-5
	Increased riverine flooding and swamping due to water table rise	Damage to network substations, customer outages. Damage to generation assets	Likely	0-5
Transition Risks	Market and regulatory environment for generation	Existing gas generation assets lose value potential	Likely	5-10
	Policy environment for offshore generation	Potential delay in planning framework legislation	Likely	5-10
	Increased pace of renewable connection vs. planned	Potential increase in cost to meet timelines	May occur	5-10
	Increased heat pump retrofit of homes	Potential increase in cost to meet timelines	May occur	5-10
Transition Opportunities	Pace of electrification faster than planned	Increased demand for retrofit service	Likely	0-5
	New low-carbon electricity system investment	Increased investment opportunities in zero-carbon generation, storage and system services	Likely	0-5



## METRICS & TARGETS

A set of strategic performance indicators and success metrics have been developed to ensure transparency and accountability in the delivery of our strategy. These include a range of financial and non-financial metrics that will track our progress in achieving strategic outcomes and foundational capabilities. To maximise transparency, target and outturn values for the strategic performance indicators will be published in our Annual Report and other relevant publications – where considerations of governance and commercial confidentiality allow.

ENVIRONMENT, SOCIAL, GOVERNANCE (ESG) FRAMEWORK FOR BRIGHTER FUTURE

Strategic Objective	Role in Decarbonisation	Indicators	2030 Target (unless otherwise stated)	2021 Progress Update	SDG Contribution	Find out more
 Decarbonising Electricity	Empowering Low Carbon Living	ESB Renewable Generation	> 5,000 MW	983 MW	  	Pg 14
	Putting customers first and leaving no one behind	Scale of Low-Carbon Energy Connected to Our Networks	> 15 GW in ROI 2 GW in NI	4.7 GW in ROI 1.8 GW in NI	  	Pg 21
 Resilient Infrastructure	Bringing clean reliable electricity to our customers	Networks Regulated Asset Base	ESB Networks: €13 - 14bn NIE Networks €3-3.5 bn	ESB Networks €8.8bn NIE Networks €2.1bn	  	Pg 28
	Innovating and investing for the future	Carbon Intensity of the Electricity ESB produce	140g CO <sub>2</sub> / kWh	440g CO <sub>2</sub> / kWh		Pg 29
 Empowered Customers	Empowering Low-Carbon Living	Share of ESB Generation Output from Zero Carbon Sources	63%	14%		Pg 28
	Putting customers first and leaving no one behind	Number of smart meters installed	2.6 million	620,000	 	Pg 37
		Electrification of Transport Network: Public EV Chargers	3,000 Total	1,700 (Island of Ireland & GB)	   	Pg 41
<b>Foundational Capabilities</b>						
 Our People	Empowering Low-Carbon Living	Employee Engagement (Our Voice Staff Survey)	7.3	7	  	Pg 47,49
	Innovating and investing for the future	Active promotion of diversity and inclusion across our workforce		Launch of Gender Pay Gap Report Diversity and inclusion strategy and training in place		
 Digital & Data Driven	Empowering Low-Carbon Living	% of Customer Engagements that are Digital	Top quartile (by 2026)	Continued significant investment in digital.	  	Pg 25
	Innovating and investing for the future			Digital customer engagement measure to be reported in 2022		
 Financially Strong	Empowering Low-Carbon Living	Strong Investment Grade Credit Rating	BBB+ on a standalone basis	Credit ratings of A- or equivalent and BBB+ on a standalone basis	  	Pg 35
	Innovating and investing for the future	Return on Capital	ROCE >WACC	5.6%	  	Pg 20
 Sustainable & Socially Responsible	Innovating and investing for the future	ESB Greenhouse Gas Emissions	Net Zero by 2040 An externally accredited Science Based Target by 2030	Commitment Letter signed. Submission planned in 2022	   	Pg 9

## EMISSIONS

Over the past number of years ESB has made significant progress in improving its emissions performance, through growing its renewable portfolio, retirement of peat stations and legacy thermal stations and reduced running of the coal station in Moneypoint. As a generator in the All-Island market in Ireland, ESB is subject to the market conditions in operation and the associated obligations imposed by the market.

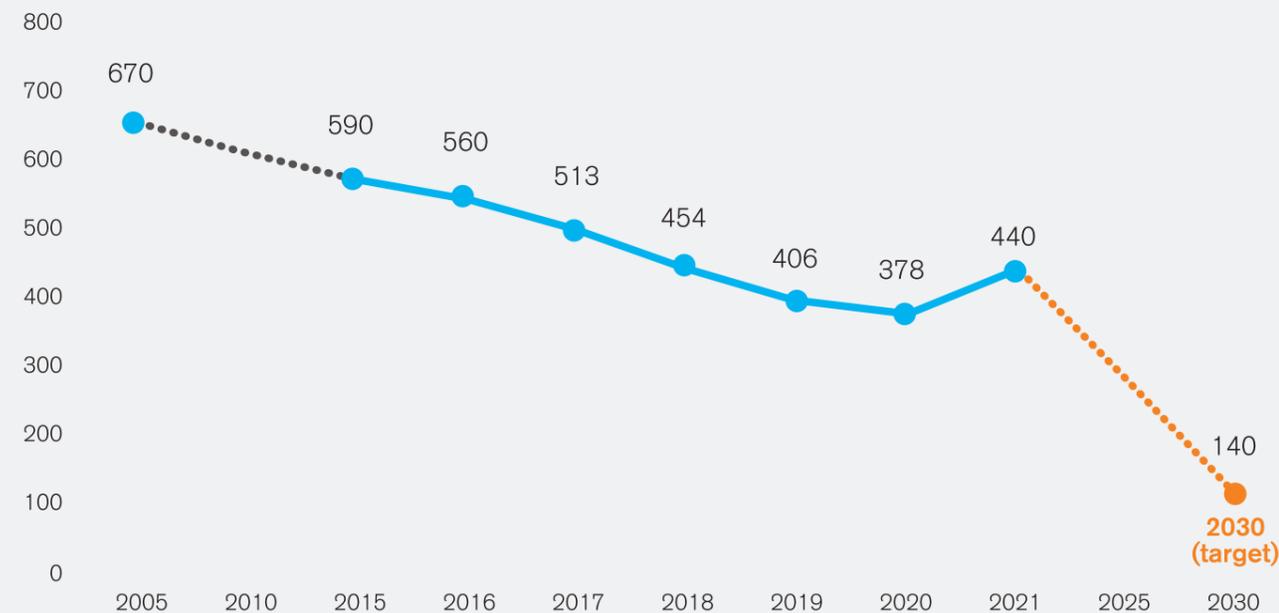
During 2021, Ireland experienced some of the lowest wind conditions in almost 60 years, resulting in a significant shortfall in wind generation. In 2019 and 2020, Ireland had the highest levels of onshore wind output globally. The lower than predicted wind conditions coincided with forced outages in two baseload plants, which resulted in a number of amber alert events on the national electricity grid. These conditions resulted in the market calling on ESB to increase generation from its coal fired station at Moneypoint to reduce the shortfall risk to the grid. This caused an increase in ESB's emissions in 2021,

against the long-term downward trend.

Despite these short term conditions, ESB remains fully committed to the delivery of our 2030 emissions reduction target and our 2040 net zero commitment. ESB is actively engaged with the grid operator and the market to ensure this shortfall risk is managed out of the Irish electricity market in the near term.

In respect of Scope 1 emissions, while generation emissions have increased in 2021, operational efforts continue to deliver sustained improvements in fugitive emissions and vehicle fleet emissions. Scope 2 emissions for ESB include electricity used in buildings and all losses on the national electricity grid infrastructure. ESB discloses its full Scope 3 emissions and continues to focus on improving estimates and methodologies for the Scope 3 emissions categories that are not directly controlled by ESB. Scope 1, 2 and 3 emissions inventories are reported in their entirety via the CDP Climate Change Disclosure and in Chapter 4 of this report.

### ESB's Carbon Intensity g/kWh



## EMISSIONS DISCLOSURE, VERIFICATION AND ASSURANCE

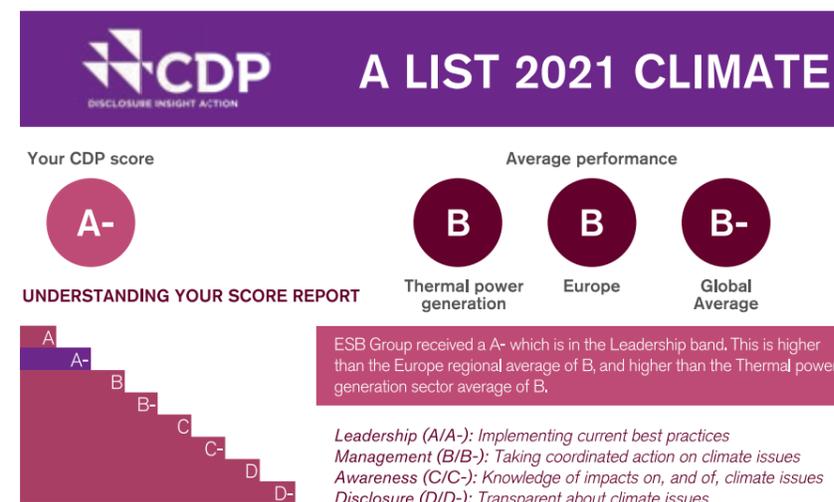
ESB reports emissions based on the Greenhouse Gas Protocol (GHG) methodology. Scope 1, 2 and 3 emissions are reported annually. Greenhouse gas emission data is independently verified. ESB's

generation emissions are verified under the auspices of the EU ETS emissions trading scheme and submitted to the relevant Environmental Protection Authority annually. All other Scope 1, 2 and 3 emissions are verified to ISO14064 as part of ESB's annual submission to CDP.

ESB is committed to progressively reducing direct and indirect CO<sub>2</sub> emissions across the Group. During 2021 ESB has further reduced its 2030 carbon intensity target ambition for generation to 140g CO<sub>2</sub>/kWh, which represents a 63% reduction on its current carbon intensity level. Central to our ability to lead the low carbon transition is developing a clear picture of the carbon impacts from our business operations right across our value chain. Having this insight enables us to engage appropriately across the business, with our supply chain and our own operations to identify and enact carbon reduction

measures. In 2021, ESB Group was recognised as a Supplier Engagement Leader for our work on engaging our supply chain on climate action and emissions reduction.

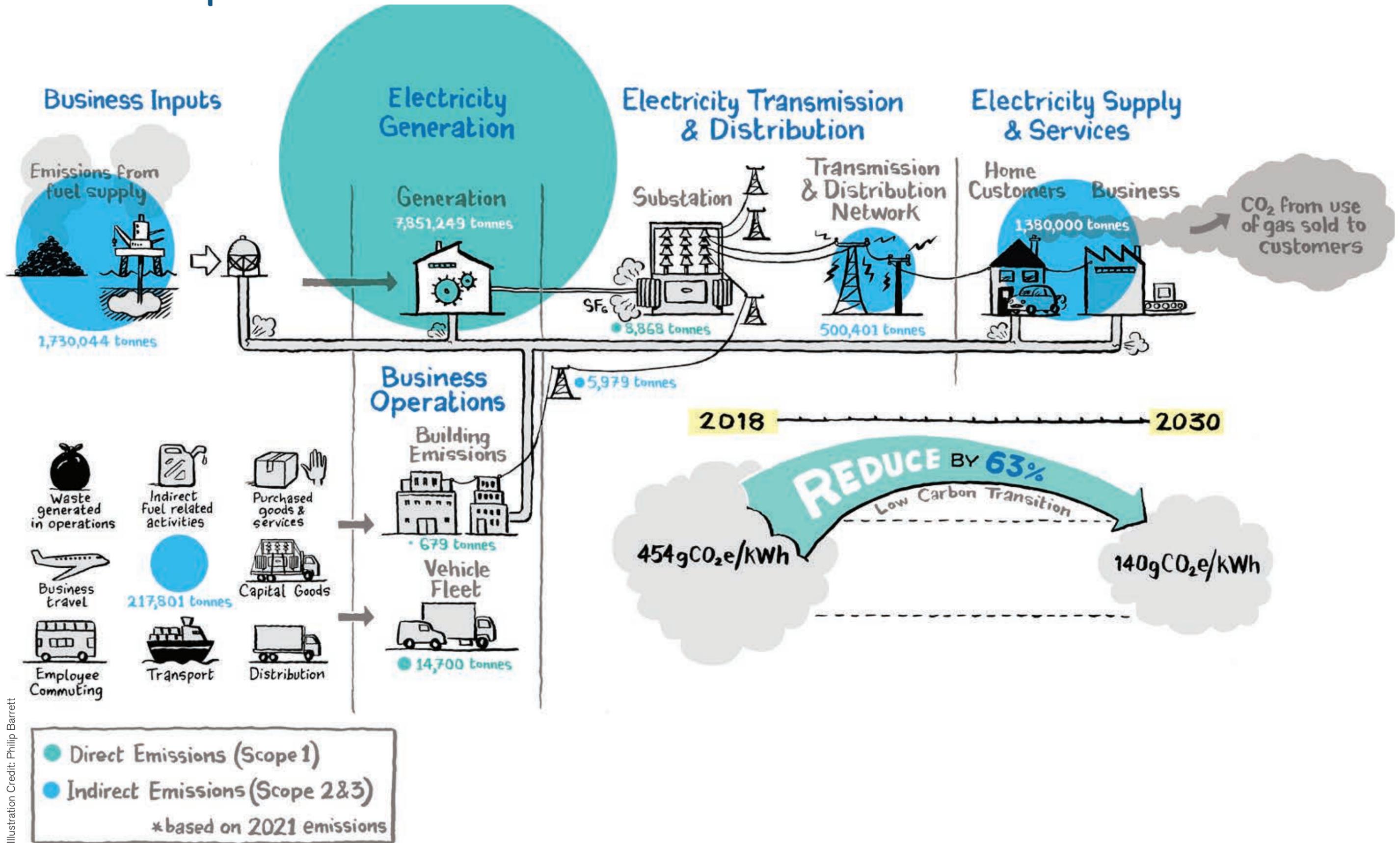
In 2020, ESB group achieved CDP's A list for climate change disclosure for the first time. In 2021 we successfully retained our leadership scoring performance, scoring an A-. Contextually, this places ESB's performance in the top quartile for CDP response when compared with all responding global electricity utilities.



ESB is part of the Leaders Group on Sustainability, a Business in The Community Ireland (BITCI) led group of leading businesses who hold the Business Working Responsibly Mark. One of the first actions announced by the Group is the Low Carbon Pledge – the first dedicated public commitment generated

by Irish business to lead on the transition to a low-carbon economy and it completed its first full cycle of reporting during 2019. ESB and other founding members have committed to reduce their carbon intensity by at least 50% by 2030 and setting a Science Based Target by 2024.

# ESB Group Carbon Emissions





## Nuala Gleeson ELECTRIC IRELAND SUPERHOMES

Nuala Gleeson and her husband live in Nenagh, Co. Tipperary. With the help of Electric Ireland Superhomes, their home was retrofitted which has made it warmer, more energy efficient and has vastly reduced its carbon emissions.

Previously, the house had a very poor heating system and inadequate insulation. An Electric Ireland Superhomes engineer rigorously assessed the house and recommended a number of energy upgrades to improve her home's warmth, energy performance and Building Energy Rating.

According to Nuala, the house is now 100% different to what it was like before the Electric Ireland Superhomes retrofit. "We had underfloor heating installed, we put in triple glazed windows. Before the retrofit, every room in the house had a fireplace so these were removed, and the chimneys were sealed. We insulated the house internally and externally, and installed an air to water heating system. The heating in all of the rooms is now very effective – delivering a warm, comfortable home. The new BER is A2 – a huge improvement from the original G rating. It's great to know that we are lowering our carbon footprint. Our electricity costs have also significantly reduced. Electric Ireland Superhomes were extremely helpful right from the start of the retrofit."

Electric Ireland Superhomes customer Nuala Gleeson pictured inside her home in Nenagh, Co. Tipperary

## OUR APPROACH TO DELIVERING THE BRIGHTER FUTURE

ESB's 2040 strategy - Driven to Make a Difference: Net Zero by 2040 - builds on our 2017 Brighter Future strategy, which set a clear direction for ESB to take action and exercise leadership in tackling climate change.



While this remains our North Star, our new strategy accelerates the pace of change, providing clear deadlines and accountability for achieving net zero by 2040 and committing to a Science Based Target for 2030. Our strategy sets out a path to achieve net zero in a way that supports ESB's continued growth, and our financial capacity to invest in a net zero future. While influenced and shaped by external developments, our Strategy is anchored in our purpose to deliver a Brighter Future for the customers and communities we serve and links directly to the UN Sustainable Development Goals.

The 17 UN Sustainable Development Goals (SDGs) provide a global and widely accepted blueprint to achieve a better and more sustainable future for all by 2030. They act as a call to action for countries, NGOs, companies and individuals to align their actions around common goals that matter to people and planet. Our strategy is focused on three of the SDGs where ESB can make a lasting and tangible difference – namely:



Our strategy sets a net zero emissions target for ESB to achieve by 2040. To ensure that we are on track to deliver this, we will set a science-based target for 2030 to provide independent assurance that our pathway to net zero is aligned with the commitments set out in the Paris Agreement (2015).

Chapter 2 outlines and details some examples of ESB's delivery on being Driven to Make a Difference during 2021.

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# Chapter 2

## Driven to Make a Difference

# Strategic Objectives

## Decarbonised Electricity

**Develop and connect renewables to decarbonise the electricity system by 2040**



Consistent with the societal goal of achieving net zero emissions, this conveys our intention to both generate renewable electricity and enable the connection of renewable generation to our electricity networks.

## Resilient Infrastructure

**Provide resilient infrastructure for a reliable low carbon electricity system**



This conveys the fundamental and increasing importance of stable and robust infrastructure to ensure a secure and reliable electricity system. This includes reliable networks to support widespread electrification, and a re-purposed and more sustainable dispatchable generation fleet combined with existing and new storage assets that can compete to meet society's need for non-intermittent sources of energy.

## Empowered Customers

**Empower, enable and support customers and communities to achieve net zero**



This communicates our intention to provide the products, services and infrastructure to enable customers and communities to achieve net zero. This will be underpinned by data and digital technologies to improve customer experience and enhance efficiency.

# Foundational Capabilities

## Empowered People

**Ensure we have the people capability to deliver our strategic objectives with a strong values-based and inclusive culture**



This references the critical role of our people in delivering our purpose and strategy in line with our values. We will create an environment that encourages creativity, commitment and ongoing learning through a safe, people centric and inclusive experience. This will underpin a high-performance, innovative, sustainable and customer-focused culture.

## Digital & Data Driven

**Leveraging data and technology, transform ESB to a data driven digital utility**



This will see ESB transformed into a data driven digital utility delivering excellent customer experience (by leveraging customer insights and digital engagement channels), an enhanced people experience (by becoming a technology enabled workforce) and modern business operations and processes enabled by technology.

## Financially Strong

**Maintain the financial performance and strength required to deliver our purpose**



We will deliver on ESB's commercial mandate to provide shareholder value; growing the business while maintaining our financial strength. Consistently strong financial performance, underpinned by efficiency and investment discipline, will ensure that we can deliver appropriate shareholder returns, maintain a strong investment grade credit rating and secure optimal long-term funding to match investment plans for a net zero future.

## Sustainable & Socially Responsible

**Step forward on social and environmental responsibility, cultivating a safe, sound and sustainable ethos in line with our values**



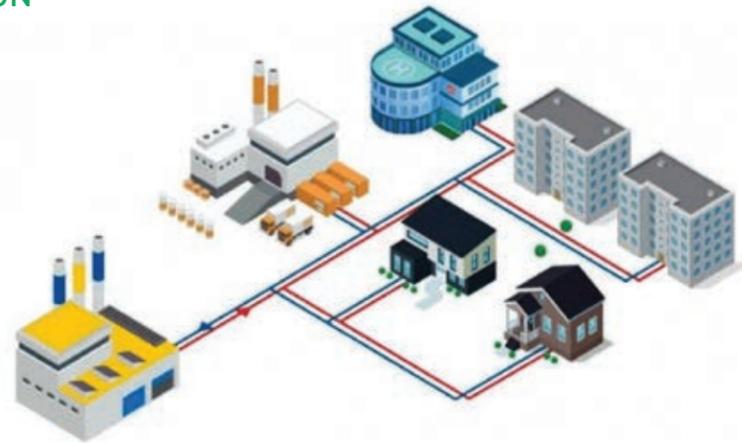
To positively impact on the experiences of employees, customers, partners and other stakeholders, we will embed a culture that prioritises safety, environmental performance and sustainability. We will meet stakeholder expectations relating to, but not limited to, Environmental, Social and Governance (ESG) performance and safety, and we will adopt a best practice transparency and compliance framework to track and report on progress. We will achieve net zero emissions by 2040, and secure an accredited science-based carbon target for 2030. We will collaborate with stakeholders to provide thought leadership on decarbonisation policy in Ireland and Northern Ireland.

# Decarbonised Electricity

Develop and connect renewables to decarbonise the electricity system by 2040  
ESB is ensuring that clean energy is the fuel of the future – continuing to make everything possible by investing in infrastructure to bring clean, reliable electricity to customers.

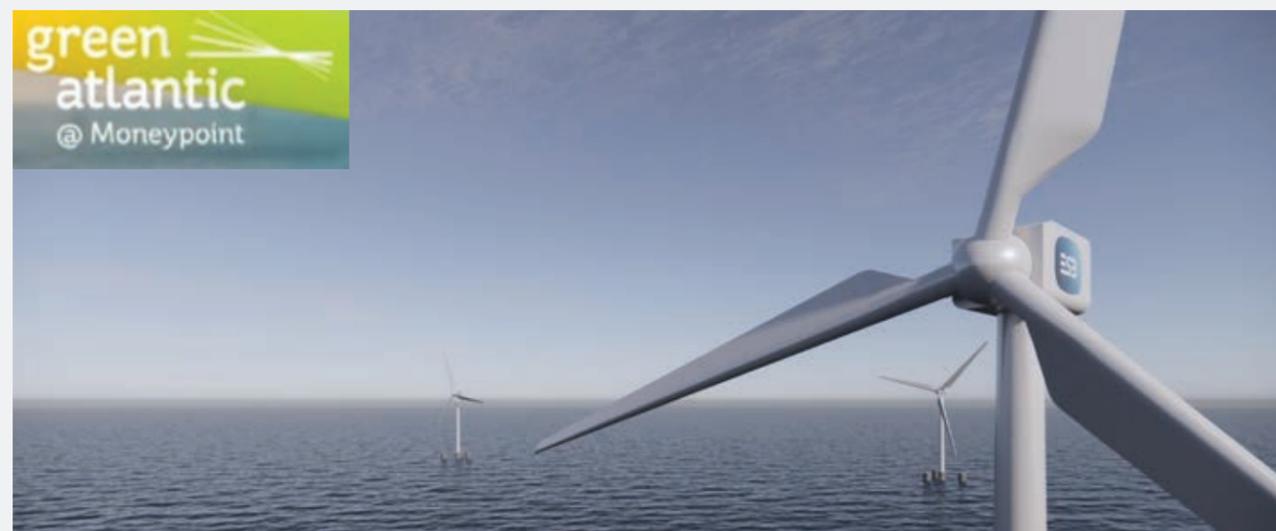
## DISTRICT HEATING COLLABORATION

In 2021, ESB and SSE agreed to work together to develop a joint bid for a district heating solution under a Dublin City Council plan to recover heat from the Dublin W2E plant in Poolbeg and distribute to homes and businesses in the Docklands area.



## GREEN ATLANTIC AT MONEYPPOINT

ESB's Moneypoint site will be transformed into a green energy hub, where a range of renewable technologies are to be deployed over the next decade with the capacity to power 1.6 million homes. Plans include investment in a green hydrogen production, storage, and generation facility towards the end of the decade. Moneypoint will become a centre for the construction and assembly of floating wind turbines.



## NATIONAL NETWORK, LOCAL CONNECTIONS PROGRAMME

The programme provides the first step to collaborating across the energy sector, to create new opportunities for customers to use and store electricity locally in a way that makes the best use of renewable energy sources. ESB Networks plans to redesign and optimise the electricity network for renewable, customer and community participation.



## WORLD'S LARGEST FLYWHEEL

Moneypoint is leading the world in increasing renewable penetration on electrical grids using a synchronous condenser that Siemens Energy will supply to ESB - the first in the country incorporating the world's largest flywheel used for grid stability. This will be a key component of ESB's Green Atlantic

@ Moneypoint project - an ambitious plan to transform the County Clare site into a green energy hub. The facility will enable an increased integration of wind power into the Irish grid by providing sufficient inertia for frequency support, short-circuit power for system strength and reactive power for voltage control.



# Resilient Infrastructure

Provide resilient infrastructure for a reliable low carbon electricity system.

## OUR STRATEGY - ESB NETWORKS

The networks of the future will critically rely on high speed communications and advanced IT systems. This enhanced capability will allow us to meet future complex system challenges. It will enable customers to play a more active role in energy management.

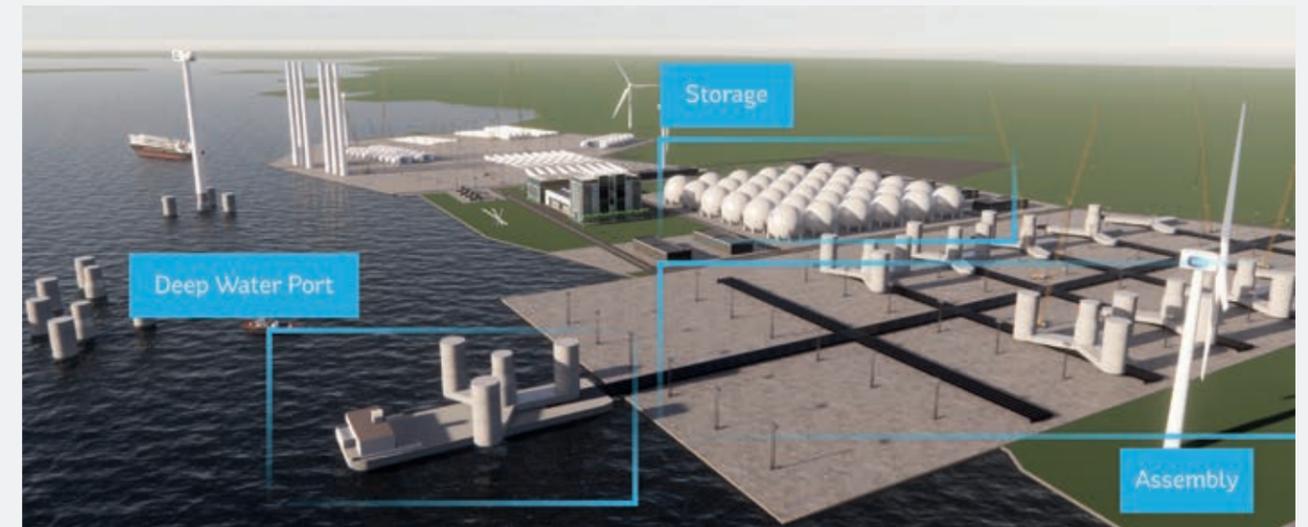
ESB Networks is at the forefront of defining Smart Networks. This is achieved through research initiatives and participation in national and international collaborative alignments.



## ESB AND DCARBONX LAUNCH KINSALE HEAD HYDROGEN STORAGE PROJECT

ESB and dCarbonX have launched 'Green Hydrogen @ Kinsale,' an integrated project to develop large-scale storage for green hydrogen off the coast of County Cork. This project – pending licence and planning approvals – could have the potential to store up to three TWh of green hydrogen and hydrogen carriers, the

equivalent of approximately 10 per cent of current Irish annual electricity consumption.



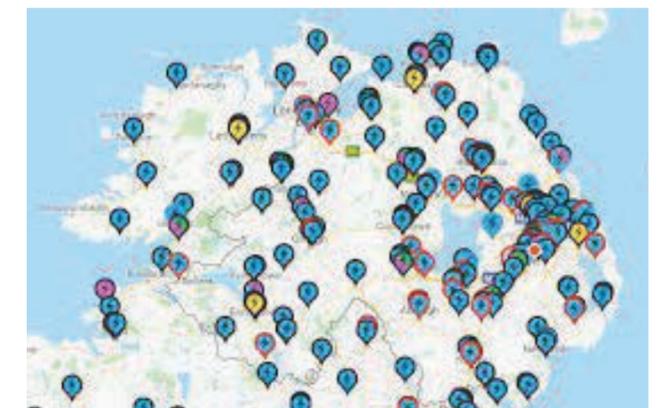
## MINI GENERATION

Mini generators are generally installed to locally produce clean electricity primarily for self-consumption, thus reducing the need and cost of purchasing electricity. Mini-Generation allows customers to act to address the issues of climate change, rising electricity prices and reliance on fossil fuels on our journey to a clean electric future together. ESB Networks opened a pilot scheme running for 6 months on 17th December 2021 for 150 Mini-Generation applications to the distribution network.



## EV CHARGING IN NORTHERN IRELAND

ESB welcomed the Levelling Up Fund support to transform the EV charging network in Northern Ireland. The Funding allowed for a complete overhaul and modernisation of Northern Ireland's entire EV charging network including the expansion of the rapid charging network and the deployment of high-power charging hubs. The Levelling Up Fund investment, further supported by ESB's own capital investment, will replace all existing fast (22kW) and rapid (50kW) EV chargers across Northern Ireland. The legacy infrastructure will be replaced with the fastest, most reliable and advanced technology available.



### POWERCHECK WEBSITE

ESB Networks' PowerCheck has now been updated for all our 2.3 million customers. The latest update now includes up-to-date information on any fault restored within the last four hours. For all updates on power outages and fault restorations please visit [powercheck.esbnetworks.ie](http://powercheck.esbnetworks.ie). New Power Check also allows customers to search for faults by Eircode, rather than just MPRN as in the past.



### BATTERY ENERGY STORAGE SYSTEM CORK

The 38MWh Battery Energy Storage System (BESS) currently being installed at Aghada is ESB's first ever investment in battery technology.

These batteries will support the national grid in providing storage capacity and stability for times of low wind. Once operating, they will provide enough energy to power approximately 12,350 homes for 2 hours.



### ESB NETWORKS AND CRU PRICE REVIEW PR5 2021-2025



The PR5 determination published at the close of 2020, has provided ESB Networks with a clear mandate from the CRU to deliver a business plan which was designed, with our customers and stakeholders, to meet the needs of a transforming and developing Irish society over the coming years. This will be critical to enable a low-carbon future in Ireland, including the electrification of heat and transport and achieving the 80% renewables target by 2030.



# Empowered Customers

Empower, enable and support customers and communities to achieve net zero.

### ELECTRIFICATION OF TRANSPORT

In ROI eCars are introducing;

- Over 50 charging "hubs" throughout Ireland which can charge between 3-8 vehicles simultaneously
- The replacement of 50 Standard (AC) chargers with Fast (DC) chargers
- The replacement of over 200 unreliable Standard (AC) chargers

In the UK, eCars continues its roll out of fast charging infrastructure in Birmingham, Coventry and London, in collaboration with city councils and transport agencies. The plans for over 350 fast chargers, will enable the electrification of city taxi fleets as well as enhancing public charging infrastructure.



### SMART METER ROLL OUT



ESB Networks will replace 2.4 million electricity meters with next generation smart meters in every home, farm and business across Ireland by the end of 2025. The introduction of this new technology will bring benefits to customers, the environment and the economy. Smart meters will also enable the move to a low-carbon electricity network, the development of smart grids, local renewable generation and microgeneration and support the electrification of heat and transport. To end of 2021, 620,000 smart meters had been installed nationally.





### ELECTRIC IRELAND COVID HARDSHIP FUND

Electric Ireland €2m COVID Hardship Fund Available to Support Customers in Financial Difficulty (esb.ie)

Electric Ireland's Covid Hardship fund launched in March 2021. More than one quarter of the €2 million funding has already been allocated by Electric Ireland to SVP and MABS clients requiring financial support with their Electric Ireland energy bills, and a further €1.4 million is still available to those in need of assistance.



### ELECTRIC IRELAND AND TIPPERARY ENERGY AGENCY



Electric Ireland and Tipperary Energy Agency in a new joint venture, 'Electric Ireland SuperHomes', have the ambition of delivering 35,000 deep home energy upgrades by 2030, as part of the national plan to upgrade 600,000 homes.



Increased energy efficiency from retrofitted homes plus the electrification of residential heating replacing fossil fuel oil & gas central heating is critical to this transition. Results include significant savings in energy bills, a warmer, more comfortable and healthier home, and a reduction in carbon emissions.

### NIE VULNERABLE CUSTOMER STRATEGY

Providing a good service for everyone does not always mean providing the same service for everyone. Each year NIE invest around £0.5 million on support services specifically for more vulnerable customers.

healthcare needs. Some customers have medical equipment in their homes, such as specialised mattresses, feeding systems or lifting equipment. These types of equipment need electricity. To support these customers, NIE have set up a Medical Customer Care Register.

NIE provide extra support for customers with



[DOWNLOAD](#)



[DOWNLOAD](#)



# Empowered People

ESB is investing in infrastructure and solutions to enable people, businesses, and communities to live low carbon lives.

## Smart Working

### SMART WORKING

At ESB, we know we have a 'once-in-a-generation' opportunity to reimagine our ways of working. We're calling this Smart Working – working together, wherever we are, to deliver a Brighter Future.

By adopting a principles and employee led approach, we've taken the best of who we are and the best of what we've learned during the pandemic to create a flexible framework for the future.



### X POTENTIAL PROGRAM

ESB and Dogpatch Labs are operating a 5 year collaboration on sustainable innovation. ESB Staff on the "X\_Potential" program will work with leading entrepreneurs in Ireland's top startup hub. They will develop new sustainable business ideas to support ESB's ambition to lead the transition to a low carbon future.



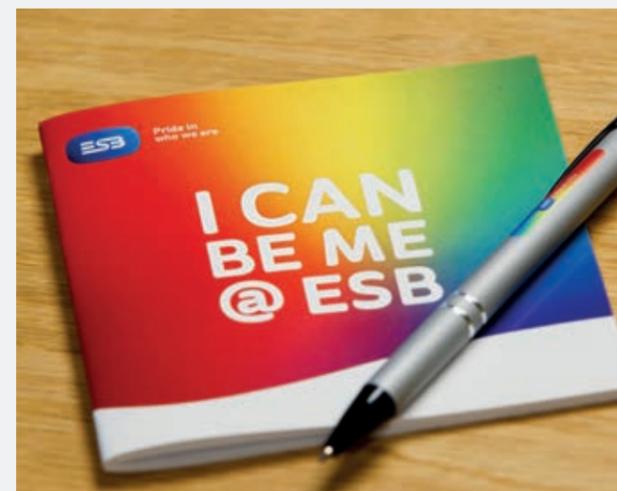
### FREE ELECTRONS

Free Electrons is an alliance of energy accelerators and global utilities including ESB that are committed to supporting energy entrepreneurs and start-ups to transform the energy market with next-generation ideas.



### INNOVATION ACADEMY

ESB's Innovation Academy is an annual programme designed to build competence and capability in customer centric innovation across the group to support delivery of our ambitious Brighter Future strategy. The winning pitch in 2021 was awarded to the 'Hydro Structures Team for their prototype on Hydro dam monitoring.



### BE ME @ ESB ALLY TRAINING

The BE ME @ ESB Ally workshops provided by ESB for all staff is a universal introduction to the lesbian, gay, bisexual, transgender and intersex community. It is perfect for those who might know little about the issues facing LGBT+ community and want to broaden their understanding of these topics.



# Digital & Data Driven

ESB is putting customers at the heart of the energy transition and helping communities through CSR, sponsorship, and customer centric initiatives, so that no one is left behind.

## DATA VISUALISATION HACKATHON 2021

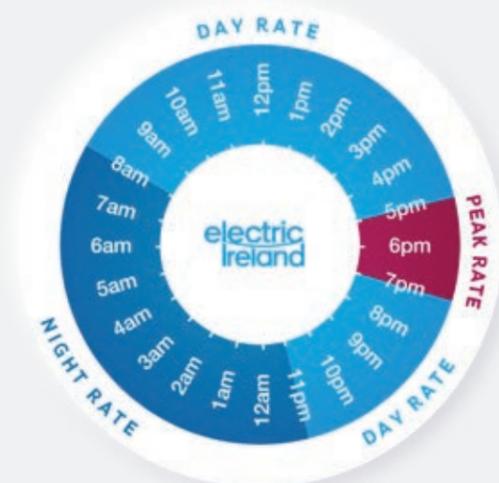
During the Hackathon, colleagues from across ESB joined together in small teams to create dashboards using data around the sustainability performance of an ESB office building. They demonstrated the potential of data analytics in bringing people together and uncovering useful insights.



## CUSTOMER SMART METER SERVICES

Electric Ireland have begun roll out of services on foot of the national smart meter programme in ROI, which help customers;

- better understand their electricity usage, use less electricity, receive bill prediction alerts and make more savings
- avoid estimated bills and choose their bill date
- personalise their energy consumption insights that help reduce usage and carbon footprint
- get cheaper electricity with Home Electric + time-of-use price plans



## CYBERSECURITY

In recent times the risks of hacking and data security breaches have become more significant. ESB has carried out multiple simulated phishing attack exercises. These simulations were sent to all users across the company. As a result of this, the ESB Cybersecurity Team issued "Phishing Fundamentals" training to all users, and cyber security vigilance and training is regularly revisited.



## CHIEF INFORMATION OFFICE (CIO)

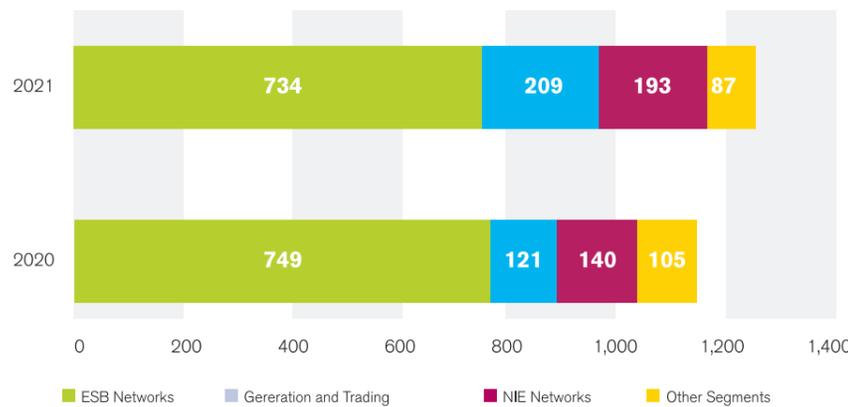
A distinct CIO organisation has been created to enable a dedicated focus on strategic IT, digital and analytics. The CIO organisation is responsible for defining and driving out the IT and digital strategy to position ESB to competitively operate in an ever-changing and challenging environment.



# Financially Strong

ESB's ability to understand, respond to and engage with new and emerging technologies and solutions as they come on stream, plays a critical role in enabling a net zero society by 2050.

## CAPITAL INVESTMENT



ESB invested over €1.2 billion of capital expenditure in 2021. Approximately 75% of this was invested in our two networks' businesses in line with agreed regulated capital programmes, including almost €150 million on the roll-out of smart meters in ROI. ESB invested c.€115 million in new renewable generation and systems services projects (including batteries) as well as c.€81 million in maintaining its existing generation fleet to ensure reliability of electricity supply to customers during the ongoing transition to low-carbon generation.



## GREEN BOND

In January 2022, ESB successfully raised a €500 million 1.0% fixed-rate green bond, maturing in July 2034. This is the second green bond that ESB has issued in less than three years, following the issue of Ireland's first corporate public green bond in 2019. The net proceeds from the transaction will be allocated to finance eligible green projects, such as

renewable energy generation and energy efficiency projects. The bond was purchased primarily by investors across Europe with strong SRI (Socially Responsible Investment) credentials, with orders received of more than €2 billion, demonstrating confidence in ESB's investment programme.



## EU TAXONOMY

### EU Taxonomy Regulation Reporting

For the first time in 2021, ESB has included disclosures in the Annual Report under the EU Taxonomy Regulation outlining the proportion of ESB's turnover, OpEx and CapEx which relate to

Taxonomy-Eligible activities. Approximately 88% of ESB's capital investment relates to Taxonomy-Eligible activities as we continue to invest in renewable generation and the enhancement of the electricity networks in both ROI and NI.



## CONTRIBUTIONS TO STAKEHOLDERS AND SOCIETY

**Dividend of €126 million for 2021**

**Return on Capital Employed (ROCE) of 5.6%**

**Re-Affirmed Credit Rating A-/A3**

**Over €1 billion investment in infrastructure**

**Over €2.0 billion contribution to Irish economy**

**Over €2.5 million disbursed across a range of community initiatives**



**A MINUS BBB+**

## ESB'S CREDIT RATING

ESB's stand alone credit rating is critical to enable the Group to pursue its growth and decarbonisation strategy. The weighted average interest rate on the Group's portfolio of outstanding borrowings at 31 December 2021 had fallen to 2.6% (31 December 2020:2.7%). In recent years the Group has been able to issue longer dated (10 to 20 year) bonds, reducing medium term refinancing risk. The average duration of the Group's debt portfolio is consistent with the long-term nature of Group assets. During 2021, Standard & Poor's and Moody's both reaffirmed ESB credit rating at A- and A3 respectively.



# Sustainable & Socially Responsible

Electricity is an enabler of societal and economic well-being. ESB has been at the heart of Ireland's economic transition through electrification and we must remain strong and sustainable to lead Ireland's transition to a low carbon society.

## STAFF VOLUNTEERING SUPPORT



The Energy for Generations Fund is an acknowledgment that we have a role to play in supporting communities around Ireland. ESB has a presence in every community in Ireland and we believe we have a vital part to play in supporting these communities to build a Brighter Future and help them reach their full potential. Employees who volunteer for a minimum of 20 hours per year with a qualifying charity can apply to the Energy for Generations Fund for a donation of €250 for this charity. Each year the Fund awards over €2 million in funding across a range of community and issues-based initiatives.



Emelda from Ballincollig Community Nursing Unit accepting a donation of PPE from ESB which included 200 disposable Lab Coats and 120 pairs of Clear Safety Glasses.

## EMPLOYEE ENGAGEMENT - KINDNESS MATTERS

COVID-19 has had a profound impact on communities across Ireland. In response, ESB launched "Kindness Matters" a series of initiatives helping ESB to respond in a meaningful way through employee volunteering, financial supports and payroll giving. ESB employees have been managing local community initiatives to assist healthcare workers with vital supplies of PPE. ESB has sourced 6,000 full face visors and 1,500 N95 face masks for HSE HQ St Steevens Hospital, Dublin.



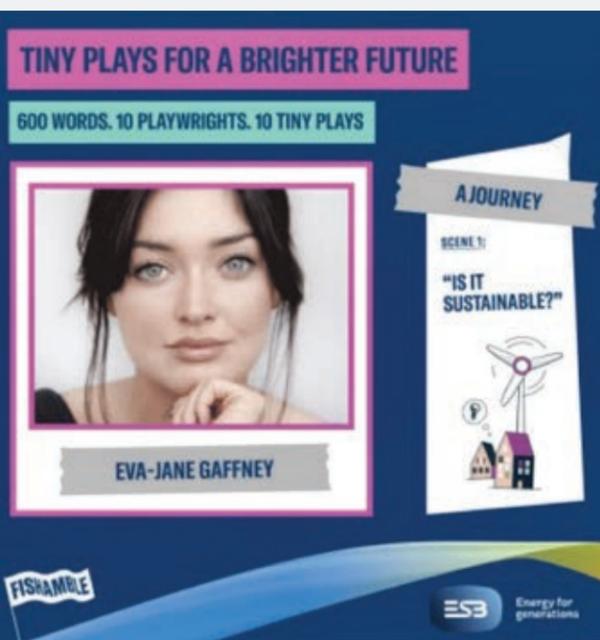
## INCLUSION & DIVERSITY

ESB now has a clearly defined Inclusion and Diversity statement, definition and objectives, supported by a comprehensive implementation plan to build on progress already in place and to sustain an inclusive workplace. The Inclusion and Diversity Strategy speaks to ESB's values – Courageous

- Caring – Driven - Trusted and is aligned to the Culture Change programme underway at ESB.



# Inclusion & Diversity



## 600 WORDS, BY TEN PEOPLE, FOR TEN PLAYS ON A BRIGHTER FUTURE

Ten 'Tiny Plays', consisting of just 600 words, have been shortlisted as part of the 'Tiny Plays for a Brighter Future' challenge, a partnership between ESB and Fishamble: The New Play Company, which was launched in February 2021.

The challenge invited writers to imagine what a brighter energy future means to them and to capture that in a 600-word play. Over 350 submissions were received, with the shortlisted plays selected by an independent panel of judges.



## MANAGING SUCCESSFUL PARENTING TRANSITIONS PROGRAMME

This programme was initially introduced to support women who were going on/returning from Maternity Leave - with the transition to parenthood considered to be a major career pinch point for women. The program became more important during 2021, helping parents manage the effects of the pandemic, with remote working, crèches and schools closing and reopening, Home Schooling, lack of access to the usual and reliable childcare option, others in households with family members also working remotely.



### SUPPORTING CUSTOMERS WITH PAYMENT DIFFICULTIES



Electric Ireland is actively supporting our customers during COVID-19, with an emphasis on our vulnerable customers and the Small and Medium Enterprise sector who have been hardest hit.

A moratorium on disconnections was introduced in 2020, bringing the effective disconnection rate below 1 per 10,000 customers.

Over 85,000 payment plans were put in place to assist those who faced difficulties with their energy bills, as well as the timeframes for payment plans being extended.



### ALL IRELAND POLLINATOR PLAN

ESB has signed up as a key partner to the 2021-2025 All Ireland Pollinator Plan as part of our support for biodiversity conservation.

ESB has committed to operating its businesses responsibly, respectful of biodiversity and without

harming eco-systems. ESB has been reviewing its landholdings including substations, generating stations, wind farms, offices and depots to identify parts of sites suitable for supporting pollinators, through actions such as changes in mowing regimes to creating new habitats on site.



### ESB'S ENERGY FOR GENERATIONS FUND



ESB's Energy for Generations Fund distributes over €1 million to charities fighting homelessness, preventing suicide and enabling access to Science Technology Engineering Arts and Maths (STEAM) education annually. These include funding partnerships with TU Dublin Foundation for the Access to Apprenticeship programme, Aware, for their Life Skills for Schools initiative, to promote mental health awareness in secondary schools

throughout Ireland for the TechSpace initiative, building the capacity of youth organisations to run creative STEAM education programmes.



### UNICEF IRELAND GET A VACCINE GIVE A VACCINE

ESB, through the ESB Energy for Generations Fund was a lead member of the UNICEF Corporate Vaccine Alliance with a donation of €80,000 representing the cost of procurement, transport and distribution of a vaccine to a health worker in the developing world on behalf of every member of staff in ESB.





### Denis Galvin DINGLE PROJECT AMBASSADOR

Denis Galvin runs a dairy farm on the Dingle Peninsula in Lispole, Co. Kerry. Denis was selected to be an ambassador for ESB Networks' Dingle Project.

Each of the Dingle ambassadors had a range of low-carbon technologies installed in their homes and businesses, with each receiving:

- Solar PV Systems
- Battery Management Systems
- Air Source Heat Pumps (ASHP)
- Electric Vehicles and Smart EV Chargers
- Home Energy Monitoring Systems

Denis lives with his wife and five children in their house beside the farm. Their house was fitted with solar/photovoltaic panels, an air-source heat pump and a battery management system as part of the Dingle Project. Denis was also given an electric vehicle for a year.

Denis estimates that they have made significant energy savings in their home and have seen a reduction in the weekly costs of running a car.

Denis Galvin pictured at his farm in Lispole, Co. Kerry

# Introduction

The growing focus on ESG reflects how stakeholder expectations evolve over time and how increasingly, achieving sustainable development needs to strike a balance between environmental, social and governance issues for all involved and impacted.

Consulting with and working collaboratively with all our organisation's stakeholders has never been so important. The crossroads of climate action requires collaboration, unity of focus and purpose to deliver the necessary positive action to address the challenge of our generation.

In ESB Group's home markets of the Republic of Ireland, Great Britain and Northern Ireland, national governments have already declared climate emergencies and set out legislative plans to reach Net Zero carbon economies by 2050. ESB has also published a new corporate strategy which is committed to ESB achieving Net Zero by 2040.

Our strategy reflects major changes in the external environment since 2017, reflecting the significant increase in global, European and national commitments to achieve Net Zero greenhouse gas emissions. This is driving deeper reliance on electricity and an associated need to ensure that zero carbon electricity is reliable and affordable.

Electrification is seen as a key component and

enabler of that transition and therefore the importance of dialogue and engagement with our customers and stakeholders has never had so much at stake.

Aligned to Our Values, ESB strives to operate in a manner that demonstrates our integrity, always complying with the laws and regulations of Ireland and other countries where ESB operates. In ESB we are committed to conducting our activities in an open and transparent manner. To the extent that ESB engages in any lobbying activities requiring disclosure under the Regulation of Lobbying Act 2015, such activities are conducted in a transparent manner and in compliance with the requirements of the Act. ESB has registered with the Standards in Public Office Commission (SIPO) and details of our lobbying activities are publicly available through SIPOs lobbying register. ESB has also registered on the EU Transparency Register and discloses annually what interests are being pursued, by whom and with what budgets.

Broadly we seek to align with the reporting principles set out in the Global Reporting Initiative standards in how we engage with customers and stakeholders and report on the ensuing topics that have been identified as of material importance.

## Reporting principles for defining report content

Stakeholder Inclusiveness

Sustainability Context

Materiality

Completeness

## Reporting principles for defining report quality

Accuracy

Balance

Clarity

Comparability

Reliability

Timeliness

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# Chapter 3

## Consulting Our Stakeholders

# Stakeholder Engagement

## CATEGORIES OF STAKEHOLDERS

ESB operates in a multi-stakeholder environment. Part of our responsibility is to understand and balance the priorities of different stakeholder groups, while staying focused on the delivery of our Net Zero strategy.

Our stakeholders include customers, NGOs, political and policy stakeholders, shareholders, communities, suppliers, investors and employees.

Our stakeholder engagement channels are embedded into our daily operations— whether it is for access to lands for overhead lines inspections, delivering energy services, generating electricity, maintaining the network, operating our business, regulating our industry, buying and consuming our product and services, or granting a social licence to operate – our shareholder, lenders, partners, suppliers, contractors, employees, regulators, customers and the community all play a role in making our business sustainable. Gathering, streamlining, understanding and addressing that spectrum of stakeholder inputs, how it impacts on stakeholders and on ESB and prioritising what and how those issues are addressed is of critical strategic importance to the business.

**We engage regularly with stakeholders on issues of mutual interest through meetings and events, and gain insights into their priorities and material concerns through:**

- Stakeholder research with top 100 stakeholders every 3 years (last done in 2020)
- Quarterly brand and reputation tracker
- Ongoing monitoring of social media channels and online discussions
- Membership of external alliances and affiliations:
  - Business in the Community Ireland
  - Irish Business Employers Confederation
  - Economic and Social Research Institute
  - Chambers of Commerce

From time to time, we engage with public officials for specific purposes to advance our business objectives. These interactions are registered quarterly in accordance with the Regulation of Lobbying Act 2015 .

The breadth of the stakeholders that we engage with across the ESB Group is summarised in our Stakeholder Matrix.



ESB host E.DSO (European Distribution System Operators) members in Dublin

## PROGRESSING STAKEHOLDER ENGAGEMENT

The COVID-19 pandemic taught us, that more than ever, we have seen the importance of having a strong stakeholder engagement strategy and approach to enable us to reach out in support of our customers, communities and stakeholder organisations.

As an outcome of our in depth Group level engagement with stakeholders in 2020, a suite of strategic performance indicators (SPIs) have been developed to track and report clearly to stakeholders on a range of metrics across the environmental, social and governance spectrum. The SPI table and

progress to end 2021 is outlined in chapter 1 of this report, with chapter 2 outlining other examples of ESB's engagement and progress in support of our strategic delivery.

2021 has seen a growing concern and focus on the rising costs of energy, especially natural gas. This has now fed through into electricity prices and increasingly calls into focus our commitment to provide access to secure and affordable electricity, underpinned by our customer commitment to support vulnerable customers through engagement and tailored support solutions.

## ESB GROUP LEVEL ENGAGEMENT

ESB Group is committed to undertaking in-depth Stakeholder research at least every 3 years, to complement and consolidate ongoing stakeholder engagement at the business unit level and via other engagement channels. Our stakeholders are the individuals, groups of individuals, communities, organisations and policy makers that affect or could be affected by ESB's activities, products or services and associated performance. We appreciate the importance of listening to our customers and stakeholders, to hear their views, concerns and expectations so that we are better informed in our decision-making and management of our operations.

During 2020 ESB Group engaged a 3rd party agency to undertake an independent engagement process with the our stakeholders, including an in-depth engagement with senior stakeholders. The stakeholder engagement approach involved 1 to 1 interviews with senior executives, targeted online surveys and direct questionnaire responses sought from stakeholders , as well as direct engagements with a sample of ESB managers and employees. The outputs of that stakeholder engagement process have been used to inform the development of a suite of corporate KPI's to track and report ESB Group's progress against our strategy and in line with the expectations set by the stakeholder engagement process as outlined in chapter 1 of this report.



ESB Group's multi-stakeholder environment.

# Consulting for a Decarbonised Future

ESB works in the very heart of every community across the island of Ireland. Being embedded in this way, brings a broad span of exposure to and engagement with a wide range of stakeholders. In our purpose of creating a brighter future for the people we serve, we recognise that electricity is an enabler of societal and economic wellbeing and a pathway to a decarbonised society.

Understanding the expectations, concerns and interests of our customers and stakeholders is front and centre in delivery of our services. The process begins at the business unit level and continues across Group level.



## Case Study: ESB Networks Stakeholder Engagement Report 2021

ESB Networks' vision is to enable a clean electric future together with their customers who will be at the heart of this transformation. The ambition is to build, maintain, operate, and develop the electricity distribution network to meet the needs of all customers, today and tomorrow.

Customers will play an increasing role in Ireland's energy transition as they adopt these new technologies and more actively participate through self-generation and storage, demand management, energy efficiency opportunities, and selling electricity back to the network.

Customers will share in the benefits and opportunities that lie ahead and ESB Networks will actively support customers and all our stakeholders to take part. In 2021, ESB Networks commenced an independent review of their stakeholder engagement strategy and approach. As part of this review, their 'Strategic Stakeholder Engagement Framework' is being

benchmarked against international best practice to recommend possible improvements and revisions required.

Details of their new strategic framework and the outputs of 2021 stakeholder engagement can be found in the 2021 Stakeholder Engagement Report.

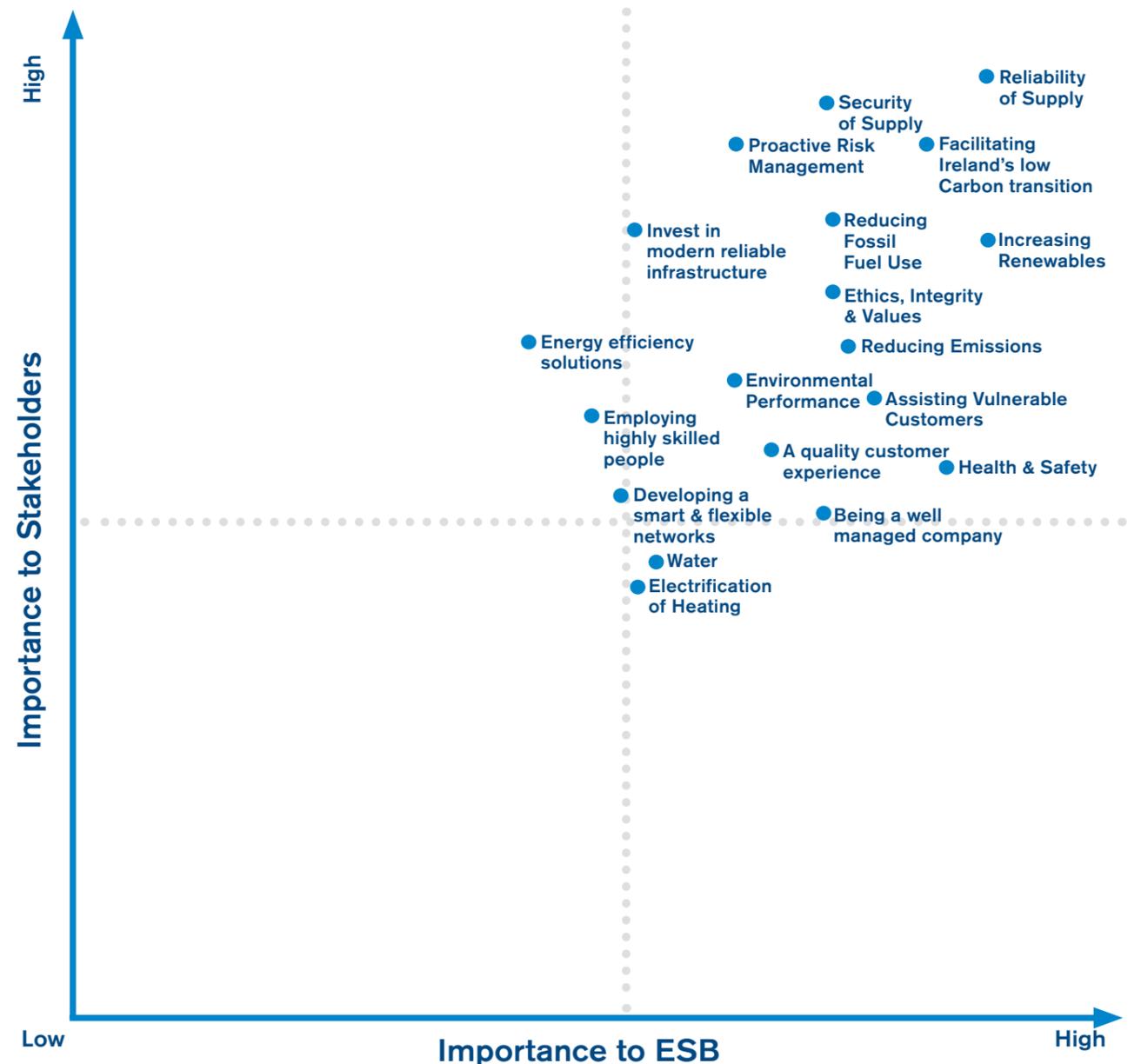


2021 Report

# Materiality Matrix 2020

From the stakeholder engagement and consultation processes, the most material topics are identified and form the bulk of the disclosures in this report. The most material topics are reviewed on an ongoing basis and in depth every 2-3 years as part of the in-depth group level stakeholder engagement process. Disclosures focus on the most material

issues identified in the top right quadrant. As part of our ongoing reporting, transparency and disclosure improvement efforts, we seek to develop more robust reporting and data sets and expand the depth and detail which we report to stakeholders in line with their expectation and giving due consideration to newly emerging material issues.





# Stakeholder Matrix

Stakeholder grouping	Means of Engagement	Subjects of Engagement	Key issues
Government Depts, (e.g DCCAE), national, local	Policy meetings, consultations	Energy policy, regulatory consultation processes	Energy policy
Market, Data and Transparency Regulatory Bodies (e.g. CRU, UR)	Price reviews, regular meetings, programme meetings	Compliance with licence and permit conditions, price reviews	Compliance planning, Delivery of work programmes
Networks Operators (e.g. EirGrid, SONI)	Scheduled meetings, programme meetings	Grid connections, work programmes, planning, renewable integration	Renewable energy, security of supply
Industry NGOs (e.g. Eurelectric, EAI, IBEC)	Consultation processes, information meetings.	National and EU energy policy, climate action and sustainability policy development, consultations.	Policy positions, climate action, supply security
Sustainability/Non industry NGOs (e.g. BITCI & NI, IIEA)	Scheduled meetings, focus groups, member fora, surveys	Work programmes, CSR programme	Emission reduction, corporate responsibility, renewable
Environmental Authorities (e.g. NPWS, UW, SEAI)	Ongoing dialogue.	Annual reporting, planning, safety	Water conservation, energy efficiency, waste, biodiversity
Environmental and Safety Regulators (e.g. EPA, NIEA, HSA, RSA)	Licences, inspections, formal compliance reviews	Licence conditions and compliance, annual reporting, dealing with breaches and complaints	Legal compliance.
Engineering and Scientific Research (e.g. Colleges, EPRI, VGB)	Industry for a, partnerships, conferences, technical collaborations, ongoing dialogue	Technology, skills pool, research partnerships, technology deployment	Technical innovation, market disruption, energy efficiency, availability of skills.
Ratings agencies	Scheduled review meetings	Economic performance, Strategy, Funding rounds, Growth programme	Rating, ability to raise debt at competitive rates, financial performance.
Employees, ESB Group of Unions	Team and one-to-one meetings, surveys.	Business performance, safe working environment, fair employment and trading practices, sustainability	Employee engagement, Recognition and reward, Development
Customers (Domestic, Commercial, Industrial)	Social media, customer contact centres, surveys, via business development team	Price, continuity and quality of supply, energy efficiency services, disconnection policy.	Energy price, disconnection policy, energy efficiency
Suppliers	Tender process, contract review meetings, preliminary market consultations, Meet the Buyer Events	Contractual terms and conditions, corporate social responsibility, sustainable procurement and carbon reduction, Contractor Employment Standards, Human Rights	Contractor Employment Standards compliance, Human Rights, Sustainable procurement, Supply chain, waste, biodiversity

## About ESB

ESB was established in 1927 as a statutory body under the Electricity (Supply) Act, 1927. With a holding of 96.5%, ESB is majority owned by the Irish Government. The remaining 3.5% is held by the trustees of an Employee Share Ownership Plan. As a strong, diversified utility, ESB operates across the electricity market, from generation through transmission and distribution, to supply of customers in addition to using our networks to carry fibre for telecommunications. ESB is a leading Irish utility with a regulated asset base of approximately €10.9 billion (comprising ESB Networks €8.8 billion and NIE Networks €2.1 billion), a 33% share of generation in the all-island market and supply businesses supplying electricity and gas to over 1.9 million customer accounts throughout the islands of Ireland and Great Britain. As at 31 December 2021, ESB Group employed over 7,800 people.

## About this Report

This report explains ESB's strategy and also accounts for ESB's environmental and sustainability performance for the past year. Its intended audience is customers, investors, analysts, policy makers, the public and other stakeholders, internal and external to ESB Group and it is focused on the sustainability issues of greatest concern to these stakeholders.

Our reporting is guided by the principles of materiality, inclusiveness and responsiveness. Under direction from the Environment & Sustainability Leadership Team (ESLT), this report has been prepared in accordance with the GRI Standards Core option and has been independently assessed by DNV against this option. A statement from DNV to this effect is included in the Appendices.

## Scope of the Report

This report covers the fiscal and calendar year 2021. This report pertains to the full activities of ESB and its subsidiary companies, including NIE Networks, hereinafter referred to as ESB Group. The 2021 Sustainability Report meets our commitment to report annually on our Sustainability performance. Where scope boundaries pertain to specific material aspects of the business, these are detailed in the specific sections of the report.

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# Chapter 4

## ESG Disclosures

# ESB at a glance



BUSINESS SEGMENT	GENERATION & TRADING (GT)	ESB NETWORKS	NORTHERN IRELAND ELECTRICITY NETWORKS (NIE NETWORKS)	CUSTOMER SOLUTIONS	OTHER SEGMENTS
Revenue	€1,346m	€1,232m	€337m	€2,172m	€329m
Regions of Operations	ROI, NI, GB	ROI	NI	ROI, NI, SO Energy, GB	ROI, NI, EU, Middle East, Asia, Africa
Scale of Operations	10 thermal stations, 8 hydro and pumped storage stations, 24 windfarms	88 depots, yards, stores and vehicle workshops	15 depots, yards, stores and offices	5 office locations in ROI, NI and GB	41 offices and stores across ROI, NI, GB and internationally
Strategic focus	Developing a low carbon portfolio, providing flexibility services and backup generation to support increased levels of renewable generation and maintain secure supplies of electricity.	Building smarter more resilient networks. Putting the customer in control of their energy. Facilitating the connection of renewables. Enabling the widespread electrification of heating and transport. Supporting Micro-generation.		Bringing sustainable and competitive energy solutions to all our customers.	Bringing leading edge energy solutions to all our customers. Innovating for the future.

## ESB NETWORKS DAC LTD

ESB Networks is the licensed Distribution System Operator (DSO) of the electricity distribution system in the Republic of Ireland, with responsibility for building, operating, maintaining and developing the network and

servicing all electricity customers across the country. ESB Networks also owns the transmission network in the Republic of Ireland, working closely with the Transmission System Operator, EirGrid.

ESB Networks is committed to supporting the Irish Government's target to reduce CO<sub>2</sub> from the sector by 30% and improve the energy efficiency of ESB buildings by 50% by 2030. During 2021, ESB Networks continued to operate revised notification protocols in relation to fluid filled cables with the relevant statutory authorities and continued investigations on some historic leak sites. ESB Networks' website [www.esbnetworks.ie](http://www.esbnetworks.ie) provides public information in relation to fluid filled cables and is continually updated with new information.

ESB Networks, in common with most electrical utilities, uses sulphur hexafluoride (SF<sub>6</sub>) as a safe insulator in switchgear. During 2021, ESB Networks reduced the SF<sub>6</sub> leakage amount and continues to work to contain, reduce and minimise the use of SF<sub>6</sub>.

## GENERATION & TRADING (GT)

The GT business develops and operates ESB's portfolio of wholly and jointly owned electricity generation assets. It also has a significant owned asset and 3rd party asset energy trading portfolio. The generation fleet consists of 5,404 MW of generation assets across the Single Electricity Market (SEM) and Great Britain (GB) including 983 MW of renewable assets, with a further 438 MW under construction in renewables and storage capacity.

GT operates its business with a focus on minimising environmental impact, aiming to significantly increase renewable generation and reduce the overall carbon intensity of electricity generation. ESB is committed to leading a secure and affordable transition away from the use of coal and peat for power generation with the closure of its peat plants in 2020. CO<sub>2</sub> output from GT's generation plants is lower than 2005 (reference date) by approximately 46%, and the carbon intensity of generation reduced by 34% to 440 g/kWh.

## NORTHERN IRELAND ELECTRICITY NETWORKS LTD (NIE NETWORKS)

NIE Networks is the owner of the electricity transmission and distribution networks in NI, transporting electricity to over 900,000 customers including homes, businesses and farms. NIE Networks' employees maintain and extend the electricity infrastructure across NI, connect customers to the network and ensure that equipment is safe and reliable.

Approximately 9,000 new customer connections were delivered in 2021. NIE Networks also provides electricity meters and metering data to suppliers and market operators. NIE Networks develops and reconfigures the electricity network to facilitate the

connection of further renewable generation.

NIE Networks has developed a Sustainability Action Plan 2021-2024 which outlines its commitments to reducing its business carbon footprint, electrifying c. 30% of its small fleet and improving buildings' energy performance during the period. NIE Networks has joined the United Nations' Race to Zero campaign and has committed to a 50% reduction in its carbon emissions by 2030.

## CUSTOMER SOLUTIONS

Customer Solutions brings together all ESB's retail offerings in Ireland and GB, including Electric Ireland, ESB Energy, So Energy, Electric Ireland Superhomes, ESB Smart Energy Services, ESB eCars and ESB Telecoms.

Electric Ireland is the energy retail arm of ESB in ROI and Northern Ireland (NI), supplying electricity and energy services across the island, as well as gas in ROI. With over 1.4 million customers and an electricity all-island market share of 40%, Electric Ireland serves all market segments, from domestic households to large industrial and commercial businesses, in both ROI and NI. It also has 22% of the residential gas market share in ROI. Since 2018, ESB Energy has been ESB's electricity and gas residential retail business in GB, serving over 160,000 electricity and gas residential accounts. During 2021, Customer Solutions expanded its ESB Energy retail business by acquiring the majority shareholding in So Energy, a retail brand offering 100% renewable energy. The integration of these businesses brings the best of both companies together under the So Energy brand, supplying a total of c.560,000 electricity and gas accounts.

Electric Ireland is conscious of operating its business in a sustainable and environmentally responsible way and is certified to ISO 14001 standard. Electric Ireland actively works with customers to assist them in improving the sustainability of their homes and businesses through the efficient use of the energy provided to them.

## ENGINEERING & MAJOR PROJECTS (EMP)

The EMP business provides a centre of engineering for ESB, delivers large projects across the ESB Group, is responsible for ESB's Group Property and Security portfolio, and provides engineering and other services to external clients through ESB International. The business has over 800 people who work in partnership with other business areas in ESB and deliver engineering services to external clients both at home and internationally.

## CHARTERS TO WHICH THE ORGANISATION SUBSCRIBES

### GOVERNANCE / ECONOMIC

- Code of Practice for the Governance of State Bodies (2009)
- UK Corporate Governance Code (2012)
- Irish Corporate Governance Annex (2010)

### SOCIAL

- Bettercoal Code (2015)
- The Prompt Payment Code of Conduct (2014)
- The Energy Engage Code (2014)

### ENVIRONMENTAL

- E.DSO Sustainable Grid Charter (2020)
- BITCI Low Carbon Pledge (2021)



## PRINCIPAL ASSOCIATIONS TO WHICH THE ORGANISATION BELONGS

ESB plays an active role in many associations, both at a board level and as an active member. Playing an active role in such external associations is central to the development of key staff, the promotion of

engineering skills, developing common approaches on national policy, promoting diversity and inclusion in society as well as policies consistent with national climate objectives.

- Association for Higher Education Access and Disability (AHEAD)
- Business In The Community (BITC) Ireland
- Bettercoal
- Business in the Community NI
- CDP Ireland Network
- Chambers Ireland
- Chartered Institute of Professional Development
- CHAdEMO Association
- Corporate Leadership Council
- Confederation of British Industry (CBI)
- Diversity Charter of Ireland
- European Distribution System Operators
- Electricity Association of Ireland (EAI)
- Electric Power Research Institute (EPRI)
- Energy Networks Association
- Energy UK EV Task Force
- Engineers Ireland
- Eurelectric
- Institute of Engineering and Technology
- Institute of Directors
- Institute of Customer Service
- Irish Wind Energy Association (IWEA)
- Irish Business and Employers Confederation (IBEC)
- Irish Marketing Institute
- Low Carbon Vehicle Partnership
- National Irish Safety Organisation (NISO)
- NI Chamber of Commerce
- National Energy Action
- Open Charge Alliance
- Society of the Irish Motor Industry
- The Society of Motor Manufacturers & Traders (SMMT)
- The Mediators Institute of Ireland.
- Ulster Wildlife

## CERTIFICATIONS AND MANAGEMENT STANDARDS

Business Unit	Certified Management Systems
<b>ESB Group (Cross BU)</b>	ISO50001 Energy Management
<b>Generation &amp; Trading</b>	ISO14001 Environmental Management, ISO45001 Occupational Health & Safety Management, ISO55000 Asset Management ISO9001 Quality Management (Moneypoint)
<b>ESB Networks</b>	ISO14001 Environmental Management, ISO45001 Occupational Health & Safety Management ISO55000 Asset Management
<b>NIE Networks</b>	ISO14001 Environmental Management, ISO45001 Occupational Health & Safety Management ISO9001 Quality Management
<b>Customer Solutions</b>	ISO14001 Environmental Management, ISO45001 Occupational Health & Safety Management
<b>Engineering &amp; Major Projects</b>	ISO14001 Environmental Management, ISO45001 Occupational Health & Safety Management, ISO9001 Quality Management
<b>Enterprise Services</b>	ISO14001 Environmental Management, ISO45001 Occupational Health & Safety Management

# Introduction

Climate change is one of the defining challenges of this generation. Its impact is evident in increasingly extreme weather patterns, rising sea levels, water shortages and disruption to biodiversity and ecosystems. Electricity has a transformative role to play in tackling climate change by eliminating carbon and other harmful greenhouse gas emissions from the energy sector.

To this end, ESB is taking urgent and focused action to achieve Net Zero emissions by 2040 and putting in place the infrastructure and services to enable our customers and broader society to live more sustainably. ESB has committed to setting a Science Based Target to align our carbon reduction targets to the pace and scale required by climate science, and to ensure our targets are independently validated. All ESB Group scope 1, 2 and 3 emissions are monitored, reported and are independently assured. As well as reporting our emissions in this report, we disclose emissions performance via the CDP online reporting platform.

Robust environmental stewardship of our operations

is essential to identifying, managing and mitigating impacts or potential impacts to the environment from our operations. ESB maintains environmental management systems across the Group. These are audited externally to the ISO 14001 standard.

ESB discloses environment and sustainability information annually in the Sustainability Report in accordance with the GRI standards of disclosure. Alignment with the GRI standards is independently confirmed.

The Safety Health and Environment group function oversee the development of Group Safety Health and Environment Standards and carry out regular site audits of these standards.

A cross-company group of senior managers – the Environment and Sustainability Leadership Team – provides climate governance and overall direction to environmental improvement and assurance in the Group. Group environmental performance is also monitored by the Safety, Environment and Culture committee of the Board.

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## Environmental Disclosures



# Emissions

## NET ZERO BY 2040

ESB's 2040 strategy - Driven to Make a Difference: Net Zero by 2040 - builds on our 2017 Brighter Future strategy, which set a clear direction for ESB to take action and exercise leadership in tackling climate change.

While this remains our North Star, our new strategy accelerates the pace of change, providing clear deadlines and accountability for achieving Net Zero by 2040 and committing to a Science Based Target for 2030. Our strategy sets out a path to achieve Net Zero in a way that supports ESB's continued growth, and our financial capacity to invest in a Net Zero future.

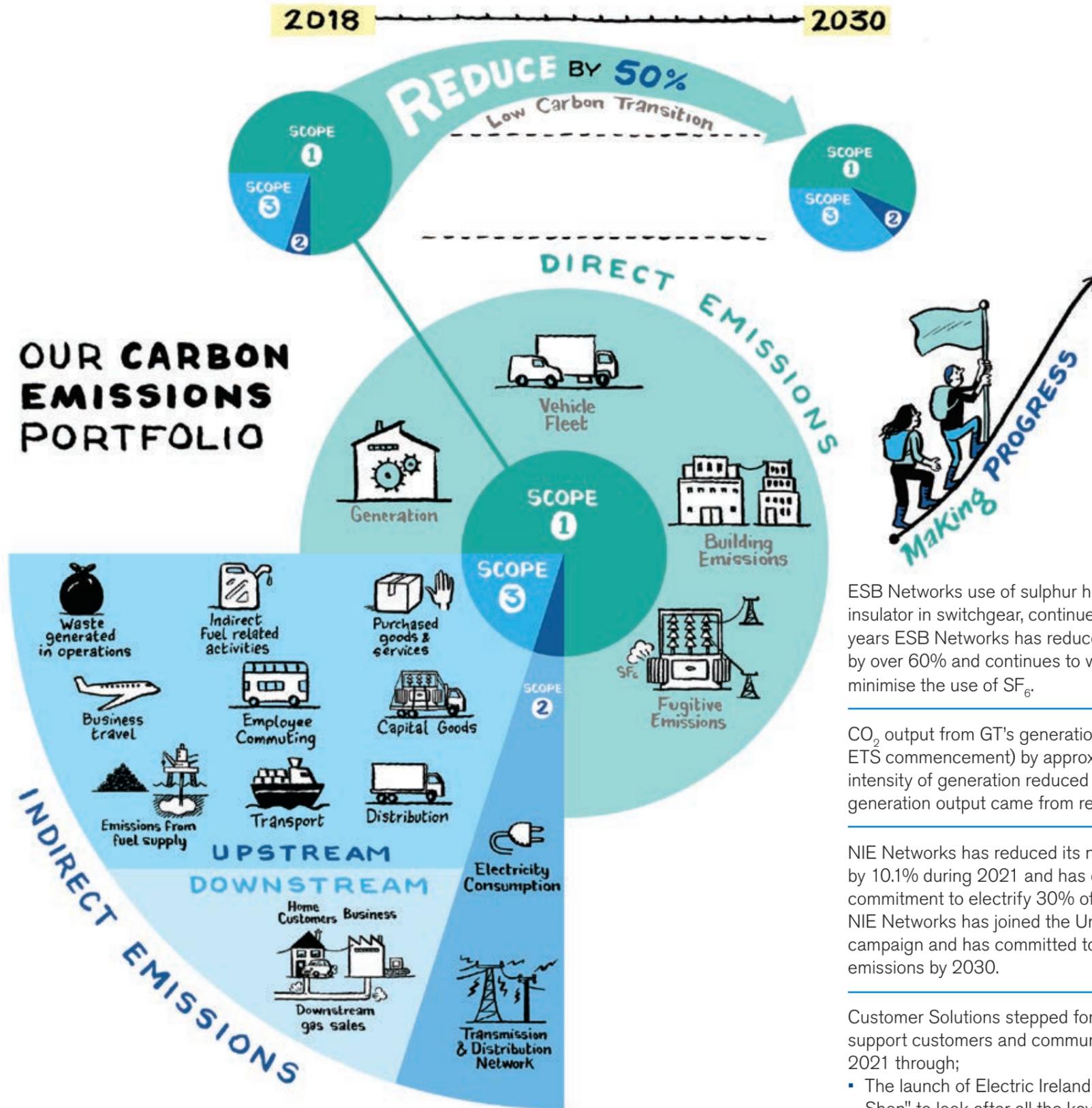
As part of progressing towards Net Zero, ESB is committed to reducing the carbon intensity of its electricity generation, to 140gCO<sub>2</sub>/kWh by 2030, a reduction of at least 63%, whilst absolute emissions will reduce by at least 50% over the same time frame.

## EMISSIONS VERIFICATION

ESB reports emissions based on the Greenhouse Gas Protocol methodology. Scope 1, 2 and 3 emissions are reported annually. Greenhouse gas emission data is independently verified. Our generation emissions are verified under the auspices of the EU ETS emissions trading scheme and submitted to the relevant Environmental Protection Authority annually. All other Scope 1, 2 and 3 emissions are verified to ISO14064 as part of our annual submission to CDP.

## CDP LEADERSHIP A-

ESB Group successfully retained its CDP leadership scoring performance in 2021, scoring an A-. Contextually, this places ESB's performance in the top quartile for CDP response when compared with all responding global electricity utilities.



ESB Networks use of sulphur hexafluoride (SF<sub>6</sub>) as a safe insulator in switchgear, continues to reduce. Over the past 3 years ESB Networks has reduced the SF<sub>6</sub> leakage amount by over 60% and continues to work to contain, reduce and minimise the use of SF<sub>6</sub>.

CO<sub>2</sub> output from GT's generation plants is lower than 2005 (EU ETS commencement) by approximately 46%, and the carbon intensity of generation reduced by 34% to 440 g/kWh, 14% of generation output came from renewables.

NIE Networks has reduced its non-network carbon emissions by 10.1% during 2021 and has commenced roll out of its commitment to electrify 30% of its small fleet vehicles. NIE Networks has joined the United Nations' Race to Zero campaign and has committed to a 50% reduction in its carbon emissions by 2030.

Customer Solutions stepped forward to empower, enable and support customers and communities to achieve Net Zero during 2021 through;

- The launch of Electric Ireland Superhomes, a "One Stop Shop" to look after all the key stages of a home energy retrofit, from retrofit design through to project completion and payment of SEAI grant funding.
- Electric Ireland's Smart Metering 'Home Electric+' plans to help customers learn more about their energy usage, decrease their overall electricity usage and reduce their bills by availing of cheaper electricity at different times of the day.

**CDP A LIST 2021 CLIMATE**

Your CDP score: **A-**

Average performance:

- Thermal power generation: **B**
- Europe: **B**
- Global Average: **B-**

**UNDERSTANDING YOUR SCORE REPORT**

ESB Group received a **A-** which is in the Leadership band. This is higher than the Europe regional average of **B**, and higher than the Thermal power generation sector average of **B**.

Leadership (A/A-): Implementing current best practices  
 Management (B/B-): Taking coordinated action on climate issues  
 Awareness (C/C-): Knowledge of impacts on, and of, climate issues  
 Disclosure (D/D-): Transparent about climate issues

## NET ZERO, DECARBONISATION AMBITION

Over the past number of years ESB has made significant progress in improving its emissions performance, through growing its renewable portfolio, retirement of peat stations and legacy thermal stations and reduced running of the coal station in Moneypoint. As a generator in the All-Island market in Ireland, ESB is subject to the market conditions in operation. During 2021, the island of Ireland experienced some of the lowest wind conditions in almost 60 years, resulting in a significant shortfall in wind generation. In 2019 and 2020, Ireland had the highest levels of onshore wind output globally. The lower than predicted wind conditions coincided with forced outages on two baseload plants nationally, which has resulted in a number of amber alert events on the national electricity grid (An Amber Alert may be issued by the system operator, Eirgrid, when a single Event would give rise to a reasonable possibility of failure to meet the Power System Demand, or of Frequency or Voltage departing significantly from normal.) These conditions have resulted in the market calling upon ESB's coal fired generation station at Moneypoint to increase its generation output and reduce the shortfall risk to the grid, resulting in an increase in ESB's emissions in 2021, against the long term downward trend.

Despite this impact on emissions intensity in 2021, ESB remains fully committed to delivery of the 2030 emissions target and low carbon ambition.

ESB's revised strategy, Driven to Make a Difference, Net Zero by 2040, sets the objective to develop and connect renewables to decarbonise the electricity system by 2040. This objective reflects ESB's commitment to supporting the societal goal of achieving Net Zero emissions through the generation of renewable electricity and by enabling the connection of renewable generation to our electricity networks. We will deliver a fivefold increase in our renewable generation portfolio to 5,000MW by 2030, and ESB Networks and NIE Networks will increase the amount of renewable energy connected to our networks from 6.2GW to >15GW over the same period.



## EMISSIONS BASELINE

The original baseline year chosen for reporting of the CO<sub>2</sub> emissions is 2005, the year when the formal reporting for the EU Emission Trading Scheme (ETS) started. The commitment to set a Science Based Target will result in a re-baselining of emissions categories. The monitoring and reporting of CO<sub>2</sub> is carried out in accordance with the EU Commission regulation 601/2012 and is verified by an accredited external verifier, which must also comply with Commission Regulation 600/2012. All other non-generation Scope 1,2 and 3 emissions are verified to ISO14064 as part of our annual disclosure to CDP.

## SCOPE 1 GHG EMISSIONS

Direct (Scope 1) GHG emissions are reported on an equity share basis for thermal assets. All thermal assets operate under licence and all their emissions are subject to measurement, independent external verification and reporting to the relevant licencing authority annually.

## BIOGENIC EMISSIONS

ESB's biogenic emissions are associated with our equity share of Tilbury waste wood to energy plant in Tilbury Port, London, which entered commercial operation in 2019. ESB divested of its share in Tilbury during 2021;

2019	<b>139,860 tonnes CO<sub>2</sub>e</b>
2020	<b>552,016 tonnes CO<sub>2</sub>e</b>
2021	<b>29,924.3 tonnes CO<sub>2</sub>e</b>

## INSTALLED CAPACITY (MW) BY GEOGRAPHY

Fuel Source & Year	Republic of Ireland	Northern Ireland	Great Britain
<b>Gas</b>			
2019	1,578	402	1,231
2020	1,578	402	1,231
2021	1,588	402	1,231
<b>Coal</b>			
2019	855	-	-
2020	855	-	-
2021	855	-	-
<b>Peat</b>			
2019	226	-	-
2020	226	-	-
2021	-	-	-
<b>Oil</b>			
2019	-	53	-
2020	-	53	-
2021	-	53	-
<b>Wind (Onshore &amp; Offshore)</b>			
2019	327	100	169
2020	501	100	169
2021	501	100	169
<b>Hydro</b>			
2019	512	-	-
2020	512	-	-
2021	512	-	-
<b>Solar</b>			
2019	-	1	-
2020	-	1	-
2021	-	1	-

Note 1: Hydro includes pumped storage capacity. - in table signify no installed capacity in that geography

## NET PRIMARY OUTPUT

ESB does not disclose net primary output by energy source and regulatory regime in MWh. Due to the nature of all island market structures, disclosure of this nature is deemed to be commercially sensitive to a level where it may provide competitors with significant commercial insights and advantage. Energy inputs to the thermal generation process are reported in the energy management section, as is required by legislation in Ireland.

## SCOPE 2 GHG EMISSIONS

Verification of Scope 2 emissions is undertaken by an independent third party assessor using ISO 14064-3:2006 Specifications with Guidance for the Validation and Verification of Greenhouse Gas Assertions.

Scope 2 emissions associated with electricity networks transmission and distribution losses are calculated using location based method.

## SCOPE 2 INDIRECT (FROM ELECTRICITY USE)

Indirect Scope 2 (Indirect Electricity)	2021	2020	2019
Location Based (tonnes)	<b>5,979</b>	<b>7,238</b>	<b>9,493</b>
Market Based (tonnes)	<b>4,778</b>	<b>6,198</b>	<b>6,265</b>

The location based rate is derived from the ROI electricity all Ireland location rate SEAI and for NI using the DEFRA factor. The market rate uses the all-island consumption and multiplies it by ESB's own Carbon Intensity factor from generation.

No significant changes in emissions recalculations for 2021.

## SCOPE 3 GHG EMISSIONS

During 2021, ESB extended the collection and estimation of Scope 3 emissions sources to all applicable Scope 3 categories. Emissions inventories are estimated for Categories 1, 2,3, 4, 5,6,7 and 11 using a combination of calculation methods outlined in the Scope 3 GHG Protocol Guidance. Work is ongoing to develop a methodology for Scope 3 Category 7 emissions estimates associated with working from home, brought about by the pandemic and ESB's Smart Working Strategy.

## EMISSIONS PERFORMANCE TABLE

<b>GHG Emissions Scope 1 (tonnes CO<sub>2</sub>e) from Thermal Generation<sup>4</sup></b>	<b>2021</b>	<b>2020</b>	<b>2019</b>	<b>Baseline (2005)</b>
Ireland	5,411,950	3,570,952	3,999,613	14,630,000
Northern Ireland	709,846	682,857	685,350	
Britain	1,729,453	886,543	1,507,600	
<b>GHG Emissions Scope 1, 2 &amp; 3 (tonnes CO<sub>2</sub>e) from Business Operations</b>	<b>2021</b>	<b>2020</b>	<b>2019</b>	<b>Baseline (2015)</b>
<b>SCOPE 1</b>				38,596
Premises Energy- Thermal	679	666	833	
Vehicle Transport	14,700	15,029	15,451	
Gaseous Emissions (SF <sub>6</sub> , PFC)	8,868	7,846	12,621	
Scope 1 emissions (sub) total	7,875,496	5,163,893	6,221,564	
<b>SCOPE 2 (Location based)</b>				13,754
Network Losses (SEM, T&D)	500,401	705,262	538,937	
Premises Energy -Electricity	5,979	7,238	9,493	
Scope 2 emissions (sub) Total:	506,380	712,500	548,430	
<b>SCOPE 3</b>				10,393
Purchased Goods & Services (Cat 1)	525	555	666	
Capital Goods (Cat 2)	208,931	189,937	172,670	
Fuel & Energy (Cat 3)	1,730,044	1,079,390	1,406,563	
Transport & Distribution (Cat 4)	1,937	1,937	1,937	
Waste (Cat 5)	517	535	732	
Business Travel (Cat 6)	3,862	4,340	9,208	
Employee Commuting (Cat 7)	2,029	2,063	4,933	
Use of Sold Products (Cat 11)	1,380,000	1,071,265	1,199,742	
Scope 3 emissions (sub) total	3,327,845	2,350,022	2,796,450	
<b>Total GHG Emissions (tonnes CO<sub>2</sub>e)</b>	<b>11,709,721</b>	<b>8,226,515</b>	<b>9,566,444</b>	
<b>Other Emissions (tonnes)</b>	<b>2021</b>	<b>2020</b>	<b>2019</b>	<b>Baseline (2006)</b>
NOx	3,954	2,882	3,370	21,585
SOx	1,196	157	628	25,400
Dust	126	50	67	1,127
Carbon Intensity from Generation	440gCO <sub>2</sub> e/kWh	375gCO <sub>2</sub> e/kWh	421gCO <sub>2</sub> e/kWh	670gCO <sub>2</sub> e/kWh (2005)

<sup>1</sup> All Generating emissions are subject to verification under EU ETS and are reported to national environmental agencies annually.

<sup>2</sup> Sulphur hexafluoride (SF<sub>6</sub>) is used in a significant portion of high-voltage switchgear assets on the transmission and distribution networks. It is used because of its very high electrical insulating properties which facilitates efficient and safe operation of the switchgear. In 2021 approximately 138kg of SF<sub>6</sub> in ESB Networks & 205kg of SF<sub>6</sub> for NIE Networks was used due to equipment faults.

<sup>3</sup> Emissions table addresses GRI Standards 305-1, 305-2, 305-3, 305-4, 305-5, 305-7, EU5

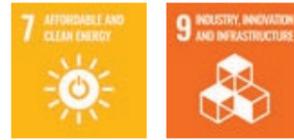
<sup>4</sup> GWP Source - IPCC AR5 Conversion Factors

## FUTURE OUTLOOK

As Ireland's leading energy utility, ESB has a stable business profile with approximately 70% of earnings and assets accounted for by regulated electricity networks in Ireland under established and transparent regulatory frameworks. ESB has a strong balance sheet at 31 December 2021 with net assets of over €4.1 billion. We continue to deliver strong operating profits (before exceptional items) and maintain a strong liquidity position of c.€1.9 billion. We have a moderate gearing level of 52% at the

end of 2021 and credit ratings of A- and A3 with Standard & Poor's and Moody's respectively, both reaffirmed during 2021.

This strong financial position along with a stable business profile, means ESB is well positioned to meet the challenges that lie ahead and to deliver on the strategic ambition to make a difference, deliver a brighter future and achieve Net Zero by 2040. Priorities for 2022 and beyond for the main business units include;



## GENERATION & TRADING

ESB's commitment to supporting the societal goal of achieving Net Zero emissions through the generation of renewable electricity is lead out by the Generation & Trading business, with the aim of delivering a fivefold increase in our renewable generation portfolio to 5,000MW by 2030.

GT will continue to oversee the initial stages of the build out of Neart na Gaoithe (NNG) offshore wind farm and oversee the commercialisation of Inch Cape offshore wind farm, aiming to secure a CFD (Contract for Difference) in the AR4 auction in 2022 and progress the project to financial close.

GT will continue to increase the number of opportunities for investment in low carbon generation, including, solar, storage and offshore wind. Building on the significant progress made in 2021, 2022 will continue to focus on; onshore wind projects, specifically Oweninny 2 and the joint venture with Coillte, a continuation of the partnership with Parkwind on development of Oriel and Clogherhead offshore wind farms, as well as the development of four battery projects (Inchicore, Aghada, Poolbeg and Ringsend). 2021 also saw the launch of an ambitious project to transform Moneypoint coal fired power station into a green

energy hub. 2022 will also seek to progress the decommissioning of the peat stations and site restoration in line with EPA Industrial Emissions Licence and the exploration of further options for the sites to benefit the local community and provide energy security to the grid.



The first of the two offshore substations being lifted onto its foundation jacket at Neart Na Gaoithe offshore wind

## ESB NETWORKS

The key strategic objectives for the ESB Networks business under the revised ESB Group strategy is to connect renewables to decarbonise the electricity system by 2040 and provide resilient infrastructure for a reliable low carbon electricity system. To this end, there will be a focus on delivery of RESS-1 (Renewable Energy Support Scheme) projects as a key priority for 2022. Currently 47 DSO (Distribution System Operator) projects are programmed to be energised before 2022 year-end, while design and construction works will continue the delivery of the 10 TSO (Transmission System Operator) connected RESS-1 projects. Additionally, 4 renewable projects connecting through the use of Corporate Power Purchase Agreements are expected to energise in 2022.

There will also be a significant focus on confirming the changes required to the electricity retail market processes to deliver smart prepayment services, agree delivery plan with all market participants and commence detailed design and build activities of the same. In Q4 2021 the programme was publicly launched as the National Network, Local Connections Programme by Minister Eamonn Ryan. The programme overview and 10 design proposals (addressing delivery, customer, market, and technology needs) were the subject of public consultation and regulatory consideration in Q4. Pending regulatory decisions in early 2022, phase 2 of the programme will commence ▪ Throughout 2022, detailed design activities will progress, along with the development, testing and deployment of the first demand side flexibility pilot, to go live in Q4 2022 in up to 6 locations nationwide ▪ Delivery of increasingly advanced power system studies to inform the development of long-term flexibility services and the procurement of a programme solution partner and of a technology vendor to deliver the primary operational technologies required.

## NIE NETWORKS

2021 saw the publication of the "Networks for Net Zero" strategy, with NIE Networks actively involved in shaping NI energy policy, including obtaining regulatory approval to progress additional low-carbon projects. 2022 will see further review of business plans to 2024, to take the necessary steps to ensure NIE Networks remains on track for successful delivery of RP6 and also submit an RP7 business plan. NIE Networks will continue effective engagement to ensure they understand and can meet stakeholder needs, inform the development of NIE Networks' RP7 Price Control submission to meet societal, customer and business needs, as well as engaging on key policy decisions and processes required for RP7 Price Control.

## CUSTOMER SOLUTIONS

Customer Solutions is pivotal in helping ESB deliver on its strategy and in supporting the delivery of the Climate Action Plan. It does this through products and services that inform customers on energy use and allow them to control and optimise when they use their energy. Electric Ireland's smart tariffs help customers to use energy when it is most beneficial to them and to the system, and green tariffs provide customers with a guarantee that their energy comes exclusively from renewable sources. Both Electric Ireland and So Energy install solar panels, batteries, EV chargers and smart controllers to further help customers with their energy needs. Our new Electric Ireland Superhomes JV provides a one-stop-shop to project manage deep energy retrofits in customer homes. For business customers, Smart Energy Services provides expert advice on Solar PV, process optimisation and low-carbon heating and cooling technologies. Through our eCars business, we are also pivotal to the decarbonisation of transport by providing a national, public EV infrastructure in ROI and NI, and working with a number of organisations and Borough Councils in GB to install charging networks.

# Environmental Management

## MANAGEMENT OF ENVIRONMENT AND SUSTAINABILITY

As a major Irish utility with significant presence in the all-island (Republic of Ireland and Northern Ireland) market, and a growing presence in the Great Britain energy market, ESB is focused on climate change and biodiversity loss, the two biggest issues facing humanity. A commitment to leadership in reducing carbon emissions and supporting the electrification of heat and transport is central to ESB's strategy. Sustainability in its fullest sense includes carrying out business operations responsibly and with care for the impact on the environment. ESB's policies, including the Environment and Sustainability policy and Human Rights policies set out the high-level principles to progress towards these goals throughout the organisation. Environmental Management Systems are operated throughout the Group. ESB reports on its ESG performance annually, including full disclosure of direct and indirect carbon emissions.

In 2021 ESB made its first climate risk disclosure under the Task Force on Climate-Related Financial Disclosures (TCFD) framework and has also voluntarily included disclosures in its Annual Report under the EU Taxonomy Regulation. An ESG project to support enhanced reporting and governance to meet the increased requirements of EU regulation, investors, and stakeholders was established during the year. ESB's revised strategy commits to the development of science based targets and Net Zero by 2040, both of which are underpinned by a commitment to the highest levels of environmental management and sustainability in all aspects of our operations.

## ENVIRONMENTAL MANAGEMENT SYSTEMS

In recognition that our business activities have the potential to cause environmental impacts, ESB seeks to manage our activities in a manner that provides a high level of protection for our natural environment and contributes to the reduction of greenhouse gas emissions, while supporting sustainable economic development.

Due to the nature of our activities, we are subject

to rigorous standards of environmental legislation and regulation through for example environmental licences and permits issued by relevant Regulatory authorities, our Thermal generating stations operations are licenced activities, and we must comply with all aspects of their associated Industrial Emissions Licences. Non licenced activities are subject to assessment during planning processes and subsequent conditions where the planning authority deems necessary. We strive for excellence in all our endeavours to comply with all applicable laws and regulatory requirements. We work through externally certified environmental management systems in line with the ISO14001:2015 standard throughout our company to achieve this. We seek out opportunities to adopt best practice, such as the E.DSO sustainable grid charter, and employ it in our operations. We are committed to playing our part as a responsible business by achieving an appropriately high standard of environmental management and by embedding sustainability in all our activities.

The emphasis on responsibility for environmental management in ESB flows through the company from the Board through the Chief Executive, to all senior management and in turn to each manager, supervisor, team leader and member of staff. The Board Safety, Environment and Culture Committee are responsible for oversight of company strategy, policy and compliance in safety, health and environmental matters and for advising the Board on health, safety and environmental matters. The Executive Director Team (EDT) are ultimately responsible for embedding sustainability and the implementation of effective environmental management within their areas of responsibility. Each business unit within ESB has dedicated Environmental managers who report to the relevant business unit senior manager and ultimately keep the Board abreast of all environmental related matters.

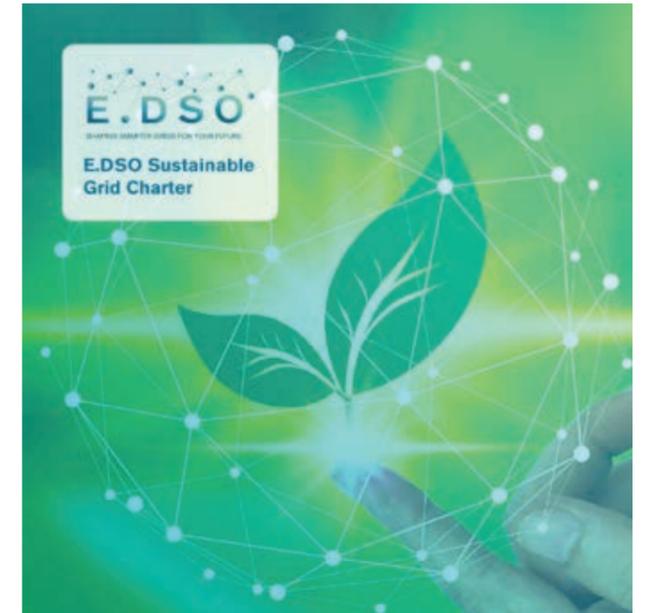
ESB Group requires robust and responsive methods for handling any grievances that may arise from the general public or any other societal stakeholder, be they general complaints or complaints of an environmental nature.

## CASE STUDY: European Distribution System Operators (E.DSO) Sustainable Grid Charter.

Both ESB Networks and NIE Networks have signed up to the European Distribution System Operators Sustainable Grid Charter. With the Sustainable Grid Charter, E.DSO and its members state their commitment to Sustainability, with regard to, not only climate and environmental issues but also social and governmental issues, both now and in the future

### THE SUSTAINABLE DISTRIBUTION SYSTEM OPERATOR:

- Commits to facilitating the energy transition by optimally enabling the use of clean energy resources and the options of energy conversion, while making its own operations optimally carbon neutral also.
- Takes responsibility for the safe and reliable distribution of electricity, engineering the network for a world of increasingly extreme weather patterns.
- Operates with the minimum of materials necessary to conduct business operations safely and takes the life cycle of materials into account.
- Takes the necessary preventive measures to minimize pollution risks arising from its business operations.
- Develops and operates the grid, respectful of biodiversity and without harming eco-systems.
- Provides access to electricity for all and facilitates an inclusive clean energy transition
- Ensures the safety of the neighbourhoods it services by taking preventative safety measures to protect all consumers in the operation and maintenance of the grid.
- Cultivates a healthy and safe working environment based on a culture of prevention and targets zero accidents in the workplace.
- Acknowledges the value of individual difference and supports equal opportunities for all, regardless of sex, nationality, age, religion, disabilities and educational background.
- Commits to taking the necessary measures to safeguard individual privacy and a secure data environment.
- Seeks the same environmental, social and governance standards from suppliers and other partner organizations as it has set itself.
- Invests in the grid, subject to financial due diligence with due regard for the consumer and the environment.
- Manages the grid in a transparent, fair and lawful manner



*E.DSO Sustainable Grid Charter 2019*

## ACCESS TO INFORMATION ON THE ENVIRONMENT

ESB is a public authority for purposes of the European Communities (Access to Information on the Environment) Regulations 2014-2018 (the "AIE Regulations"). Under the AIE Regulations members of the public are entitled to request access to information on the environment that is held by or for ESB or by ESB Networks DAC. Only environmental information can be requested under the AIE Regulations. This term however, is widely defined in

the AIE Regulations and interpreted widely by the Commissioner for Environmental Information and the High Court.

ESB and ESB Networks DAC are separate public authorities under the AIE Regulations and information on how to make a request for environmental information to ESB or ESB Networks DAC is available at the following company website links [Data Protection and AIE \(esb.ie\)](#) and [www.esbnetworks.ie/environmental-information-requests](http://www.esbnetworks.ie/environmental-information-requests).

## AIE REGULATIONS STATISTICS

	ESB 2021	ESB Networks DAC 2021	ESB 2020	ESB Networks DAC 2020	ESB 2019	ESB Networks DAC 2019
New AIE requests	21	9	18	6	20	8
Requests b/f from previous calendar year	0	1	1	0	2	1
Requests c/f to next calendar year	4	1	0	1	1	0
Requests Granted / Part Granted	11	2	11	3	14	7
Requests Refused	4	3	6	1	7	1
Requests Transferred	0	4	0	0	0	1
Requests withdrawn	2	0	2	1	0	0
Internal Review Requests	7	4	6	1	11	1
Requests appealed to OCEI	4	1	4	1	3	0

## ENVIRONMENTAL PERFORMANCE

Significant fines and non-monetary sanctions for non-compliance with environmental laws and /or regulations in terms of;	2021	2020	2019
(i) Total monetary value of significant fines	0	0	0
(ii) Total number of non-monetary sanctions	0	0	0
(iii) Cases brought through dispute resolution mechanisms	0	0	0

\* GRI 307-1(a)

## ENVIRONMENTAL PERFORMANCE STATEMENT

While there were no prosecutions noted against ESB Group in 2021 we would like to comment on the following (GRI307-1(b));

### ESB GENERATION AND TRADING

#### Derrybrien Wind Farm

ESB, through its wholly owned subsidiary Gort Windfarms Ltd, is to decommission the Derrybrien Wind Farm in Galway. This follows on from the decision of An Bord Pleanála on 4th February not to grant substitute consent. ESB consequently paused operation of Derrybrien. Following careful consideration ESB has now decided to

decommission the wind farm. ESB will now prepare for decommissioning of the 70 wind turbines in accordance with planning laws and regulations.

### ESB NETWORKS

ESB Networks' Environmental Performance Report for 2021 is available to view on the ESB Networks website.

Some of the key findings of the 2021 report include:

- ESBN maintained external certification of its Environmental Management System (EMS) to the international standard ISO 14001.
- 99% of waste materials generated by ESB Networks during the course of its business operations were diverted from landfill.
- Carbon emissions associated with the ESN Fleet, SF<sub>6</sub> Gas, Buildings and waste materials were further reduced.
- ESBN continued the replacement of over 2.4 million electricity meters in homes, farms, and businesses with next-generation smart meters to support the transition to a low carbon electricity network. By the end of 2021, 622,000 smart meters had been installed. This compares to 240,000 meters installed

at the end of 2020.

- The Dingle Project continued, facilitating planning for the future in terms of how ESN is going to support Ireland in transitioning to a low carbon energy system.
- ESB Network's Environmental Change Programme was concluded in 2021 and learnings were embedded into day-to-day operations across the business.
- In July 2020 ESB Networks DAC was served with notice of a prosecution by the Environmental Prosecution Agency (EPA) in relation to fluorinated greenhouse gases (SF<sub>6</sub>). This prosecution was not progressed during 2021 primarily because of Covid-19.

### E.DSO Charter

Both ESB Networks and NIE Networks have adopted the European Distribution System Operators' (E.DSO) Sustainable Grid Charter as a statement of intention in relation to their commitment to sustainability in respect of climate change, reducing their carbon footprint and wider environmental and societal impacts.

ESB Networks Fluid Filled Cable Leaks details are in the Effluents & Waste section, Spill & Spill Response

## ENVIRONMENTAL COMPLAINTS

ESB's website ([www.esb.ie](http://www.esb.ie)), sets out a variety of channels for reporting directly to the main customer facing businesses in the ESB Group; to ESB Networks Ltd. and Electric Ireland, as does NIE Networks Ltd. website ([www.nienetworks.co.uk](http://www.nienetworks.co.uk)). The process for each of these public-facing business units is underpinned by a customer charter, code of practice and a complaints handling procedure, all with clear performance expectations stated publicly, as well as a regulatory obligation to report in certain circumstances.

### ESB NETWORKS LTD

ESB Networks has a customer charter outlining 12 customer distribution service guarantees. A National Customer Care Centre also acts as a first point of contact <https://www.esbnetworks.ie/help-centre>

### NIE NETWORKS

NIE aims to provide a first-class service and value for money to all its customers. Its customer charter, code of practice and customer care helpline are accessible via the company website [www.nienetworks.co.uk](http://www.nienetworks.co.uk)

## ELECTRIC IRELAND

Electric Ireland is committed to offering a quality service. Their service commitment is to treat all customers with courtesy and respect, to try and clearly understand customer needs and to act as quickly as possible. Electric Ireland's service standards are based on five Customer Codes: The Code of Practice on Customer Billing and Disconnection, The Code of Practice on Vulnerable Customers, The Complaints Handling Code of Practice, The Code of Practice on Marketing and Sign Up, The Code of Practice on Pay As You Go Metering.

[Residential customer contact information | Electric Ireland ROI](#)

[Contact Us | Electric Ireland Business](#)

[Residential contact us - Electric Ireland NI](#)

Other avenues to register environmental complaints include reporting to local authorities and Environmental Regulators for licensed generating stations.

# Biodiversity

In very simple terms “biodiversity” includes all life on Earth. As defined by the United Nations Convention on Biological Diversity (CBD), “biological diversity” means the variability among living organisms from all sources including terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part; this includes genetic diversity within species, between species and of ecosystems.

Biodiversity plays a critical role in ecosystem function, as well as their ongoing ability to provide ecosystem services; biodiversity provides the human population with clean air, water, food, fuel, medicines, recreation, pollination, soil fertility, climate regulation and mitigation from extreme weather events. Biodiversity is declining globally and despite increased social awareness and political efforts to halt its loss, biodiversity remains threatened by human activities including overexploitation of wild species and conversion of land to agricultural and industrial use.

ESB activities comprise electricity generation, transmission, distribution and supply. As set out in ESB’s Group Policy Statement on Environmental Management and Sustainability, ESB Group has a responsibility to manage these in a way that provides a high level of protection for the natural environment and contributes to the sustainable development of the economy.

Managing activities that have the potential to impact on biodiversity is a key aspect of ESB Group’s approach to environmental management. ESB’s Environmental Management Systems’ structure provides the mechanism by which the necessary local statutory authorisations, operational procedures and improvement measures and programmes are developed and maintained.



## MANAGING OPERATIONAL IMPACTS ON BIODIVERSITY

ESB Group has developed a Biodiversity Policy which underpins the ESB Group Policy Statement on Environmental Management and Sustainability. The stated aim of the policy is to set out the context in which ESB endeavours to manage its activities to avoid significant impact on habitats, species or other aspects of national heritage and where feasible, to enhance biodiversity. In addition, a Group Standard relating to Biodiversity is in place, comprising 24 discrete measures to ensure ESB’s activities are managed in a sustainable manner in relation to biodiversity. This environmental standard sets out the requirements to identify potential impacts on biodiversity with the aim of avoiding or mitigating these impacts, and where feasible, work to enhance biodiversity.

The network of protected sites in the Republic of Ireland includes those designated under EU legislation, namely Special Areas of Conservation (SAC) and Special Protection Areas (SPA), as well as those designated under national legislation, name Natural Heritage Areas (NHA). SACs and SPAs in Northern Ireland have retained their protection status under national legislation as part of the UK’s withdrawal from the EU. Other sites designated under national legislation in Northern Ireland are Areas of Special Scientific Interest (ASSI).

All proposed operational and maintenance activities are screened at an early stage to determine whether Environmental Impact Assessment (EIA), Appropriate Assessment (AA), Ecological Impact Assessment (EclA) or Planning Permission are required.

Biodiversity impacts are considered in all areas comprising existing assets or where new assets are proposed within close proximity to designated sites (as set out by national, regional or EU legislation), as well as other non-designated features of ecological interest.

Correspondingly, specific work instructions and methods are put in place to ensure the protection of biodiversity incorporating all habitats and species inside and outside of designated sites, during and following any such works.

ESB Group employs a number of specialist environmental staff including professional ecologists, as well as operating a consultant framework relating to terrestrial, freshwater and marine ecology. ESB’s ecology staff, based in Engineering and Major Projects, are involved throughout all stages of projects from feasibility/due diligence/site selection stage, through design stage, construction and operation of a development. They also deliver targeted training and biodiversity awareness workshops to their ESB colleagues as well as providing advisory support in relation to specific queries from across ESB Group.

Throughout 2021, ESB Group has continued to progress its review of biodiversity at all relevant landholdings across substations, generating stations, wind farms, telecoms locations, offices and depots. This review aims to identify and quantify the extent of Biodiversity receptors at ESB Asset sites and develop targeted site-specific recommendations for Biodiversity gain where feasible.

Outside designated sites, ESB developments and activities are designed and planned to

avoid impacting on biodiversity, in line with the aforementioned Biodiversity Policy and Group Standard. Where there is a potential of impacts on biodiversity, measures are undertaken to avoid and reduce impacts. For example, ESB staff and contractors continue to be briefed on the potential negative impact of the spread of invasive species such as Japanese knotweed, giant hogweed, Himalayan balsam, giant rhubarb and rhododendron. Where such species are known to occur in proximity to ESB assets, advice is sought from ecologists and where necessary, specialist contractors are engaged to manage and control any infestations to prevent spread or further impingement on infrastructure.

## WORKING IN AREAS OF HIGH BIODIVERSITY VALUE (GRI 304-1)

The vast majority of ESB Group assets are not located within designated sites. The estimated extent of various ESB Group assets within designated sites in Republic of Ireland and Northern Ireland are set out in the tables below. Examples of these types of site include SPAs, SACs, NHAs (ROI only) and ASSIs (NI only).

Republic of Ireland:	Total	Inside SAC	Inside SPA	Inside NHA
Lands under ESB ownership/Foreshore Lease	80 km <sup>2</sup>	21 km <sup>2</sup>	40 km <sup>2</sup>	2 km <sup>2</sup>
MV Cabinets and Plinths (10kV & 20kV)	271,638	2,607	1,964	109
High Voltage Stations (38kV, 110kV, 220kV & 400 kV)	804	1	14	1
38 kV TO 400 kV Overhead Lines (km)	12,717 km	301 km	188 km	42 km
38 kV TO 400 kV Cable (km)	2,113 km	31 km	80 km	4 km

Northern Ireland:	Total	Inside SAC	Inside SPA	Inside ASSI
Lands under NIE ownership (Land Bank) / Foreshore Lease	0	0	0	0
MV Cabinets and Plinths (6.6 kV to 33 kV)	n/a	4	4	12
High Voltage Stations (110 kV & 275 kV)	0	0	0	0
110 kV to 275 kV Overhead Lines (km)	2,200 km	1.6 km	4.15 km	7.1 km

In the Republic of Ireland, the majority of lands under ESB control which are located within designated sites are associated with the respective hydro power

properties and their associated upstream catchments. ESB Networks are also responsible for a significant number/extent of assets within designated sites such

as substations, overhead lines and underground cables. Any overlap of these assets with designated sites is indicated on ESB Networks internal mapping systems. In the Republic of Ireland, the provisions of the Habitats Directive have been integrated into the Planning and Development Act 2000 (as amended) and the European Communities (Birds and Natural Habitats) Regulations 2011 (as amended). In accordance with the aforementioned legislation, where projects or activities are proposed, ESB undertakes Screening for Appropriate Assessment (AA) to assess, in view of best scientific knowledge and the respective conservation objectives for relevant European sites, if proposed works or activities, individually or in combination with other plans or projects would be likely to have significant effects on any European sites. In the context of electricity infrastructure projects in Ireland, developments normally exempted from planning requirements lose their exemption where an AA is required under the Planning and Development Act

(as amended). Accordingly, the Screening for AA outcome will determine, in such instances, whether a project or activity requires planning permission or not. To facilitate such Screenings and any further assessments, ESB draws on the expertise of its internal specialist staff and external framework consultants. NIE Networks has circa 3,500 kilometres of 11kV (or below) overhead line in natural heritage protected sites. These sites are all mapped on its systems. NIE Networks liaises with the NIEA regularly to receive the required consent and to agree the necessary processes to be followed on all such sites to ensure they and their features are protected and mismanagement is avoided. Where mitigation is required or when planning conditions are imposed, these are followed and monitored to ensure there is minimal impact while work is carried out. ESB continues to assess the impact of its operations in accordance with its obligations. Where required, development projects and activities are audited to ensure effectiveness of biodiversity processes.

### CASE STUDY: Relocation of Peregrine falcon nesting box, West Offaly Power, Shannonbridge

As part of ESB's proposed redevelopment of the West Offaly Power (WOP) station site, there will be the requirement to decommission and remove the existing main boiler building. This structure has comprised a peregrine falcon nesting box on the southern aspect since its construction, which has been frequently utilised by a breeding pair of falcons over recent years. This charismatic bird of prey is still recovering from serious declines in the 1960s, relating to the use of the pesticide DDT leading to widespread breeding failures. They hunt other birds, including songbirds, jackdaws and pigeons as well as the waders and ducks which frequent the River Shannon to the west of WOP. In the hope that the WOP site can continue to support breeding peregrines in the future, ESB have consulted with the National Parks and Wildlife Service (NPWS) and engaged the services of a bird of prey specialist (Wildlife Management Solutions) to relocate the nesting box at the site to a peripheral building which will be retained as part of the proposed redevelopment. Presence of peregrine falcons at the site and usage of the new nest box will be monitored over the coming years.



Original peregrine nest box affixed to WOP main boiler building



New nest box location affixed to Dalton Building in the southeast of WOP site

### CASE STUDY: Pollinator Actions at the ESB Networks Training Centre, Portlaoise

As a key partner of the All-Ireland Pollinator Plan (AIPP), ESB has committed to take up opportunities for more pollinator-friendly management of landscapes within its property portfolio, where this fits with the needs of safety, business operations and property management. ESB has been reviewing its landholdings to identify parts of sites suitable for supporting pollinators, through various actions such as minor changes in mowing regimes or new habitat creation. During 2021, the ESB Networks Training Centre (NTC) in Portlaoise was identified as a pilot site for trialling a suite of measures which may be applicable to other ESB Networks sites such as



Section of ESB Training Centre grounds

the outer compounds of HV stations. A trial grass management regime has been designed, where zones of the overall training areas will be subject to reduced mowing frequency in accordance with AIPP guidance; both short-flowering and long-flowering areas of meadow will be trialled and monitored over subsequent years. Other complementary actions at the NTC are also being considered, including planting of native flowering trees and shrubs, rollout of informative signage and the inclusion of biodiversity action in the training curriculum for ESB Networks apprentices.



Map of planned grass management regime

### CASE STUDY: Lough Allen Ecology Studies

Studies have continued through 2021 on the ecology of Lough Allen and interactions with ESB-controlled water levels. Further to fisheries studies on Pollan populations in the lake undertaken by ESB between 2018 and 2020, research is ongoing regarding habitats and species associated with this waterbody. Specialist botanical and bird surveys are being undertaken at Lough Allen as part of a long-term monitoring study on the fluctuating water levels of the lake. This includes the monitoring of three rare and protected plant species found on the shores of Lough Allen: Irish lady's tresses, mudwort and thread rush. Furthermore, data on soil water content and temperature and water levels are being collected by specialist hydrological monitoring equipment that was installed under licence at two locations on the lakeshore.

To-date, a range of bird species have been recorded at Lough Allen, including breeding colonies of common gull and lesser black-backed gull present on small islands within the lake, as well as breeding sandpipers on its lakeshore.



View from the shores of Lough Allen

# Energy Management

For employees, energy efficiency is brought to life through our focus on energy conservation within our operations and how behavioural change can contribute to energy efficiencies in building energy, vehicle fuel consumption and other operational energy loads, all of which contribute to ESB's broader Net Zero 2040 ambition. During 2021 ESB continued to implement, develop and bed in the cross business unit energy management system, covering the operation of our buildings and fleet energy across ESB Group ROI operations, accounting for an annual consumption of approximately 70,000 GWh in 2021. We successfully maintained certification to ISO50001:2018 following a series of virtual surveillance audits carried out by our auditors, NQA, in November 2020.

The Energy Management System will be used to achieve further savings against the increased targets for 2030 of 51% energy efficiency and 51% absolute carbon emissions reductions. During 2021, our new

state of the art headquarters, F27, progressed towards completion and was handed back to ESB in Q1 2022. Further deep retrofit projects were undertaken

and completed on two of our largest ESB Networks locations, Finglas and Leopardstown.

As a commercial semi-state company, ESB is also committed to supporting and being an exemplar in the delivery of Ireland's 2030 public sector targets. Under this legislation (SI426/2014), Irish public sector bodies and commercial semi-state bodies are required to deliver a 51% energy efficiency improvement and a 51% absolute reduction in the carbon emissions associated with operational energy by 2030. To the end of 2021, ESB Group has delivered a 49.2% improvement over baseline against the energy efficiency target. We will commence reporting on the emissions aspect of this legislation from the 2022 reporting year onwards.



## CASE STUDY: Leopardstown Road, Phase 2 Main Administration Building

**PROBLEM:** The building, which acts as key office accommodation for several parts of ESB Networks, had little upgrade work carried out on it since its construction in the early 1970s. The Life Saving Systems and electrical boards required updating. The fabric of the building and windows were poor by modern standards with little or no insulation.

**PROJECT:** ESB Networks undertook a deep retrofit of the building with the goal of improving energy efficiency and creating a more comfortable office space.

The building fabric was significantly upgraded, with roof and external wall insulation and triple-glazed windows installed to form an insulated envelope around the building. All windows have opening sections to aid the natural ventilation strategy for the building, which is now supported by mechanical heat recovery ventilation units, with linked CO<sub>2</sub> detectors. Energy efficient heat pump technology has been installed to provide hot water to radiators for space heating and to staff facilities such as tea stations and showers.

A complete replacement of the buildings electrical systems was also undertaken. Additional desks have also been provided increasing the capacity of the office space.

**TIMELINE:** Works commenced on site in Q4 2020 and were completed in Q1 2022.

**TARGET:** The works proposed are targeting a 48% reduction in energy use in the Phase 2 building.



Energy efficient heat pumps provide water and space heating to the building.

## OPERATIONAL ENERGY INPUTS

Thermal Generation (GWh)	2021	2020	2019	
Coal	7,824	2,186	1,767	
Natural Gas	22,628	17,427	18,999	
Oil	2,167	468	413	
Peat	0	1,720	3,971	
Operational (Primary Energy equivalent in kWh)	Baseline (Avg. 2006-2008)			
Electricity	38,215,335	41,314,003	48,823,028	95,785,331
Thermal	2,202,356	2,502,817	4,321,560	1,424,012
Transport	51,906,413	53,710,105	54,318,204	69,913,833
Energy Performance Indicator (EnPi)				
kWh/FTE Employee	15,467	16,442	18,363	30,414
% Improvement towards 2030 51% target	49.2%	45.9%	39.60%	0%

## CASE STUDY: St Margaret's Road, Finglas, ESB Networks Main Administration Building

**PROBLEM:** Historically the highest energy consuming building in ESB, with monthly electricity consumption reaching 150 MWh on occasion.

**SOLUTION:** ESB Networks undertook a deep retrofit project focussed on the upgrade of the building heating, lighting, and ventilation systems to more energy efficient options. Inefficient electric boilers and the temporary chiller were replaced. A new high-efficiency direct expansion air conditioning system utilising heat pump technology was installed. The air handling units (AHU) were replaced with newer versions with higher efficiency fans, heat recovery and utilising heat pump technology to provide heating or cooling to the incoming supply air. New and improved heating and cooling controls were also installed. The existing luminaires were replaced with new, more energy efficient LED lighting.

**TIMELINE:** Works commenced on site in Q4 2020

and were completed in Q4 2021.

**TARGET:** A more comfortable office space and energy savings have already been achieved. Further monitoring will be carried out to ensure that the 50% energy efficiency improvement targeted by the project continues to be achieved.



Energy efficient LED lighting replaced existing luminaires

## EMPOWERING CUSTOMERS

Customer Solutions is pivotal in helping ESB deliver on its strategy of empowering, enabling and supporting customers and communities to achieve Net Zero. It does this through products and services that inform customers on energy use and allow them to control and optimise when they use their energy. Electric Ireland's smart tariffs help customers to use energy when it is most beneficial to them and to the system, and green tariffs provide customers with a guarantee that their energy comes exclusively from renewable sources. Both Electric Ireland and So Energy install solar panels, batteries, EV chargers and smart controllers to further help customers with their energy needs. Our new Electric Ireland Superhomes JV provides a one-stop-shop to project manage deep energy retrofits in customer homes.

For business customers, Smart Energy Services provides expert advice on Solar PV, process optimisation

and low-carbon heating and cooling technologies.

Through our eCars business, we are also pivotal to the decarbonisation of transport by providing a national, public EV infrastructure in ROI and NI, and working with a number of organisations and Borough Councils in GB to install charging networks.

Providing customers with excellent services and products has always been integral to the success of ESB. Ensuring all customers are supported with the challenges life throws up today, while working together to transition society to a more efficient and decarbonised future, is the driving force behind everything that Customer Solutions delivers. Through the establishment of Electric Ireland Superhomes, Customer Solutions has created a service that supports the Climate Action Plan ambition of 500,000 homes retrofits by 2030 and enables customers achieve a comfortable, healthy and low-carbon home through a whole house retrofit powered by a renewable energy.

## CASE STUDY: Driving Energy Savings with Large Energy User Customers

ESB's Smart Energy Services (SES) works with large energy users providing them with advice and expertise in energy efficiency and energy management through long-term partnership arrangements. "Facing rising energy costs, concerns over security of supply and climate change issues, large energy consumers are increasingly looking for support in managing their energy needs," explains Ciaran Gallagher, Manager of SES.

ESB's Smart Energy Services are undertaking an energy savings agreement with MSD (Merck Sharp & Dohme) Ireland under the EEOS (Energy Efficiency Obligation Scheme).

MSD is an American multinational pharmaceutical company and one of the largest pharmaceutical companies in the world. MSD employs approximately 1800 people across its sites in Ireland, which encompass manufacturing, R&D, commercial and marketing facilities in addition to global support services.

Under the energy savings agreement, any kWh energy savings MSD generates from their energy efficiency projects, ESB Smart Energy Services will use these kWh energy savings and set them off against the annual obligation arrangement ESB Smart Energy Services have with the Irish Government.

In return for the energy savings credits ESB Smart

Energy Services has entered into an agreement with MSD to make an on-site energy engineer available for a period of 1 year in order to help MSD identify opportunities to further reduce their carbon footprint. The on-site engineer will work across 3 of the MSD sites in Ireland (Ballydine (Co. Tipperary), Brinny (Co. Cork) and Carlow). They will be integrated into the local client energy management teams and will carry out various activities such as supporting and working with MSD engineers to identify, develop and implement energy efficiency opportunities.

ESB Smart Energy Services anticipates it will deliver 27.5 GWh Primary Energy Equivalent (PEE) worth of energy saving credits from MSD during this project, which is the equivalent energy required to power 2,000 homes for one year.



MSD building Cork

## DELIVERING ENERGY REDUCTIONS FOR CUSTOMERS

As part of Ireland's requirements under the EU Energy Efficiency Directive to deliver energy for customers, Electric Ireland supported the introduction of the Energy Efficiency Obligation Scheme (EEOS) under which energy suppliers developed solutions to enable customers improve the energy performance of their homes and businesses, reducing both running costs and environmental impacts. 2021 was the final year of the programme, as Ireland's programme for Government and Climate Action Plan, seeks to engage home and building owners on a more extensive deep building retrofit programme. Electric Ireland continues to support this next phase of energy efficiency deliverables focused on delivering Ireland's 2030 targets and is actively working with government on the introduction of the updated obligation scheme. Electric Ireland SuperHomes is targeting 35,000 home deep retrofits by 2030 as part of its contribution to Ireland's climate action plan; [Home Retrofit - Electric Ireland Superhomes](#).

In 2021 Electric Ireland was materially involved in financially contributing to c.350 deep retrofit housing projects and it is anticipated that this figure will substantially increase in 2023 and subsequent years.

Electric Ireland also paid out c.€400,000 under the Energy Efficiency Incentive Scheme whereby they financially assisted Customers who installed energy efficient measures in their homes.

However, with regulatory changes introduced by SEAI, credits for these and other single measures are being phased out in favour of the deep retrofit model for domestic credits and the focus for the future will be on such projects, as offered by Electric Ireland Superhomes.



\*2021 was an exceptional year in terms of the ready availability of credits through measures such as heating controllers and EV Chargers etc.

# Water

ESB's most significant water demand is for the purposes of providing cooling water for thermal power generation. Water is a natural resource and we are required by industrial emissions licence (generating stations) to identify ways to reduce water use where possible. Water used in industry can be extracted from groundwater, rivers and lakes (surface water), estuaries (sea water) or taken from public water supplies (potable water), recycled from the facility's

processes or harvested from rainwater.

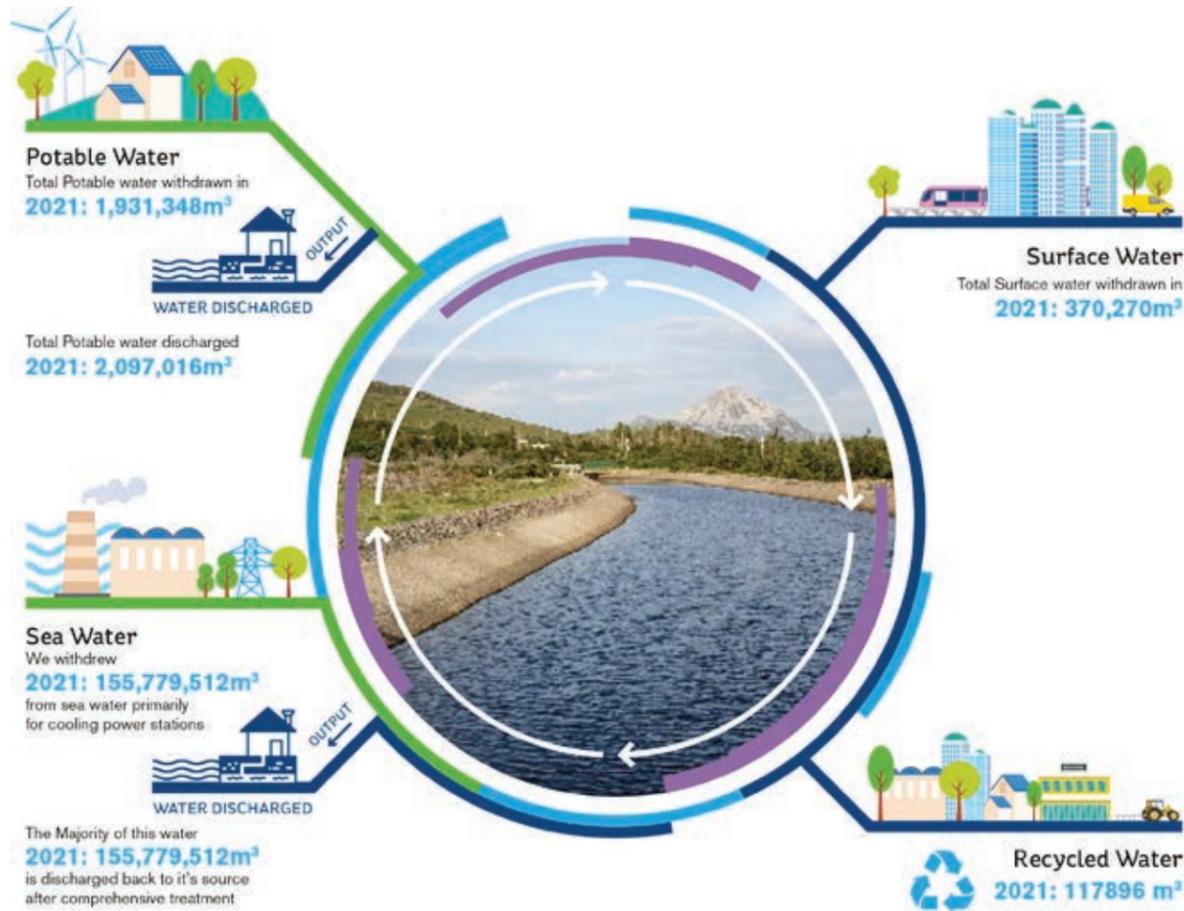
Cooling water is generally withdrawn from a riverine or estuarine source for use in the cooling process and is then safely discharged back to source under controlled and licensed conditions. In addition to cooling water abstraction each station has a water treatment plant which demineralises the water for the purpose of providing ultrapure steam to the turbine.

Lesser quantities of water are consumed in our offices and depots. As our operations are primarily in the Republic of Ireland, Northern Ireland and the UK, we do not operate significant water consuming operations in any locations currently considered under water stress. As with the use of all our natural resources, ESB is committed to being a responsible consumer of water through our management and conservation practices.

## WATER CONSUMPTION

Throughout 2021 the COVID19 pandemic has continued to influence our work patterns for all staff in ESB, in particular those in office based roles. This is reflected in 2021 consumption figures as most ESB office premises continue to report low levels of water consumption.

Water Source	Potable Water (m <sup>3</sup> )			Surface Water (m <sup>3</sup> )			Sea Water (m <sup>3</sup> )			Recycled Water (m <sup>3</sup> )		
	2021	2020	2019	2021	2020	2019	2021	2020	2019	2021	2020	2019
Withdrawal	2,097,016	1,349,995	1,215,888	370,270	3,503,661	3,356,680	155,779,512	325,902,811	172,979,872	0	0	0
Discharged	2,097,016	1,349,995	1,217,606	370,270	3,503,661	3,356,680	155,779,512	325,902,811	172,979,872	0	0	0
Recycled	0	0	0	0	0	0	0	0	0	117,896	192,843	99,407



## WATER CONSERVATION

Water conservation, leak detection and water recycling projects take place across the business, at the power station or location level. For example, an ongoing water recycling project at Moneypoint Generating station, a number of potential sources for capturing run off, wastewater and drainage

systems were identified for recycling and return of the captured water to the process. This recycled grey water is used in the emissions scrubbing and other processes and provided approximately 9.5% of Moneypoint's station water demand in 2021. The water recycling project has also alleviated demand pressures on the local authority water infrastructure.

## WATER MONITORING

Storm water is rain water run-off from roof and other non-process areas of a facility, e.g. carparks, and generally would not contain any pollution. Storm water is usually released into a local water body (riverine or estuarine) after a basic form of treatment. In line with licence requirements, we manage storm water to ensure no polluting substances or materials are released into the environment. Surface water from facilities is collected through various drains on site before passing through Class 1 interceptors & discharging to approved emission points.

ESB carry out extensive testing both in house and externally by certified labs on our rivers, lakes, estuaries, surface, ground water discharge points. Each station carries out an annual testing programme for these waters as per each locations Industrial Emissions Licence. All testing is reported via the Annual Emissions Report to the statutory

authority and any breaches or Emission Limit Values are notifiable to the EPA (or other relevant environmental agency) and depending on its environmental impact may be notifiable to the Local Authority.

During 2021 regular ground water and surface water monitoring continued at ESB Networks national wood pole storage facility in Kiltel, Co Kildare.

In 2021, in addition to bunding all new transformer installations in HV substations, ESB Networks continued retrofitting bunding to existing legacy transformers, and upgraded legacy separators to European Norm 858 and Class 1 performance.

ESB Networks Oil Storage and Transportation Improvement Project continued into 2021. Oil and diesel storage infrastructure upgrades were completed at a number of ESB Networks HV Stations for Back Up Generators and at Depots and Fleet & Equipment Garages.

### Notes on Water Footprint:

1. Potable Water- treated water provided by water utility - due to the nature of water billing, equal allocations are allotted for consumption and discharge.
2. Water data reported for 2021 is incomplete, due to reporting issues encountered. Data will be restated for 2022 reporting cycle.

# Effluents & Waste

As a responsible business, ESB has made a concerted effort for many years to minimise the impacts to the environment from our operations, including waste. The focus on the area of waste management has led to improved compliance with legislation, better management of waste through continuous improvement programs, improved segregation of waste, implementation of better controls in handling of hazardous waste streams and higher levels of reuse and recycling, including the identification of new streams of reuse for waste products.

Staff commitment and involvement in appropriate segregation, waste reduction and improved reuse

is central to our improving waste management performance, as is a strong partnership with incumbent waste framework contract service providers.

An improved level of oversight and assurance of proper and legally compliant disposal methods being employed by waste contractors aims to ensure the maximum possible levels of waste is diverted from landfill and that all waste streams are handled appropriately and compliantly.

Records on the management of waste are collected and maintained by each ESB Business Unit. This information is also used as a basis to estimate the CO<sub>2</sub> emissions associated with waste management.

Waste Type > Disposal Method	Hazardous (Tonnes) 2021	Non Hazardous (Tonnes) 2021	Total 2021	Total Tonnes 2020	TOTAL Tonnes 2019
Reuse	0	335	335	1,711	569
* Recycling, Incineration & Recovery, incl. energy recovery	3,569	7,575	11,143	10,472	13,896
Composting	0	22	22	44	63
Landfill	231	119	351	119	502
Disposed of directly by organization or otherwise directly confirmed (Ash)	0	92,993	92,993	89,638	81,526
<b>Totals</b>	<b>3,800</b>	<b>101,043</b>	<b>104,843</b>	<b>101,019</b>	<b>96,493</b>

Notes to Waste Disposal data provided;

1. Zero waste reported for the following categories of disposal method ( deep well injection, on-site storage, organisational defaults of waste disposal contractor)
2. Information provided by the waste disposal contractor for the purposes of collating waste volumes and categories
3. All hazardous waste as identified in the table above is handled and managed by approved and licensed hazardous waste management contractors, including all transport of hazardous waste materials
4. Waste disposed of directly relates to ash disposal from Moneypoint (coal)

## COMMENTARY ON WASTE PERFORMANCE

### ESB NETWORKS

ESB Networks has a number of national framework contracts to collect and process waste arising from its operations, with collections of hazardous and non-hazardous waste from approximately 140 locations nationwide.

A waste tracking system has been in place within ESB Networks for a number of years to monitor waste generated by the organisation. Construction and demolition (C&D) waste including soil and rubble is associated with operational and maintenance activities. Waste from capital works, including C&D, is not included in waste totals reported.

Overall waste generated by the business unit in 2021 has decreased by 8.9% compared to 2020. The recycling/reuse rate has improved slightly from 99.32% to 99.39%. It is noted that all landfilled material was from the General Waste (non-hazardous) stream. All other waste streams were recycled, reused or incinerated. Bund and interceptor waste is handled as hazardous waste.

### NIE NETWORKS

Waste arising within Northern Ireland Electricity (NIE) is managed by a number of waste contractors. Waste was collected from approximately 15 NIE facilities throughout Northern Ireland. Construction and Demolition (C&D) waste including soil and rubble is associated with operational and maintenance activities. Waste from capital works, including C&D, is not included in reported waste totals.

### GENERATION & TRADING

ESB Generation and Trading (GT) operates a number of framework contracts to collect and process

waste arising from its operations, both hazardous and non-hazardous. The appointed contractors provide itemised monthly invoices which identify the facility served and the waste type. In addition, the ROI Thermal stations, operating under an Industrial Emissions Licence (IEL), prepare a waste register annually for inclusion in their Annual Environmental Report (AER) for submission to the Environmental Protection Agency (EPA). A small increase in waste totals was recorded for 2021 relating to demolition and overhaul works.

### ENTERPRISE SERVICES, ELECTRIC IRELAND, ENGINEERING & MAJOR PROJECTS

Waste generated in these business units is largely associated with office premises, including Swift Square, One Dublin Airport Central and the ESB Head Office Estate. Due to significant refurbishment works to accommodate the organisation's transition to a hybrid smart working model, there was a significant % increase in waste totals across these business units in 2021.



Workspaces renovated to accommodate a hybrid smart working model

## SPILLS AND SPILL RESPONSE

### GENERATION & TRADING

Programmed works are scheduled and undertaken to reduce the potential for discharge of pollutants to surface and grounds water, including the completion of retention tests as per bund test schedule and carry out repairs to defective bunds as required. Incidents occurring are reported as required to the licencing authorities, for example, via Eden to the EPA.

### ESB NETWORKS FLUID FILLED CABLE LEAKS

Like many international utilities, ESB Networks install underground cables in urban locations where it is not feasible to construct overhead lines. Fluid filled cables (FFCs) were installed on ESB Networks distribution and transmission systems between 1950 and 1989. ESB Networks plan to replace all fluid filled cables by 2035. Replacement is prioritised based upon environmental risk for the circuit involved.

Recognising the environmental challenges in

operating and maintaining FFCs, ESB Networks started a fluid-filled cable replacement programme in 2005. So far, 20 % of FFCs have been replaced, removing the source of 40 % of the previous cable fluid leaks from the system. At present, there are approximately 177 kms of FFCs on the Transmission and Distribution Electricity Networks in the Republic of Ireland. There are a number of active fluid filled cable replacement projects at construction stage and additional projects at route selection stage.

During 2021, 6,281 litres of cable insulating fluid leaked from ESB's High Voltage Cable network (35 litres per km).

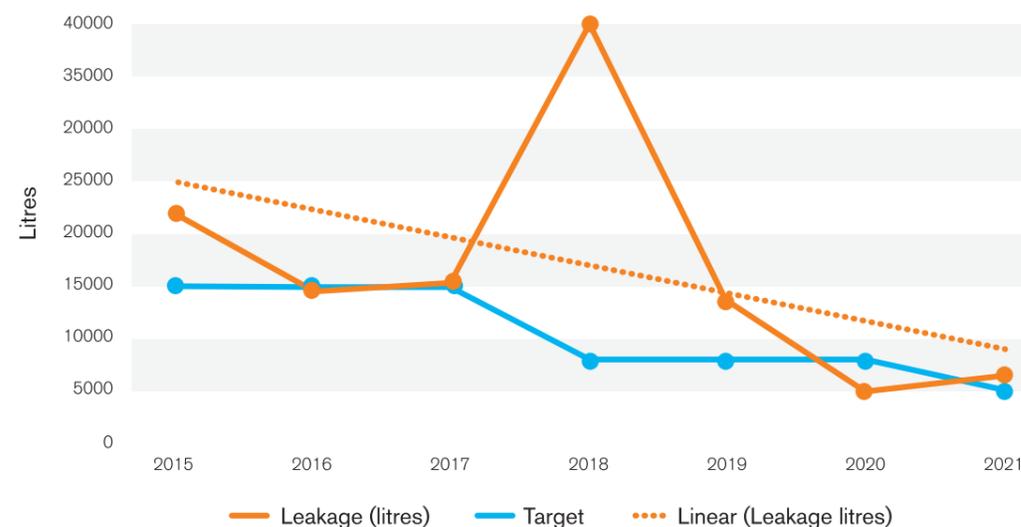
This is an increase of 1,059 litres on the 2020 fluid leakage figure of 5,222 litres.

The breakdown of the fluid leaks was as follows:

- 220 kV Cable Network = 1,594 litres
- 110 kV Cable Network = 2,897 litres
- 38 kV Cable Network = 1,765 litres

**ESB Network's Company Standard, "Management of Fluid Filled Cables" set a target maximum cable leakage volume of 5,000 litres for 2021. This was a reduction of 3,000 litres on the target for 2020."**

**FIGURE 5: FLUID-FILLED CABLES LEAKAGE TRENDS 2015-2021**



ESB Network's "Management of Fluid Filled Cables" Company Standard set a target maximum cable leakage volume objective of 8,000 litres per annum in 2021.

ESB Networks operates revised notification protocols in relation to fluid-filled cables with the relevant statutory authorities, has carried out preliminary site

assessments of all historic leaks and started intrusive investigations on some of these leak sites.

Details on repaired fluid filled cable circuits are available on our website <https://www.ESBNetworks.ie/acting-responsibly/environmental-information>

### CASE STUDY NATURE + ENERGY: Adding Value to Ireland's Renewable Resources

ESB is delighted to be supporting and participating in the Nature + Energy programme, with our wind farm in Carnsore, being one of the 9 onshore wind farms partaking in the study.

Nature+Energy is funded by MaREI, the Science Foundation Ireland Research Centre for Energy, Climate and Marine, Wind Energy Ireland and a consortium of Irish renewable energy companies, including ESB.

The Nature+Energy project is founded on the idea that wind farms have the potential to provide so much more than renewable energy. If managed properly, the biodiversity on onshore wind farms has the potential to not only take even more carbon out of the atmosphere, but also to improve the resilience of ecosystems to climate change and to enhance the provision of ecosystem services, such as pollination, water filtration and habitat provision. There is much potential to enhance nature's contributions to people through improving our understanding of how habitat quality, diversity and connectivity can be enhanced by wind farm land-management for conservation.

Nature+Energy will develop new ways of accounting for the value of nature on wind farms.

Find out more about the project here; [Nature +](#)



# Introduction

A key topic of conversation at ESB Board level in 2021 was the rapid evolution of matters related to Environmental, Social and Governance (ESG) for businesses. While these matters have always been important, ESG is now directly called out in ESB's strategy, which is built on three of the UN Sustainable Development Goals.

ESB has always been driven by a strong sense of social purpose, so these developments are both timely and beneficial, particularly in the context of the revised strategy. ESB already tracks and publishes its direct and indirect carbon emissions and Board level oversight of climate action has been clearly defined. ESB is well positioned to meet the requirements of the new EU Corporate Sustainability Reporting Directive and our focus on developing a balanced approach to disclosure across the 3 pillars of environment, social and governance will continue to be progressed.

2021 has been characterised by high commodity and carbon prices and unprecedented volatility in energy markets, against a backdrop of electricity system tightness. Unfortunately, the impact has been felt in rising energy bills for our customers. Electric Ireland, our retail business, raised standard ROI residential electricity tariffs twice during the year by a cumulative 19%. ESB is very conscious of the impact that the increases have for all our customers. However, Electric Ireland remains committed to rewarding loyal customers with enduring discounts, competitive standard unit rates, excellent customer service, tailored payment plans for those in difficulty and innovative products. ESB will continue to respond constructively and engage positively with all stakeholders to provide reliable and affordable electricity for our customers and the economy as we continue to drive the transition to a low-carbon future.

We remain focused on looking after our customers, employees and stakeholders, providing secure and safe electricity to the people of Ireland and the other markets we serve.



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# Our People



## INTRODUCTION

ESB's most important asset is its employees, their skills, knowledge and talents are an integral part of the service we deliver. Investing in our staff is an essential part of delivering our Brighter Future Strategy. ESB aims to provide staff with the environment they need to deliver on and meet the objectives of Brighter Future. This takes many forms, from ongoing learning and development opportunities to encouraging staff in their voluntary activities. Long ago ESB realised the value of supporting parents to combine work and family responsibilities and has introduced a variety of measures in regard to Parental Leave that staff may avail of.

Diversity is important to us and a strong focus has been placed on creating a working environment that is a welcoming and safe space for all employees to be their true selves. The BEMe initiative has had tremendous success, raising awareness and acknowledging the contribution of all staff.

Planning for a more diverse workforce for the future, ESB along with other organisations is involved with initiatives aimed at increasing the numbers of women in Engineering by sponsoring Science, Technology, Engineering, Arts and Maths (STEAM) projects.

To encourage staff to express the values and ethos of ESB, the organisation encourages supporting initiatives such as "A Time to Read" and "A Time to Count" where staff can volunteer to visit local schools and support young pupils with reading and maths. Caring for people is a way of expressing our values and ESB, through its programme Energy for Generations is involved in local communities delivering funding to much needed projects.

Wellbeing has become an increasing area of focus in 2021 and is a key element of an overall people experience critical to enabling and sustaining high performance. The introduction of a new wellbeing app, Zevo Health, along with wellbeing initiatives, such as keeping Wednesday afternoons free of meetings and a wellbe-

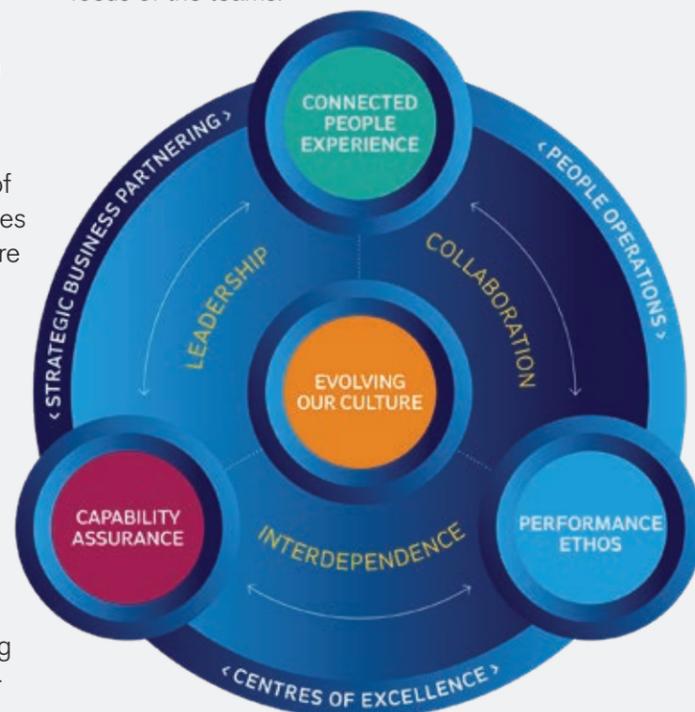
ing day in December, have all been crucial in helping to bring an increasing focus to employee wellbeing. Adopting the health and wellbeing question section and dashboard into our digital employee survey tool, Our Voice, is helping us to better understand what we can do to ensure wellbeing at work. In 2021, ESB also brought an important focus to menopause and the challenge for individuals in managing this at work. Raising awareness of this topic is important in supporting gender diversity in the workplace and avoiding loss of female talent.

## PEOPLE STRATEGY

We have developed a new **People Strategy** to enable our people – their creativity, energy, capability and drive – to deliver a Brighter Future. This will be achieved by creating enduring people solutions to enable business transformation including:

- Evolving our culture
- Creating a connected people experience
- Developing a performance ethos
- Assuring we have the right capabilities across ESB.

The People Strategy establishes the three distinct elements of the One HR Model (Strategic Business Partnering, the Centres of Excellence, and HR Operations) and ensures balance of operational vs. strategic focus of the teams.



## OUR WORKFORCE

Over 2021, ESB continued to recruit through all our normal channels to ensure we have the capability needed to deliver on our Strategy for Net Zero 2040.

These channels include;

- The Graduate Recruitment Programme
- The Apprentice Programme for both ESB Networks Network Technician Apprenticeships and Generation and Trading Apprenticeship Programme.

ESB careers portal is on ESB's website; [ESB Careers](#)

## ESB'S WORKFORCE IN OVERVIEW:

### Number of employees 2019 to 2021

	2021		2020		2019
<b>Number of Employees</b>	7,870		7,938		7,974
Female	1,968	25%	2,064	26%	25%
Female (Management Level)	73	31%	2,381	30%	30%
Full Time	6,139	78%	7,462	94%	93.20%
Permanent Contract *1	5,903	75%	1,858	92%	91%
Temporary Contract *2	630	8%	162	8%	9%
Skilled Craft and General	2,125	27%	808	40%	42.30%
Non Craft and General	4,407	56%	1,212	60%	57.70%
Female Board Members *3	4	14%	3	25%	33%
Employee with Disabilities *4	236	3%	238	3%	3%
Elected Worker Directors	4		4		
Third Party Contractor Staff working on behalf of business *5,6	5,323		2,800		2,800

### Staff by Region

Republic of Ireland	6,219	79%	6,430	81%	81%
Northern Ireland	1,200	15%	1,270	16%	16%
Europe	38	0.48%	159	2%	2%
Middle East	62	2.45%	8	0.01%	0.01%
Asia	2	0.02%	16	0.02%	0.02%
Africa	11	0.14%	8	0.01%	0.01%
Nationalities Employed	58		47		47

#### Notes:

1. Permanent (92% of Male and 91% of Female Employees)

2. Temporary (8% of Male and 8% of Female Employees)

3. Includes the Boards of NIE (11), ESB Networks (5) and ESB (12) for 2021.

4. ESB continues to meet the 3% employment target for people with disabilities as set out in the Disability Act 2005

5. Contractor workforce numbers are not gathered for all Individual contracts.

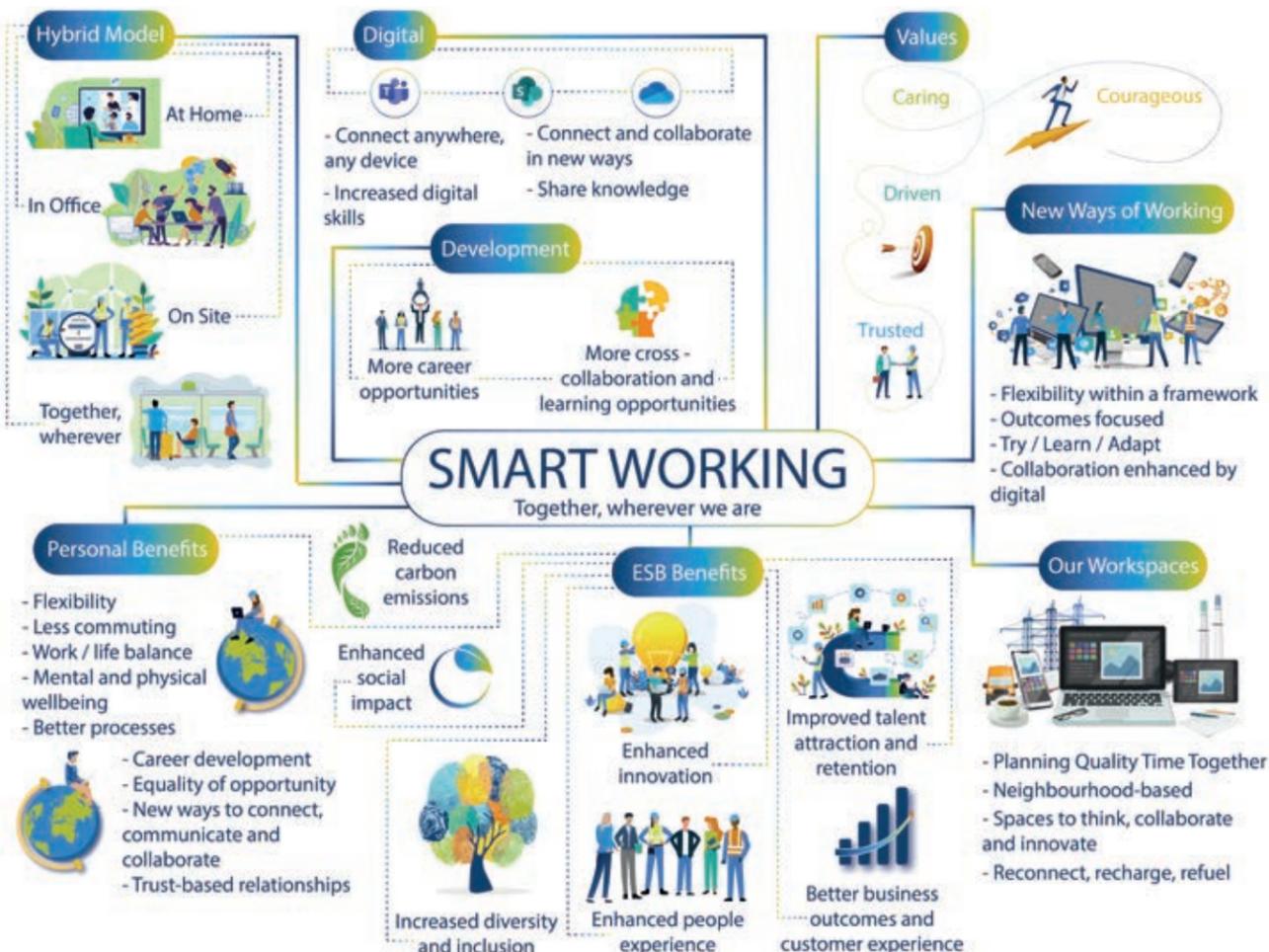
6. Numbers reflect regular contractors working on behalf of our networks businesses on construction and overhaul projects, as well as facility service providers

## SMART WORKING AT ESB

At ESB, we believe we have a once-in-a-generation opportunity to enhance the way we work. To achieve this, we have established a Smart Working Programme to help us try, learn and adapt to new ways of working. Smart Working aims to empower our people with the autonomy, flexibility and digital tools to deliver on our purpose, leading the transition to a secure, affordable, low-carbon energy future for our customers and communities. With People Experience at the centre, we are taking an employee led approach anchored in the three dimensions of Culture, Environment and Tools. With input and support from across the organisation, together we have put the building blocks of Smart Working in place. Throughout 2021, we have seen much of it come to life, embracing digital tools and technology to support collaboration, developing new ways of working to empower our people and improving our

buildings so they meet the needs of the future.

In September, ESB became a founding member of The Remote Alliance, a new initiative established by the social enterprise Grow Remote. Working with other like-minded members, we've committed to developing solutions that will ensure hybrid working can become a sustainable part of our business. As we look forward to continuing our transition to Smart Working, we believe we've laid the foundations for a sustainable hybrid model – that will deliver better business results, support our sustainability goals and allow us to mind our wellbeing while enjoying the benefits of an inclusive, flexible working culture. 2022 is our year of learning for Smart Working, where we will try, learn and adapt to our best ways of working.



## REWARD AND PAY EQUALITY

ESB offers a competitive reward package together with comprehensive employee benefits including health, wellbeing and diversity initiatives, family supports, flexible working arrangements, and commitment to career progression together with supports for ongoing development. At ESB, we care about the issues that our employees are interested in and we provide generous charitable contribution matching. ESB complies with all employment equality legislation which provides for equal pay for work that is the same, similar or of equal value.

## TRAINING AND DEVELOPMENT

End of Year 2021 training summary for Portlaoise Training School ESB Networks:

ESB Networks provided essential technical training to our staff, apprentices and contractors in 2021, in compliance with COVID procedures. Training was carried out the Networks Training Centre (NTC) in Portlaoise.

- 14,200 training days were delivered
- 25% of these were online
- The online training resulted in a CO<sub>2</sub> saving of 207 tons.



## PERFORMANCE AND CAREER DEVELOPMENT

Our Net Zero 2040 strategy calls out the need for a high-performance culture that supports collaboration to

drive innovation and business performance. Achieving high performance in ESB is about how we all perform to our best, delivering outcomes that are aligned with the business needs. Using our performance management approach, managers in ESB play a critical role in enabling all of us to succeed. All employees (100%) are part of an annual performance management process, goal setting and career development process, which is deployed across the business.

## ESB'S CODE OF ETHICS

At ESB, all our board members and staff adhere to Our Code which outlines our approach to responsible business behaviour. The main premise of our codes is that everyone will strive to perform their duties in accordance with the highest standards of integrity, loyalty, fairness and confidentiality and that we will abide by all legal and regulatory requirements. ESB's code of Ethics encourages employees in the first instance to report any suspected ethical breach to their Line Manager, as one would with any other concern in the course of duties. Alternatively, ESB has made available a Confidential Helpline/Web Facility which staff can use to report suspected wrongdoing. This Helpline operates 24 hours a day, seven days a week. The Helpline offers a safe, confidential and, if necessary, anonymous means of reporting wrongdoing for staff who may otherwise feel uncomfortable coming forward to their line manager.

## UNION MEMBERSHIP AND INDUSTRIAL RELATIONS

ESB respects each employee's right to associate and be a member of a Trade Union. ESB recognises and engages in collective bargaining with a number of accredited Trade Unions (the ESB Group of Unions). Approximately 60% of employees have elected to join a trade union. ESB supports the freedom of association for all employees.

Under the obligations outlined in ESB's 3rd Party Requirements for suppliers, all contracting entities are required to allow their staff freedom of association. This is monitored as part of the Contractor Employment Standards (CES) audits which are undertaken across all major contracts each year. In essence 100% of contractor staff should have freedom of association, as long as their employer is abiding by the ESB 3rd Party Requirements.

In April 2021, members of the Independent Workers Union (IWU) engaged in industrial action, which took the form of a work-to-rule and a number of strike days. The IWU trade union is not affiliated to the ESB Group of Unions (GOU) and is not a member of the GOU.

# Inclusion and Diversity

The aim of ESB's Inclusion and Diversity programmes are to create and sustain an agile culture of inclusion and belonging where people engage, challenge and feel connected to purpose, colleagues, customers and community.

## INCLUSION AND DIVERSITY STRATEGY

ESB's Inclusion and Diversity Strategy, developed in 2020, outlines a clearly defined statement, definition and objectives supported by a comprehensive implementation plan.

Our Inclusion and Diversity Strategy speaks to Our Values: Courageous – Caring – Driven – Trusted and is very much aligned to the culture change programme that is underway at ESB.

### STATEMENT

We embrace our diversity, uniqueness and individuality so that together we can lead the way towards an inclusive brighter future for all.

### DEFINITION

Diversity is about differences, seen and unseen. Inclusion is about creating an environment in which people are valued, feel valued, and are able to achieve and contribute their full potential. Inclusion is also about leveraging our differences to deliver better business results.

### OBJECTIVE

To create and sustain an agile culture of inclusion and belonging where people engage, challenge and feel connected to purpose, colleagues, customers and community.



## STRATEGIC PILLARS

All the work to date has led to a clearly identified direction for ESB's Inclusion and Diversity strategy and a specific business rationale for ESB investment in Inclusion and Diversity aligned to four strategic pillars. Over 1,000 ESB employees participated in the many Inclusion and Diversity related programmes throughout 2021. All Inclusion and Diversity activities and events continued to be delivered online, which has really enabled participation from right across the organisation. Geography as a barrier to participation has been eliminated in a virtual world. During 2021 engagement with leadership teams across each business unit focused on what Inclusion and Diversity means from a leadership, business and people perspective. 2022 will see an increased focus on shifting the dial on an inclusive culture and people experience at ESB. Central to the success of the strategy will be our ability to set the standards required, to understand and measure the progress being made as we move to a culture of active inclusion.



support the LGBT+ community, not just during Pride. ESB has been a longstanding proud partner and supporter of BeLonGTo, who provide support and services for the young LGBT+ community in Ireland. BeLonGTo's Stand Up Programme, funded by the ESB Energy For Generation Fund, continues to make a positive impact across schools raising the awareness of the impact of bullying on the LGBT+ schools' community.



## LGBT+ INCLUSION

BeMe@ESB Network hosted a number of virtual events throughout 2021, highlighting the reasons why individuals and organisations need to continue to create inclusive working environments and

BeMe@ESB supported by Jim Dollard, Executive Sponsor for LGBT+ Inclusion at ESB, collaborated with BeLonGTo to deliver impactful webinars to further support BeMe@ESB's Ally Awareness Programme and virtual Pride Programme of Events. ESB was awarded the 2021 Chartered Institute of Personnel and Development (CIPD) – Diversity and Inclusion.

The CIPD judging panel commended BeMe@ESB: *"It is how it all aligned to the business strategy, was carried out to a high standard, was authentic through and through. With high levels of organisational sponsorship, the energy and authenticity reflected the bottom-up approach, as work started with an employee resource group. Embedding the LGBT+ Strategy helped to bring the organisation's values to life in everyone encouraged to Be Me."*

## ESB GENDER PAY GAP REPORT

Leveraging diversity to deliver better business results and sustaining a culture of inclusion and belonging where all our people can thrive, are priorities for ESB. The decision to be transparent and publish our gender pay gap data, enables us to bring a renewed focus to gender diversity and prioritise our actions for improvement in gender representation at ESB. ESB published its Gender Pay Gap Report in March 2021, ahead of the legislative requirement to do so and it is available on the ESB website, [www.esb.ie](http://www.esb.ie). In the absence of a confirmed calculation methodology, ESB has applied the high-level calculation principles in place for UK gender pay gap reporting and the mean (average) gender pay gap is 3.3%. The inclusion of overtime earnings increases this mean (average) to 10.0%. Analysis of this shows that the pay gap is largely driven by significantly lower female participation in craft and engineering roles, which often involve work schedules that attract role specific pay and allowances, and a higher number of men in senior leadership roles across all disciplines.



## ESB TRAINEESHIP PROGRAMME FOR PEOPLE WITH DISABILITIES

The programme recommenced this year after a one year pause during the first year of COVID-19. The 2021 Traineeship Programme is significantly different from other years in that all trainees are onboarded, supported and working remotely. Trainees work from Cork and Dublin across various business units - ESB Networks, Electric Ireland, Enterprise Services and People and Organisational Development. Each trainee is supported by line managers, mentors, ESB's Traineeship Programme Manager and AHEAD, ESB's external recruitment partner. AHEAD also assisted with valuable and revised onboarding tips for a remote working environment and disability awareness training. ESB's Traineeship Programme is a six-month programme which provides training and experience of working in a modern business environment. It provides opportunities for personal and professional development and is of benefit to participants in applying for future employment opportunities.



## PARENTS LEAVE UPDATE

In October 2021, ESB approved payment of normal base pay, by topping up the State benefit for the first two weeks (of five weeks) Parent's Leave - where employees are entitled to Parents Leave Benefit. This payment has been backdated to 1 November 2019 for any employees who have already availed of Parent's Leave. This is another positive step in ESB's Positive Parenting Supports. ESB commits to reviewing the impact of further extending this support post COVID.



## PARENTING TRANSITIONS

ESB continued to support employees through parenting transitions, one of the key moments that matter in the life cycle of employees, with modules

delivered across all key audiences. ESB's Managing Successful Parenting Transitions Programme is an award-winning, evidence based, coaching programme that enables sustained systemic change.

This programme continues to evolve to address the experiences and challenges of working parents:

- Great Expectations – for those going on Maternity/Adoptive Leave
- Confident Comebacks – for those returning from Maternity/Adoptive Leave
- The Father Factor – for Dads and Dads to be
- Thriving Sustainably – for those with children between 1-5 years
- Success Strategies for Line Managers, HR Business Partners and Support Staff.

# Human Rights

## OUR COMMITMENT

ESB is an organisation with a strong, values-led culture and a legacy of working closely with the communities within which we operate. ESB's purpose, to deliver a brighter future, is founded in the consistent belief in the role of electricity as an enabler of societal wellbeing.

We seek to honour the principles of internationally recognised human rights, even when this presents difficult and sometimes conflicting dilemmas. We will aim to ensure that we are not, directly or indirectly, in any way complicit in human rights abuses and we will be transparent in reporting our human rights performance. ESB commits to respect human rights in supply chain, operations, and in the communities and locations in which ESB operates.

ESB is committed to respecting all internationally recognised human rights including those expressed in the International Bill of Human Rights and the principles concerning fundamental rights set out in the International Labour Organization's Declaration on Fundamental Principles and Rights at Work. This commitment is supported by a range of policies covering focus areas within human rights including employee rights, non-discrimination, inclusion and diversity as well as modern slavery. The ESB's employee Code of Ethics ("Our Code") requires all employees to operate fairly and to respect all human rights.

ESB's Corporate Policy outlining our commitment and approach to the protection of human rights can be found on ESB's website; [ESB Human Rights Policy](#)

## PROTECTION OF HUMAN RIGHTS (INCLUDING MODERN SLAVERY)

ESB has a zero-tolerance approach to protection of human rights and modern slavery and is committed to acting ethically and with integrity in all its business dealings and relationships and to implementing and enforcing effective systems and controls to ensure

human rights abuses are not taking place anywhere in its own business or in any of its supply chains.

As an organisation that operates in the United Kingdom, ESB fully supports the aims of the UK Modern Slavery Act 2015. To prevent acts of slavery and human trafficking from occurring within its business and supply chains ESB has taken a number of steps, including the adoption of a Policy on Modern Slavery, which is published on ESB's website;



### [esb-policy-on-modern-slavery-2019.pdf](#)

ESB prepares an annual statement, as required by the UK Modern Slavery Act 2015, outlining the actions taken during the year (2021) to prevent acts of modern slavery from occurring within its supply chains;

[Statement-on-the-prevention-of-slavery-2021](#)



Actions taken during 2021 to prevent slavery and human trafficking included;

- A framework agreement was awarded to British Standards Institute (BSI) and InterTek to provide desk-top risk assessment and on-site CSR audit services to ESB for the period 2021-2024.
- 207 vendors have subsequently been identified for this desk-top risk assessment and the issue of questionnaires to these suppliers commenced in Q1 2022.
- 81 Contractor Employment Standards Audits were also conducted on ESB managed sites throughout the Republic of Ireland in 20201.
- We continued to engage with our major coal suppliers to ensure that they are aware of ESB's commitment to the Bettercoal Organisation and the Bettercoal Code, including ESB's commitment to the use of Bettercoal tools in its due diligence and continuous improvement process for the supply of coal. Mines are audited against the principles of the Bettercoal Code (Ver 2.0), which incorporates the UN Guiding Principles on Business and Human Rights and the UN and ILO's instruments on the rights of indigenous peoples.
- We ensured that all tenderers and suppliers were aware of and signed-up to ESB's 3rd Party Requirements, which sets clear contractual obligations on ESB's zero-tolerance approach to slavery and human rights abuses in our supply chains;



### [ESB requirements for third-parties policy May 2022.pdf](#)

We continue to provide bespoke training for personnel involved in procurement, where there is potential exposure to human rights risks, including modern slavery. 11 members of ESB's Procurement Team completed the Chartered Institute of Purchasing and Supply's (CIPs) Practitioner Programme, which includes training on ESG related issues and Corporate Social Responsibility. ESB was also recognised as a Supplier Engagement Leader by the Carbon Disclosure Project (CDP) in 2021.

## HUMAN RIGHTS DUE DILIGENCE

ESB has assessed its business areas and locations to identify potential human rights issues and risks and preventive measures, both within the Group and in other organisations that provide goods and services. ESB's assessment of human rights and equality issues (it believes to be relevant to its functions) and the policies, plans and actions in place or proposed to be put in place to address those issues in compliance with Section 42(s) of the Irish Human Rights and Equality Act, 2014, is published separately on ESB's website.



Issue Area of Human Rights Impact	Action Policy, Process, Approach employed	Update Progress in 2021
<b>Human rights and equality issues affecting employees of ESB (and its subsidiary companies, including ESB Networks DAC)</b>	<p><b>A wide range of policies are in place, including:</b></p> <ul style="list-style-type: none"> <li>ESB Group Human Rights Policy.</li> <li>Cultural Diversity Policy.</li> <li>Group Procurement Policy.</li> <li>EDSO Sustainable Grid Charter.</li> <li>ESB Equal Opportunities and Diversity Code of Practice.</li> <li>Health and Safety Policy.</li> <li>Environmental Management and Sustainability Policy.</li> <li>Whistle Blowing and Protected Disclosures Policy.</li> <li>ESB Employee Code of Ethics (Our Code).</li> <li>The Way We Work.</li> <li>Modern Slavery Policy.</li> <li>Anti-Bribery, Corruption and Fraud Policy.</li> <li>Freedom of Association and Collective Bargaining.</li> <li>Ongoing awareness and training programmes relating to the above policies.</li> </ul>	<ul style="list-style-type: none"> <li>Publication of consolidated ESB Group Human Rights Policy.</li> <li>Employee views sought via regular 'Our Voice' surveys.</li> <li>Freedom of Association GRI disclosure.</li> <li>First Gender Pay Gap Report published in 2021.</li> <li>Participation in national working group on Business &amp; Human Rights.</li> <li>Engaged with Transparency International on Ireland's National Integrity Index 2021.</li> <li>Protected disclosure data as reported in ESB's annual report.</li> </ul>
<b>Human rights and equality issues in joint venture companies</b>	<ul style="list-style-type: none"> <li>Guidelines for joint ventures adopted.</li> <li>A Governance Framework is adopted for each joint venture formed.</li> </ul>	<ul style="list-style-type: none"> <li>These governance arrangements are in operation .</li> </ul>
<b>Human rights and equality issues affecting our contractors</b>	<ul style="list-style-type: none"> <li>Contractual provisions included in all contractor agreements requiring all contractors to comply with specific standards relating to employment laws, ethics, bribery and corruption, anti-slavery and human trafficking, sanctions and related matters.</li> <li>Contractor audits conducted by an independent third party.</li> </ul>	<ul style="list-style-type: none"> <li>81 Contractor Employment Standards audits in 2021.</li> <li>Covering all contracts with labour provision in Republic of Ireland.</li> </ul>
<b>Human rights and equality issues arising in our supply lines</b>	<ul style="list-style-type: none"> <li>ESB Supplier Charter adopted, setting out standards required of all suppliers.</li> <li>Supplier contracts include contractual provisions requiring all suppliers (as well as agents) to comply with specific standards relating to employment laws, ethics, bribery and corruption, anti-slavery and human trafficking, sanctions and related matters.</li> <li>Procurement of screening and audit service.</li> <li>Financial standing of suppliers checked every year.</li> <li>Member of the Bettercoal organisation, a not-for-profit organisation that works towards responsible coal supply."</li> </ul>	<ul style="list-style-type: none"> <li>Contracts are now in place with 3rd parties for both risk screening in ESB's supply chain and consequent on-site audits where indicated.</li> <li>Bettercoal Code, ver.2.0 published in 2021 following a comprehensive multi-stakeholder consultation.</li> <li>Mine level 3rd party in person assessments recommence in 2022 following COVID-19 restrictions.</li> <li>ESB is an active participant on Bettercoal's Colombia Working Group which has 3 key focus areas; Development of Dialogue, Water and Just Transition.</li> </ul>

# Safety, Health & Wellbeing

## OVERVIEW

ESB's Board, management and employees are committed to protecting the health and safety of employees, customers, contractors and the people ESB serves; their safety is always considered first in business actions and activities. ESB believes that all operational processes can be designed and operated in a safe manner. This belief guides the approach to safety across all business activities and is reinforced through strong and visible leadership throughout ESB. The Chief Executive has overall responsibility for the management of health, safety and wellbeing in ESB. The ESB Group Safety Statement sets out the overall policy and general arrangements in ensuring the health, safety and wellbeing of all employees. Functional responsibility is shared with all senior management and, in turn, with each manager, supervisor, team leader and employee. The Safety, Environment and Culture Committee supports the Board's monitoring and governance of health, safety and wellbeing.

2021 was the second successive year living with COVID-19. From a health and safety perspective, controls continued to operate that have significantly reduced the opportunity for transmission of the virus in ESB controlled workplaces while maintaining the essential supply of electricity to all customers.

Sadly, there was one fatality associated with ESB activities during 2021. A member of the public was fatally injured when they came into contact or near contact with the overhead electricity network in Northern Ireland.

## COVID-19 PANDEMIC – ESB RESPONSE

ESB continued to implement and revise its Pandemic Response Plan during 2021 as the COVID-19 virus behaviour changed. The Pandemic Response Support team (PRST) closely followed all emerging guidance from national and international public

health bodies including HSE/NHS, Health Protection Surveillance Centre, ECDC, and WHO. The PRST updated ESB's response to the pandemic as soon as situations changed and relevant authorities advised on restrictions or lifting of restrictions. Towards the end of the year as national and international restrictions were lifted ESB took a cautious approach to removing any restrictions while ensuring that customers were not negatively impacted. This included office staff continuing to work largely from home.

Control measures included: remote working where possible; identification of critical roles; teams working in pods; hygiene and PPE measures; contact tracing; COVID-19 status decision guides; guidance on keeping safe and well; and a dedicated COVID-19 helpline with clinical staff and Employment Assistance Programme (EAP) officers available to answer employees' queries and concerns.

ESB continues to monitor this situation to protect the health and wellbeing of its employees, contractors, customers and the public as well as maintaining essential services.



During the height of pandemic waves, ESB leveraged its supply chain contacts to source and supply many supplementary PPE items to local and regional hospitals and health care facilities

## SAFETY PERFORMANCE IN 2021

Performance in 2021 has been similar to 2020.

ESB uses the following leading Key Performance Indicators (KPIs) to track safety performance:

1. Good Catch reporting. A Good Catch is where an employee or contractor intervenes when they notice an unsafe act or unsafe condition. This helps to prevent a safety incident from occurring. The target for 2021 was 12,200 Good Catches. Due to the significant number of employees working from home throughout 2021, the number of Good Catches was below target at 9,687.
2. P1 Investigations closure. ESB categorises all incidents and near misses with a particular focus on high potential incidents that could lead to more serious outcomes. All P1 incidents are thoroughly investigated. The P1 investigation closure KPI reports on the timely completion of investigations. This KPI target was exceeded at the end of 2021 achieving an average of 84% closure rate per month.
3. P1 Action closure. When a P1 incident is investigated the findings often result in corrective actions. This KPI tracks the timely completion of all actions associated with P1 Incidents. The P1 Action closure target was exceeded in 2021 achieving an average of 83% closure rate per month.
4. Senior Manager Safety Conversations. All Senior Managers in ESB are expected to demonstrate their safety leadership by conducting safety conversations each month. The KPI tracks completion of these conversations. During 2021 senior managers conversations were above target for the year at 82% completion rate.
5. Audit non-conformity closure. ESB subscribes to certification of its Safety Management Systems (SMS). Non-conformities associated with external audits of these SMS are tracked for on time completion. The number of minor and major non-conformities is consistently very low. All actions have been closed on time.

## LOST TIME INJURIES

The number of Lost Time Injuries (LTIs) in 2021 was 69 compared to 57 in 2020 and 65 in 2019. While there is a notable increase on previous years, the majority of these injuries were of low severity where the injured parties made a full recovery and quickly returned to work. The most common causes of LTIs were slips and trips, and general situational awareness.

Lost Time Injuries (LTI) are occupational injuries which result in at least one day's absence from work, not including the day that the injury occurred.

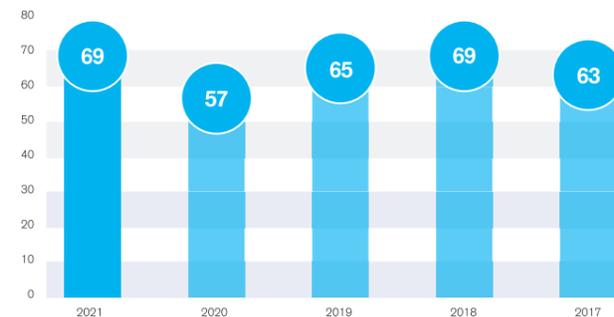
In 2021, 135 P1 incidents were recorded. 2021 has shown a decrease in P1 incidents compared to 2020. In 2021 ESB had less serious Lost Time Injuries (4) compared to the previous 2 years (11 in both 2020 and 2019). The overall trend is decreasing slightly over the five-year period 2017–2021.

## HIGH POTENTIAL INCIDENTS (P1)

In addition to focusing on LTIs, ESB categorises all injurious incidents and near misses with a particular focus on high potential incidents that could lead to more serious outcomes (see figure 2). In 2021, 135 high potential incidents were recorded. The linear

trend (see figure 2) for these incidents is decreasing over the years 2017 to 2021. All high potential incidents and LTIs are investigated to determine their root causes. The most significant safety risks arising from P1 incidents for ESB are: electricity, falling objects, and working at height.

Figure 1. Lost Time Injuries 2017–2021



2020 figure presented only includes staff LTI's

Figure 2. P1 Incidents 2017–2021



	2021	2020	2019
Staff Fatalities	0	1	0
Contractor Fatalities	0	1	0
Staff Lost Time Injuries (LTI)	40	57	50
Staff LTI Rate (per 100,000hrs)	0.33	0.19	0.40
Contractor Lost Time Injuries	29	33	17
P1 (High Potential Severity Incidents)	135	142	138
Absenteeism Rate (avg. days/staff)	6.79	6.23	8.39
Days lost due to occupational injury	976	1,010	1,415.5
Public Fatalities due to electricity ( Customer side of meter)	1	0	0
Public Fatalities due to electricity ( Network side of meter)	0	0	0*
Safety Incidents on the Network (including Public Safety Incidents)	2,512	2,106	2,232

\* The incident included in 2019 report as a Public fatality due to electricity (Network side of meter) was investigated by the Air Accident Investigation Unit. The fatality was found not to have been due to electricity. It was caused by the collision when the microlight aircraft struck the ESB 38kV portal.

## HEALTH & SAFETY MANAGEMENT SYSTEMS

All ESB business units have health and safety management systems in place, many of which are externally verified and certified to the International ISO 45001 or equivalent. The established safety management systems (SMS) describe the formal framework within each organisation/business unit, which is designed to manage the different elements of health and safety in the workplace. All companies, including ESB, have a legal duty to manage the health and safety of all its staff, to know the risks in the business and to then take action to control them. The key elements of an effective SMS include:

- Policy and commitment
- Planning for incident and ill health prevention
- Implementation and operation including responsibilities, procedures and resources
- Measuring performance
- Auditing and reviewing performance
- ESB continued to make progress in 2021 on improving its safety performance through delivery of key improvement projects in ESB Networks and in Generation and Trading.
- The Safe and Sound culture transformation programme continues to be embedded in the Engineering and Major Projects, Networks and Generation businesses and is now being expanded across ESB Group.
- A review of P1 incidents was undertaken and it found that the most likely causes of incidents are human factors, system of work and asset

integrity. The review has enabled ESB to better understand and address the root causes and contributory factors at source, before they lead to serious incidents.

- Principal risks and their management are reviewed and reported quarterly to the Group Risk Manager and the Audit and Risk Committee.
- New strategies for road safety and public safety were published during the year as these are two significant safety risk areas.
- A stress management programme was developed and made available to all employees. Its focus for the individual, manager and team was on recognising and managing stress.
- A new health and wellbeing app with content on physical and mental health was introduced.
- Mental health first-aid training has been delivered to c.200 ESB employees.

While the specific training requirements of each individual will be dictated by their roles and responsibilities and the risks to which they are exposed, at a minimum all ESB staff and contractors working on behalf of ESB receive the following mandatory occupational health and safety training: Safety Induction, VDU Workstations (for desk based personnel), Manual Handling as determined by Risk Assessment. Training as required to perform specific tasks or roles safely. All H&S training takes account of differing levels of responsibility, ability, language skills, literacy and risk.



## RISK ASSESSMENT

ESB continues to focus on reducing risks in the business that give rise to injurious incidents. Improvement plans, projects, training and audit programmes, with a focus on injury prevention are maintained. Risk Assessment is the basis for the identification and management of hazards that may occur during the course of work. The following Enterprise health and safety risks are communicated to the Board and managed through a number of programmes: electricity, driving, working at height, objects falling from height, load handling, tools, plant and equipment, other hazardous energies, physical, chemical & biological hazards, fire & explosion, slips, trips & falls, lone working, stress and third party sites. Implementation of company-wide Fire Safety Review recommendations commenced during the

year. Safety Health & Environment Performance is managed through a Key Performance Indicator process, reported weekly across the organisation on injuries, incidents, training, risk assessments, audits, investigations and corrective actions. All employees and contractors are encouraged to report safety concerns, to intervene when they observe unsafe behaviours and to stop work where unsafe conditions are observed. Safety Management systems across the business define the specific actions and processes required and incidents are ultimately reported via SHIELD EHS system. Caring is one of ESB's core values and ultimately our highest priority with all work is that all employees and contractors complete their day's work safely and safely return home to their loved ones.



## SAFE AND SOUND

The Safe and Sound culture transformation programme continues to be embedded in the Engineering and Major Projects, Networks and Generation businesses and is now being expanded

across ESB Group. Safe and Sound aims to develop and sustain a culture where safety is central to everything ESB does, where there is a mindset that is intolerant of incidents and injuries, where employees take responsibility and care for their own safety and for those around them, where they speak up when they see something unsafe, where they choose to follow the safety rules, where they are compliant, where they implement sensible safety systems and where they take pride in their achievements. Safe and Sound proved very effective during COVID-19 with Local Leadership Teams finding successful ways to keep everyone safe and connected.

## PUBLIC SAFETY

Sadly, there was one public fatality associated with ESB Group activities during 2021. A member of the public was fatally injured when they came into contact or near contact with the overhead electricity network in Northern Ireland, operated by NIE Networks.

During 2021 the ESB Public Safety Strategy was reviewed and refreshed. This new strategy builds on the previous strategy and sees the introduction of a management system approach to public safety and continues to focus on media messaging to key identified at-risk groups including the farming, construction and general public sectors.

The ESB Networks 24/7 - 365 emergency response service operated to the highest standards to ensure public safety. An independent audit of the Public Safety Programme (on behalf of the Commissioner for the Regulation of Utilities) confirmed that ESB Networks continues to comply with its regulatory requirements. There were no fatalities involving members of the public and the electricity network maintained by ESB Networks, as has been the case for the last five years. However, there were two incidents of contact with the network by members of

the public that resulted in electric shock and hospital treatment.

ESB has invested in Public Safety Programmes as detailed below:

- Media messaging to the key at-risk groups: farming, construction and the general public, given the COVID-19 limitations on physical engagement events with stakeholders. This included radio, digital and social media platforms with targeted messaging for DIY, gardening, and during storms.
- Engaging content was delivered, including webinars during Construction Safety Week, as part of the ESB Networks partnership with the Construction Industry Federation
- The ESB Networks partnership with the Irish Farmers Journal continued to deliver relevant content, including new personal testimonies of farm accidents, as well as safety articles across the farming press on electricity safety.
- Public safety work programmes, including hazard identification, inspections and maintenance were completed to ensure public safety.
- The ESB Networks emergency response service operated to the highest standards to deal with storm and other emergency events.

## KEY INITIATIVES AND PROGRAMMES IMPLEMENTED OR CONTINUED IN 2021

ESB business units maintained their safety management systems certification to ISO 45001 standard or equivalent.

- ESB continued to make progress in 2021 on improving its safety performance through delivery of key improvement projects in ESB Networks and in Generation and Trading.
- The Safe and Sound culture transformation programme continues to be embedded in the Engineering and Major Projects, Networks and Generation businesses and is now being expanded across ESB Group.
- A review of P1 incidents was undertaken and it found that the most likely causes of incidents are human factors, system of work and asset integrity.

The review has enabled ESB to better understand and address the root causes and contributory factors at source, before they lead to serious incidents.

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- Mental health first-aid training has been delivered to c.200 ESB employees.

# Community Engagement

## SOCIAL PURPOSE IN ESB

ESB has a long tradition of supporting communities and programmes that enhance Ireland's economic and social fabric, helping to bring light and energy to the people it serves, allowing individuals and communities to fulfil their potential in every walk of life. Throughout 2021 ESB has invested over €2.5 million to worthy causes through its CSR programme.

## SUPPORTING VULNERABLE CUSTOMERS

Electric Ireland engage with all residential customers who experience payment difficulty in line with the voluntary Industry Energy Engage Code and offer fuel poor customers who sign up to the Household Budget Scheme or Industry Solution Prepayment Meter a 5% discount. Electric Ireland also work closely with vital organisations such as MABS (the Irish Money Advice and Budgeting Service), and SVP (Society of St. Vincent de Paul) to help individual customers who run into trouble paying their bills. During 2021, Electric Ireland facilitated 68,573 tailored payment plans to assist customers in payment difficulties.



## WIND FARM COMMUNITY FUND

ESB's subsidiary wind farm companies operate in the Republic of Ireland (ROI), Northern Ireland (NI) and Great Britain (GB) and its Wind Farm Community Fund makes €1million available to communities close to wind farm sites for the development of local infra-

structure and services, bringing a brighter future for the residents of its neighbouring rural communities. The Wind Farm Community Funds were established by ESB, representing our intention and commitment to ensure clear and lasting benefits in the communities which surround our wind farms. These funds also help the communities in which we operate our wind farms to become more sustainable, through the support of positive local initiatives and activities.



Over the past years, ESB, through its subsidiary companies, has invested in excess of €7.2million in support of over 900 community-led projects completed across our operational portfolio of 25 wind farms. The funds, which open on an annual basis for the lifetime of each wind farm, are made available to local community and voluntary organisations who wish to complete a project within one/any of our broad themes: - education and skills - health, safety and wellbeing - environment and habitat conservation - energy efficiency and sustainability - culture and heritage - recreation, sport and social inclusion.

## CASE STUDY - Defibrillator installed in County Durham Village

ESB International's West Durham Windfarm Community Benefit Fund provided a grant to The Residents' Association of Cornsay Colliery (TRACC) to install a life saving defibrillator in the County Durham village. Peter Woff, secretary for TRACC, will manage a team of volunteer guardians, trained to look after the equipment, while a second team of volunteers will train with the North East Air Ambulance to use the equipment in case of an emergency.



Peter Woff, secretary for The Residents' Association of Cornsay Colliery, with the newly installed defibrillator

## SPONSORSHIP

The Group manages an active sponsorship portfolio including the following:

- Proud supporter and sponsor to the Pieta House Darkness into Light annual event
- Promoting young people in sport through the Electric Ireland GAA All-Ireland Minor Championship and Higher Education Championship
- Supporting the arts through partnerships with organisations including National Gallery of Ireland, Abbey Theatre, Fishamble: The New Play Company and Business to Arts
- Supporting the development of key 21st century skills in young people through the ESB Generation Tomorrow STEAM education programme which aims to empower Ireland's young people to reach their potential and power their collective brighter future through strategic partnerships with a number of organisations, including the RDS and social enterprise Kinia.

## ESB SCIENCE BLAST

ESB Science Blast, delivered by the RDS, empowers primary school children, from 3rd to 6th class, to work together as a class to investigate the science behind a simple question that interests them, before presenting their findings at one of the three showcase events in Dublin, Limerick or Belfast. The showcase events were unable to go ahead in 2021 due to the impact of COVID-19, however schools participated in an online programme, with judges, including over 40 from ESB, engaging in class project presentations virtually. ESB Science Blast TV, a four-episode series delivered through both Irish and English, investigated the science behind



energy, flight, recycling and included in classroom experiments to support learning. The series was hosted online and on the [www.rte.ie/learn](http://www.rte.ie/learn) platform.

## KINIA (FORMERLY CAMARA IRELAND AND TECHSPACE)

TechSpace is a creative technology education programme that is managed by social enterprise Camara Ireland and delivered in the informal and formal education sectors. It encourages young people to unlock their passions and potential through the creative use of technology. ESB has supported Camara Ireland programmes since 2014, also supporting Creative TechFest, the annual celebration of the creative work of young people throughout the TechSpace network. Camara Ireland merged with charity Suas to form Kinia in July 2021.

## TECH2STUDENTS

Technology is an integral part of today's society, even more so over the past year. The move to remote working and learning underlined just how important access to technology is, and will continue to be, particularly for those from disadvantaged socio-economic backgrounds. With the return to school closures in January 2021, the issue of the digital divide again came to the fore, raising concerns for students who did not have access to technology for home studies. ESB continued its support for the Camara Education Ireland and Trinity Access Tech2Student campaign, with a renewed media campaign seeking both funding and donations of disused laptops. Between the appeal launch in April 2020 and May 2021 over 4,500 laptops were donated, €750,000 was raised and over 100 schools and 350 youth organisations received repurposed technology to support those in need.

## ESB SUPPORTING THE ARTS

As a long-term patron of the arts in Ireland, ESB recognises the important role that artists play not only in recording and interpreting social and economic developments, but also in engaging communities and stimulating innovation and creativity. The arts sector has been hugely negatively impacted by COVID-19 and this year ESB launched two new partnerships specifically to support artists during this challenging time.

## TINY PLAYS FOR A BRIGHTER FUTURE - FISHAMBLE:

The New Play Company is an Irish theatre company that is passionate about championing the role of the playwright. We partnered with them to launch a challenge for anyone with an interest in writing to imagine what a brighter energy future will mean and to bring that to life in a 600-word Tiny Play. Over 300 submissions were received, with ten playwrights

works shortlisted, paid a commissioning fee, and showcased online. Three playwrights had their work selected to be produced, staged, and filmed by Fishamble. Sustainability was at the heart of the production, with no single use props, the theatre was used as a prop, all lighting was LED, and costumes were the actors own or borrowed.

## ESB BRIGHTER FUTURE ARTS FUND

The ESB Brighter Future Arts fund, delivered in partnership with Business to Arts, is a €250,000 donor funded scheme, open to artists from all art forms, working with organisations in the area of sustainability, climate change and energy transition. The open call was launched in July 2021 and over 90 submissions were received by the September deadline. Five projects were then selected by an independent assessment panel for funding. The projects will be realised between January 2022 and December 2023.



**Darkness into Light**

Electric Ireland has supported Darkness into Light and Pieta since 2013, bringing hope to customers, staff and communities across Ireland that have been affected by suicide. This partnership helps drive brand affinity with our customers and with the broader public. It is also a true demonstration of "We're Brighter Together".



2021 was the second consecutive year when the annual Darkness into Light walk was affected by government restrictions due to COVID-19. Although the ban on mass gatherings posed a major challenge for the Pieta and Electric Ireland teams, together they worked hard to deliver a very successful event where, although physically apart, people could still get a sense of community sharing 'One Sunrise Together'; the very same sunrise that gives hope to those impacted by suicide every year.

'One Sunrise Together' for Darkness into Light 2021 raised over €7.5 million, with participation numbers exceeding 140,000 helped by a robust marketing and media campaign, The Late Late Show and broader RTE partnership across radio and online.

**Young St Vincent De Paul**

Electric Ireland have sponsored St Vincent De Paul's Youth Development programme since 2013 with over 200,000 student participants in the years since. The aim of the programme is to educate 4th and 5th year students about social justice and aid them in delivering social action projects in their local communities. In 2020/21,



9,473 students engaged with the programme in over 200 schools.

**Electric Ireland Higher Education Leagues and Championships**

Electric Ireland has been the title sponsor of the GAA Sigerson, Fitzgibbon and Higher Education Championships (HEC) since 2017. With Electric Ireland's long-standing commitments to youth in GAA and building on the sponsorship of the Minor Championships, the HEC involves 7,000 players from over 50 universities and institutes annually competing for the Sigerson and Fitzgibbon Cups, along with other Higher Education Leagues and Championships.



**GAA Minor Championships**

Electric Ireland has been proud sponsor of the GAA All-Ireland Minor Hurling and Football Championships since 2012. Having worked with minor teams over the years, Electric Ireland truly understands all that encompasses playing Minor.



Over the course of the partnership Electric Ireland, under the campaign platform "This Is Major", have redefined what it means to be involved in the GAA Minor Championships, elevating both the perception and understanding of the Minor Championships. Electric Ireland has partnered with the GAA since 2017 to establish the Electric Ireland GAA Minor Star Awards which recognise the best 15 individual performances from across the Minor Championships in both football and hurling as well as a Minor Footballer and Hurler of the year.

**CORPORATE SOCIAL RESPONSIBILITY**

**ENERGY FOR GENERATIONS FUND**

ESB's Energy for Generations Fund funds projects to end homelessness, prevent suicide and enable access to STEAM education. Over the past year the Fund supported 111 projects across the island of Ireland, totalling €1,242,390. ESB's funding includes partnerships with TU Dublin Foundation for the Access to Apprenticeship programme and Aware's Life Skills for Schools initiative to promote mental health awareness in secondary schools throughout Ireland.

**EMPLOYEE VOLUNTEERING**

When ESB employees volunteer over 20 hours of their time or fundraise at least €250, they can apply to the ESB Energy for Generations Fund for a grant of €250 to that organisation. In 2021, €12,250 was donated through the Fund to a range of charities including the Irish Cancer Society, Debra Ireland and Irish Red Cross. In 2021, ESB employee volunteers participated in Time to Read and Time to Count delivered remotely in partnership with Business in the Community (BITC) to help improve literacy and numeracy initiatives in 8 primary schools throughout Ireland. ESB volunteers also introduced transition year pupils in 5 secondary schools to the world of work through BITC's World of Work programme.

	2021	2020	2019
	€	€	€
<b>Energy for Generations</b>	1,242,390	1,251,309	986,078
<b>Employee Volunteering</b>	12,250	9,750	25,000
<b>Wind Farm Community Fund</b>	1,000,000	1,000,000	1,000,000
<b>Electric Aid</b>	275,000	275,000	275,000
<b>UNICEF Get a Vaccine</b>	105,000	-	-

**ESB INTERNATIONAL CSR**

ESB is a corporate partner of ElectricAid, a charity established by the staff of ESB in 1987. Today, ElectricAid is supported by 2,400 serving and retired staff, with donations matched by ESB on a 2:3 ratio to a ceiling of €275,000 annually.

**UNICEF GET A VACCINE**

In October, ESB became a lead member of the UNICEF corporate vaccine alliance with a donation of €80,000 to procure, transport and distribute COVID-19 vaccines to healthcare workers in low and middle-income countries as part of the biggest vaccine roll-out in history. ElectricAid also participated in UNICEF's "Get a Vaccine, Give a Vaccine" campaign and launched an emergency appeal where ESB pensioners and staff responded with donations totalling €26,417. Further matched

with €25,000 from ESB, this brought total funding to UNICEF to €131,417.



In 2021 ElectricAid funded 96 projects in 34 countries to a total of €1,008,058 million, with each project directly addressing one or more of the United Nations Sustainable Development Goals (UN SDGs). A copy of the ElectricAid Annual Report is available from the ElectricAid website – [www.electricaid.ie](http://www.electricaid.ie).



# Customer access to a clean, secure and affordable electricity supply

Energy efficiency and demand side action have a particularly important role to play now as global energy prices are high and volatile, hurting households, industries and entire economies. A joint statement issued recently following an IEA Global Energy Conference, underpinning the impacts of the recent energy price increases, which increasingly put affordability at the heart of energy discussions.

Commenting on the challenges posed by rising energy costs, Marguerite Sayers, Deputy Chief Executive, Electric Ireland said: *“We are acutely aware that the rising cost of living is causing difficulty for households across the country. Unfortunately, the unprecedented and sustained volatility of wholesale gas prices over the last 12 months means that we now need to increase our prices. We delayed the increase as long as we could in the hope that wholesale prices would drop back to early 2021 levels, but regrettably this has not happened. We appreciate this is a challenging*

*time and are committed to helping any of our customers who experience financial difficulty. As always, we encourage any Electric Ireland customer who has difficulty in paying their energy bill to engage with us and we will work with them to put in place a manageable payment plan.”*

Electricity plays a key role in keeping our homes and businesses running smoothly. It enables better health care, education, communications and transport and many of the modern day comforts that we often take for granted. ESB Group operates across the full electricity system as a generator, network asset owner and distribution system operator and electricity supplier. As ESB delivers on its Brighter Future ambition to lead the transition to a low carbon energy future, delivering Net Zero by 2040, the role of and reliance on electricity will move even more centre stage.

Across the island of Ireland, we have 100% access to electricity supply. This equates to over 3.3 million connections made by ESB Networks and NIE Networks.

## CONNECTIONS TO THE NETWORK

Republic of Ireland	2021	2020	2019
<b>Residential</b>	2,146,913	2,123,093	2,099,630
<b>Small Business</b>	186,415	185,599	185,193
<b>Medium Business (incl. Public Lighting sites)</b>	122,934	120,085	117,425
<b>Large Energy User (distribution connected)</b>	1,961	1,932	1,894
<b>Transmission connected</b>	22	20	20
<b>Transmission connected with embedded generation</b>	94	89	88
<b>New Connections</b>	29,000	28,500	30,206
Northern Ireland	2021	2020	2019
<b>Total Customer connections</b>	900,000	890,003	890,003
<b>Residential</b>	92.6%	92.6%	92.6%
<b>Commercial &amp; Industrial</b>	7.4%	7.4%	7.4%

**Notes:**

\* GRI EU3 - No. of Residential, Industrial & Institutional Customers.

## NATIONAL SMART METER PROGRAMME (REPUBLIC OF IRELAND)

The National Smart Metering Programme was established by the Commission for the Regulation of Utilities (CRU) and is the delivery plan for the roll out of smart meters across Ireland. ESB Networks has been tasked with the delivery of the roll out programme, which involves upgrading all of Ireland's electricity meters to smart meters.

Ireland's smart meter upgrade programme is part of the national Climate Action plan. Smart meters will support Ireland's transition to a low carbon future by enabling the development of smart grids, and supporting the electrification of heat and transport, local renewable generation and microgeneration. Electricity supply companies have begun to offer new smart products and services, which enables the customer to shift some of their consumption to times of the day when electricity is cheaper. The Smart Metering Project has passed the 620,000 meters installed mark in 2021 and is now connecting in excess of 40,000 smart meters per month.



Caption



## LENGTH OF ABOVE AND UNDERGROUND TRANSMISSION AND DISTRIBUTION

Over 233,000kms of electricity network connect electricity consumers to the generation sources across the island, with a growing percentage of total electricity generation coming from renewables. In

2020, over 36% of electricity came from renewable sources, however, 2021 saw below normal wind levels, which impacted overall renewables contribution. With a national target of achieving 80% of electricity from renewable sources by 2030, electricity is on a clear decarbonisation trajectory.

Republic of Ireland Distribution Network	2021 (kms)	2020 (kms)	2019 (kms)
<b>OHL LV (&lt;10 kV) 1</b>	c.61,100	c.40,000	c.39,000
<b>OHL (10 kV, 20 kV, 38 kV, 110 kV)</b>	c.90,500	c.90,000	c.89,500
<b>Underground LV (&lt; 10 kV)</b>	c. 15,100	c.14,500	c.14,000
<b>Underground (10 kV, 20 kV, 38 kV, 110 kV)</b>	c.11,900	c.11,500	c.11,500
<b>NIE Networks (length in kms)</b>			
<b>Distribution</b>	47,000 (34% underground)	47,000 (34% underground)	47,000 (34% underground)
<b>Transmission</b>	2,200 (5% underground)	2,200 (5% underground)	2,200 (5% underground)

### Note 1:

The values reported in 2019 did not take account of approx. 21,000km of LV OHL which had not been captured in the GIS system

## MANAGING INTERRUPTIONS TO SUPPLY

Ensuring our customers have access to a reliable and quality supply of electricity is crucial. As the penetration of electrification advances, customer reliance upon uninterrupted supply will increase. We are committed to improving our network each year to ensure that we can continue to supply a reliable service to all electricity customers. Customer Interruptions (CI) represents the number of interruptions greater than 3 minutes that an electricity customer has on average each year, and Customer Minutes Lost (CML) is the duration that a customer on average spends without supply each year.

## CUSTOMER MINUTES LOST

Customer Minutes Lost	2021	2020	2019
<b>ESB Networks</b>	182	175	183
<b>NIE Networks</b>	80	75	83

### Notes:

The average duration of interruptions (planned and fault) for all customers during the year.

ESB Networks figures included planned and fault information.

NIE Networks figures are fault information.

## DISCONNECTIONS

Electric Ireland are a signatory of the Energy Engage Code, a voluntary code where energy suppliers pledge to ensure that they will take a number of actions to ensure that customers in arrears and/or at risk of dis-

connection, remain connected to their energy supply. During 2021, 68,573 payment plans were set up to facilitate customers facing payment difficulties, as well as a disconnection moratorium, which operated from October 2020 to the end of June 2021.

Disconnections (Republic of Ireland)	2021	2020	2019
<b>Number of Disconnections</b>	29	171	2,000
<b>Disconnection Rate (per 10,000 customers)</b>	0.37	0.69	<20
<b>Vacant Disconnections</b>	Note1	Note 1	35%
<b>Reconnection within 48hrs (non vacant)</b>	100%	100%	100%

### Note 1:

2021-888 properties disconnected, 2020 1,471 properties disconnected under the Vacant Premises Process

## CUSTOMER COMPLAINTS

Complaints reporting and resolution processes are explained in the environmental management section of this report.

Customer Complaints	2021	2020	2019
<b>ESB Networks</b>	4,075	4,088	3,765
<b>NIE Networks *</b>	0	2	2
<b>Electric Ireland</b>	2,283	1,790	1,930

\*Complaints classified as stage 2 to Consumer Council NI



# Customer Privacy

Cybersecurity threats continue to evolve at a rapid pace globally. All electricity users rely on ESB as an essential service provider of secure and reliable electricity, and each person, be they employee or contractor, collectively and individually, have a responsibility to ensure ESB's systems, devices and data are secure so that we protect the company's key assets, customer information, our brand and our reputation.

As a key public utility, ESB collects and processes large volumes of data about its customers, employees and a range of other business partners. Much of this data is considered to be data that identifies or concerns individuals, also known as Personal Data. ESB is subject to various legal requirements protecting the rights of data subjects. ESB regards the responsible handling of Personal

Data as a key value in its customer centric strategy. In addition to compliance with its legal obligations, ESB respects the rights and freedoms of our customers, employees and others who trust us with their Personal Data. Protecting the privacy and security of this information is a top priority for ESB. The policy also applies to all information systems used by ESB, including all undertakings in which ESB has a controlling interest, wherever located and for whatever purpose used, and whether operated by ESB or by an outside processor on its behalf.

All suspected or actual personal data breaches must be immediately reported in accordance with ESB's data breach management process, where they are subject to investigation and review in line with the governance structures of the organisation, including reporting to the Board Audit and Risk Committee.

## SUBSTANTIATED COMPLAINTS CONCERNING BREACHES OF CUSTOMER PRIVACY AND LOSSES OF CUSTOMER DATA

GRI 418-1		2020	2019	2018
I	Complaints received from outside parties and substantiated by the organisation	3	4	0
II	Complaints from regulatory bodies	3	3	0
III	Total number of identified leaks, thefts, or losses of customer data	16	24	26

# Governance

ESB, in pursuit of its governance objectives, complies with the State Code. ESB also complies on a voluntary basis (insofar as is reasonably applicable, given that ESB is a statutory corporation) with the UK Code and with the Irish Corporate Governance Annex. Exceptions to compliance with the UK Code are outlined in ESB's Annual Report. In this way, ESB adheres insofar as is reasonably applicable to listed company governance standards. ESB has put in place the appropriate measures to comply with the State Code, which sets out the governance framework established by the Government in respect of oversight and reporting requirements of State Bodies, based on the principles of accountability, transparency, probity and a focus on the sustainable success of the organisation over the longer term.

ESB has a robust process in place to ensure compliance with the State Code and a report on such compliance is made annually to the Audit and Risk Committee. The Board is satisfied that ESB has complied with the requirements of the State Code. A report is also issued annually to the Minister for the Environment, Climate and Communications, which confirms compliance with the requirements of the State Code. The Board is satisfied that appropriate steps have been undertaken to monitor

ESB's Irish subsidiaries' compliance with the applicable requirements of the Companies Act 2014. As a statutory body, ESB is not subject to the disclosure requirements prescribed in the European Union (Disclosure of non-financial and diversity information by certain large undertakings and groups) Regulations, 2017. However, on a voluntary basis ESB, in keeping with best practice, discloses certain non financial information in our annual report and through this sustainability report. ESB has adopted a Code of Ethics "Our Code", which sets out its approach to responsible and ethical business behaviour, underpinned by its values. The underlying principle of "Our Code" is that employees can best serve ESB by adhering to the highest standards of integrity, loyalty, fairness and confidentiality and by meeting all legal and regulatory requirements. "Our Code" is published on the ESB website. "Our Code" is grounded in ESB's values and Group policies.

## ANTI CORRUPTION

There was one instance of corruption, relating to an employee that was investigated and confirmed in 2021 resulting in disciplinary measures for the employee. There were no reported incidents or termination of contracts due to corruption for contractors during 2021 (GRI 205-3).

## LEGAL ACTIONS FOR ANTI-COMPETITIVE BEHAVIOUR, ANTI-TRUST, AND MONOPOLY PRACTICES

ESB have a policy in place covering Competition Law requirements, which has been communicated to staff via our intranet site. ESB have no items to report in terms of legal actions regarding anti-competitive behaviour or violations of anti-trust and monopoly legislation in which ESB is identified as a participant that were either pending or completed over 2020

## ANTI-BRIBERY, CORRUPTION AND FRAUD

ESB has a detailed Anti-Bribery, Corruption and Fraud Policy in place, which outlines the standards of behaviour expected of staff in how they work and to promote controls to prevent, deter and detect bribery, corruption and fraud. ESB has a zero-tolerance approach to bribery, corruption and fraud. During 2021 there were no incidents of Bribery. Incidents or attempted incidents of fraud are reported to the Audit and Risk Committee on a quarterly basis. The policy is available on the ESB website, [www.esb.ie](http://www.esb.ie).

# Introduction

During a year of significant volatility in energy markets, ESB delivered a positive performance in 2021 with Earnings before Interest, Tax, Depreciation and Amortisation (EBITDA) before exceptional items of €1,493 million, an operating profit before exceptional items of €679 million and capital investment of €1,223 million. Our 2021 performance reflects the following progress in our main business units:

- ESB Networks and NIE Networks businesses continued to deliver significant progress on their regulated capital and maintenance programmes to ensure safe and reliable networks. Notably, ESB Networks commenced its regulatory Price Review 5 (PR5) programme which runs until 2025. PR5 includes a significantly increased capital programme to enhance the electricity network to support the continued transition to a low-carbon economy.
- Generation and Trading (GT) continued to develop its renewable portfolio, notably through continued investment in onshore and offshore wind projects both in Ireland and Great Britain and the launch of the Green Atlantic @ Moneypoint programme. The GT business also contributed strongly to maintaining electricity security of supply in Ireland throughout 2021 as increased demand, low wind yields and forced outages of non-ESB gas plant were notable challenges for the electricity system. 2021 also

saw dramatically escalating commodity costs (notably gas, coal and carbon) and the hedging policy of GT was important in satisfactorily managing this exposure.

- In spite of the very significant impact of increasing wholesale energy prices, Customer Solutions remained committed to offering the best possible value to customers. In Great Britain, the operating environment was challenging with the Government imposed price cap alongside dramatically increased wholesale energy costs leading to the exit of numerous companies from the market. Following the acquisition of So Energy, these market conditions significantly impacted ESB's GB retail business which was loss-making in 2021.

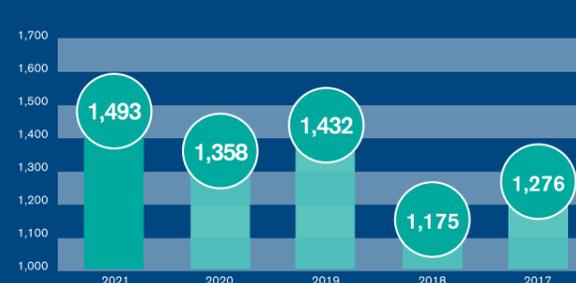
Operating profit (before exceptional items) has increased by €63 million on 2021 primarily due to the timing of regulated network tariff changes, increased electricity demand, positive foreign exchange movements and improved energy margins and wholesale market running for our generation plant in Great Britain. Energy margins for our generation plant in the Irish wholesale market (SEM) were broadly in line overall with 2020. These positive movements were offset by significant losses incurred in ESB's supply business in GB and a higher depreciation charge relating to the growing and changing nature of the asset base, notably in our networks businesses.

OPERATING PROFIT BEFORE EXCEPTIONAL ITEMS<sup>1</sup> €'M



<sup>1</sup> Before the following exceptional items: 2021: Profit on asset sales (including impairment reversals) €152 million, Neart na Gaoithe impairment (€154 million), So Energy impairment of goodwill and onerous contract provision (€61 million). 2020: Impairment charge (€188 million) and increased Asset Retirement Provisions (€59 million). 2019: Severance and associated costs (€60 million) and impairment charge (€34 million). 2018: impairment charge (€140 million). 2017: impairment charge (€276 million).

EBITDA BEFORE EXCEPTIONAL ITEMS €'M



CAPITAL EXPENDITURE<sup>2</sup> €'M



<sup>2</sup> 2018 - 2021 capital expenditure is gross of customer contributions for network connections (in line with IFRS 15 'Revenue from Contracts with Customers'). Capital expenditure in 2017 is net of customer contributions of €106 million.

<sup>3</sup> 2019 - 2021 net debt includes lease liabilities recognised in accordance with IFRS 16 'Leases'. 2021: €120 million, 2020: €125 million, 2019: €132 million. It excludes ESB share of debt associated with investments in joint ventures and associates all of which are equity accounted.

NET DEBT<sup>3</sup> €'M



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## Economic Disclosures

# Green Finance

ESB demonstrated its commitment to financing projects that will support our Brighter Future strategy, Transition to Net Zero 2040 by issuing Ireland's first corporate public green bond in June 2019, followed by another in 2022, as well as becoming the first Irish utility to have a syndicated sustainability linked loan. ESB considers that Green Bonds are an effective tool to channel liquidity into assets which facilitate the transition to low carbon electricity generation and reduce greenhouse gas emissions and therefore support our Net Zero by 2040 strategy.

We believe that Green Bonds offer transparency to investors who wish to allocate funds to green assets, and in doing so support ESB's transition

to reliable, affordable, low carbon energy as well as adding a further diversity to ESB's investor base. As part of ESB's first Green Bond issued in 2019, ESB committed to reporting annually on the environmental contribution of those projects which were funded by the Green Bond until the bond is fully allocated. ESB's Green Bond Report and the relevant external review by Sustainalytics are found below.

Major projects such as Grousemount Wind Farm and Galloper Offshore Wind Farm have benefited from funds allocated by ESB's Green Bond Framework, as well as Project Fitzwilliam, ESB's new head office in Dublin which is close to completion as a near net-zero energy building.

## ELIGIBILITY CRITERIA FOR GREEN BONDS AS OUTLINED IN ESB'S GREEN BOND FRAMEWORK:

Use of Proceeds	Eligibility Criteria	Key Performance Indicators (KPIs)
<b>Renewable Energy</b>	<ul style="list-style-type: none"> <li>Renewable power projects including Wind and Solar.</li> <li>Power transmission and other technical infrastructure required to connect new sources of renewable power generation to the grid.</li> </ul>	<ul style="list-style-type: none"> <li>MW of installed or connected Renewables.</li> <li>Expected annual renewable energy generation (MWh)</li> <li>Estimated annual GHG emissions reduced/avoided (in tonnes of CO<sub>2</sub> equivalent).</li> </ul>
<b>Energy Efficiency</b>	<ul style="list-style-type: none"> <li>Energy efficiency solutions, including smart metering and other technologies designed to manage/reduce demand.</li> <li>Upgrade of existing Power transmission infrastructure aiming to improve energy efficiency/reducing transmission losses.</li> <li>Projects designed to improve the energy efficiency of ESB's commercial buildings, displace fossil fuel building technology with zero and low carbon alternatives and improve overall building energy performance. Eligible projects will target a 50% reduction in building energy consumption when compared to pre-project base line performance.</li> </ul>	<ul style="list-style-type: none"> <li>Number of smart meters installed</li> <li>Number of customers using smart meters (supply).</li> <li>Annual energy savings (MWh)</li> <li>Capacity of energy storage facilities installed.</li> <li>Estimated annual GHG emissions reduced/avoided (in tonnes of CO<sub>2</sub> equivalent) when available.</li> <li>Annual reduction in energy consumption (in kWh).</li> <li>Estimated annual GHG emissions reduced/avoided (in tonnes of CO<sub>2</sub> equivalent).</li> </ul>
<b>Clean Transportation</b>	<ul style="list-style-type: none"> <li>Infrastructure which facilitates increased penetration of electric vehicles into market.</li> <li>Electric Vehicles.</li> </ul>	<ul style="list-style-type: none"> <li>Number of electric vehicles charging points installed or upgraded.</li> <li>Number of electric vehicles in ESB Fleet</li> </ul>
<b>Green Buildings</b>	<ul style="list-style-type: none"> <li>Buildings which are certified under recognised sustainable building certification schemes and that have obtained the following Green certifications (or equivalent):                             <ul style="list-style-type: none"> <li>- PLEED: [≥ "Gold"]</li> <li>- BREEAM: [≥ "Very Good"]</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Certification e.g. BREAM rating.</li> <li>Annual energy savings (MWh).</li> <li>Estimated annual GHG emissions reduced/avoided (in tonnes of CO<sub>2</sub> equivalent).</li> </ul>

ESB's Green Bond Reports can be found here: [Green Financing \(esb.ie\)](https://www.esb.ie/green-financing)

# Investing for the Future

ESB invested over €1.2 billion of capital expenditure in 2021. In addition, c€115 million was invested in new renewable generation and systems services projects (including batteries) as well as c.€81 million in maintaining its existing generation fleet to ensure reliability of electricity supply to customers during the ongoing transition to low-carbon generation. Over €100 million was advanced by way of shareholder loans to joint venture projects, the majority of which related to our continued investment in offshore wind.

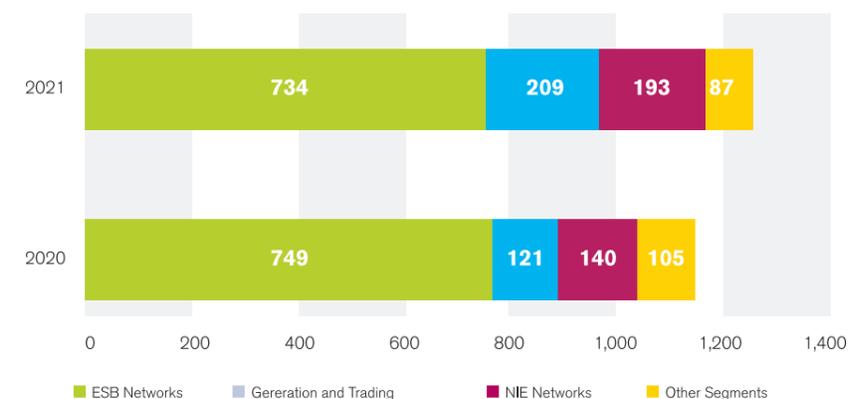
As Ireland's leading energy utility, ESB has a stable business profile with approximately 70% of earnings and assets accounted for by regulated electricity networks in Ireland under established and transparent regulatory frameworks. ESB has a strong balance sheet at 31 December 2021 with net assets of over €4.1 billion. We continue to deliver strong operating profits (before exceptional items) and maintain a strong liquidity position of c.€1.9 billion. We have a moderate gearing level of 52% at the end of 2021 and credit ratings of A- and A3 with Standard & Poor's and Moody's respectively, both reaffirmed during 2021. This strong financial position along with a stable business profile, means ESB is well positioned to meet the challenges that lie ahead and to deliver on the strategic ambition to make a

difference, deliver a brighter future and achieve net zero by 2040.

ESB invested €1,223 million of capital expenditure in 2021, an increase of €108 million on 2020. Generation and Trading invested €209 million in 2021 including the investment in 50% of FuturEnergy Ireland, a joint venture with Coillte, and an investment in battery technology. Expenditure in 2020 included the acquisition of the Inch Cape (GB) offshore windfarm project. Approximately 75% of total investment was invested in our two networks' businesses in line with agreed regulated capital programmes, including almost €150 million (compared with c. €110 million in 2020) on the roll-out of smart meters in ROI, as well as the continued investment in the network in line with the PR5 determination. In NIE Networks, the increase in capital expenditure is primarily due to the lifting of COVID-19 related restrictions which had an impact on the delivery of the NIE capital programme. Capital investment of €87 million in other segments includes various group projects such as the redevelopment of the Fitzwilliam Street Head Office and investment in IT and digital projects.



## CAPITAL EXPENDITURE



# Using our profits in a sustainable way

### Investment

Investing over €1 billion per annum to facilitate a more sustainable energy environment as well as supporting economic growth through providing, safe and reliable electricity supply to homes and businesses

**OVER €1 billion**

### Taxes

Annual payments across various headings

**OVER €560 million**

### Supporting Communities

Seek to empower and enrich the lives of individuals and communities through the corporate social responsibility programme

**OVER €2.5 million**

### Employment

Making a long-term commitment to employees, giving them the time to build their skills and the opportunity to advance their careers. Supporting jobs through contractor and supplier service contracts

**96 1ST YEAR APPRENTICES BEGAN IN ESB NETWORKS IN 2021**

### Indirect Economic Impacts

Investments in the generation portfolio are focused on accelerating investment in renewable energy to reduce the carbon intensity of the generation portfolio and support the transition to reliable, affordable, low carbon energy. Investments in the networks business in Republic of Ireland focused on the reinforcement and construction of new network infrastructure to facilitate the connection of renewables and the diversification of electrification, whilst also committing significant investment to maintaining existing network. NIE Networks focused on the delivery of its network investment plan under RP6 to achieve reliability of supply and ensure the safety of the network for customers, as well as continuing investment to facilitate the connection of additional renewable generation and the replacement of customer meters.

### Debt Investors

Annual interest and repayments

**€313 million**

### Return to the Shareholder

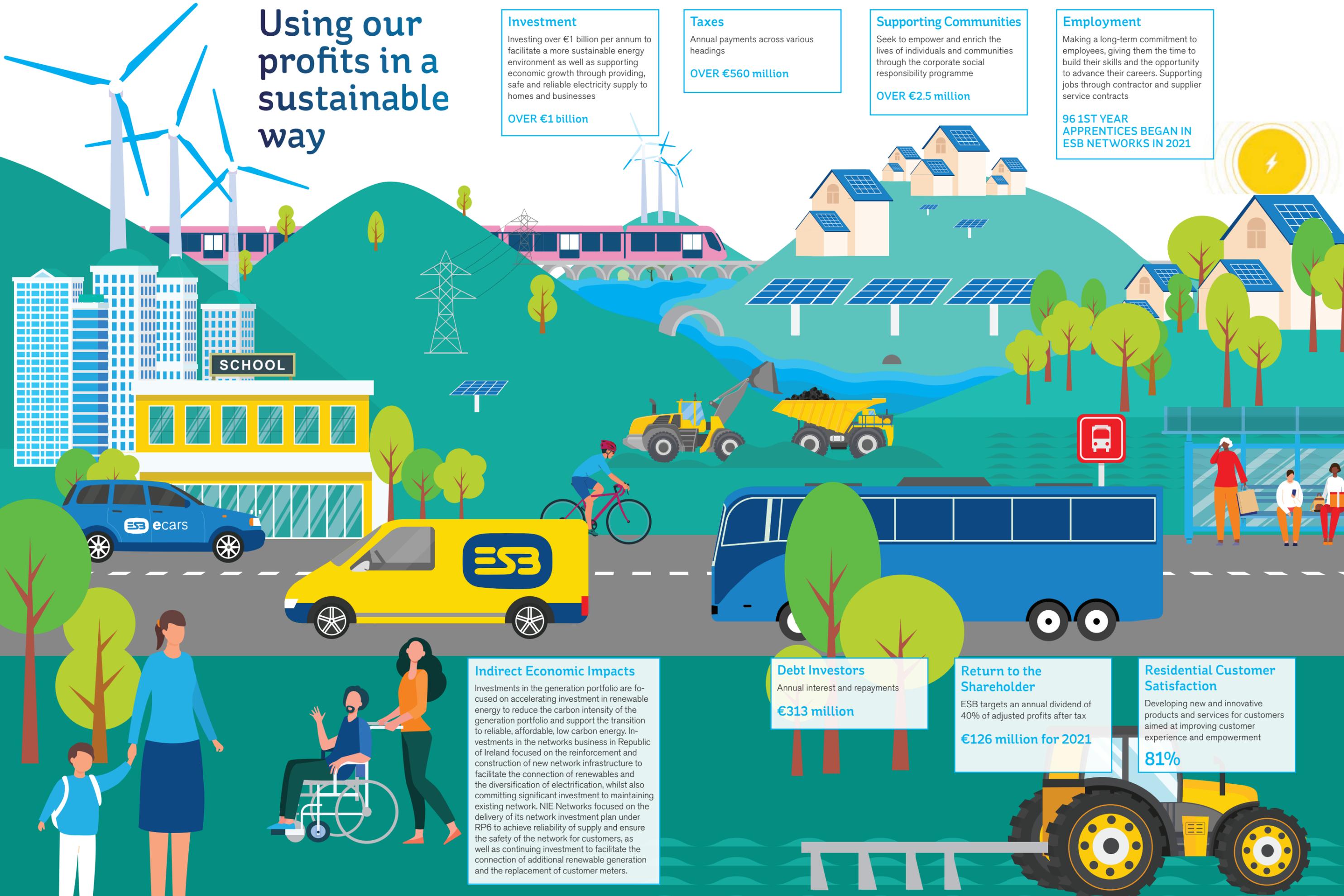
ESB targets an annual dividend of 40% of adjusted profits after tax

**€126 million for 2021**

### Residential Customer Satisfaction

Developing new and innovative products and services for customers aimed at improving customer experience and empowerment

**81%**



# Pension Obligations

The Group operates a number of pension Schemes for staff in both the Republic of Ireland, Northern Ireland and the United Kingdom (UK). Pension arrangements in respect of staff in the Republic of Ireland including ESB employees seconded overseas are set out in section (a) below. Pension arrangements in respect of staff in the UK and Northern Ireland are described in section (b) and (c).

## PENSION LIABILITIES

### (A) PARENT AND GROUP - REPUBLIC OF IRELAND

#### (i) ESB Defined Benefit Pension Scheme (The Scheme)

Pensions for approximately half of the employees in the electricity business are funded through a contributory pension Scheme called the ESB Defined Benefit Pension Scheme. The fund is vested in Trustees nominated by ESB and its members for the sole benefit of employees and their dependants. The Scheme is a defined benefit Scheme and is registered as such with the Pensions Authority.

The regulations governing the Scheme stipulate the benefits that are to be provided and the contributions to be paid by both ESB and the contributing members. Notwithstanding the defined benefit nature of the benefits, ESB has no legal obligation to increase contributions to maintain those benefits in the event of a deficit. ESB's rate of contribution cannot be altered without the agreement of ESB and approval of the Minister for Environment, Climate and Communications. Should a deficit arise in the future, ESB is obliged under the regulations to consult with the Superannuation Committee, the Trustees and the Scheme Actuary to consider the necessity of submitting an amending Scheme for Ministerial approval. This is different to the normal 'balance of cost' defined benefit approach, where the employer is liable to pay the balance of contributions required to fund benefits.

#### (ii) ESB Defined Contribution Pension Scheme

ESB also operates an approved defined contribution Scheme called ESB Defined Contribution Pension Scheme for employees of ESB subsidiary companies in the Republic of Ireland and, from 1 November 2010, new staff of the Parent. Contributions are paid by the members and the employer at fixed rates. The benefits secured at retirement reflect each employee's accumulated fund and the cost of purchasing benefits at that time. Death benefits are insured on a Group basis and may be paid in the form of a lump sum and/or survivor's pension. The pension charge for the year represents the defined

employer contribution and amounted to €17.0 million (2020: €15.8 million).

### (B) FM UNITED KINGDOM STAKEHOLDER SCHEME

In addition, ESB operates a stakeholder pension scheme in the UK for all its GB employees. Contributions are paid by the members and the employer at fixed rates. The benefits secured at retirement reflect each employee's accumulated fund and the cost of purchasing benefits at that time. Death benefits are insured on a Group basis and may be paid in the form of a lump sum and / or survivor's pension. The assets of this Scheme are held in individual stakeholder accounts managed by Legal & General Assurance Society Limited. The pension charge for the year represents the defined employer contribution and amounted to €0.7 million (2020: €0.8 million).

### (C) NORTHERN IRELAND ELECTRICITY PENSION SCHEME

The majority of the employees in NIE Networks are members of the Northern Ireland Electricity Pension Scheme (the NIE Networks Scheme). This has two sections: Options, which is a money purchase arrangement whereby the employer generally matches the members' contributions up to a maximum of 7% of salary, and Focus which provides benefits based on pensionable salary at retirement or earlier exit from service. Focus has been closed to new members since 1998 and therefore under the projected unit credit method the current service cost for members of this section as a percentage of salary will increase as they approach retirement age. The assets of the NIE Networks Scheme are held under trust and invested by the Trustees on the advice of professional investment managers.

UK legislation requires that pension schemes are funded prudently. The last funding valuation of the Focus section of the scheme was carried out by a qualified actuary as at 31 March 2020 and showed a deficit of €238.8 million. The Company is paying deficit contributions of €22.6 million per annum (increasing in line with inflation) from 1 April 2018. NIE Networks also pays contributions of 43.0% of pensionable salaries in respect of current accrual plus €104,000 monthly expenses (2020: 39.6% and €90,000 respectively), with active members paying a further 6% of pensionable salaries.

Full details on ESB Group's Pension Scheme Obligations are available in Note 24 to the 2021 Annual report and Financial Statements.

# ESB's Supply Chain

ESB's Supply Chain is key to our business success and delivery of the Group's Brighter Future Strategy.

ESB's procurement strategy is aligned to the delivery of these business objectives and sustainability goals. Competitive tendering is our standard procurement procedure, and all procurement processes are undertaken in a non-discriminatory, transparent, and proportionate manner. This process ensures equal treatment, non-discrimination, mutual recognition, and freedom to provide goods and services, in line with applicable procurement law, the Irish Government's Code of Practice for the Governance of State Bodies and EU Treaty Principles.

It is custom and practice in ESB to conduct tender evaluations based on the total lifetime cost (LCC) basis, and ESB are increasingly using sophisticated LCC models to capture whole life costs when assessing major projects and equipment purchases.

Tailored LCC's are used to evaluate the cost and efficiency of all significant tenders, including generation plant and equipment, networks switchgear and transformers, and ESB fleet. These total cost models include a range of cost inputs, including purchase price, freight costs, customs duties, energy usage (load or otherwise), prototyping costs, type tests, installation costs, maintenance, and end of life costs.

ESB expects our suppliers/contractors of all tiers to comply with all applicable laws and to respect internationally recognised human rights. ESB's

Supplier Charter sets out the basic principles that all ESB suppliers, service providers and contractors are expected to comply with in relation to:

- Conduct of business
- Health & Safety
- Environment (GRI308-1)
- Ethics, Bribery & Anti-corruption
- Employment Standards, and
- Modern Slavery.

ESB's Requirements for Third Parties gives contractual effect to these expectations, and copies of these documents and other relevant ESB Procurement Policies, which are subject to regular updates are publicly available on the ESB Group [website](#).

ESB's Supply Chain supports its business operations across the value chain in generation, networks, and supply - including its international activities. With an annual procurement spend (excluding fuel) of approximately €1.1bn, we rely on complex and diverse supply chains to provide the services necessary to meet our customer's needs. Of this spend approximately 73% is procured from suppliers within the Republic of Ireland & Northern Ireland, 13% from the UK, and 12% from other EU member states (GRI204-1). We currently have approximately 4,200 Tier 1 suppliers, ranging from local SME's & micro companies to large multi-national corporations / contractors, with whom we placed approx. 37,000 purchase orders in 2021.

## GRI 204-1: PROPORTION OF SPENDING ON LOCAL SUPPLIERS

Location Name	2021	2020	2019
UK, NI & Ireland	86%	87%	88%
EU	12%	8%	9%
Rest of World	2%	5%	3%

Contracts range from standard supply-type arrangements for consumable items, such as tools & equipment to more complex service/works contracts for renewable generation, smart metering installation, EV Infrastructure and chargers, networks substation & overhead/underground line construction & refurbishment, customer billing & metering services and financial & engineering related consultancy assignments. Where technical considerations allow, we favour the use of functional and performance-based specifications, supported by International/European standards. All significant contracts are advertised in the Official Journal of the European Union.

Many of these contracts by their nature are labour intensive and it is essential that suppliers maintain a strong culture of corporate responsibility, in addition to good sustainable and environmental practices.

Because of ESB's operations in the UK, a group wide policy was adopted in 2016 to apply the provisions of the UK Modern Slavery Act to all of ESB operations, including Procurement, irrespective of the location of these activities.

Since the adoption of this policy, ESB has published, as required by the Act, an Annual Statement on ESB's website on the steps taken each year to prevent incidents of Slavery and Human Trafficking in its Supply Chains.

In 2020 a decision was made, following preliminary market consultations to outsource this activity and conduct a broader CSR related assessment of ESB's Top 200 vendors to ensure a more consistent, scalable and industry informed approach to these types of risk assessments.

Following a competitive tendering process, which included the publication of a contract notice seeking expressions of interest in the Official Journal of the

European Union, British Standards Institute (BSI) and Intertek Limited were appointed to provide these services under the terms of a five-year framework agreement.

The framework agreement is divided into two lots. Lot a) covering an evidence-based and expanded desktop risk assessment covering:

- Human Rights
- Forced Labour, Child Labour and Modern Slavery
- Working Conditions
- Ethics & Corruption
- Environmental Performance and Advocacy

and Lot b) for on-site audits of high-risk vendors following the earlier desktop risk assessment.

A core component of this commitment is to integrate CSR and sustainability into every business process in ESB, thereby creating a positive impact on our supply chains, customers, wider stakeholders and ultimately the communities that we serve.

Since the award of this framework agreement ESB have reviewed all ESB Group Vendors with an annual spend > €250k, and jointly developed a CSR Questionnaire with BSI and questionnaires have subsequently issued to over 200 of ESB's Top Suppliers.

A report is due from BSI by the end of July 2022, identifying ESB's low/medium/high-risk vendors, and vendors with high-risk rating will be targeted for a subsequent on-site audit by our on-site auditing partner InterTek.

Building out capability on Sustainability and Social Responsibility is a cornerstone of ESB's strategy "Driven to make a difference: Net Zero by 2040", and this initiative gives effect to this purpose and underpins ESB's commitment to work with our supply

chain partners to make a tangible and enduring difference to the communities in which we operate and serve.

ESB's aim is to ensure that sustainability is embedded across every business function. In Procurement, all elements of our business operations are transacted electronically, including the issue and receipt of tenders and purchase orders to our suppliers. ESB are also committed to complying with the terms of applicable late payments legislation and are signatories to the Prompt Payment Code of Conduct. ESB's standard terms of payment are Nett Monthly Account. In recent years, ESB has significantly increased the number of PDF invoices received from suppliers. The key benefits for suppliers for submitting invoices in this way, especially during COVID-19, include traceability and the ability to email queries to a dedicated mailbox for quick resolution. This is a no cost option to suppliers and means invoices can be processed without undue delays. This also has a positive environmental impact due to the reduction in the submission of paper-based invoices, envelopes and associated postal costs.

The specific work outlined above is complemented by a broader reinforcement of ethical business practices across the wider group through the introduction of an updated version of ESB's "Our Code". This document provides clear guidance to employees on any ethical issues they may encounter when carrying out their work, including how to report any suspected wrongdoing. Contracting parties supplying services to ESB are also expected to conduct themselves in accordance with the principles of this Code. Further information about ESB's ethical business practices can be found by accessing the following link <http://esb.ie/who-we-are/corporate-governance/esb-code-of-ethics---our-code>



65 INDEPENDENT GRI STANDARDS  
OPTION CHECK

65 GRI STANDARDS CROSS  
REFERENCING TABLE

69 ESB GREEN BOND REPORT 2022

71 GLOSSARY OF TERMS

# Chapter 5

## Appendices



WHEN TRUST MATTERS

## GRI Standards Option Check Independent Assessment

DNV Business Assurance Services UK Ltd. ('DNV') was engaged by the Electricity Supply Board ('ESB') to carry out an Independent Assessment of ESB's Sustainability Report 2021 ('the Report') against the Global Reporting Initiative ('GRI') Standards 2020 and the GRI Electric Utilities Sector Supplement.

The Report has been independently assessed by DNV as being in accordance with the 'Core' option of the GRI Standards 2020.

DNV's Independent Assessment confirms that the required disclosures for the 'Core' option have been addressed in ESB's Report. The GRI Standards Cross Referencing Table within the Report's appendices demonstrates a valid representation of the disclosures, in accordance with the requirements of the GRI Standards 2020.

This Independent Assessment does not provide an opinion on ESB's sustainability performance in 2021 nor on the quality of information disclosed in the Report.

DNV was not engaged by ESB on any other commitments in 2021 which could compromise the independence of our assessment of ESB's GRI reporting.

30 August 2022, London

For and on behalf DNV Business Assurance Services UK Ltd

**Shaun Walden**  
Principal Consultant



## GRI Standards Cross Referencing Table

General Standard Disclosures			
Reference	Disclosure	Location	Notes on Disclosure
102-1	Name of the organization	Electricity Supply Board (ESB)	
102-2	Activities, brands, products, and services	29	
102-3	Location of headquarters	27 Lower Fitzwilliam Street, Dublin 2	
102-4	Location of operations	29,46	With significant operations in ROI, NI, UK, ESB additionally has active projects in 6 countries across Middle East, Africa & Asia.
102-5	Ownership and legal form	28	
102-6	Markets served	29	
102-7	Scale of the organization	29,46	Total capitalisation by debt and equity; ESB Annual Report 2021, pg 134, Group Balance Sheet.
102-8	Information on employees and other workers	46	b. Due to the small numbers of employees working outside ROI & NI, % have been used so as not to inadvertently identify any individual's contract type. e. Contractor numbers are aggregated across the year, however, the summer season sees a peak due to generating station overhauls and many network maintenance work programmes.
102-9	Supply chain	62,63	
102-10	Significant changes to the organization and its supply chain	No significant changes undertaken in 2021	
102-11	Precautionary Principle or approach	6,7,37	
102-12	External initiatives	30	
102-13	Membership of associations	30	
102-14	Statement from senior decision-maker	3	
102-16	Values, principles, standards, and norms of behaviour	5,8,12,46,48	
102-18	Governance structure	6,58	
102-30	Effectiveness of Risk Management Processes	6,7	
102-40	List of stakeholder groups	27	
102-41	Collective bargaining agreements	47	
102-42	Identifying and selecting stakeholders	25,26	
102-43	Approach to stakeholder engagement	25,26,27	
102-44	Key topics and concerns raised	26,27,40,41	
120-45	Entities included in the consolidated financial statements	GRI Index	Note 35 to Financial Statements, ESB Annual Report 2021 (pg224) lists all subsidiary, equity accounted investees and associate undertakings.
102-46	Defining report content and topic Boundaries	28	
102-47	List of material topics	26	

## General Standard Disclosures

Reference	Disclosure	Location	Notes on Disclosure
102-48	Restatements of information	GRI Index	No restatements of information made in 2021 report
102-49	Changes in reporting	GRI Index	There are no significant changes in scope and boundaries of reporting for 2021, Reliability of Supply has been framed as a material issue, in light of issues emerging on the Irish electricity grid, rising energy costs, as well as stakeholder input. The stakeholder engagement process undertaken in 2020 is still the main source of material topics addressed in the report.
102-50	Reporting period	Calendar year 2021	
102-51	Date of most recent report	Sustainability Report 2020	
102-52	Reporting cycle	Annual	
102-53	Contact point for questions regarding the report	sustainability@esb.ie	
102-54	Claims of reporting in accordance with the GRI Standards	Core option	
102-55	GRI content index	Appendix, GRI Index	
102-56	External assurance	28	Under direction from the Environment & Sustainability Leadership Team (ESLT), this report has been prepared in accordance with the GRI Standards Core option and has been independently assessed by DNV against this option. A statement from DNV to this effect is included in the Appendices.

## Economic Disclosures

Reference	Disclosure	Location	Notes on Disclosure
103-1	Indirect Economic Impacts - Topic boundary	59,60	
103-2	Explanation of management approach	59,60	
103-3	Evaluation of management approach	59,60	
201-3	Defined benefit plan obligations and other retirement plans	62	Note 24 to Financial Statements, pg 199, ESB Annual Report 2021 esb-annual-financial-results-2021.pdf
103-1	Topic boundary	61	
103-2	Explanation of management approach	61	
103-3	Evaluation of management approach	61	Agreed regulatory capital programmes for our networks businesses account for 80% of ESB's capex in 2021.
203-2	Significant indirect economic impacts	61	Audit and Risk Committee Report, pg 111, Annual Report 2021 and Risk Report, pg 26, Annual Report 2021
103-1	Topic boundary	62	
103-2	Explanation of management approach	62	
103-3	Evaluation of management approach	62	
204-1	Proportion of spending on local suppliers	62	
103-1	Topic boundary	58	
103-2	Explanation of management approach	58	
103-3	Evaluation of management approach	58	
205-3	Confirmed incidents of corruption and actions taken	58	

## Economic Disclosures

Reference	Disclosure	Location	Notes on Disclosure
103-1	Topic boundary	47,58	ESB_Ethics_Code_WayWeWork_v14_Nov_2020.indd
103-2	Explanation of management approach	47,58	ESB_Ethics_Code_WayWeWork_v14_Nov_2020.indd
103-3	Evaluation of management approach	47,58	ESB_Ethics_Code_WayWeWork_v14_Nov_2020.indd
206-1	"Legal actions for anti-competitive behaviour, anti-trust, and monopoly practices"	GRI Index	ESB have a policy in place covering Competition Law requirements, which has been communicated to staff via our intranet site. ESB have no items to report in terms of legal actions regarding anti-competitive behaviour or violations of anti-trust and monopoly legislation in which ESB is identified as a participant that were either pending or completed over 2021.

## Environmental Disclosures

Reference	Disclosure	Location	Notes on Disclosure
103-1	Topic boundary	31,40	
103-2	Explanation of management approach	9,40	
103-3	Evaluation of management approach	40	Energy Performance Indicator (EnPI) reported as kWh/FTE is the regulatory (SI 426) indicator against which ESB reports for operational energy performance.
302-1	Energy consumption within the organization	40	
302-4	Reduction of energy consumption	9,33,40,41	
103-1	Topic boundary	42	
103-2	Explanation of management approach	42	
103-3	Evaluation of management approach	42	
303-1	Interactions with water as a shared resource	42	ESB has yet to set a water reduction target, as we work towards improving the quality of available water data. That said, all main water consuming sites have water conservation, water recycling, leak detection and repair programmes in place. All building projects consider water reduction measures at the design stage of construction.
303-2	Management of water discharge-related impacts	42	Parameters for water discharge from thermal generating stations are governed by license conditions. Water sampling is undertaken prior to any discharge from site in line with environmental requirements and is reported annually via the Annual Emissions Report to the environmental authorities. Any license limit breaches are reported on occurrence to environmental authorities.
303-3	Water withdrawal	42	Water data for thermal stations is gathered via the Annual Emissions Reports, which does not break down water details beyond water source, to include for example Total Dissolved Solids.
103-1	Topic boundary	38,39	
103-2	Explanation of management approach	38,39	
103-3	Evaluation of management approach	38,39	
304-1	Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	38,39	Cables through SACs are typically installed overground, and the only subsurface activities pertain to erecting foundations for pylons or poles, which is completed in line with methods approved through environmental risk assessment.
103-1	Topic boundary	10,31,32,33,34	
103-2	Explanation of management approach	10,31,32,33,34	
103-3	Evaluation of management approach	10,31,32,33,34	
305-1	Direct (Scope 1) GHG emissions	32,33,34	

## Environmental Disclosures

Reference	Disclosure	Location	Notes on Disclosure
305-2	Energy indirect (Scope 2) GHG emissions	32,33,34	
305-3	Other indirect (Scope 3) GHG emissions	32,33,34	
305-4	GHG emissions intensity	32,33,34	
305-7	Nitrogen oxides (NOX), sulfur oxides (SOX), and other significant air emissions	34,35	
103-1	Topic boundary	36,37	
103-2	Explanation of management approach	36,37	
103-3	Evaluation of management approach	36,37	
307-1	Non-compliance with environmental laws and regulations	37	
103-1	Topic boundary		
103-2	Explanation of management approach		
103-3	Evaluation of management approach		
308-1	New suppliers that were screened using environmental criteria		
308-2	Negative environmental impacts in the supply chain and actions taken		
103-1	Topic boundary	43	
103-2	Explanation of management approach	43	
103-3	Evaluation of management approach	43	
306-1	Waste generation and significant waste-related impacts	43	i. Waste is generated through the normal operations of the business. All waste is compliantly managed by registered waste services providers, governed by hazardous and non hazardous waste contracts. Ash generated by peat and coal burning for power generation is managed under licencing requirements. ii. waste generated from our own activities.
306-2	Management of significant waste-related impacts	43	
306-3	Waste generated	43	

## Social Disclosures

Reference	Disclosure	Location	Notes on Disclosure
103-1	Topic boundary	46,47,48	
103-2	Explanation of management approach	46,47,48	
103-3	Evaluation of management approach	46,47,48	
401-3	Parental leave	GRI Index	Parental Leave (includes; Maternity Leave, Paternity Leave, Adoptive Leave, Carers Leave and Parental Leave) can be availed of once one full year of service has been completed. In 2021, 6007 employees were eligible, 566 employees (264 female, 294 male) availed of it. 6 (4 female, 2 male) employees left the company within 1 year of returning from parental leave. 295 returned to work.
103-1	Topic boundary	50	

## Social Disclosures

Reference	Disclosure	Location	Notes on Disclosure
103-2	Explanation of management approach	50	
103-3	Evaluation of management approach	50	
403-1	Occupational health and safety management system	51	
403-2	Hazard identification, risk assessment, and incident investigation	51,52	ESB safety health and wellbeing policy <a href="https://esb.ie/docs/default-source/corporate-governance/health-safety-wellbeing-policy---dec-2020-(002).pdf?sfvrsn=9ad307f0_2">https://esb.ie/docs/default-source/corporate-governance/health-safety-wellbeing-policy---dec-2020-(002).pdf?sfvrsn=9ad307f0_2</a> To support our commitment to high standards of conduct and in fostering a culture of openness, transparency and fairness, in which it is safe and acceptable to raise concerns, ESB encourages and expects employees and others to report concerns relating to a wrongdoing in the workplace and elsewhere relating to ESB's operations. However, where someone wishes, there is a whistleblowing and protected disclosures process which they can follow; <a href="https://esb.ie/who-we-are/corporate-governance/esb-code-of-ethics---our-code">https://esb.ie/who-we-are/corporate-governance/esb-code-of-ethics---our-code</a>
403-3	Occupational health services	53	
403-4	Worker participation, consultation, and communication on occupational health and safety	50	There are 4 Worker Directors on ESB Board, one of whom participates on the SEC Committee, which convenes quarterly
403-5	Worker training on occupational health and safety	51,52	
403-6	Promotion of worker health	52,53	
403-7	Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	51	In circumstances where ESB has no direct control over work or workplace, ESB's expected health and safety standards are specified as part of contract award and would be subject to audit and review by ESB.
403-8	Workers covered by an occupational health and safety management system	50,51,53	
403-9	Work-related injuries	50,51	
403-10	Work-related ill health	50,51	Individual worker ill health cases are managed by ESB's occupational health doctor and subject to doctor/patient privilege. Any absence resulting from ill health is reported through absenteeism rates. The reporting of health and safety related performance information applies to all employees and contractors of ESB, without exception.
103-1	Topic boundary	46	
103-2	Explanation of management approach	46,47	
103-3	Evaluation of management approach	46,47	
404-3	"Percentage of employees receiving regular performance and career development reviews"	46,47	
103-1	Topic boundary	49	
103-2	Explanation of management approach	49	
103-3	Evaluation of management approach	49	
412-1	Operations that have been subject to human rights reviews or impact assessments	62,63	While the 81 contractor employment standards audits represent a high percentage of contracts which include labour within our operations, ESB does not calculate what percentage of operations this number represents. Human rights impact assessments are not carried out across operations for employees as this has not emerged as a risk area.
103-1	Topic boundary	58	
103-2	Explanation of management approach	58	
103-3	Evaluation of management approach	58	
418-1	Topic boundary and disclosure	58	Acting with integrity includes protecting customer data and information entrusted to us

## Additional Disclosure

Reference	Disclosure	Location	Notes on Disclosure
103-1	Topic; Enabling the low carbon transition	3,4,5,12,32	
103-2, 103-3	Management approach; Enabling the low carbon transition	5	Pgs 16-23 Annual Report 2021 outlines ESB's strategy, approach and KPI's that underpin the delivery of the Brighter Future ambition. Sustainability Report pg 8 KPIs, pg 12-22
	Enabling the low carbon transition through decarbonised electricity	32-34, 40	
103-1	Topic; Assisting customers	26,53,56	
103-2, 103-3	Management approach; Assisting customers	56	Pgs 16-23 Annual Report 2021 outlines ESB's strategy, approach and KPI's that underpin the delivery of the Brighter Future ambition. Sustainability Report pg 8 KPIs, pg 12-22
	Assisting vulnerable customers through managed payment plans and reduced disconnections	17,22,57	Assisting Vulnerable Customers includes supporting customers with payment difficulties through tailored payments plans, working with support organisations such as MABS and SVP, as well as working to avoid disconnection as a last resort.
103-1	Topic; Quality Customer Experience	37,53,61	
103-2,103-3	Management approach; Residential customer satisfaction	37,53,61	Pgs 16-21 Annual Report 2020 outlines ESB's strategy, approach and KPI's that underpin the delivery of the Brighter Future ambition. Pages 58-67 further outline business unit activity and progress against the strategic framework. The framework being developed from our stakeholder engagement process in 2020 will lend further structure to this once it is in place.
	Residential customer satisfaction	61	
103-1	Topic: Smart Meter Roll Out	16,19,56	
103-2, 103-3	Management approach; Smart Meter Roll Out	37,56	Pgs 16-21 Annual Report 2020 outlines ESB's strategy, approach and KPI's that underpin the delivery of the Brighter Future ambition. Pages 58-67 further outline business unit activity and progress against the strategic framework. The framework being developed from our stakeholder engagement process in 2020 will lend further structure to this once it is in place. At the business unit level, ESB Networks outline their business unit responses to stakeholder issues, including development of the network; esb-networks-stakeholder-engagement-report-2020.pdf (esbnetworks.ie)
	Smart Meter Rollout	16,56	
103-1	Topic: Reliability of Supply	8,13,14,15, 56	Pgs 16-23 Annual Report 2021 outlines ESB's strategy, approach and KPI's that underpin the delivery of the Brighter Future ambition. Sustainability Report pg 8 KPIs, pg 12-22
103-2,103-3	Explanation of management approach and evaluation of management approach; Reliability of Supply	20, 35, 60	As ESB delivers on its Brighter Future ambition to lead the transition to a low carbon energy future, delivering Net Zero by 2040, the role of and reliance on electricity will move even more centre stage
	Reliability of Supply	56,57	Customer Minutes Lost (CML) will become an increasingly critical metric for network performance as electrification drives increasing reliance of electricity, increasing expectations on reliability of electricity supply.

## Sectoral Disclosures

Reference	Disclosure	Location	Notes on Disclosure
EU1	Installed capacity, broken down by primary energy source and by regulatory regime	33	ESB does not own or operate any CHP plants, although our Energy services business does work with customers to install and utilise CHP where the business case warrants it
EU2	Net energy output broken down by primary energy source and by regulatory regime	33	
EU3	Number of residential, industrial, institutional and commercial customer accounts	56,57	
EU4	Length of above and underground transmission and distribution lines by regulatory regime	56	
EU5	Allocation of co2e emissions allowances or equivalent, broken down by carbon trading framework	34	ESB's generation stations operate under the auspices of the EU ETS scheme. In 2020 ESB purchased 5,140,352 emissions credits to fully account for ESB generation emissions during the calendar year. ESB receives no free allowances under the EU ETS
G4-10	Total contractor workforce	46	
G4-11	% Contractor employees covered by collective bargaining agreements		Under the obligations outlined in ESB's 3rd Party Requirements, all contracting entities are required to allow their staff freedom of association. This is monitored as part of the Contractor Employment Standards (CES) audits which are undertaken.
EU10	Planned capacity against projected electricity demand	55	SEMO (Eirgrid & SONI) is the entity that manages capacity planning and balancing in the markets. ESB as a generator bids capacity and pre qualifies planned capacity in line with SEMO operation of Ex post and Ex ante markets. Based on successful capacity auctions ESB proceeds with asset pipelines from planning into development. Pg 55 outlines that future outlook at the business unit level.
EU12	Transmission & distribution losses as a % of total energy	GRI Index	ESB Networks and NIE Networks are the licenced Distribution System Operators and are not responsible for operation of the transmission system. Losses reported by ESB Networks (6.7% , comprising Technical at 6.2% and Commercial at 0.5%) are a key part of the work programme agreed with the energy regulator in ROI, the CRU. NIE Networks programme of works agreed with UReg, does not include a significant works programme for rural upgrading of network to reduce losses, and is therefore deemed not to be material to NIE Networks. At the All Island Single Electricity Market (SEM) level, losses are calculated at 7.5%
EU25	Number of injuries and fatalities to the public involving company assets, incl judgements, settlements and pending legal cases of diseases	51	
EU26	% Of population unserved in licenced distribution service areas	56	
EU27	Number of residential disconnections for non-payment, broken down by duration of disconnection and by regulatory regime.	57	
EU28	Power outage frequency	56,57	
EU29	Average power outage duration	56	
EU30	"Average plant availability factor by energy source and by regulatory regime "	GRI Index	ESB does not disclose average plant availability or outage schedules publicly due to the nature of all island electricity market structures. Disclosure of this nature is deemed to be commercially sensitive to a level where it may provide competitors with significant commercial insights and advantage.

# ESB Green Bond 2021: Allocation & Impact Report 2020/21

## BRIGHTER TOGETHER

ESB's strategy, which was refreshed in December 2021, 'Driven to Make a Difference: Net Zero by 2040' is anchored in the UN's Sustainable Development goals and is an ambition to make a difference. It aims to deliver a brighter future by creating and connecting sustainable, reliable, affordable energy, and is grounded in ESB's enduring purpose to support the customers and communities ESB serve to achieve net zero. It aims to achieve this by decarbonising electricity, connecting the renewable generation needed, making its networks smarter to enable the electrification of heat and transport and providing the solutions to support its customers in making their own transition. This will be done in a way that will ensure that ESB continues to grow as a successful business while maintaining the financial strength to invest in a low-carbon future at the necessary pace and scale. Since its establishment in 1927, ESB has been characterised by a commitment to enabling society and creating opportunities for the communities it serves. The challenge for ESB today is to be a leader in the transition to reliable, affordable, low-carbon energy and to serve its customers better and achieve sustainable growth. In 2021 clear progress was made in delivering on our sustainable agenda. A total of 6.5 GW of low-carbon energy has been connected to our networks in Ireland and Northern Ireland. ESB Networks installed in excess of 380,000 smart meters in 2021. We are progressing our Galloper, Inch Cape and Neart na Gaoithe projects off the east coast of Great Britain growing our position in offshore wind. In Ireland the Board approved investment in Phase 2 of the Oweninny Windfarm (83 MW) in County Mayo and in battery storage technologies at Poolbeg and South Wall in Dublin. Certain short term challenges were experienced with lower wind and during 2021, the carbon intensity of our electricity generation activities rose as it was

necessary to increase output from thermal plant to reliably meet national electricity demand. This measure to support national energy security does not take away from our decarbonisation commitments and our strategic focus is firmly fixed on low carbon and renewable generation and driving the green agenda.

## ESB GREEN BOND

ESB, through its financing entity, ESB Finance DAC had issued €700m in Green Bonds as at 31 December 2021. The net proceeds which amount to €697.95m, were used to finance eligible projects in the period since issuance in accordance with the [ESB Green Bond Framework](#), published in May 2019. The Framework aligned to the Green Bond Principles (2018). The proceeds of both bonds were fully allocated by 31 March 2020. In January 2022, ESB issued a further €500m Green Bond which will be included in the 2022 Green Bond Report.

Issuer:	ESB Finance DAC
Currency:	EUR
ISIN:	XS2009861480
Bond Value:	€500,000,000
Pricing Date:	4th June 2019
Settlement Date:	11th June 2019
Tap Value:	€200,000,000
Pricing Date:	15th July 2020
Settlement Date:	22nd July 2020
Maturity Date:	11th June 2030
Coupon:	1.125%
Proceeds to allocate:	€697,950,000

## USE OF PROCEEDS

The net proceeds of the green bond, €698m, were used to finance eligible projects according to the 'ESB Green Bond Framework' and a summary is set out below:

Eligible Green Project Category	Projects	Summary of Allocated Funding	Sustainable Development Goals
 Renewable Energy	Renewable wind farms	€581m	  
 Energy Efficiency	Smart Meter Roll Out	€50m	 
 Clean Transportation	Infrastructure to facilitate Electric Vehicle penetration	€6.2m	
 Green Buildings	The Redevelopment of ESB'S Head Office, Lower Fitzwilliam Street, Dublin 2 A Green Certified Sustainable Building	€60.8m	

## EVALUATION AND SELECTION

A dedicated Green Finance Committee was created to ensure compliance with the Green Bond Framework and oversee the entire issuance and allocation process. The Committee is composed of the Head of ESB's Treasury, Sustainability and Strategy departments.

The Committee reviewed proposed projects with respect to the eligibility criteria set out in the Green Bond Framework to ensure each project showed a clear, positive and measurable environmental impact. The Committee also ensured that each selection was aligned with ESB's strategic intent of meeting 'customer energy needs by bringing the best of its capabilities together to deliver innovative and

value-driven solutions for a low-carbon world'.

The Group setup a project register to monitor and track the allocation to selected projects. An amount equal to, or greater than, the unallocated funds raised, were held by the Group as cash.

During the life of the Green Bond (11 years from 11th June 2019), should a selected project be sold, cease to fulfil eligibility criteria or otherwise be determined to be incompatible with the environmental objectives of the Green Bond Framework, those allocated proceeds will be reallocated to a different project which complies with the eligibility criteria as soon as is reasonably possible.

There were no such reallocations in the current year.

## ALLOCATION OF GREEN BOND FUNDING AND IMPACTS

Project Name	Allocated Spend (€ m)	Status	Generation Capacity (MW)	Qualifying Generation Capacity (MW)	Qualifying energy Generated or Forecast (MWh)	Qualifying Tonnes of CO <sub>2</sub> Equivalent Avoided	Non-windfarm - Project Impact
Neart na Gaoithe Wind Farm (Offshore)	223.2	In Construction	224	155	642,391	136,187	
Galloper Wind Farm (Offshore)	130.9	Operational	44	44	178,740	37,893	
Grousemount Wind Farm (Offshore)	154.7	Operational	123	95	206,160	68,651	
Cappawhite Wind Farm	16.2	Operational	57	11	28,879	9,617	
Castlepook Wind Farm	56.0	Operational	35	30	65,361	21,765	
Smart Meter Roll-Out	50.0	Ongoing Project					More than 620,000 total new smart meters were installed on overall project to end December 2021. This was partially funded by ESB's Green Bond Issuances.
Project Fitzwilliam – ESB's Head Office Redevelopment	60.8	Operational					Designed and under construction in line with "BREEAM Excellent" Certified Building Standards
Electric Vehicle	6.2	Ongoing Project					138 Fast Chargers 118 AC Charges Installed over period of spend
<b>Total</b>	<b>698.0</b>		<b>483</b>	<b>335</b>	<b>1,121,531</b>	<b>274,113</b>	

### Notes on Reporting Criteria;

- All spend was incurred between 1 July 2017 and 31 March 2021.
- The equivalent carbon emissions 'displaced' for windfarms are calculated using the most recent 'carbon intensity' of the relevant national grid and the qualifying MWh of renewables generation. At the time of preparation these were:

	CO <sub>2</sub> intensity, Kg/kWh	Source
ROI	0.333	<a href="https://www.seai.ie/news-and-media/interim-energy-balance-20/">https://www.seai.ie/news-and-media/interim-energy-balance-20/</a>
UK	0.212	Department for Business, Energy & Industrial Strategy - Greenhouse gas reporting: conversion factors 2021 (electricity)

- Generation capacity represents the current or forecast capacity of the windfarm apportioned based on ESB's equity stake in the project.
- In respect of Offshore windfarms, impact metrics are calculated based on ESB's equity stake in the windfarm. This is proportioned further when the allocated spend does not represent the full equity investment made in the windfarm to 31 December 2021.
- All onshore windfarms are fully owned and funded by ESB. Impact metrics are apportioned based on the proportion of allocated spend to total project capital spend.
- Forecast impact metrics are included for those windfarms which have not had a full year's operation.
- ESB Networks has installed over 620,000 meters as at the end December 2021 as part of its Smart Meter Programme. The €50m allocated to the Green Bond represents only a portion of the spend to date on the project. The full programme is expected to cost approximately €1.2bn and involve the roll out of over 2.3 million meters and a significant level of IT spend. It will result in significant benefits as documented by the Commission for Regulation of Utilities in its cost benefit analysis (see [www.cru.ie](http://www.cru.ie)) of the programme. This includes a change in the patterns of electricity usage by residential households, most notably a reduction in overall energy consumption of c 2.86% for standard customers and SMEs and a movement of demand away from peak times (over 8%).
- In relation to Electric Vehicle Infrastructure, the spend was incurred in the period 1 July 2017 to 31 December 2019, contributions of €0.3m were received from other funding sources in relation to the charge points (138 Fast Chargers and 118 AC Charges) installed in the period July 2017 to December 2019.

### NEART NA GAOITHE WIND FARM

Near na Gaoithe is a windfarm currently under development off the East Coast of Scotland. In late 2019 ESB, bought a 50% stake in the project from EDF Renewables, ESB's joint venture partner in the development. The windfarm is expected to be approximately 448MW in capacity. Construction began in 2020, some challenges were experienced in the delivery of the foundation package and so there will be some delays to commissioning, now expected in 2024.

### CASTLEPOOK WIND FARM

Castlepook Wind Farm is located in Castlepook forest, Ballyhoura, Co.Cork, Ireland. It features 14 turbines with a total capacity of 35MW—enough renewable electricity to power around 17,000 households a year. It was initially developed by ESB as a joint venture with another partner with project finance. It is now fully owned by ESB and was refinanced using Green Bond funds.

### ELECTRIC VEHICLE INFRASTRUCTURE

ESB eCars builds, owns and operates electric vehicles (EV) charging networks for public use across ROI, NI and GB. This network contains over 1,350 charger points on the island of Ireland, as well as over 350 charger points in Great Britain.

### SMART METERS

ESB Networks is in the middle of Phase 2 of the National Smart Meter Programme in the Republic of Ireland. Phase 1 consisted of a major IT investment that has enabled Suppliers offer new time of use tariffs since the end of February 2021. Phase 2 of the project will see further IT enhancements and new meter types delivered over the next two years. ESB Networks installed in excess of 380,000 smart meters in 2021 bringing the total number of smart meters installed since September 2019 to 620,000. Over 2.3 million meters are due to be installed by 2025, over the three phases of the programme.

### GALLOPER WIND FARM

Galloper Wind Farm (353MW) features 56 Siemens-Gamesa turbines and is 30 km off the coast of Suffolk in the United Kingdom.

It entered into commercial operations in 2018 and is expected to generate, on average each year, enough green power to meet the annual electricity needs of more than 380,000 households. Galloper is owned by RWE Renewables UK (previously Innogy SE (25%)), Siemens Financial Services (25%), Sumitomo Corp (12.5%), ESB (12.5%) & a consortium managed by Green Investment Group and Macquarie Infrastructure and Real Assets (25%).

### GROUSEMOUNT WIND FARM

The site is located in south east Kerry in the Republic of Ireland. Grousemount Wind Farm began construction in the summer of 2017 and was finalised in mid- 2020. The windfarm comprises 38 wind turbines, which are used to harness the natural energy of the wind to generate electricity and provide enough renewable power for approximately 70,000 homes. Turbines have maximum overall dimensions of 126 metres which will result in up to 123MW of renewable electricity being generated on site. It is ESB's largest onshore farm.

### CAPPAWHITE WIND FARM

Cappawhite Wind Farm is located at the southern most extent of the mountain range known as the Hollyford Hills in Tipperary in the Republic of Ireland. It was completed in 2017, features 17 turbines and a production capacity of 57MW—enough renewable electricity to power around 32,500 households a year.

### PROJECT FITZWILLIAM

The redevelopment of ESB's Fitzwilliam Street Head Office site in Dublin 2 in the Republic of Ireland began in June 2017. The project involved the removal of the existing buildings, the retention and refurbishment of a number of protected Georgian structures and the construction of two new office blocks on site. One of these blocks, Fitzwilliam 27, has now occupied by ESB as its Head Office. The building has been designed and fitted to BREEAM Excellent Standard. BREEAM is the world's leading sustainability assessment method for master planning projects, infrastructure and buildings. It recognises and reflects the value in higher performing assets across the built environment lifecycle.



## AN EXTERNAL OPINION – SUSTAINALYTICS

ESB's Green Bond Framework (May 2019) was reviewed by Sustainalytics in terms of its alignment with relevant industry standards and its robustness and credibility in the meaning of Green Bond Principles ("GBP") 2018.

ESB also engaged Sustainalytics to conduct a review confirming the proceeds were allocated to projects which meet the Eligibility Criteria defined in ESB's Green Bond Framework for each of its Green Bond Reports published to date.

Copies of the Green Bond Reports and final reviews can be found at [www.esb.ie/investors/green-financing](http://www.esb.ie/investors/green-financing)

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Energy for generations

# Glossary of Terms

Abbreviated Term	Explanation
AA	Appropriate Assessment
AIE	Access to Information on the Environment
ARO	Asset Retirement Obligation
ASA	Ash Storage Area
ASM	Active System Management
BER	Building Energy Rating
BITC	Business in the Community
BREEAM	Building Research Establishment Environmental Assessment Method is used to masterplan projects, infrastructure and buildings
BSI	British Standards Institute
BWR	Business Working Responsibly Award
BWG	ESOP
CAP	Climate Action Plan
CARE	Career Average Revalued Earnings
CBD	UN Convention on Biological Diversity
CCGT	Combined Cycle Gas Turbine
CDP	Carbon Disclosure Protocol
CEP	Clean Energy Package
CES	Contractor Employment Standards
CFD	Contracts for Difference -incentivise investment in renewable energy by providing developers of projects with high upfront costs and long lifetime with direct protection from volatile wholesale prices
CI	Customer Interruptions (greater than 3 minutes)
CML	Customer Minutes Lost
Coillte	Coillte is a commercial company operating in forestry, land based businesses, renewable energy and panel products and owns over 1 million acres of forest on behalf of the Irish Government
Colleges	UL – University of Limerick, UCD – University College Dublin, TCD – Trinity College Dublin, NUI – National University of Ireland, DIT – Dublin Institute of Technology, QUB – Queen's University Belfast, UCC – University College Cork
COP	Conference of the Parties, UN climate change conference
CRU	Commission for Regulation of Utilities
CSM	Conceptual Site Model
CSR	Corporate Social Responsibility
DAERA	Department of Environment and Rural Affairs (NI)
DCCAIE	Department of Communications, Climate Action and Environment
DfE	Department for the Economy (NI, replaces DETI)
DSO	Distribution System Operator
DTTAS	Department of Transport, Tourism and Sport
EAI (NEAI)	Electricity Association of Ireland (Northern Ireland Electricity Association)
EAP	Employee Assistance Programme
EBITDA	Earnings before interest, taxes, depreciation and amortization
EcIA	Ecological Impact Assessment
EDF	Électricité de France

# Glossary of Terms

Abbreviated Term	Explanation
EDSO	European Distribution System Operators
EDT	Executive Director Team
EEOS	Energy Efficiency Obligation Scheme
EHS	Environmental Health and Safety
EIA	Environmental Impact Assessment
Eirgrid	Republic of Ireland System Operator
EPA	Environmental Protection Agency
EPRI	Electricity Power Research Institute
ESB Finance DAC	ESB Finance Designated Activity Company
ESG	Environmental, Social and Governance
ESOP	Employee Share Ownership Scheme
EU	European Union
EU ETS	European Union Emissions Trading System
Eurelectric	The Union of the Electricity Industry - EURELECTRIC is the sector association which represents the common interests of the electricity industry at pan-European level
EV	Electric Vehicle
FFC	Fluid Filled Cables
FTE	Full Time Equivalent (employee)
GB	Great Britain
GHG	Green House Gas
GRI	Global Reporting Initiative
GWP	Global Warming Potential
G99/NI	G99/NI details the requirements for the connection of generation equipment, including integration of micro generation, in parallel with public distribution networks.
H&S	Health and Safety
HSA	Health and Safety Authority
HV	High Voltage
IBEC	Irish Business and Employer Association
IE License	Industrial emissions Licensing
IFA	Irish Farmers Association
IPCC	Intergovernmental Panel on Climate Change
IPPCL	Integrated Pollution Prevention and Control Licence
IWEA	Irish Wind Energy Association
JV	Joint Venture
KPI	Key Performance Indicator
LCC	Life Cycle Costing
LGBT	Lesbian, Gay, Bisexual, Transgender
LTI	Lost Time Injury (in ESB defined as being absent from work on the next planned shift/day)
LV	Low Voltage
MABS	Money Advice and Budgeting Service
MHFA	Mental Health First Aid

Abbreviated Term	Explanation
NHA/PNHA/SAC/SPA/ASSI	National Heritage Area, proposed NHA, Special Area of Conservation, Special Protection Area, Areas of Special Scientific Interest
NI Executive	Northern Ireland Executive
NIE	Northern Ireland Electricity Networks
NIEA	Northern Ireland Environment Agency
NOx, Sox	Nitrous Oxides, Sulphur Dioxides,
NPWS	National Parks and Wildlife Service (NI)
OCEI	Office of the Chief Electrical Inspector
OER	Organisational Effectiveness Review
OHL	Overhead Lines
P1 Incident	High Potential Severity Incidents
PFC	Perfluorocarbons
PPE	Personal Protection Equipment
PR5	Price Review 5, Republic of Ireland
RAB	Regulated Asset Base
RCP4.5	High Emissions global warming scenario
RESS 1	Renewable Energy Support Scheme
RNLI	Royal National Lifeboat Institution
RoI	Republic of Ireland
RP6	Price Review 6, Northern Ireland
SDG	Sustainable Development Goals
SEAI	Sustainable Energy Authority of Ireland
SEM	Single Electricity Market
SES	Smart Energy Services
SF6	Sulphur Hexafluoride
SHIELD	Safety Health Inspection and Equipment Logistics Database
SME	Small and Medium Enterprises (Businesses)
SMS	Safety Management Systems
SONI	System Operator Northern Ireland
STEAM	Science, Technology, Engineering, Arts and Mathematics
SVP	St Vincent de Paul
T & D	Transmission and Distribution
TCFD	Task Force for Climate-related Financial Disclosure
TSO	Transmission System Operator
UK	United Kingdom
UR	Utility Regulator of Northern Ireland
VDU	Visual Display Unit
VGB	European technical association for power and heat generation - a voluntary association of companies for which power and heat generation is the basis of their business.
WITS	Women in Technology and Science