



Energy for
generations



ESB SUSTAINABILITY REPORT 2017

SUSTAINABILITY

REPORT 2017

Connecting Into Our Future

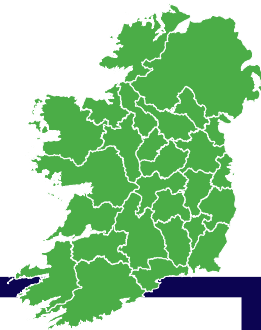
TIMELINE TO 2017

90 years bringing light and energy
to the people we serve



1925

Shannon Scheme
Commenced



1927

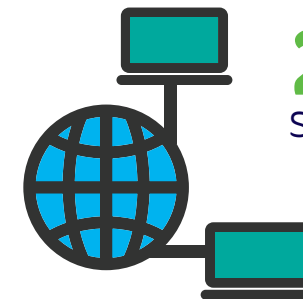
ESB Established under the
Electricity (Supply) Act



1992

Entered the GB
Generation Market

2017 Entered the GB
Supply Market



2015

SIRO launched



2011

Electric Ireland
Established



2010

Acquired Northern
Ireland Electricity
Networks
(NIE Networks)
ecars Launched



CONNECTING TO OUR FUTURE

ESB is making a stand for Ireland's future, a future powered by clean, sustainable, reliable and affordable electricity. ESB is investing in low-carbon generation, it is expanding and enhancing the grid to accommodate more distributed energy resources and empowering customers to take more control of their energy use.



1946

Rural Electrification



1975

ESB International
Established



1998

First Wind Farm

Investment in renewal
of networks and smart
networks

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ABOUT ESB

ESB was established in 1927 as a statutory body in the Republic of Ireland under the Electricity (Supply) Act 1927. With a holding of 95%, ESB is majority owned by the Irish Government. The remaining 5% is held by the trustees of an Employee Share Ownership Plan. As a Strong, Diversified, Vertically Integrated Utility, ESB operates right across the electricity market: from generation, through transmission and distribution to supply of customers, with an expanding presence in the Great Britain generation market. In addition, we extract further value at certain points along this chain; supplying gas, using our networks to carry fibre for telecommunications and more. ESB is a leading Irish utility with a regulated asset base (RAB) of approximately €9 billion, 47% of generation in the all-island market and as a supplier of electricity to approximately 1.4 million customers throughout the island of Ireland. ESB will continue to grow the scale of its generation, trading and supply businesses so that it can compete within the all-islands competitive environment. ESB is focused on providing excellent customer service and maintaining its financial strength. As at 31 December 2017, ESB employed approximately 7,790 people.

In 1927, ESB's first managing

director, Thomas McLaughlin, had the foresight to understand the far-reaching consequences of a national hydroelectric scheme for our fledgling nation. Thus, Ardnacrusha was born, which paved the way, in 1946, for the rural electrification of 400,000 rural homes in Ireland and the transformation of the country into a strong, vibrant economy.

The diversification of generation brought employment and investment to the Midlands in the 1950s and 1960s, and, in the late 80's and the 90s – helped to reduce the nation's growing dependency on oil as a source of electricity generation. As ESB embarks on its most ambitious programme to date – transitioning to a carbon-free energy supply by 2050 – we celebrate the courage and drive embodied by McLaughlin and all who supported his vision, as we strive to create a more sustainable Ireland for all.

We welcome requests, comments and enquiries relating to this report and to sustainability. Please email our mailbox: sustainability@esb.ie or our Sustainability Coordinator: brian.gray@esb.ie
www.esb.ie

Twitter: @ESBGroup

LinkedIn: <https://www.linkedin.com/company/esb>

YouTube: <https://www.youtube.com/user/ESBVideo>

BUSINESS OVERVIEW

About this Report

This report is aimed at customers, investors, analysts, policy makers, the public and other stakeholders, internal and external to ESB Group. It aims to address the sustainability issues of greatest concern to these stakeholders and to our business strategy.

Our reporting is guided by the principles of materiality, inclusiveness and responsiveness. We use leading standards and methodologies for measuring and reporting impacts, such as the Greenhouse Gas Protocol, CDP and the Global Reporting Initiative (GRI). Further details on GRI indicators are available in the report appendices.

This report has been prepared in accordance with the GRI Standards: Core option and has been independently assessed by DNV GL against this option.

Scope of Report

This report covers the fiscal and calendar year 2017, which has been approved by ESB Group's Sustainability Committee. This report pertains to the full activities of ESB and its subsidiary companies, including NIE Networks, hereinafter referred to as ESB Group, and has been prepared in accordance with GRI Standards Sustainability Reporting Guidelines, as well as the GRI Electric Utilities Sector Supplement.

The report content is based on the output from a materiality process, including both operational and strategic engagements with internal and external stakeholders.

The 2017 Sustainability Report meets our commitment to report annually on our Sustainability performance.

Where scope boundaries pertain to specific material aspects of the business, this is detailed in the specific sections of the report.

Readers of this report may also view the ESB Group Annual Report 2017 <https://www.esb.ie/who-we-are/investor-relations/annual-reports>. Together these reports illustrate a coherent picture of ESB Group activity, how we are embedding sustainability and how sustainability supports our corporate strategy.

The alignment of our activities with the principles and broad direction of the UN Sustainable Development Goals, an alignment which is highlighted where relevant throughout the report.

- 1.1** Chief Executive's Review
- 1.2** Highlights
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1.1 CHIEF EXECUTIVE'S REVIEW

CHIEF EXECUTIVE'S REVIEW

Leading the transition to reliable, affordable, low-carbon energy.

ESB's Chief Executive, Pat O'Doherty, answers questions on the 2017 results and on ESB's 2030 Strategy.



Pat O'Doherty
Chief Executive

WHAT WERE THE MAIN ACHIEVEMENTS AND ISSUES IN 2017?

A There were a number of significant achievements across the Group in 2017 - which was our 90th Anniversary year. In our generation business Carrington Power, our combined cycle gas turbine (CCGT) plant near Manchester, which was commissioned in 2016, performed strongly in its first full year of operation and our programme of investment in renewable energy saw the commissioning of four new wind farms totalling 95 MW. We also significantly advanced the construction of Tilbury Green Power, a 40MW waste furniture biomass plant being developed on a joint venture basis near London, with commercial operations expected in Q1 2018.

That said it has also been a challenging year for our generation business which has taken impairments on a number of its generating units. This is as a result of expected significant changes in how the all-island wholesale electricity market will operate, as well as continued downward pressure on energy margins.

ESB Networks and Northern Ireland Electricity Networks (NIE Networks) put in an excellent performance in 2017 for their combined 3.1 million customers, most notably during Storm Ophelia in October when power was restored to 385,000 homes and businesses in the Republic of Ireland (ROI) and to 57,000 homes and businesses in Northern Ireland (NI). Both ESB Networks and NIE Networks continued to develop, operate and maintain their networks while at the same time facilitate new connections in line with their Licence obligations. Renewable connections now total almost 4GW in ROI and 1.4GW in NI. For NIE Networks, a very significant development was the finalisation of the new regulatory price determination for the period October 2017 to March 2024.

In July 2017 Electric Ireland, ESB's retail arm, automatically applied enduring long-term savings of up to 8.5% to nearly 1 million of its ROI customers. Electric Ireland also delayed the introduction of unavoidable price increases until February 2018 (after the winter period).

In 2017 ESB also achieved a satisfactory financial performance given the challenging energy market conditions, with an EBITDA and Operating Profit of €1,276 million and €490 million respectively (pre-

exceptional items). During 2017 ESB invested €867 million and the dividend for 2017 amounted to €60 million, bringing total dividends paid over the past decade to over €1.4 billion.

WHAT FOR YOU ARE THE MAIN FEATURES OF ESB'S STRATEGY TO 2030 (STRATEGY 2030) AS RECENTLY APPROVED BY THE BOARD?

A I believe that ESB must be a dynamic agent of change and progress in society, creating a brighter future for the customers and communities we serve. It was with this purpose that we were established 90 years ago in 1927 and it remains thus. Today we will fulfil this by leading the transition to reliable, affordable, low-carbon energy based on clean energy. Strategy 2030 highlights the importance of being adaptable in a time of unprecedented change, of having a presence of scale across the utility value chain and of maintaining the financial strength of ESB. Strategy 2030 sets out five strategic objectives:

1. Put customers' current and future needs at the centre of all our activities
2. Produce, connect and deliver clean, secure and affordable energy
3. Develop energy services to meet evolving market needs
4. Grow the business while maintaining ESB's financial strength
5. Deliver a high performance culture that supports innovation and collaboration

Through our diverse businesses across the ROI, NI and Great Britain (GB) we aim to meet customer energy needs by bringing the best of our capabilities together to deliver innovative and value-driven solutions for a low-carbon world.

WHAT IS THE SCALE OF INVESTMENT NEEDED TO DELIVER THIS AMBITIOUS STRATEGY?

A In 2017 our capital investment was over €850 million. ESB expects to continue significant capital investment, in the order of €1 billion on average each year, to deliver Strategy 2030. This level of investment in our networks, our generation fleet and in our customer offerings will ensure we can lead the transition to a low-carbon energy future.

THERE IS A GREAT DEAL OF POLITICAL AND REGULATORY UNCERTAINTY. HOW DOES ESB ADAPT TO THESE DEVELOPMENTS?

A ESB, like many other energy companies, is facing a number of strategic challenges including political and regulatory uncertainty. These include:

- the introduction of the new Integrated Single Electricity Market (I-SEM) in ROI and NI that comes into operation in May 2018. I-SEM will introduce significant market changes including a new capacity remuneration mechanism, which has contributed to the requirement for ESB to impair some of its generation assets in 2017, as described more fully in note 4 and 10 to the financial statements in our 2017 Annual Report and
- increased uncertainty in our macro environment triggered by events such as Brexit and other global socio-political developments.

These developments also present opportunities for ESB and we are taking the appropriate steps to adapt. Preparations for I-SEM continued throughout the year and we are prepared for the new market structure that will come into operation in 2018. In relation to Brexit, we continue to monitor the current and emerging impacts as they become apparent.

Given ESB's position as ROI's leading energy utility with diverse businesses across the energy value chain, its stable business profile, consistently solid financial performance, credit ratings and our core capabilities, ESB is well positioned to avail of these opportunities and address these challenges and uncertainties.

HOW WILL ESB BE POSITIONED TO MEET THE CHALLENGES OF NEW AND DISRUPTIVE TECHNOLOGIES THAT ARE AFFECTING ALL BIG UTILITIES?

A A key objective of Strategy 2030 is to ensure that ESB is well positioned to meet the challenges of new and disruptive technologies. Strategy 2030 sets out our planned response to these, including a clear roadmap to grow the scale of our business while maintaining our financial strength. By embracing these disruptive technologies - through investing in smart networks, in modern low carbon and renewable generation and in customer offerings focussed on distributed energy and digital technologies - we will enable a low carbon energy future and develop new areas of value creation. A key component of our Strategy 2030 is that our investment across the value chain will also enable the widespread electrification of heating and transport thereby placing low-carbon electricity at the heart of a low-carbon society.

Of course the capabilities of ESB employees are critical to achieving this ambition. In 2017, ESB continued to invest in training and development and targeted recruitment to build the capabilities and skills necessary to position ESB to successfully deliver Strategy 2030.

IN RECENT YEARS, ESB HAS REDOUBLED ITS COMMITMENT TO SAFETY WITH A FOCUS ON STRENGTHENING AND DEVELOPING ESB'S SAFETY CULTURE. HOW IS THIS PROGRESSING?

A Safety is central to everything we do in ESB - safety of staff, of customers and the public. ESB's Safety Leadership Framework sets the highest standards for safety in all our work processes and we monitor compliance with those standards on a constant basis. Comprehensive Safety Improvement Plans are in place across all areas of our business and are regularly reviewed. Our Stay Safe, Stay Clear Campaign in 2017 was very successful in raising public awareness of electricity network safety issues.

DID ESB MAINTAIN ITS CORPORATE RESPONSIBILITY PROGRAMME IN 2017?

A Over the past decade, ESB has awarded over €10 million to community-based projects in the areas of suicide prevention, educational disadvantage and homelessness through our Energy for Generations Fund. In 2017, we developed new strategic partnerships with Aware on their Beat the Blues Programme and with Dublin Institute of Technology's (DIT) Access to Apprenticeship Programme. We also invested in communities through our sponsorship programme which prioritises support for STEAM (science, technology, engineering, art and maths), sport and cultural initiatives.

LOOKING AHEAD TO 2018 AND BEYOND, WHAT DO YOU SEE AS THE MAJOR CHALLENGE?

A The operating environment for ESB will remain challenging in 2018 and beyond, with competition, disruptive innovation, volatility in energy margins and market integration all putting pressure on traditional revenue streams. However, these developments are also presenting opportunities for ESB, particularly in the development of new services, where we can bring value-driven solutions to our customers, grow new revenues and enable the transition to reliable, affordable, low-carbon energy. Strategy 2030 is designed to achieve growth in this challenging environment.

Pat O'Doherty, Chief Executive
1 March, 2018

1.2 HIGHLIGHTS

SHAREHOLDERS

DIVIDEND OF €60 MILLION FOR 2017

CUSTOMERS

AVERAGE SAVINGS OF UP TO 8.5% FOR RESIDENTIAL ROI CUSTOMERS

RETURN ON CAPITAL EMPLOYED OF 4.6%

DELAY OF REQUIRED ELECTRICITY PRICE INCREASES UNTIL AFTER THE WINTER BILLS

CUSTOMER SATISFACTION OF 95%

RECONNECTED 442,000 CUSTOMERS IN THE AFTERMATH OF STORM OPHELIA

IRISH ECONOMY

ESB INVESTED €867 MILLION IN ENERGY INFRASTRUCTURE AND OTHER INVESTMENTS DURING 2017

OVER 7,700 EMPLOYEES

ESB CONTRIBUTES ALMOST €2 BILLION ANNUALLY TO THE IRISH ECONOMY

OVER €3 MILLION WAS DISBURSED ACROSS A RANGE OF COMMUNITY INITIATIVES

ENVIRONMENT

17.15 TWh OF RENEWABLES GENERATED IN 2017

4 NEW WIND FARMS COMMISSIONED DURING 2017, ADDING 95MW OF RENEWABLE CAPACITY

ENERGY EFFICIENCY SCHEMES HAVE DELIVERED 196GWh OF ENERGY SAVINGS FOR CUSTOMERS IN 2017

1.3 ESB AT A GLANCE



BUSINESS SEGMENT	Generation and Wholesale Markets (G&WM)	ESB Networks	Northern Ireland Electricity Networks (NIE Networks)	Electric Ireland	Other Segments
DESCRIPTION	ELECTRICITY GENERATION	ELECTRICITY TRANSMISSION AND DISTRIBUTION	ELECTRICITY SUPPLY	INNOVATION AND INTERNAL SERVICE PROVIDERS	
REVENUE	€1,406M	€1,058M	€272M	€1,734M	€297M
CAPITAL EXPENDITURE	€128M	€501M	€143M	€9M	€86M
REGIONS OF OPERATIONS	ROI, NI, GB	ROI	NI	GB	ROI, NI EU, MIDDLE EAST, ASIA, AFRICA
SCALE OF OPERATIONS	10 THERMAL STATIONS, 8 HYDRO AND PUMPED STORAGE STATIONS, 22 WINDFARMS	88 DEPOTS, YARDS, STORES AND VEHICLE WORKSHOPS	15 DEPOTS, YARDS, STORES AND OFFICES	4 OFFICE LOCATIONS	41 OFFICES AND STORES ACROSS ROI, NI, GB AND INTERNATIONALLY
AVERAGE EMPLOYEE NUMBERS	1,005	3,347	1,288	386	1,764
STRATEGIC FOCUS	DEVELOPING A LOW CARBON PORTFOLIO, CREATING CLEANER POWER USING SUSTAINABLE GENERATION	BUILDING SMARTER MORE RESILIENT NETWORKS. PUTTING THE CUSTOMER IN CONTROL OF THEIR ENERGY. FACILITATING THE CONNECTION OF RENEWABLES.	BRINGING SUSTAINABLE AND COMPETITIVE ENERGY SOLUTIONS TO ALL OUR CUSTOMERS	BRINGING LEADING EDGE ENERGY SOLUTIONS TO ALL OUR CUSTOMERS. INNOVATING FOR THE FUTURE	

1.4 BUSINESS MODEL

Our Purpose 'Create a Brighter Future for the customers and communities we serve, by leading the transition to reliable, affordable, low-carbon energy.'

Capital Inputs

Manufactured Capital

- 5,822 MW of generation capacity
- Over 229,000 kms of network across ROI and NI

Financial Capital

- BBB+ credit rating (stand-alone)
- Total net assets €3.7 billion
- Liquidity of €1.9 billion

Intellectual Capital

- Promotion of innovation
- Corporate governance structure

Human Capital

- 7,790 employees
- Employee development programmes
- Safety Leadership Strategy

Social and Relationship Capital

- Over 1.25 million customers
- Over 400,000 hours recorded on volunteering programmes

Natural Capital

- 739 MW of renewable generation

Generate

ESB develops, operates and trades the output of ESB's electricity generation assets. The portfolio consists of 5,822 MW of thermal and renewable generation assets across ROI, NI and GB, with a further 173 MW under construction

MARKET BASED

Transmit

ESB builds, manages and maintains the transmission and distribution network in ROI and NI. Over 229,000 km of Network.

REGULATED

Supply

Supplying electricity, gas and energy services to customers in ROI, NI and GB.

MARKET BASED

Outputs

Customers

- Customer satisfaction 95%
- 34% residential market share
- Average residential customer savings of 8.5%
- 42% generation market share
- Reconnected 442,000 customers after Storm Ophelia

Shareholder

- Dividend of over €1.4 billion over the last decade
- Return on capital employed 4.6%
- €1.3 billion EBITDA

Irish Economy

- Invested €867 million
- Contributes €2 billion to economy
- Over €10 million disbursed over a range of community based initiatives over the last decade

Underpinned by Our Values

WE'RE
COURAGEOUS

WE'RE
TRUSTED

WE'RE
CARING

WE'RE
DRIVEN

Driving the Delivery of our Objectives



PUT CUSTOMERS' CURRENT AND FUTURE NEEDS AT THE CENTRE OF ALL OUR ACTIVITIES



PRODUCE, CONNECT AND DELIVER CLEAN, SECURE AND AFFORDABLE ENERGY



DEVELOP ENERGY SERVICES TO MEET EVOLVING MARKET NEEDS



GROW THE BUSINESS WHILE MAINTAINING ESB'S FINANCIAL STRENGTH



DELIVER A HIGH-PERFORMANCE CULTURE THAT SUPPORTS INNOVATION AND COLLABORATION

1.5 STRATEGY AND PROGRESS

STRATEGY 2030

ESB's Strategy to 2030 (Strategy 2030) follows on from Strategy 2025 and is anchored in ESB's ambition to create a brighter future by leading the transition to reliable, affordable, low-carbon energy. It sets out a path to achieve this ambition in a way that will also ensure that ESB continues to grow as a successful business and maintains the financial strength to invest in a low-carbon future at the necessary pace and scale. It also recognises the potential for new business growth arising from the transition.

Strategy 2030 highlights the importance of being adaptable, responsible and adept in an era of unprecedented uncertainty with a presence of scale across the utility value chain, and a mix of regulated and unregulated businesses, while maintaining a strong investment grade credit rating.

In recognising that business has a key role to play in sustainable development, ESB's strategic objectives align closely with a number of the UN Sustainable Development Goals and their associated KPI's.



1.6 GOVERNANCE

ESB, in pursuit of its governance objectives complies with the Code of Practice for the Governance of State Bodies 2016 (the State Code). ESB also complies on a voluntary basis, to the maximum extent possible, given ESB is a statutory corporation, with the UK Code and with the Irish Corporate Governance Annex. In this way, ESB adheres as closely as possible to listed company governance standards.

FULL DETAIL ON CORPORATE GOVERNANCE IN ESB IS AVAILABLE IN OUR 2017 ANNUAL REPORT;
<www.esb.ie/who-we-are/investor-relations/annual-reports>

ESB continuously reviews and updates its policies and procedures to ensure compliance with the State Code and reports annually on such compliance to the Audit and Risk Committee.

ESB values its reputation and maintaining best

practise governance arrangements is an important aspect of ESB business performance.

ESB has adopted its own Code of Ethics, which sets out our approach to responsible and ethical business behaviour. The underlying principle of the Code of Ethics is that employees best serve ESB by adhering to the highest standards of integrity, loyalty, fairness and confidentiality and by meeting all legal and regulatory requirements. The Code of Ethics is reviewed annually by the Board and published on the ESB intranet. Group Internal Audit investigates any reported breaches and updates the Audit and Risk Committee.

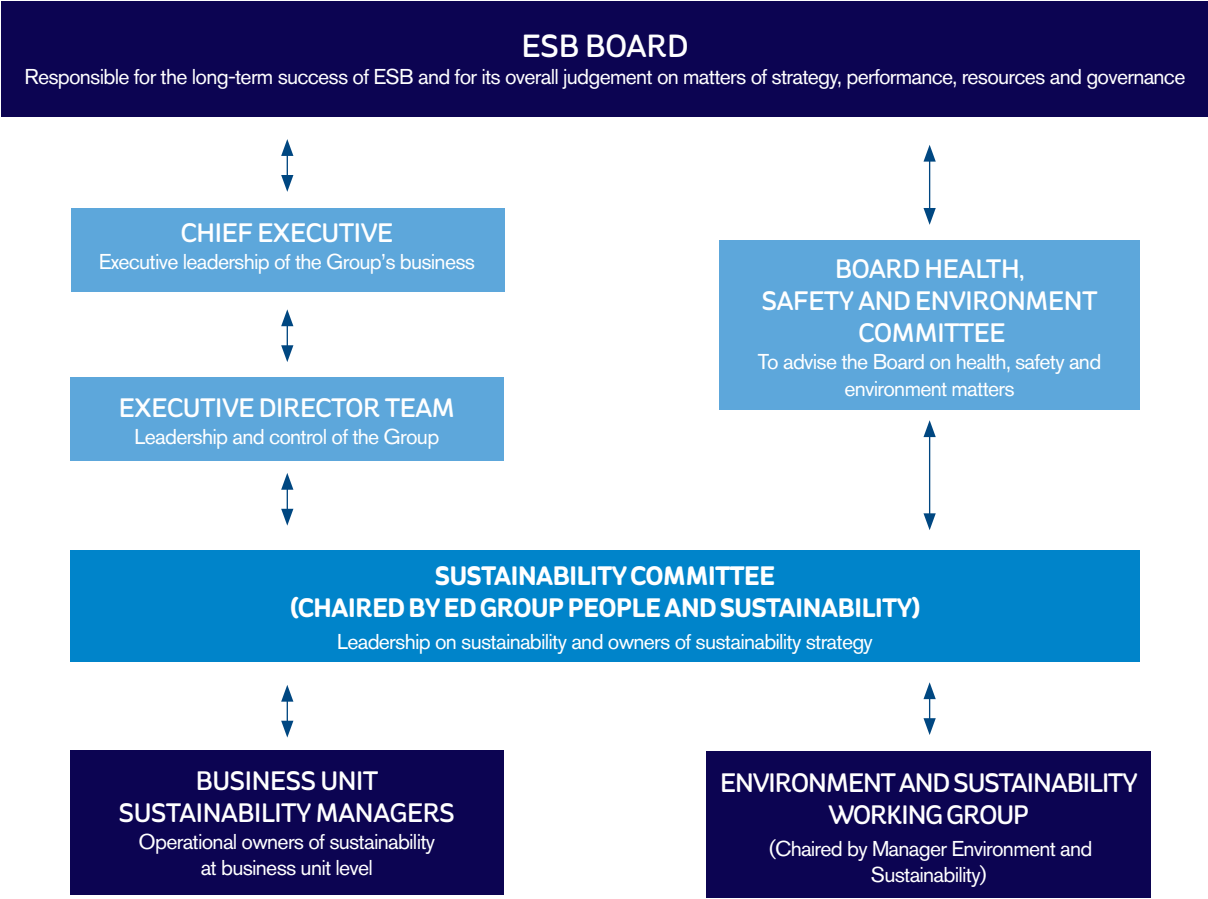
<https://www.esb.ie/who-we-are/corporate-governance/esbs-code-of-ethics-and-practice>

GOVERNANCE OF SUSTAINABILITY
The Board Committee on Health Safety and Environment oversee and provide governance on the implementation of the

sustainability strategy and facilitate detailed consideration of sustainability matters on behalf of the Board.

An Environment and Sustainability Committee is chaired by the Executive Director Group People and Organisational Development and made up of senior managers from each business unit. The Environment and Sustainability Committee is responsible for approval of the environment and sustainability programme to deliver on the corporate strategy and for providing leadership on environment and sustainability in each business unit.

The committee meets four times a year to review progress and overall group performance against the strategy. The committee also oversees assurance on environmental management through receiving reports from an Environment and Sustainability Management Group, made up of business unit Sustainability and Environmental Co-ordinators and Managers.



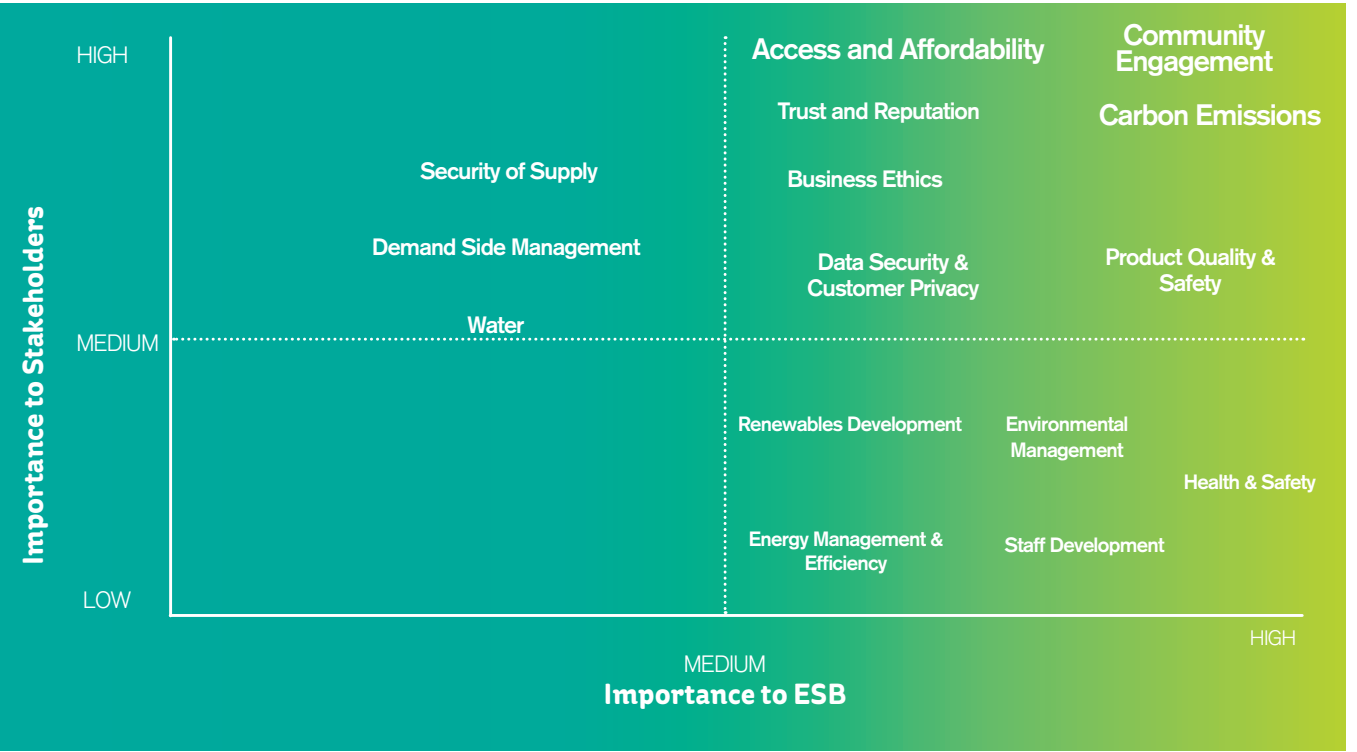
1.7 MATERIALITY APPROACH

ESB works in the very heart of every community across 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 stakeholders is front and centre in delivering on

those expectations and to help shape a brighter future. From the consolidated engagements and inputs into the various stakeholder channels and a formal stakeholder engagement process, we identify the most material topics raised by these internal and external stakeholders. The stakeholder grouping with which we engage are detailed in section 1.8 of this report. From this process, the most material topics are identified and form the bulk of the disclosures

in this report, as per the materiality matrix below; Disclosures focus on the most material issues identified in the top right quadrant. As robust reporting and data sets are established, disclosures will expand to include other issues of importance within the matrix and newly emerging material issues.

Materiality Matrix 2017



Stakeholder Engagement

As a business we transmit and distribute electricity to every business and household on the island of Ireland. As such we have a strong and visible interface with every community to which we provide electricity. Stakeholder engagement is central to the success of our business activities. Stakeholder engagement takes place at all levels of society, from the policy makers right down to the local community group and ranges in focus from national to community level interests.

From the consolidated engagements and inputs into the various stakeholder channels and the formal stakeholder engagement process outputs, members of the stakeholder engagement group, together with the Sustainability Committee hold a materiality workshop every 2 years to help prioritise the issues emanating from the various external and internal stakeholder engagement channels and to formulate the issues output from these engagements into a list of prioritised material issues.

MOVING TOWARDS GREATER STAKEHOLDER INVOLVEMENT



In achieving its accreditation to the new ISO 14001 standard, NIE Networks has been working increasingly with key stakeholder groups within the environmental sector to the benefit of its processes and employee training. The updated ISO standard sets stakeholder engagement as a requirement. This encourages companies to listen and respond to other companies and organisations that they impact.

The company’s director led Environmental Management Committee determined that the key objective of stakeholder engagement was to form partnerships with environmental stakeholders which would be useful for all parties. Initially a breakfast session was held to bring key stakeholders up to speed with the work that NIE Networks was currently doing and its plans for the future followed by a discussion on how we could improve. A number of key projects were driven from this process which form part of the environmental programme for the incoming years. These are:

- Memorandum of Understanding with the Department for Communities’ Historic Environment Division
- Sharing and updating information on mapping systems
- Focus on biodiversity training
- Memorandum of Understanding

In June 2018, NIE Networks and DfC’s Historic Environment Division agreed on additional protection for archaeological heritage through a Memorandum of Understanding agreement. This signed protocol sets out ways the two organisations can work together to secure Protected Places, Areas of Significant Archaeological Interest and Registered Parks, Gardens and Demesnes of Special Historic Interest. The agreement focuses on protecting these areas when NIE Networks is carrying out electricity network construction and maintenance.

Sharing and updating information on mapping systems

Following the workshop, we realised that there is lots of environmental information which isn’t always held centrally such as information on ancient woodlands and recent sightings of protected species. We also realised that NIE Networks holds relatively unique environmental information from impact assessments that it carries out. Most environmental impact assessments are on one specific area of land. Due to the nature of building overhead electricity lines, often the company’s impact assessments will look at narrow corridors across kilometres of countryside providing a unique insight.

This has led to a partnership with Centre for Environmental Data and Recording (CeDAR) whereby information is shared to continually update NIE Networks and CeDAR mapping systems. This collaboration is creating more up to date environmental mapping which can be used by anyone in Northern Ireland.

Focus on biodiversity training

When building and maintaining lines and cables, particularly in rural areas, NIE Networks’ employees need to be familiar with how their work can impact on animals and birds and their habitats. For example, as the company cuts back trees and branches from overhead lines all year round, their work can have an impact during bird nesting season. Employees are trained to look for birds’ nests and on what they should do if they find one. During 2018, we have formed a partnership with Ulster Wildlife to create an easy identification handbook of protected species. The guide will provide information on the species and also tell-tale signs on how to identify potential habitats. At NIE Networks we believe that we have made a step change in collaboration working with environmental organisations which have brought considerable benefits and added value to our overall environmental programme.

ESB-BACKED FREE ELECTRONS ACCELERATOR: IRISH START-UP MAKES THE TOP 12



This past March, 12 international start-ups have been selected to participate in the ESB-backed Free Electrons Accelerator programme. Free Electrons is the world’s first accelerator programme that connects energy start-ups with global utilities. Irish company Climote is part of this prestigious group. More than 450 energy start-ups from 51 countries applied to be part of the accelerator programme. The 12 winners will now have the opportunity to work with leading global energy utilities including ESB to refine and test its products in international markets with the potential to reach 73 million customers located in 40 countries.

Speaking to The Irish Times about the Free Electrons Accelerator, Paul Mulvaney, Executive Director of ESB Innovation, said: “ESB is focused on developing new energy-efficient and renewable solutions for the customer. For instance, through our innovation hub, X_Site at Dogpatch Labs, we continue to explore radical and disruptive ideas in the energy space. We are delighted to support and host the selected companies and European investors for the Dublin module in June. It is a win-win situation whereby the start-ups benefit from access to new markets while ESB and the other utilities have the opportunity to trial and market new services to their customer base”.

The aim of the free electrons programme is to drive the next generation of ideas in clean energy, energy efficiency, electric mobility and on-demand customer services.

1.8 STAKEHOLDER MATRIX

STAKEHOLDER GROUPING	MEANS OF ENGAGEMENT	SUBJECTS OF ENGAGEMENT	MOST IMPORTANT ISSUES RESULTING
Key Ministers & Government Depts DCCAE, DfE, DAERA, PER (New ERA), DTTAS	Policy meetings, consultations	Energy policy, policy and regulatory issues, regulatory consultation processes, strategy	Energy policy, maintaining financial strength
Regulatory Bodies (CRU,UR,OfGEM, OEIC, EPA, HSA, DoE, NPWS, SEAI, SIPO/ DPC/ComReg/RSA (UK and NI equivalents)	Price review meetings, regular scheduled meetings, programme meetings, partnerships	Setting and compliance with licence and permit conditions, pricing and price reviews, work programmes, environment information appeals, planning issues, safety at work	Electricity price, Legal compliance, delivery of work programmes, revenue levels, emissions, construction activities, land, buildings, public safety
Network Operators (Eirgrid, SONI, National Grid)	Scheduled meetings, planning process	Grid connections, work programmes, planning, facilitating renewables	Renewables, network stability, continuity of supply
Industry NGOs (Eurelectric, NEAI, IBEC, AEP, IETA, EAI, Chambers Ireland, British Irish Chamber of Commerce, NI Chamber of Commerce, Dublin Chamber, Cork Chamber)	Consultation processes, programmed meetings	National and EU Energy policy, climate and sustainability policy development, consultations	Policy positions, global climate change issues, competitiveness, security of supply
Sustainability / non-industry NGOs (BITCI & NI, CDP, IIEA, IWEA, IFA, Coillte)	Scheduled meetings, focus groups, member fora, surveys	Land access, work programme, CR programme, performance disclosures	Emissions, corporate responsibility, renewables, planning
Environmental Authorities (EPA, SEAI, DoE)	Licensing process, ongoing dialogue, formal compliance reviews	Licence conditions and compliance, annual reporting, dealing with breaches and complaints	Legal compliance, water conservation, energy efficiency, waste
Engineering & Scientific Research (UCD, ERC, UL, DIT, TCD, NUI, EPRI, SEAI, VGB, QUB, UCC)	Industry fora, partnerships, conferences, technical collaborations, ongoing dialogue	Technology, skills pool, research partnerships, technology deployment	Technical innovation, market disruption, energy efficiency, availability of suitable skills
Public representatives, local authorities	Scheduled meetings, planning process, ongoing dialogue	Planning concerns, building community support	Community engagement, legal compliance
Ratings Agencies	Scheduled review meetings	Economic performance, Performance to Plan, Strategy, funding rounds, Growth programme	Rating, ability to raise debt at manageable interest rate, financial performance
Staff	Team and one-to-one meetings, surveys	Business performance, safe working environment, fair employment and trading practices	Staff engagement, Reward and Recognition, Development
Customers (domestic, commercial, industrial)	Social media, customer contact centres, surveys, via business development team	Price, continuity and quality of supply, energy efficiency services, disconnections	Energy price, disconnections policy, energy efficiency
Suppliers	Tender process, contract review meetings, preliminary market consultations, Meet the Buyer events	Contractual Terms & Conditions, corporate social responsibility, sustainable procurement opportunities / initiatives, Contractor Employments Standards compliance	Contractor Employment Standards compliance. Sustainable procurement opportunities / initiatives

1.9 ASSOCIATIONS AND EXTERNAL INITIATIVES

CHARTERS TO WHICH THE ORGANISATION SUBSCRIBES

- Code of Practice for the Governance of State Bodies
- Bettercoal Code
- UK Corporate Governance Code
- Irish Corporate Governance Annex
- The Prompt Payment Code of Conduct
- The Energy Engage Code

PRINCIPAL ASSOCIATIONS TO WHICH THE ORGANISATION BELONGS

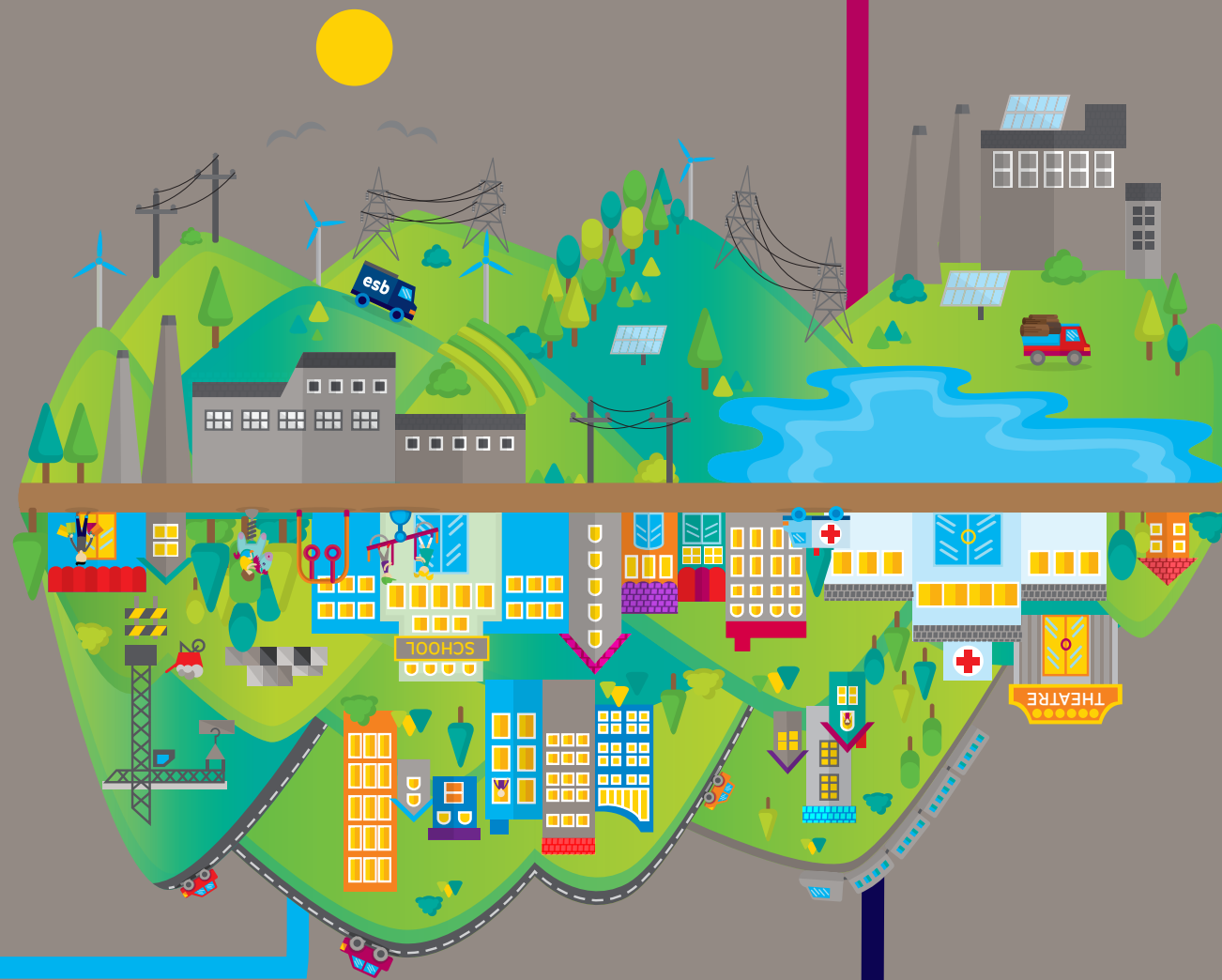
ESB plays an active role in many associations, both at a board level and as an active member. Playing an active role in such external associations is central to the development of key staff, the promotion of engineering skills, developing common approaches on national policy, promoting diversity and inclusion in society as well as broad involvement in electrical industry associations.

- Association for Higher Education Access and Disability (AHEAD)
- Business In The Community (BITC) Ireland
- Bettercoal
- Business in the Community NI
- Chambers Ireland
- Chartered Institute of Professional Development
- CHAdeMO Association
- Corporate Leadership Council
- Confederation of British Industry (CBI)
- Diversity Charter of Ireland
- 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

NOTES

ECONOMIC PERFORMANCE

- 2.1 Managing Investment and Growth
- 2.2 Using our Profits in a Sustainable Way
- 2.3 Indirect Economic Impacts
- 2.4 Anti-Corruption



2.1 MANAGING INVESTMENT AND GROWTH

INTRODUCTION

ESB's Strategy to 2030 (Strategy 2030) follows on from Strategy 2025 and is anchored in ESB's ambition to create a brighter future by leading the transition to reliable, affordable, low-carbon energy. It sets out a path to achieve this ambition in a way that will also ensure that ESB continues to grow as a successful business and maintains the financial strength to invest in a low-carbon future at the necessary pace and scale. It also recognise the potential for new business growth arising from the transition.ESB, like many other companies, is facing a number of strategic financial challenges. Over the next three years these include:

- Increased volatility and downward pressure in generation energy margins in both I-SEM and Great Britain (GB);
- Increased regulatory challenge of our networks businesses including the requirement to deliver stretching targets under their respective regulatory contracts;
- Increased and intense retail competition in both the Republic of Ireland (ROI) and the United Kingdom (UK); and
- Increased uncertainty in our macro environment triggered by events such as Brexit and other global socio-political developments.However, these developments are also presenting opportunities for ESB, particularly in the delivery of smart reliable electricity networks that enable more connection of renewable generation and support the electrification of heat and transport, transitioning to a balanced low-carbon generation portfolio ofscale in ROI and the UK and the development of services, where we can bring value-driven solutions to our customers and enable the transition to reliable,affordable low-carbon energy.

DELIVERING ECONOMIC IMPACT

Investment in our network infrastructure accounts for 74% of total capital expenditure in 2017, delivering infrastructure projects in Northern Ireland and the Republic of Ireland, which will facilitate the projected growth in renewable generation, the increasing penetration of electric vehicles connecting on the network, the promotion of electrification of heat and the increasing deployment of smart metering and connected devices and IOT.Renewable generation asset development focusses on the all islands market of Ireland and the United Kingdom, where we continue to implement the strategy of delivering a balanced portfolio of thermal and renewable generation in the all-islands market. Development efforts are focused on accelerating investment in renewable energy in order to reduce the carbon intensity of the portfolio, supporting the transition to reliable, affordable, low-carbon energy.

INVESTMENT PROGRAMME

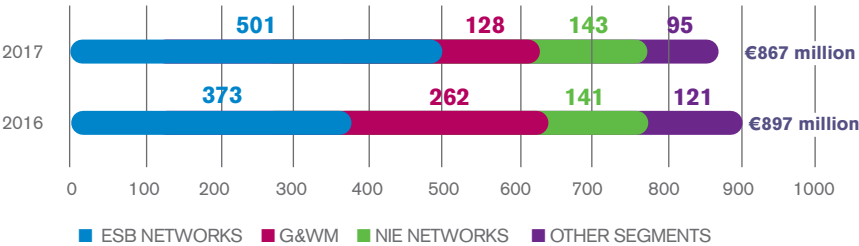
Capital expenditure totalled €867 million in 2017. This is a decrease of €30 million on 2016 investment levels. Capital investment in the networks businesses continued in 2017 with €644 million (74% of total capital investment) invested in the networks infrastructure in ROI and Northern Ireland (NI).

This expenditure is based on the capital expenditure programmes agreed with the respective regulators in ROI and NI. Included in the spend for 2017 is a €66 million capitalised asset retirement obligation relating to the retirement and destruction of network creosote poles by ESB Networks. Expenditure in G&WM in 2017 amounted to €128 million (2016: €262 million). This

expenditure includes €93 million investment in renewables and an increase in the asset retirement obligations capitalised of € 25 million set out in note 25 to the financial statements.

Capital investment of €95 million in other segments includes the progression of other strategic projects for the Group including the redevelopment of the Fitzwilliam Street Head Office and preparation for I-SEM. ESB expects to continue significant capital investment, in the order of € 1 billion on average each year, to deliver Strategy 2030. This level of investment in our networks, our generation fleet and in our customer offerings will ensure we can lead the transition to a low-carbon energy future.

CAPITAL EXPENDITURE



ENGAGING COMMUNITIES

All infrastructure development is subject to appropriate planning authority approval, including the undertaking of Environmental Impact Assessment, as required. Operational procedures for works in and adjacent to SAC's or where particular environmental or biodiversity risks may be identified, are in place and subject to on-going review. Community needs assessment is undertaken as part of the broader regulatory engagement process, which culminates with a price review determination, incorporating specific asset development programmes which form the basis of investment programmes for our regulated assets.

REGULATED INVESTMENT

Within our networks businesses, the capital and maintenance programmes are delivered in accordance with established regulatory contracts. Regulatory price reviews are undertaken at set intervals with the relevant energy regulator. ESB carefully and continuously monitors all of these strategic financial opportunities and challenges and takes prudent financial actions, including management of the significant capital programme, as appropriate, as to enable the delivery of Strategy 2030 while maintaining ESB's financial strength.

OVERSIGHT

The Board has ove rall responsibility for risk management and internal control. The main financial risks faced by the Group related to liquidity, foreign exchange, interest rates, commodity price movements and operational risk.

Policies to protect the Group from these risks, and other risk areas, such as credit risk, are regularly reviewed, revised and approved by the Board.

ESB AND BORD NA MÓNA LAUNCH CO-DEVELOPMENT AGREEMENT TO PROVIDE SOLAR ENERGY FOR 150,000 HOMES

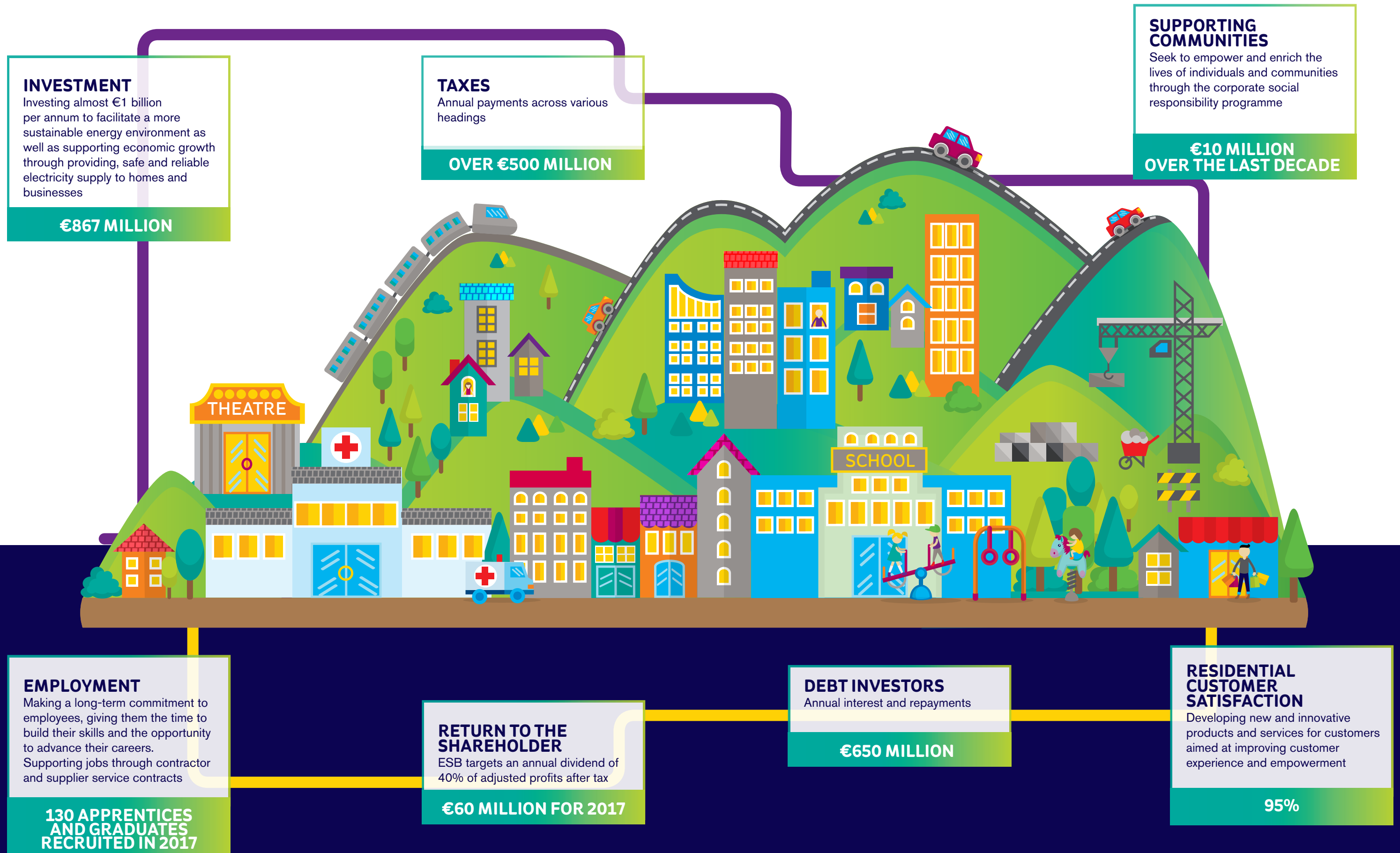


ESB and Bord na Móna have announced a co-development agreement to develop solar power in four locations in Roscommon, Offaly and Kildare, which will provide renewable energy to power the equivalent of 150,000 homes.

The joint venture will access part of Bord na Móna's land bank in strategic locations across the Midlands which is suitable for large-scale solar energy projects and brings together the expertise of two leading commercial semi-state companies in renewable energy with significant projects that support Ireland's energy transition. Currently, in Ireland, renewable energy is predominately generated from the wind. It is Government policy to introduce more diversity in the renewable energy portfolio by promoting other technologies such as biomass, wave, tidal and solar energy. The co-development agreement is well positioned to support Government energy policy and to aid Ireland reach future renewable energy targets.



2.2 USING OUR PROFITS IN A SUSTAINABLE WAY



2.3 INDIRECT ECONOMIC IMPACTS

Summarised Income Statement	2017	2016
	€'m	€'m
Revenue and other operating income	3,262	3,247
Operating costs	(2,772)	(2,650)
Operating profit	490	597
Exceptional items	(276)	-
Operating profit after exceptional items	214	597
Total finance costs	(211)	(198)
Fair value movements on financial instruments	(5)	(190)
Share of equity accounted investees loss	(8)	(15)
Profit/(loss) before tax	(10)	194
Tax charge	(22)	(8)
Profit/(loss) after tax	(32)	186

INDIRECT ECONOMIC IMPACTS

Investments in the generation portfolio are focussed on accelerating investment in renewable energy in order to reduce the carbon intensity of the portfolio and support the transition to reliable, affordable, low carbon energy. Investments in the networks business in Republic of Ireland focussed on the reinforcement and construction of new network, while also committing significant investment to maintaining existing network. NIE Networks focussed on the delivery of its network investment plan under RP5 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.

CONNECTING TO OUR FUTURE

ESB Networks is committed to enabling the electrification of transport and heat. Since 2010 ESB Networks has worked to identify and assess innovative technologies and solutions to increase network capacity without undue cost or customer disruption. Cost-effective electrical designs have been produced that ensure that new housing constructed today has additional capacity for electric heat and electric vehicle charging from the outset. A Low Voltage Design Handbook is also being produced, to ensure consistent design approaches for existing low voltage networks to support the economic integration of customers' low-carbon technology.

Dingle Strategy

As part of ESB Networks' Innovation Strategy, a significant 'smart electricity' trial has been launched on the Dingle Peninsula that aims to define a view of the energy landscape in 2030 based on collaboration with consumers, communities and society.

CONNECTING TO OUR FUTURE

G&WM are working on a range of activities to transition along the path to a low-carbon future. The Tilbury biomass plant is one of those projects – it will help reduce the carbon intensity of ESB's generation and increase the renewable energy available to customers. It is being built on a brownfield site at the Port of Tilbury, UK. The plant is ideally situated near the London catchment area, so transportation is optimised, minimising the overall carbon footprint. The 40 MW facility will convert waste wood to energy,

generating enough green electricity to power almost 100,000 homes. The fuel is waste wood that would otherwise be sent to landfill, and it is collected locally. Tilbury started construction in May 2015 and is currently being commissioned, with commercial operations expected in Q1 2018. Tilbury is a joint venture between ESB and the Green Investment Group. The plant is being constructed and operated by a consortium between Burnmeister Wain & Scandinavian Co a/s and Aalborg Energie Technic a/s who also have a minority shareholding in the project. Stobart Biomass will provide the waste wood for fuel.

Our networks businesses, ESB Networks and NIE Networks, are both regulated utilities and investment programmes are agreed under price review arrangements with their respective utility regulators, the Commission for Regulation of Utilities (CRU) and the Utility Regulator of Northern Ireland. ESB Groups efforts to accelerate investment in renewable generation and to support the growth and adoption of energy efficient technologies and practices, support Ireland's national efforts to meet EU targets and the aspirations of the 2015 Paris Agreement.

Procurement Practices

ESB is in compliance with all applicable procurement rules and guidelines as set out in the Utilities Directive and ESB's procurement procedures.

ESB's Supply Chain is key to our business success and meeting ESB's sustainability goals.

Corporate policy requires us to ensure that our strategic goals are achieved and corporate governance assured through the application of ESB's Supplier Charter and Requirements for Third Parties Document, which establish clear standards in relation to:-

- Conduct of business
- Health & safety
- Environment
- Ethics, bribery & anti-corruption
- Employment standards and modern slavery.

All relevant procurement policies are made publically available via the ESB Group website; www.esb.ie/who-we-are/procurement 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) in excess of €780.2m, we rely on a complex and diverse supply chain in order to provide the services necessary to meet our customer's needs. Of this spend approx.74% is sourced from suppliers within the Republic of Ireland & Northern Ireland, 16% from the UK, and 6% from other EU member states. We currently have approx. 4,900 active Tier 1 suppliers, ranging from local SME's & micro companies to

REVENUE

Revenue and other operating income before exceptional items at €3,262 million has increased by €15 million compared to 2016 (€3,247 million).

The increase is driven by higher revenue in Generation and Wholesale Markets (G&WM) due to a full year of running at Carrington Combined Cycle Gas Turbine (CCGT) Plant in Great Britain (GB) and increased regulated income in ESB Networks offset by lower revenues in Electric Ireland as a result of lower volumes and price reductions.

large multi-national corporations / contractors, with whom we placed 42,316 purchase orders in 2017. Contracts range from standard supply type arrangements for consumable items such as stationery, tools & equipment to more complex service / works contracts for generating station & wind farm builds & refurbishments, networks sub-station & overhead line construction, customer billing & metering services and financial & engineering consultancy assignments. 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. Key to the success of ESB's supply chain is ESB's commitment to building strong and sustainable supplier relationships. ESB's standard procurement practice is competitive tendering or other forms of open competition in compliance with applicable procurement law. 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. ESB's aim is to ensure that sustainability is embedded across every function, including procurement where a very significant element of our business operations are transacted electronically with our suppliers. We are also committed to complying with the terms of applicable late payments legislation and are signatories to the Prompt Payment Code of Conduct. Our standard terms of payment are Nett Monthly Account.

ESB'S SUPPLY CHAIN

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Within the extended supply chain for goods and services, all new supplier to the ESB Group shall apply ESB's Supplier Charter and Requirements for Third Parties.

MONITORING SUPPLY CHAIN PERFORMANCE

Any incidents related in relation to supply chain performance, findings from supplier evaluations or Contractor Employment Standards audits, which might indicate concerns for ESB to address are managed through ESB's procurement operations and may result in, potential for termination of contracts.

Furute Outlook

Strategy 2030 seeks to grow ESB's Generation-Trading-Supply (GTS) business in ROI, NI and GB. As ROI, NI and GB maintain their commitment to the decarbonisation of electricity generation, ESB continues to see opportunities for investment in energy assets as older and more carbon intense generation is replaced. The decarbonisation of heat, transport and agriculture by means of electrification should grow these opportunities further.

Subsequent to the Brexit vote the Regulatory Authorities in ROI and NI jointly reaffirmed their commitment to the Integrated Single Electricity Market (I-SEM) project, which maintains a single, harmonised, wholesale all-island market. GB remains the closest and only electricallyconnected market to ROI and NI, so the ability to trade energy freely has an important value,not only for ESB but for these economies. In summary, notwithstanding the uncertainty related to Brexit, the UK energy sector continues to provide a pipeline of growth opportunities in proximate and interconnected markets. ESB will continue to monitor and manage the current and emerging Brexit related impacts.

ESB NETWORKS LAUNCHES INNOVATION STRATEGY

ESB Networks formally launched its Innovation Strategy at its inaugural conference held in the Mansion House.

The strategy sets out how ESB Networks will meet the challenges of the changing energy landscape, deploying new technology, engineering, and innovation tools to facilitate the transition to a low-carbon future.

ESB Networks has designed eight roadmaps to continue to drive change. These roadmaps focus on connecting renewables, boosting customer engagement, further developing the electrification of heat and transport, optimising the current network infrastructure, creating flexibility within the network, making the network more resilient, and driving operational excellence across the organisation. The innovation strategy includes investment in

state-of-the-art control centres in Dublin and Cork; and investment in line sensors, fault indicators, augmented reality and 3D laser scanning to help control the network and repair faults remotely.

Speaking at the Innovation Strategy launch, Marguerite Sayers, Managing Director of ESB Networks, said:

"The challenge for us is to integrate increasing amounts of renewable generation on to the distribution system and also to support the electrification of heat and transport – both of which are fundamental to meeting our national carbon emission target. However, we need to do so while maintaining our safety standards and delivering value, service and reliability to our customers. We are undertaking a whole suite of smart network research projects and trials – some

on our own and some with technology partners – to see how best we can facilitate all of the new demands on the network at least cost and while also enhancing service levels".



Marguerite Sayers, Minister of State Sean Kyne TD and Claire Byrne, who was MC at the event.

2.4 ANTI-CORRUPTION

Anti-corruption

Good governance provides the foundation for long-term value creation and is a core focus for the ESB Board of Directors and in line with the UK Corporate Governance Code 2016 (the UK Code), their duties include responsibility for the long-term success of the Group, providing leadership and direction for the business as a whole, and supporting and challenging management to get the best outcomes for ESB and its stakeholders. ESB, in pursuit of its governance objectives complies with the Code of Practice for the Governance of State Bodies 2016 (the StateCode). ESB also complies on a voluntary basis, to the maximum extent possible, given ESB is a statutory corporation, with the UK Code and with the Irish Corporate Governance Annex. In this way, ESB adheres as closely as possible to listed company governance standards. The Department of Public Expenditure and Reform (DPER) issued a revised State Code in August 2016. In November 2017, DPER issued A Guide to the Implications for the Annual Financial Statements and the Annual Report in order to clarify the definition and location of certain additional disclosures. The 2016 State Code applies to ESB for the first time for the financial year to 31 December 2017. ESB has put in place the appropriate measures to comply with the State Code, which sets out the governance framework established by the Government for the internal management and the internal and external reporting relationships of State Bodies. ESB continuously reviews and updates its policies and procedures 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 in fiscal year 2017. A report is issued annually to the Minister for Communications, Climate Action and Environment which confirms compliance with the requirements of the State Code. ESB has also adopted its own Code of Ethics, which sets out our approach to responsible and ethical business behaviour. The underlying principle of the Code of Ethics is that employees best serve ESB by adhering to the highest standards of integrity, loyalty, fairness and confidentiality and by meeting all legal and regulatory requirements. The Code of Ethics is reviewed annually by the Board and published on the ESB intranet. Group Internal Audit investigates any reported breaches and updates the Audit and Risk Committee. Full details on the governance frameworks practiced within ESB Group are available in ESB's Annual report 2017.

ESB's approach to enterprise risk management, including the risk of corruption and fraud are detailed in the risk report section of the Annual Report 2017. The oversight and control of this process is exercised by the Board Audit and Risk Committee.

Amongst the issues considered by the board subcommittee during 2017 were;

DUTY	ACTIVITIES CARRIED OUT IN 2017
Compliance, Whistle-Blowing and Fraud Review the adequacy and security of the arrangements for employees and contractors to raise concerns, in confidence, about possible wrongdoing in financial reporting or other matters	<ul style="list-style-type: none">Reviewed the controls and procedures in place to provide assurance of compliance with statutory obligationsReviewed the procedures and policies for preventing and detecting fraud and were informed of any instances of fraudReviewed the adequacy and security of the arrangements for raising concerns confidentially about possible wrongdoing in financial reporting or other mattersConsidered ESB Code of EthicsApproved the statement on the UK Modern Slavery ActReceived an update on GDPR in advance of implementation in 2018

ESB complies with the State Code, which sets out the principles of corporate governance, which the Boards of State Bodies are required to observe. ESB also complies with the corporate governance guidelines and other obligations imposed by the Ethics in Public Office Act, 1995, the Standards in Public Office Act, 2001 and the Regulation of Lobbying Act, 2015.

ESB complies as far as possible and on a voluntary basis to the UK Code and the Irish Annex. The Board retains the overall responsibility for internal control and risk management. During 2017, the Board has directly and through the delegated authority to the Audit and Risk Committee, reviewed the effectiveness of the Group's system of internal control covering financial, operational and compliance controls and risk management systems for 2017 and will ensure a similar review is performed in 2018.

ESB's code of Ethics guides the behaviour of all employees in all their business dealings. On commencing work with ESB, all employees are inducted on ESB's code of ethics and annually each employee is reminded to review the code, make any relevant disclosures and declarations to the company and reaffirm their commitment to abide by the code of Ethics.

There were no reported incidents of corruption or termination of contracts due to corruption for employees or contractors during 2017.

NOTES

SOCIAL DISCLOSURES PERFORMANCE

- 3.1 Occupational Health and Safety Management
- 3.2 Training and Education
- 3.3 Diversity through People
- 3.4 Community Engagement
- 3.5 Public Safety
- 3.6 Customer Privacy
- 3.7 Risk Management Framework
- 3.8 Energy Utility Sector Specific Disclosures



3.1 OCCUPATIONAL HEALTH AND SAFETY

ESB’s Board, management and employees are committed to protecting the health and safety of employees, customers, contractors and the people it 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 its approach to safety across all business activities and is reinforced through strong and visible leadership throughout the Group. This belief is underpinned by ESB’s core values of being Courageous, Caring, Driven and Trusted.



At ESB, we are woven into the fabric of the communities we serve. We know these communities, and the people who are a part of them, so we care about their future. We also care about ourselves and each other, keeping safety in mind, always. We want to look the next generation in the eye, knowing that we have done all we can to leave a positive legacy and build a Brighter Future for everyone.

Our approach to the management of safety and health governs all activities that are undertaken by employees and/or contractors on ESB Group premises or indeed where work is being undertaken elsewhere on behalf of ESB Group companies.

Risk Assessment is the basis for the identification and management of hazards that may occur during the course of work.

The Chief Executive has overall responsibility for the management of health, safety and wellbeing in ESB. The ESB Group Safety Statement, as approved by the Board, 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 Health, Safety and Environment Committee supports the Board’s monitoring and governance of health, safety and wellbeing. ESB has formal agreements in place with trade unions covering all aspects of health and safety responsibilities of ESB and staff. All ESB staff are represented in formal joint management-worker health and safety committee structures that monitor, advise and respond to health and safety matters.

All ESB business units have safety management systems in place, many of which are certified to the OHSAS 18001:2007 standard or equivalent. ESB rigorously enforces safety policies and standards to achieve the ultimate target of everyone returning home safely from work each and every day.

Our safety programmes are driven by our Safety Leadership Strategy based on the four pillars of leadership, competence, compliance and engagement. Each business area models its annual health and safety programmes and annual safety improvement plans on these four pillars and health, safety and wellbeing performance is managed through a key performance indicator process.

ESB believes that all operational processes can be designed and operated in a safe manner. This belief guides its approach to safety across all business activities and is reinforced through strong and visible leadership throughout the Group.

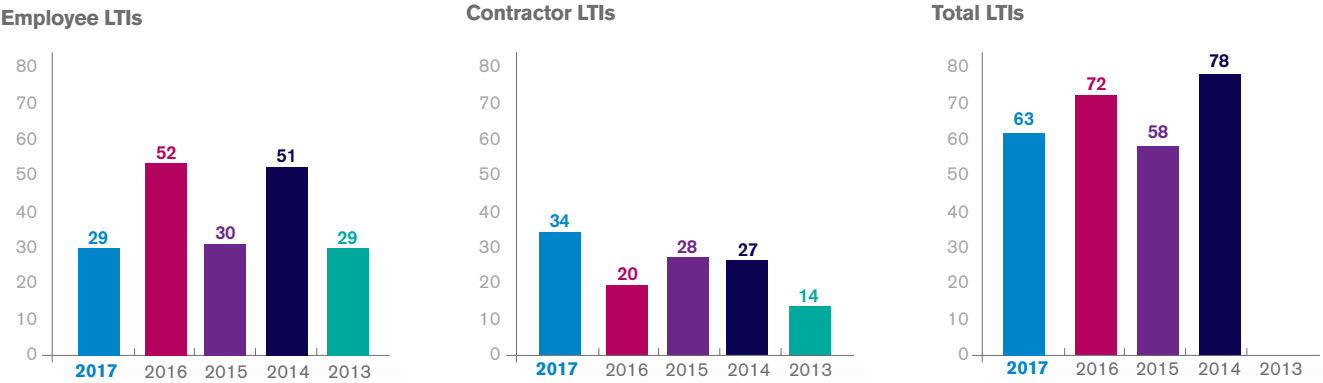
SAFETY MANAGEMENT SYSTEM

The safety programme in 2017 continued to focus on the implementation of the Safety Leadership Strategy based on the four pillars of Leadership, Competence, Compliance and Engagement. Each business area models its annual health and safety programmes and annual safety improvement plans on these four pillars. Health, safety and wellbeing performance is managed through a key performance indicator process. ESB has formal agreements in place with trade unions covering all aspects of health and safety responsibilities of ESB and staff. All ESB staff are represented in formal joint management-worker health and safety committee structures that monitor, advise and respond to health and safety matters. This is underpinned by ESB’s Safety Health and Environmental Reporting system (SHIELD), which facilitates the reporting of incidents, near miss and good catch. A network of safety representatives and safety advisors on the ground act as both oversight and a point of contact for all concerns and grievances.

MANAGING HEALTH & SAFETY PERFORMANCE

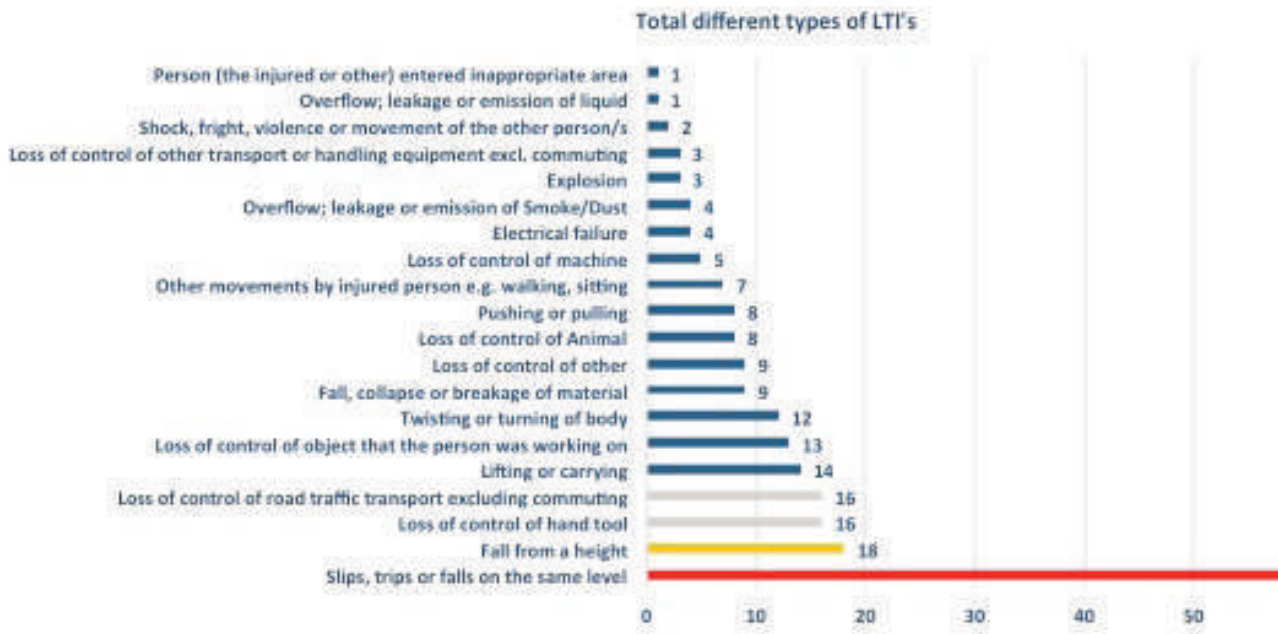
Health, safety and wellbeing performance is managed through a key performance indicator process. The effectiveness of health and safety management systems is tested on a regular basis via a programme of both internal and independent external management system audits, the maintenance and improvement of a certified health and safety management system.

ESB LOST TIME INJURIES

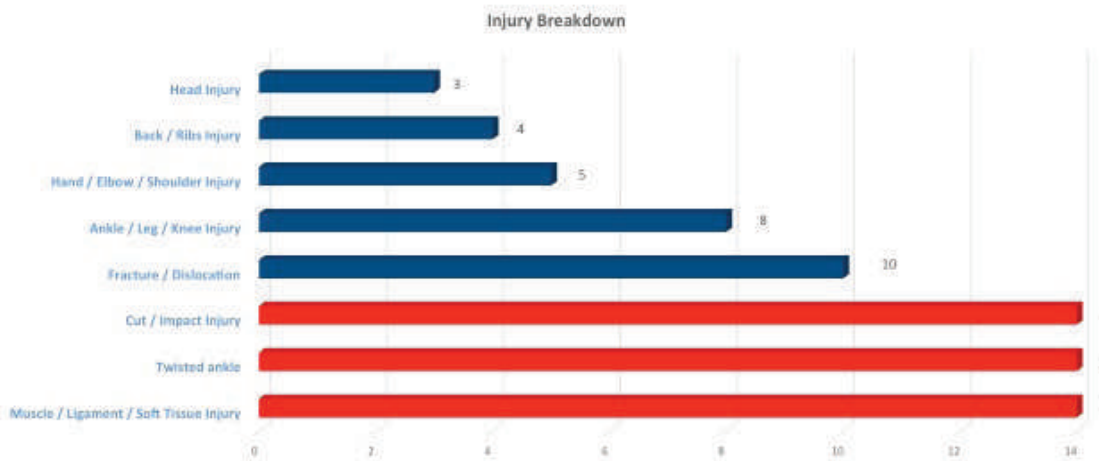


	2017	2016
Staff Fatalities	0	0
Contractor Fatalities	0	0
Staff Lost Time Injuries (LTI)	29	52
Staff LTI Rate (per 100,000hrs)	0.24	0.42
Contractor Lost Time Injuries	34	20
P1 (High Potential Severity Incidents)	162	301
Absenteeism Rate (avg. days/staff)	8.03	7.66
Days lost due to occupational injury	796.5	891
Public Fatalities due to electricity (Customer side of meter)	1	0
Public Fatalities due to electricity (Network s ide of meter)	0	0
Safety Incidents on the Network (including Public Safety Incidents)	1,910	2,080

INJURY TYPES



Types of Injuries Suffered by Slips, Trips & Falls



INJURY CAUSES

The number of lost time injuries (LTIs) in 2017 was 63 (29 employee and 34 contractors compared to 72 in 2016 and 58 in 2015). While the majority of these injuries were of low severity, ESB continues to focus on reducing risks in the business that give rise to injurious incidents. The most common causes of LTIs are slips and trips, handling, lifting and the use of tools and equipment. Reducing LTIs continues to be a key focus for the Group. Improvement plans, projects, training and auditing programmes, with a focus on injury prevention, are maintained. ESB does not report injuries by gender. ESB Group endeavours to report on injurious incidents and dangerous occurrences in line with the relevant regional occupational safety and health regulations that are in place for the work location.

WORKERS WITH HIGH INCIDENCE OR HIGH RISK OF DISEASES RELATED TO THEIR OCCUPATION 403-3

There is currently no evidence for either occupational health or occupational injury reporting that indicates that any particular worker or working group is at a higher risk or incidence of disease due to their occupation. All employees undergo health screening prior to employment and at regular intervals, where they may be at risk of exposure in an industrial environment. All employees are offered a health screening programme and projects that require significant contractor workforce involvement cater for health and wellbeing promotion and health screening on a voluntary basis. Action levels and maximum exposure levels exist within legislation to ensure potential health risks such as noise, dust and vibration are actively managed through risk assessment and mitigated for through exposure limits, PPE, regular surveillance and monitoring.

HEALTH AND SAFETY COMMITTEES

ESB has formal agreements in place with trade unions covering all aspects of health and safety activities and responsibilities of ESB and employees (i.e. 100%). All ESB employees are represented in formal joint management-worker health and safety committee structures that monitor, advise and respond to health and safety matters. Safety Representatives are appointed to represent employees in any required discussions with management.

KEY INITIATIVES AND PROGRAMMES IMPLEMENTED OR CONTINUED IN 2017

■ All ESB business units have health and safety management systems in place, many of which are externally verified and certified to the International OHSAS 18001 standard or equivalent. In 2017, no major non-conformances were recorded by external 18001 audits at ESB.

■ ESB is focused on embedding good catch reporting throughout the organisation. A good catch is when a person positively intervenes after seeing something unsafe. Good catches are a key element in helping ESB achieve world class performance. In 2017, the Good Catch target was exceeded. This is the second year in a row that the target was exceeded. This approach will continue in 2018 to drive less incidents and improve safety awareness and engagement.

■ ESB extended the monthly senior manager safety conversations to the next level of management in 2017. These risk focused conversations are in place to demonstrate to employees senior leadership's commitment to safety. In 2017, the target was not achieved, however there was an improvement on the 2016 performance from 62% to 74% against a target of 80%. This approach will continue in 2018 to demonstrate senior leadership commitment to safety and improve safety awareness and engagement.

■ ESB completed a pilot of a new programme designed to drive a renewed commitment to the elimination of all incidents and injuries in ESB. The Safety Culture Transformation Programme was initially implemented in the higher risk businesses of ESB Networks and Generation and Wholesale Markets (G&WM). Because of its success, this programme will now be implemented across all of ESB. The implementation process will take over 2 years to cover all the high risk areas.

■ ESB continued to make progress in 2017 on improving its safety performance through delivery of key improvement projects in ESB Networks and G&WM. In 2017, ESBN closed all 18 agreed projects while G&WM closed 6 from 7 agreed projects.

■ ESB simplified and harmonised its approach to group safety policies to better serve and support ESB in their compliance with relevant legislation.

■ In recognition of the diversity of employees and their wellbeing needs, ESB continued to provide a range of health and wellbeing programmes to employees. ESB also launched a new online health and wellbeing tool called POWR (Positive Occupational Wellbeing Resource). The main benefit to POWR is that it reaches out to a wider

audience. By the end of 2017, there were over 1,000 staff registered on POWR.

This is a great achievement and this will continue through 2018 with a target of having 2,000 registered users on POWR.

■ A consolidated safety and health law register and compliance tool has been implemented for all ESB businesses. Work has been completed on the establishment of eight centres of competence to maintain compliance with relevant legislation and introduce best practice where possible across the key business areas. These include; Road Safety, Electrical Safety, Safe Work at Height, Health and Wellbeing, Workplace Safety, Contractor Safety, Process Safety and Public Safety.

■ Public safety actions during 2017 focused on TV, radio and social media campaigns to raise public awareness of the dangers of fallen wires and underground cables for the general public, farming and construction sectors, and those involved in leisure activities with potential for accidental contact with electricity wires. These campaigns were repeated throughout the duration of Storm Ophelia. The existing farmer stakeholder arrangement with the Irish Farmers Journal was augmented with a partnership with the Construction Industry Federation (CIF).

EMPLOYEE HEALTH & WELLBEING

ESB is committed to proactively supporting its employees in maintaining good health and wellbeing. ESB's Health and Wellbeing team helps its employees to reach their full potential in the workplace by providing proactive, preventative and early intervention health and wellbeing services.

It provides information and advice to employees to help them to create and maintain a healthy lifestyle. The programme provides effective support as employees face ill health and other personal life challenges through an occupational health medical service, an Employee Assistance Programme (EAP), an independent counselling service and through a range of other support measures. ESB's employee health and wellbeing focus for the year has been on:

■ The launch of POWR (Positive Occupational Wellbeing Resource) an everyday online health and wellbeing tool.

■ An audiometry programme offered to staff exposed to noise on a three-yearly cycle which is aimed at protecting workers from the potential risk to their hearing.

■ The launch of an online occupational health client referral portal.

■ Extending the suite of available proactive health programmes which includes seminars and workshops on maintaining healthy sleep patterns,

managing shift work and understanding the nutritional information on food labels.

EMPLOYEE ASSISTANCE PROGRAMME (EAP)

EAP officers have provided support and information via their confidential service to more than 1,000 employees during the year.

PROACTIVE HEALTH PROGRAMME

ESB's proactive programmes are focused on prevention and keeping employees well by providing opportunities for them to lead healthier and more active lives. While it is recognised that stress may be an integral part of everyday life, the availability of active workplace resilience programmes are crucial to supporting employees in being psychologically strong enough to deal with these challenges while minimising the impact on their wellbeing. Some of the programmes and initiatives available to ESB employees during the year were:

■ Seminars and workshops on positive mental health for teams, eating for energy, back care and financial management.

■ Cardio-vascular screening which was offered to all employees.

■ An Elevation Programme for the provision of local proactive initiatives by ESB Health Champions.

3.2 TRAINING AND EDUCATION

As we embark on our renewed ambition, ESB needs to ensure we have the skills needed to make this happen. The demographics of our workforce are such that over the coming 10 years we will lose 25% of our people to natural retirement. As a result of this we are currently in a period of renewal. In order to manage the transfer of knowledge, to ensure continuity in critical roles and to plan for future resources, ESB operates cohesive resource planning.

DELIVERY OF SKILLS DEVELOPMENT

There are a number of integrated human resource processes embedded in the organisation which ensures that ESB delivers its Strategy 2030:

RESOURCE PLANNING

Strategic resource planning in ESB is aligned to Strategy 2030 and financial budgets with the aim of defining future resource requirements. The process identifies the resource numbers, skills and capabilities necessary for the successful delivery of Strategy 2030. During the process any gaps between the current numbers and capability and future requirements are identified, and future-facing resourcing strategies are agreed and implemented.

EMPLOYEE AND MANAGER DEVELOPMENT

ESB is committed to the ongoing development of its employees and managers. Developing employee and managers capability is strategically important as ESB continues to meet the opportunities and challenges of operating in complex and different business environments. People are at the core of Strategy 2030, and ESB is committed to providing opportunities for rewarding careers linked to the delivery of Strategy 2030. ESB's Performance and Development Process is focused on building

capability and a high performance culture, and provides a platform for the identification and delivery of targeted learning and development solutions. As part of our Employee Value Proposition we have developed a Career Hub for use by all employees across ESB. The Hub supports employees in identifying the skills and competencies needed across a range of functions and ensures that their career development aligns with the current and future business needs of the organisation.

KEY INITIATIVES IN 2017 INCLUDED:

- Continual evolution and improvement of the Management Development Framework.
- The Future Leaders programme, which equips managers to be capable and inspiring leaders, was rolled out across ESB.
- A new pan ESB Career Framework has been developed, underpinned by a new digital Career Hub.
- The Human Resource Management for Line Managers Programme, fully accredited by the Chartered Institute of Personnel and Development (CIPD) for 15 years, continues to be a highly successful manager development initiative.
- Programmes to empower Managers to engage and motivate employees in Strategy 2030 and newly articulated Values were delivered. ESB continues to support employees and managers with coaching, continual professional development (CPD), external accreditation and external programmes in business schools in Ireland and abroad.

PERFORMANCE AND CAREER DEVELOPMENT REVIEWS

All employees (100%) are part of an annual performance management process, goal setting and career development process, which is deployed across the business.

GRADUATE AND APPRENTICE RECRUITMENT AND DEVELOPMENT

70 new recruits, from a variety of disciplines, began a graduate programme in 2017. The development programme includes a centrally managed induction event, work assignments, off-the job business specific training, personal skills development and mandatory training, supported by a mentoring relationship. ESB also recruited 60 new apprentices in 2017 as part of its strategic goal to add at least 300 apprentices to the Group between 2015 and 2020.

PROGRAMS FOR UPGRADING EMPLOYEE SKILLS AND TRANSITION ASSISTANCE PROGRAMS

ESB is committed to the ongoing development of its employees and managers. Developing employee and managers capability is strategically important as ESB continues to meet the opportunities and challenges of operating in complex and different business environments. People are at the core of Strategy 2030, and ESB is committed to providing opportunities for rewarding careers linked to the delivery of Strategy 2030. ESB's Performance and Development Process is focused on building capability and a high performance culture, and provides a platform for the identification and delivery of targeted learning and development solutions.

TIME TO COUNT



ESB, in common with many other Irish companies, need access to employees with strong science, technology, maths and literacy skills and all of these are based on getting young children off to the best possible educational start.

Following our successful involvement with Business in the Community Ireland's national Time to Read programme, ESB committed to supporting BITCI to pilot a programme supporting numeracy called Time to Count. It provides a structured opportunity for business volunteers to provide support on numeracy skills to primary school children. Time to Count aims to support the Department of Education and Skills national strategy on literacy and numeracy.

- To build children's confidence around numbers
- To foster children's enjoyment of numbers
- To reinforce children's conceptual understanding of numbers
- To support the development of children's flexibility and perseverance in mathematical problem solving



Apprenticeship campaign featuring Ashleigh Evans, Dan Phillips and Hannah Shortt.

The participating children were in 3rd class. Company volunteers spent 40 minutes every week with the children during the 10 week pilot. The sessions took place in the children's normal classroom and used specially chosen numeracy games and materials which were only used in these sessions. Volunteers were trained to ensure that the programme had consistency and integrity, which are key factors in any programme involving children. There was a marked improvement observed by the teachers in achieving the

stated aim's and objectives of the programme. Summarising, it would appear that that schools saw the programme as a meaningful addition to their education offering with improvements in numeracy being observed. The companies saw it as a really effective employee volunteering programme. Volunteers felt they had imparted some level of mathematics knowledge and love, while feeling rewarded and satisfied that they made a difference in someone's life.

THOUSANDS APPLY TO BE AN ESB NETWORKS APPRENTICE



The ESB Networks apprenticeship recruitment programme for 2017 was one of the most heavily subscribed, with 5,650 applicants, up 70pc from 2016.

- 5,650 applicants overall
- 4x increase in female applicants
- 70pc increase in total applicants

Increase in female applications

This year ESB Networks are equally delighted to welcome a 400pc rise in the amount of women applying to be an ESB Networks Apprentice. This number has risen to 240 women applying in 2017 from 60 in 2016. Customer, Brand & Social Media Manager, Aisling Walsh, commented on the figures: "The 2017 recruitment campaign was slightly different from normal years as we embraced digital media in more ways to really grab the attention of school leavers and shout about how much opportunity an ESB Networks apprenticeship can offer".



Apprenticeship campaign featuring Ashleigh Evans, Dan Phillips and Hannah Shortt.

Year	Total Applicants	Female Applicants No.
2017	5,650	240 (4.2%)
2016	3,316	60 (1.8%)

Candidate Source	Numbers
Facebook	2,147
ESB Website	1,494
ESB Employee Referral	653
Other	621
Newspaper	198
IrishJobs.ie	132

3.3 DIVERSITY THROUGH PEOPLE

EMPLOYEE ENGAGEMENT

ESB views employee engagement as a strategic imperative to inspire and motivate employees to be and give their best at work. ESB's Employee Engagement Strategy focuses on these key areas; strategic narrative, integrity, employee voice and engaging managers, and these key initiatives were delivered in 2017:

- **Strategic narrative** – a programme to engage and connect employees with Strategy 2030 started its rollout.
- **Integrity** – ESB's newly articulated core organisational Values - of being caring, courageous, trusted and driven – were developed in consultation with employees, and are resonating strongly with people.
- **Employee voice** – This is extremely important in ESB, and through various channels, ESB employees have the opportunity to provide their opinions and engage in conversations. ESB's new digital workplace, the Hub, together with a vibrant internal social network, has created a safe space for employees to share stories of great projects, initiatives, social activities and opinions openly. The annual Employee Survey gives every employee an opportunity to have an individual and collective voice, which helps to create a dynamic workplace that is stimulating and engaging.

■ **Engage managers** – ESB's managers play a central role in engaging and motivating employees and strategic programmes are being created to equip and empower Managers to do this effectively.

DIVERSITY AND EQUAL OPPORTUNITY

ESB's firm commitment to working towards a more consciously inclusive workplace continues. Having a diverse and inclusive work environment plays an increasingly important part in ESB's ability to attract, retain and develop key skills and talent. ESB's diversity and inclusive policies are regularly reviewed, in line with legislation and best practice and aim to support a culture of inclusion, respect and dignity for the individual in the workplace and for the customers it serves.

We understand that the quality of our workplaces are key to a highly engaged workforce. Inclusion is critical to a positive work environment and a key enabler of diversity. Over the past two years we have been focussed on increasing employee awareness of inclusion by raising awareness of the different communities. Understanding that employees have different needs at different life stages has also been important to the inclusion conversation.

Key components delivered during 2017 included:

- Proud winners of the Chartered Institute of Personnel and Development (CIPD) Excellence in Diversity Award for ESB's inspiring and empowering Female Talent Programme.
- Continued roll-out and growth of Managing Successful Parenting Transitions Programme which aims to support all working parents and their line managers. Continued roll-out and growth of BeMe@ESB, ESB's lesbian, gay, bisexual and transgender (LGBT+) Employees and Allies Employee Network.
- Continuing to exceed the 3% National Disability Authority (NDA) target of employment of employees with disabilities - 4%.
- Promoting science, technology, engineering, art and maths (STEAM) career options for young females in partnership with Engineers Ireland and

	2017	2016
Average Number of Employees	7,790	7,597
Female	23%	22%
Management Level Female	21%	19%
Full Time	93%	94%
Employees with Disabilities	4%	5%
Average Number of Employees	7,790	7,597
Permanent Contract	99%	1%
Temporary Contract	1%	42%
Skilled Craft and General	42%	58%
Non Craft and General	58%	5%
Female Board Members	36%	5%
Third Party Contractor Staff working on behalf of business	3,100	3,300

STAFF BY REGION

Republic of Ireland	80.5%	81%
Northern Ireland	17.5%	17.5%
Europe	0.1%	0.05%
Middle East	1.4%	1.4%
Asia	0.03%	0.03%
Africa	0.01%	0.01%
Nationalities Employed	35	35

supported through internal and external awareness raising programmes and events. Celebrating diversity of cultures in the workplace with employees from over 35 different countries.

ESB's Code of Ethics

At ESB, all our board members and staff adhere to a code of ethics 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, 7 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.

ESB - PRIDE IN WHO WE ARE



One year on from the launch of BeMe@ESB, ESB's LGBT+ & Allies Employee Network, members of the Network were joined by over 45 colleagues, allies, friends and family members to participate in 2017 Dublin Pride Parade. Dublin Pride Parade is without doubt the most visible of commitments from so many organisations to LGBT+ Inclusive workplaces.

Throughout May and June, a series of 'I Am An Ally' briefings took place in Head Office, Gateway, ESB Networks Clanwilliam, ESB Networks Leopardstown Road and Electric Ireland. This programme is about raising awareness of the experiences and challenges that LGBT+ employees can face in workplace. Philip Kelly, Electric Ireland, is the facilitator of BeMe@ESB 'I Am An Ally' Training Programme. The power of the session

is having the opportunity to hear from Philip and participants who share their personal journey and experience in relation to LGBT+ inclusion in workplace, family and society.

Once again, as part of PRIDE week celebrations, the rebranded ESB's logo and tagline: ESB -PRIDE In Who We Are – reflecting the PRIDE colours, was visible on both internal and external social media channels – website, Twitter, LinkedIn. This rebrand received really positive feedback from ESB staff members as well as from other organisations.

If you are interested in joining, or being an Ally, whether LGBT+ or not, simply email BeMe@esb.ie.



SO AS AN ALLY, HOW CAN I MAKE A DIFFERENCE?

- An LGBT+ Ally...**
- Proudly supports LGBT+ colleagues
 - Is committed to raising awareness and working to ensure ESB is an LGBT+ inclusive workplace
 - Is an advocate for positive change
 - Helps to create an inclusive environment/ culture in the workplace where everyone can bring their whole self to work
 - Can be LGBT+ or non LGBT+ Employees
 - Respectfully challenge inappropriate language, commentary or 'banter'.

ESB should be very proud of what you have achieved here today. I can say with all certainty that there are many ESB employees that are feeling much better about themselves as a result of what you are doing here today".

Donal Óg Cusack, from the launch of the Network

ESB INTERNATIONAL CHAMPIONING THE CAUSE OF WOMEN IN ENGINEERING

On 4-6th April 2017, ESB International hosted its 10th Women in Engineering Programme for Transition Year students. This proactive initiative is aimed at increasing the numbers of women in engineering, highlighting the opportunities that exist for females in what has traditionally been regarded as a male-dominated discipline. Students from schools across Dublin and beyond participated in the programme, and the Class of 2017 will bring the total numbers who have attended to over 200. Many of these attendees have gone on to study engineering at third level, while a number of those who took part in our first-ever programme back in 2007 are now forging successful careers at ESB International.

The three-day programme gives prospective female engineers the opportunity to meet some of ESB International's successful women in engineering – and hear about the opportunities they've had to work around the globe on a range of demanding international projects. They'll also get to compete in

engineering challenges and find out what a career in engineering has to offer.

Speaking about the Programme, Operations Manager of ESB International, Jacinta Ryan, commented: "The Women In Engineering Programme is aimed at maximising the choices that

pre school-leavers have, giving them a welcome insight into a career as a creative professional delivering solutions for society. I strongly believe that taking part in the Women In Engineering Programme can be a hugely important first step on the road to a rewarding, challenging and satisfying career in a field that is every bit as suited to women as to men".



Jacinta Ryan, Operations Manager ESB International, and Joyce Farrell, HR Manager ESB Innovation, with the group of this year's Transition Year students from Women in Engineering Programme.

GOVERNANCE

ESB’s Joint Equality Council, which represents all Business Units and Group of Unions, reconvened and continues to raise awareness to ensure our workplaces are inclusive, where equality of opportunity exists for all and where the diversity of our people drives innovation and creative problem solving to better serve ESB’s customers.

DIVERSITY OF ESB BOARD OF DIRECTORS

The ESB Board of Directors, both for itself and the Group as a whole is fully committed to diversity as a key value, as this is seen as important to achieving ESB’s business objectives. The Board remains committed to achieving the optimal balance of skills, experience and diversity among its members. Of the 12 members of the Board, 4 are female. There are also 4 Worker Board members as part of the 12 member board. Full details of the Board membership are available in ESB’s Annual Report 2017, page 78.

NON-DISCRIMINATION

ESB will not tolerate any penalisation of any person who raises a concern to an appropriate person in the reasonable belief that it intends to show a wrongdoing.

Under the Protected Disclosures Act 2014 ESB is required to have procedures for dealing with any protected disclosures that may be made by its employees and others. A protected disclosure relates to information about a wrongdoing in the workplace which a staff member reasonably believes has taken place. ESB’s Policy on Fraud and Other Unlawful Activities sets out the procedures in place in ESB to ensure that staff can bring their genuine concerns to the attention of the company in the knowledge that those concerns will be dealt with appropriately and without being penalised for doing so.

ESB’s Code of Ethics applies to all ESB Group staff, both permanent and temporary in Ireland and overseas, and all third parties with whom ESB does business. ESB is committed to working only with third parties whose values and standards are consistent with this Code.

Violation of the Code by a staff member is considered an extremely serious matter and anyone found guilty of such violation following a disciplinary hearing will be penalised in such a way as to reflect the seriousness of the offence. Penalisation may include dismissal.

Violation of the Code by a contractor, supplier, casual or agency worker will be reported to the relevant person’s employer and may result in the termination of their contract. ESB may take action to recover any losses sustained, which may include the issuing of civil and/or criminal proceedings, and in compliance with the Criminal Law Justice Act 2011 the matter may be reported to An Garda Síochána.

INCIDENTS OF DISCRIMINATION AND CORRECTIVE ACTIONS TAKEN

At ESB, our commitment to working towards a consciously inclusive workplace is key to creating an environment that fosters innovation, employee engagement, creativity and the collaboration required to power a brighter future.

We believe that having an inclusive workplace benefits ESB, our people, our customers, the communities we serve and our stakeholders and leads to:

- Recruitment of the best talent from the broadest possible talent pool that is reflective of our diverse customer and client base
- Diversity of thinking, perspectives and experiences
- Satisfied and engaged employees
- Understanding and meeting customer needs
- Effective decision making, problem solving, innovation and creativity

All at ESB have a duty to uphold the Dignity and Respect at Work Charter, embrace the values and behaviours it sets out and ensure a working environment that is free from bullying, harassment and sexual harassment.

ESB’s Respect and Dignity for the Individual Policy details both the process to be followed and the confidential supports available to employees in the event of any alleged incidents occurring.

Any such incidents that do occur are treated with the utmost confidentiality and are not publically disclosed or commented on.

FREEDOM OF ASSOCIATION AND COLLECTIVE BARGAINING

Approximately 60% of employees have elected to join a trade union and are directly covered by collective bargaining arrangements, reflecting ESB Group’s position of supporting freedom of association for all employees.

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 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.

3.4 COMMUNITY ENGAGEMENT

ESB is committed to being a good neighbour and supporting the communities in which it operates. This is part of ESB’s commitment to ensure clear and lasting benefits in the communities which surround its wind farms. Through our Wind Farm Community Fund, ESB makes over €1.1 million available to groups close to wind farms across Republic of Ireland (ROI), Northern Ireland (NI) and Great Britain (GB), ESB is contributing to the development of essential infrastructure and services, and the creation of a brighter future the residents of its neighbouring rural communities.

ESB engages in all locations where we have identified a potential for the development of an ESB owned or co-owned wind farm. A wind farm community fund manager is responsible for leading the engagement with local communities on the ground and working with those communities to identify suitable projects which can be supported by the wind farm community fund.

All such projects are subject to comprehensive Environmental Impact Assessment as part of initial project development.

WIND FARM COMMUNITY FUND

At ESB, we have community funds for all of our operational wind farms across Ireland and the United Kingdom. This is part of our commitment to ensure clear and lasting benefits in the communities where we are present. These funds provide groups with the opportunity to develop and build upon existing local initiatives – large and small – in the following areas:

- Education and training;
- Health, safety and wellbeing;
- Environment and habitat conservation;
- Energy efficiency and sustainability;
- Culture and heritage;
- Recreation and social inclusion.

This is part of ESB’s commitment to ensure clear and lasting benefits in the communities which surround its wind farm locations across Ireland, Northern Ireland & UK, where projects or proposed projects are being developed, or where existing asset infrastructure is being upgraded, repaired or redeveloped. As part of project development,each project, as part of an environmental impact assessment, will identify potential hazards and provide for their mitigation prior to commencement of the project works.

GIVING BACK AT RAHEENLEAGH



While Raheenleagh Wind Farm was being built, the project supported the Kilanerin and Ballyfad Community Development Association in building a community centre. The community benefit fund of the wind farm also supported the local area in installing all-weather pitches at the nearby GAA club, which were officially opened recently by an Taoiseach Leo Varadkar TD and wind farm Project Director Peter O’Hagan.

Raheenleagh started commercial operation in September 2016 and is a joint venture between ESB and Coillte. (See the ESB Hub for more details.)



3.5 PUBLIC SAFETY

The safety of the public in using our services is of huge importance to us. The key focus of our public safety programme concerns the risk management of people coming into contact with our network, plant and equipment. Our on-going network refurbishment programme continues to have a significant and beneficial impact on public safety. While ESB is not responsible for public safety beyond the customer’s meter, we deliver regular public safety campaigns to alert the general public to the potential dangers posed by electricity.

While ESB is not responsible for public safety beyond the customer’s meter, we deliver regular public safety campaigns to alert the general public to the potential dangers posed by electricity.

Public awareness around the dangers of coming into contact with live electricity are regularly promoted. With the increasing frequency of extreme weather events, risks associated with fallen power lines in particular are emphasised. Other public safety programmes include; ESB rigorously address the risks arising from our generation activities, in particular head and tail races associated with hydro-electric power stations, as well as swimming in reservoirs. ESB’s plant and equipment is operated in line with international standards and legislation, including standards dealing with the risk of harm associated with electric and magnetic fields. initiatives aimed at the “at risk” groups, including construction, farming and leisure. Public safety programmes for children, including school visits. Public safety information circulated through the National Customer Contact Centre with safety booklets and other content mailed in response to specific requests. Regular public safety campaigns to alert of the potential dangers posed by electricity.

RAISING PUBLIC SAFETY AWARENESS

Through public safety awareness campaigns such as stay safe stay clear.

Awareness is one of the key factors to ensure that the public and customers and users of electricity in general can keep safe by being aware of the potential dangers of electricity and how to avoid them.

The reach of the various public safety awareness campaigns are monitored via the various media channels to ensure an adequate level of public reach. Public Safety awareness campaigns are run regularly to highlight particular safety issues that pertain to the time of year or the nature of particular events, such as storms.

ESB employs a risk assessment approach to activities, 100% of categories are risk assessed. Given that our main product is electricity, the key focus lies in ensuring electricity users are familiar with electrical hazards and how to avoid them. This begins with electrical safety talks at schools level from an early age and progresses via public safety campaigns, safety message advertisements and engaging with other key delivery channels.

PROMOTING BACK TO SCHOOL ROAD SAFETY WITH THE RSA



For the seventh year running, the RSA and ESB Networks distributed free high-visibility vests to every child starting school in September. To date, this partnership has provided 800,000 children throughout the country with high-visibility vests. Schools can now register online for the RSA’s ‘Back to School’ road safety packs, which will be sent to primary schools nationwide over the coming months.



Moyagh Murdock, Chief Executive, Road Safety Authority; Geoff Liffey, CEO Cycling Ireland; and Marguerite Sayers, Managing Director, ESB Networks DAC, launching the Cycle Safety Campaign with James, Isla, Laila, Jacob, Peter and Orla.



St Teresa's NS, Killoe, Co Longford.

3.6 CUSTOMER PRIVACY

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

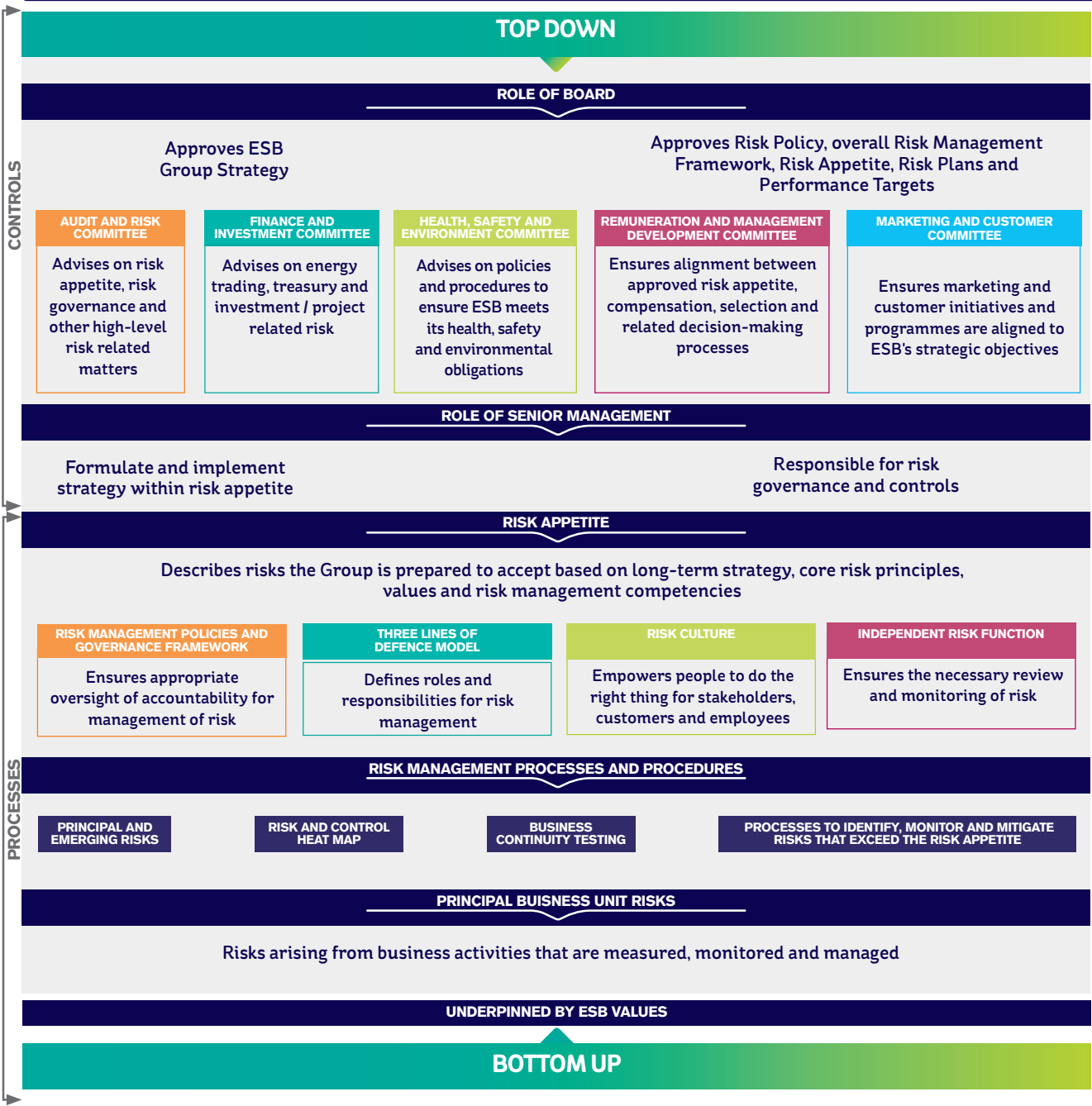
with their Personal Data. Protecting the privacy and security of this information is a top priority for ESB. The policy also applies to all information systems used by ESB, including all undertakings in which ESB has a controlling interest, wherever located and for whatever purpose used, and whether 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 (418-1);

- i. complaints received from outside parties and substantiated by the organization; **1**
- ii. complaints from regulatory bodies; **3**
- iii. Total number of identified leaks, thefts, or losses of customer data; **2**

3.7 RISK MANAGEMENT FRAMEWORK



RISKS & COMPLIANCE

The effective management of risks and opportunities supports the development of ESB’s strategy while protecting the interests of its stakeholders. ESB recognizes that our activities comprising of electricity generation, transmission, distribution and supply have environmental impacts and that it is our responsibility to manage these impacts in a manner that provides a high level of protection for our natural environment and contributes to the sustainable development of our economy.

ESB is exposed to a number of risks and opportunities which could have a material impact on performance and long-term development. No fines or sanctions have been brought against ESB Group regarding socioeconomic compliance during 2017.

Environmental risk is managed through two distinct avenues. Operationally, Business Unit specific environmental risks are managed within ISO14001 (EMS) management structures and reported or escalated as required to the Board Health, Safety and Environmental sub-committee. At the strategic level, the enterprise risk framework is applied to environmental risks. Environmental complaints are managed through the EMS in the same way and escalated as needed.

The effective identification, management and mitigation of these risks is a core focus of the Group. The Board has overall responsibility for risk management and internal control. Complying with Regulatory Frameworks and relevant legislation is viewed and managed as a principal risk within ESB’s risk management framework

REGULATORY RISK

The markets in which ESB operates are subject to a high degree of regulatory and legislative intervention at both domestic and EU level. Changes can have a significant effect on the profitability of ESB’s asset base. Any ongoing ambiguity on market structure and the regulatory and policy framework can make sustainable, longterm strategy planning more challenging and effect.

TO PREVENT THE RISK MATERIALISING:

- Participate in regulator led consultation processes on DS3 - an innovative proposal to support increased renewables on the electricity system
- I-SEM project team in place to develop ESB

positions on regulatory, market and structural issues and to prepare for the transition to a new market design

- Monitor impact of potential price cap introduction on GB supply market entry
- Regulatory developments considered as part of the annual review of Strategy 2030
- Monitor licence and regulation compliance and report to regulatory authorities to demonstrate ongoing compliance

IF THE RISK MATERIALISES:

- Amend capital and operating cost plans to align with regulatory outcomes
- Re-evaluate scale and scope of GB Supply Market Entry
- Report regulatory non-compliance and implement actions to resolve any issues
- Activate communications plans to deal with any issues that may arise

DEVELOPMENTS IN 2017

The impact of I-SEM on the wholesale market design remains under review

- Ongoing consideration of options for Moneypoint power station and the Midland stations at Lough Rea and West Offaly
- Key regulatory directions issued by the Commission for Regulation of Utilities (CRU) in relation to the delivery strategy (phased delivery) for smart metering
- Discussion initiated by the Northern Ireland Utility Regulator regarding de-harmonisation of the retail market
- The G&WM team engaged in assessments to establish the DS3 services required to facilitate increased levels of renewables on the Republic of Ireland (ROI) and Northern Ireland (NI) networks and the appropriate contracting arrangements to deliver those services

BREACH OF LAW OR REGULATION

Changes to the legal and compliance framework arising from the introduction of new or revised legislation, or due to evolving interpretation and legal precedent, can lead to additional or amended compliance obligations and reporting requirements. Any such changes may require amendments to policies, procedures and operating practices. Any breach of law or failure to maintain compliance could result in regulatory action, damage to reputation, financial costs (including fines) and adverse impact on operations.

TO PREVENT THE RISK MATERIALISING:

- Ongoing monitoring of legal and compliance requirements
- Appropriately skilled and experienced legal team in place
- On-going training e.g. competition law manual launched in 2017 and briefing to subsidiary company directors on statutory obligations under the Companies Act 2014 and Market Abuse Regulations
- Regulatory Compliance Risk is managed through Group Regulatory Compliance
- Appropriate policies in place to raise awareness of legal obligations

IF THE RISK MATERIALISES:

- Consideration of impact on a case-by-case basis
- Activate communications plans to update key stakeholders
- Review the adequacy of current policies and procedures
- Review the adequacy of current monitoring arrangements
- Roll-out additional awareness training if required
- Review incidents and ensure actions identified are implemented
- Share learning across the organisation

DEVELOPMENTS IN 2017

Continued to monitor compliance with legislative and regulatory obligations

- Ongoing training provided to ESB and ESB subsidiary company directors

3.8 ENERGY UTILITY SECTOR SPECIFIC DISCLOSURES

INSTALLED CAPACITY, BY ENERGY SOURCE AND REGULATORY REGIME IN MW (EU1).

Fuel Source & Year	Republic of Ireland	Northern Ireland	Great Britain
Gas 2016	2,025	402	1,231
2017	2,025	402	1,231
Coal 2016	855	0	0
2017	855	0	0
Peat 2016	226	0	0
2017	226	0	0
Oil 2016	0	53	0
2017	0	53	0
Wind 2016	261	73	125
2017	293	100	125
Hydro 2016	512	0	0
2017	512	0	0
Solar 2016	0	1	0
2017	0	1	0

Note 1: Hydro included pumped storage capacity.

Net primary output by energy source and regulatory regime (EU2).

Note 2: 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 below, as is required by legislation in Ireland.

OPERATIONAL ENERGY CONSUMPTION

Thermal Generation (GWh)	2017	2016	2015
Coal	10,091	12,807	13,106
Natural Gas	21,981	18,839	13,078
Oil	300	553	637
Peat	4,253	4,629	4,676
Operational (Primary Energy equivalent in kWh)	2017	2016	Baseline ₁
Electricity	53,489,805	64,539,479	95,785,331
Thermal	4,986,783	2,827,693	
Transport	56,146,927	54,148,236	
Energy Performance Indicator (EnPI)			
kWh/FTE Employee	20,852.01	22,692	30,414

Notes:
1. Baseline 2006 for Operational energy consumption (excluding generation).

EU3 NUMBER OF RESIDENTIAL, INDUSTRIAL INSTITUTIONAL CUSTOMERS

Connections to the Network	2017	2016
RESIDENTIAL, INDUSTRIAL & INSTITUTIONAL CUSTOMERS (EU3)		
Republic of Ireland		
Residential	2,057,339	2,057,339
Small Business	184,621 ¹	184,747
Medium Business	92,074 ²	89,358
Large Energy User (distribution connected)	1779 ³	1,527
Transmission connected	19	28
Transmission connected with embedded generation	60	46
Northern Ireland		
Total Customer connections	870,000	860,000
Residential	92.66%	92%
Commercial & Industrial	7.34%	8%
DISCONNECTIONS (REPUBLIC OF IRELAND)		
Number of Disconnections	2,650	2,700
Disconnection Rate	24 per 10,000 customers	24 per 10,000 customers
Vacant Disconnections	35%	35%
Reconnection within 48 hours	100% of non-vacant	100% of non-vacant
CUSTOMER MINUTES LOST		
ESB Networks ²	149.3	144
NIE Networks ⁴	119	121 ⁶
ACCESS TO ELECTRICITY SUPPLY		
Republic of Ireland	100%	100%
Northern Ireland	100%	100%
COMPLAINTS		
-ESB Networks	2,933	2,761
-NIE Networks ⁵	3	0 ⁶
-Electric Ireland	1,948	1,948

Notes on Customer Disclosures;

1. Including embedded generation

2. Including embedded generation and unmetered public lighting

3. Including embedded generation

4. The average durations of interruptions (planned and fault) for all customers during 2017

5. Complaints classified as stage 2 by Customer Council NI

6. NIE Networks CML 2016 and Complaints restated following clarifications

EU4 LENGTH OF ABOVE AND UNDERGROUND TRANSMISSION AND DISTRIBUTION LINES BY REGULATORY REGIME

ESB Networks (Length in Kms)	2017	2016
Republic of Ireland		
Distribution		
- LV-OHL	38,679	38,238
- LV- Underground	13,599	13,372
-10kV - Overhead	37,396	37,465
-10kV - Underground	8,213	8,146
-20kV - Overhead	45,968	45,730
-20kV - Underground	1,649	1,583
-38kV - Overhead	5,753	5,751
-38kV - Underground	1,110	1,016
-110kV-Overhead	414	537
-110kV - Underground	240	240
Northern Ireland		
NIE Networks	2017	2016
Distribution	47,000 (34% underground)	47,000 (34% underground)
Transmission	2,200 (5% underground)	2,200 (5% underground)

Notes;

• 2016 figures reflect update on decommissioned and retired cables

ENVIRONMENTAL TOPICS

- 4.1 Energy Management
- 4.2 Biodiversity
- 4.3 Emissions
- 4.4 Effluents and Waste
- 4.5 Environmental Compliance

4.1 ENERGY MANAGEMENT

Energy Management and energy efficiency makes our economy more competitive, whilst helping to lower our greenhouse gas (GHG) emissions and maximising our economic competitiveness. Energy efficiency is the foundation of a sustainable economy and is at the heart of many of the efforts being undertaken across the ESB Group to address aspects of energy efficiency, be it from the network perspective, at customer end use or through the development of a new high efficiency generation plant.

ESB Group recognises the importance of being an exemplar and leveraging the connection we have with the communities where we work, to bring the energy efficiency discussion centre stage in the thoughts and actions of people at a domestic, community, industry and national level. ESB Group delivers energy efficiency programmes to new and existing energy customers via our retail businesses Electric Ireland and ESB Energy. These programmes enable customers to improve the energy performance of their homes and businesses to reduce both running costs and environmental impact. For the regulated network businesses, ESB Networks and NIE Networks, energy efficiency programmes on the network assets are subject to and part of regulatory price review work programmes, which are agreed at set time periods in conjunction with the respective energy regulators.

ENERGY EFFICIENCY PROGRAMME

In ESB Group, energy efficiency is identified as a strategic priority within the Brighter Future strategy. It is cascaded into business unit business plans, factored into long-term asset planning, incorporated into our customer-facing energy services offerings, included in our regulatory price review submissions, as part of the multifaceted approach across the breadth of the business. For employees, energy efficiency is brought to life through our focus on energy efficiency within our operations and how behavioural change can contribute to energy efficiencies in both building energy and vehicle fuel consumption.

As a commercial semi-state owned entity (95% state owned), ESB is committed to supporting and being exemplar in the delivery of Ireland's 2020 public sector targets. Under this legislation, Irish public sector bodies and commercial semi-state bodies are required to deliver a 33% reduction in their Total Primary Energy Requirement by 2020. These strategies and actions are helping ESB deliver this obligation. As a commercial semi-state owned entity, ESB is committed to supporting and being exemplar in the delivery of Ireland's 2020 public sector targets, as governed by regulation SI426/2014. Under this legislation, Irish public sector bodies and commercial semi-state bodies are required to deliver a 33% reduction in their Total Primary Energy Requirement by 2020.

TABLE: ENERGY CONSUMPTION WITHIN THE ORGANISATION GRI 302-1

Thermal Generation (GWh)	2017	2016	2015
Coal	10,091	12,807	
Natural Gas	21,981	18,839	
Oil	300	553	
Peat	4,253	4,629	
Operational (Primary Energy equivalent in kWh)	2017	2016	Baseline¹
Electricity	53,489,805	64,539,479	95,785,331
Thermal	4,986,783	2,827,693	
Transport	56,146,927	54,148,236	
Energy Performance Indicator (EnPI)			
kWh/FTE Employee	20,852.01	22,692	30,414

Table Notes and Clarifications:

1. Baseline 2006 for Operational energy consumption (excluding generation)

Energy by fuel source (generation) in GWh current year and comparison years.

Operational Energy (disclosed as Primary Energy Equivalent) in kWh for electrical and thermal energy for buildings and transport fuel.

Energy Performance Indicator metric kWh/FTE current year, comparison year and baseline year.

Defra and SEAI conversion factors are utilized to calculate energy consumption.

REDUCTION OF OPERATIONAL ENERGY CONSUMPTION (302-4)

Operational energy reduction has delivered a 31.6% improvement against the baseline performance to end of 2017. Performance is in line with regulation SI426/2014, with ESB Group committed to delivering on the 33% improvement target by end 2020.

REDUCTIONS IN ENERGY REQUIREMENTS OF PRODUCTS AND SERVICES (302-5)

The Irish Government has enlisted the assistance of Energy Suppliers in meeting the national requirements of the EU Energy Efficiency Directive to deliver a 20% Energy saving by 2020 and has

introduced an Energy Efficiency Obligation scheme (EEOS).

The Energy Efficiency Incentive, first introduced in 2014, is designed to incentivise customers to install energy efficiency measures to SEAI standards by giving them a credit on their energy bill. This incentive, along with SEAI's grants make it even more cost effective for home owners to install energy efficiency measures.

During 2017 projects delivering 40GWh of Primary Energy Equivalent (PEE) savings were delivered to the residential sector.

Smart Energy Services, established to help large energy users (such as industrial and commercial) to reduce their energy costs through energy management and efficiency projects, delivered an additional 156GWh PEE in energy savings to the non-residential sector.

ESB Smart Energy Services is a customer services business that endeavours to grow its energy services offerings and customer base in Ireland and the UK. On-site generation by large energy users is a rapidly growing market and one where ESB Smart Energy Services intends to become a leading player in Ireland and the UK.

THE ALL-ELECTRIC PASSIVE HOME - NO LONGER A DISTANT DREAM!



"The adoption of electric heat pumps and electric vehicle charging points by Durkan Residential is a reflection of the awareness we are building around the positive contribution that electrification of heat and transport can make to delivering a better quality of life for all. Our ambition at ESB is that by 2020 all developers will have embraced this approach and that consequently all new homes will be All Electric," said Brian Montayne who heads ESB's eheat division.

FEATURES OF THIS ALL-ELECTRIC HOME INCLUDE:

- An electric heat pump, providing all the heat and hot water needs.
- All homes pre-wired for an exterior electric vehicle charging point.
- A dual tariff meter promoting the use of off-peak night electricity with an exclusive offer of Smarter Pay as You Go with free night rate electricity for those home buyers choosing Electric Ireland as their energy provider.
- Structural future proofing, which will facilitate installation of Solar PV in the future. As the costs of Solar PV and battery storage continue to fall, these houses will allow homeowners to become 'prosumers' (producers and consumers) of energy in the near future.

4.2 BIODIVERSITY

MANAGING OPERATIONAL IMPACTS ON BIODIVERSITY

Managing work that has 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. All proposed structural developments are screened at an early stage of planning to determine whether a Natura Impact and/or Environmental Impact Assessment are required. Biodiversity impacts are considered in all areas where existing assets or new assets are planned within close proximity to special areas of conservation, as set out by The EU Birds and Habitats Directives. In such cases the directives stipulate the procedures and obligations in relation to nature conservation management in member states in general for such areas. Correspondingly, specific work instructions and methods exist to ensure the conservation of biodiversity during and following such works.

THE MANAGEMENT APPROACH AND ITS COMPONENTS 103-2

The Natura 2000 network in the Republic of Ireland is made up of sites, which include Special Areas of Conservation (SAC), Special Protection Areas (SPA), candidate Special Areas of Conservation (cSAC) and proposed Special Protection Areas (pSPA). A number of initiatives have been developed to address biodiversity, including incorporating biodiversity aspects into existing environmental management systems, the adoption of biodiversity guidelines for HV substations, biodiversity action plans, the preparation of Networks job aids addressing design work in close proximity to Natura 2000 sites and National Monuments and the preparation, with EirGrid (Transmission System Operator), of draft ecology guidelines for electricity power lines. If a project or plan (either new development or works to existing structures) is located within or adjacent to a Natura 2000 site) then screening for Appropriate Assessment is mandatory. No works within a Natura 2000 site, no matter how small the scale, should proceed without being screened for Appropriate Assessment first. NIE Networks has around 3,500 kilometres of 11kV (or below) overhead line in natural heritage protected sites. These are all mapped on its systems. NIE Networks mapping tools have been extended to include historic environment sites.

The company has a duty to protect all designated areas in the course of its day to day operations and has a management process in place as part of its Environmental Management System to enforce this. As set out in ESB's Group Policy Statement on Environmental Management and Sustainability, ESB recognises that its activities comprising electricity generation, transmission, distribution and supply have environmental impacts and that it is our responsibility to manage these in a way that provides a high level of protection for our natural environment and contributes to the sustainable development of our economy.

EVALUATING THE EFFECTIVENESS OF THE MANAGEMENT OF BIODIVERSITY

The estimated extent of ESB Group assets within designated sites in Republic of Ireland and Northern Ireland is set out in the table below. Examples of these types of site include Areas of Outstanding Natural Beauty (AONB), Areas of Special Scientific Interest (ASSI), Special Protection Areas (SPA) and Special Areas of Conservation (SAC). NIE Networks liaises with the NIEA regularly to receive the required consent and to agree the necessary processes to be followed on such sites to ensure they and their features are protected and mismanagement is avoided. Where conditions are imposed, these will be followed to ensure there is minimal disturbance or potential of pollution within the area while work is carried out. ESB continues to assess the impact of its operations in accordance with its obligations. ESB has incorporated biodiversity requirements into the Environmental Management Systems for all ESB businesses.

OPERATIONAL SITES OWNED, LEASED, MANAGED IN, OR ADJACENT TO, PROTECTED AREAS AND AREAS OF HIGH BIODIVERSITY VALUE OUTSIDE PROTECTED AREAS 304-1

Republic of Ireland (Assets inside SAC, SPA, NHA, PNHA Areas)	2016	2017 ¹
Lands under ESB control (km2)	90.7	96.7
LV Stations (No.)	249,000	260,425
38kV to 400kV OHL (km)	12,330	12,667
38kV to 400kV Cable (km)	1,319	1,591
Northern Ireland (Assets inside SAC, SPA, NHA, PNHA Areas)		
11kV or below (kms)	3,500	3,500

Notes 1: Includes addition of lands owned by Hydro stations and 10kV and 20kV substations.

SIGNIFICANT IMPACTS OF ACTIVITIES, PRODUCTS, AND SERVICES ON BIODIVERSITY 304-2

No works within a Natura 2000 site, no matter how small the scale, should proceed without being screened for Appropriate Assessment first. When determining a proximity to a Natura 2000 site, special consideration should be given to watercourse linkages that may have the potential to be impacted by a project as any impact visited upon the watercourse can be transported downstream to another location. All proposed structural developments will be screened at an early stage of planning to determine whether a Natura Impact and/or Environmental Impact Assessment are required.

The company has a duty to protect all designated areas in the course of its day to day operations and has a management process in place as part of its Environmental Management System to enforce this. Designation of protected areas takes place in accordance with European and NI legislation and once it is confirmed by Northern Ireland Environment Agency (NIEA).

IUCN RED LIST SPECIES AND NATIONAL CONSERVATION LIST SPECIES WITH HABITATS IN AREAS AFFECTED BY OPERATIONS 304-4

Where an IUCN Red list species or species of national conservation concern is identified as being impacted by a project at assessment stage e.g. ecological impact assessment, environmental impact assessment or Appropriate Assessment under the Habitats Directive, appropriate mitigation measures are put in place to avoid or reduce significant impacts.

4.3 EMISSIONS

EMISSIONS COMMITMENT

ESB is committed to delivering carbon-neutral electricity in Europe by 2050, and to ensuring a competitively priced, reliable electricity supply throughout the integrated European energy market. We believe that it is essential that EU climate change policy supports competitiveness by promoting reductions of greenhouse gas emissions in a cost-effective manner through the use of the EU Emissions Trading Scheme (ETS) market mechanism. ESB supports a strong EU ETS system as the best way to provide affordable, reliable and sustainable electricity to the EU economy.

Under our corporate Brighter Future strategy, ESB Group aspires to lead the transition to a low carbon society. All aspects of our operational emissions play a part in that aspiration, with emissions from generation being the key focus.

Electricity is a clean energy vector. Users do not emit any carbon when they consume electricity, while carbon emissions at the point of generation are capped and are progressively being reduced under the EU ETS. In its ability and commitment to become carbon neutral by 2050, the electricity industry can lead the drive to decarbonise Europe.

REDUCING EMISSIONS

Our aim is to deliver a balanced low carbon generation portfolio with an increasing proportion of the capacity accounted for by renewables such as on and off shore wind, solar PV and biomass. The strategy envisages growth in the UK and asset renewal in Ireland. ESB is also actively participating in the commercialisation of other forms of renewable energy generation such as wave energy.

ESB's thermal generation portfolio operates within the confines of the EU Emissions Trading Scheme (ETS) and Scope 1 generation emissions are subject to an operating licence, external verification and reporting to the relevant competent authority, which is dependant on the jurisdiction that the pants operates in. The relevant competent authorities are the Environmental Protection Agency (EPA), Northern Ireland Environmental Agency (NIEA) and the Environmental Agency for England and Wales (EA).

ESB no longer has carbon allowances under the EU ETS scheme. Once final verification of emissions is confirmed by the competent authorities, ESB is required to procure the carbon credits to account for carbon emitted.

In terms of the management of any emissions related complaints, Each business unit operates an independent Environmental Management System (EMS), which is certified to ISO 14001 and subject toexternal verification auditing. A management process is established within each EMS to manage the organisational response to complaints of an environmental nature.

EMISSIONS BASELINES

The baseline year chosen for reporting of the CO2 emissions is 2005, the year when the formal reporting for the EU Emission Trading Scheme (ETS) started. Each installation operates in accordance with a greenhouse gas permit which authorises the site to emit greenhouse gases (CO2). This permit is issued by the competent authority once they are satisfied that an operator can comply with the legislation and is capable ofmonitoring and reporting of the emissions. T

The monitoring and reporting of the CO2 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. The methodology used for determining the CO2 emissions is based on a calculation approach which primarily uses fuel usage and fuel analysis. The source of the emission factors is derived from Ireland's Specific Emission Factors or back calculated from the CO2 calculation.

SCOPE 1 GHG EMISSIONS GRI 305-1

Direct (Scope 1) GHG emissions 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 and independent external verification. No biogenic CO2 is reported for 2017, as Tilbury Port 40MW waste wood biomass plant had yet to enter commercial operation.

SCOPE 2 GHG EMISSIONS 305-2

No significant changes in emissions recalculations for 2017.

4.3 EMISSIONS

GHG Emissions Scope 1 (tonnes CO ₂ e) from Thermal Generation ⁴	2017	2016	Baseline (2005)
Ireland	7,070,71400	8,325,843	14,630,000
Northern Ireland	971,186	910,852	
Britain	1,724,095	1,001,761 ¹	
GHG Emissions Scope 1,2 & 3 (tonnes CO ₂ e)	2017	2016	
Scope 1			
Premises Energy	983	579	
Vehicle Transport	17,265	16,578	
Gaseous Emissions SF6	23,605	3,301 ²	
Scope 2			
Premises Energy	12,888	14,178	
Scope 3			
Premises Energy	875	838	
Vehicle Transport	5,132	5,325	
Travel	4,169	802	
Total GHG emissions (tonnes CO ₂ e)	9,830,912	10,279, 335 ¹	
Other Emissions (tonnes) ⁶	2017	2016	Baseline (2006)
NOx	6,050	6,274	21,585
SOx	2,621	2,767	25,400
Dust	219	233	1,127
Carbon Intensity from Generation	536g CO ₂ e/kWh	560g CO ₂ e/kWh	670g CO ₂ e/kWh (2005)

Notes on Emissions

1. Carrington 884MW CCGT, near Manchester, entered commercial operations during 2016, increasing overall generation capacity.

2. Data incomplete, only reflects partial reporting from business areas, due to unavailability of data at time of reporting

3. Data includes NIE Networks business unit premises, fleet, staff travel and SF6 .

4. All Generating emissions are subject to verification under EU ETS and are reported to national environmental agencies annually.

5. Figures for 2016 and 2017 under 'Other Emissions' are restated due to a reporting error in the 2016 report, where multiples of thousands were misquoted.

6. Emissions table addresses GRI Standards 305-1, 305-2, 305-3, 305-4, 305-5, 305-6, 305-7

GENERATION & WHOLESALE MARKETS: GENERATING A BRIGHTER FUTURE

BACKGROUND/THE CHALLENGE

Generation and Wholesale Markets (G&WM) focuses on building energy-generating assets, generating electricity from a range of fuel sources (wind, hydro, coal, peat, gas and solar) and trading the output to suppliers in Ireland and Great Britain.

Through ESB's Brighter Future strategy, G&WM is charged with transforming itself from using predominantly fossil fuel to 50% renewables and more than halving its carbon intensity by 2030. At the same time, the team needs to continue providing system services which support Ireland and Britain in delivering on the national carbon reduction targets.

HOW HAS G&WM BEEN WORKING TOWARDS THESE TARGETS DURING 2017?

With that long-term challenge firmly in mind, we've continued to implement the strategy of delivering a balanced portfolio of thermal and renewable generation in the all-islands market. Why focus on both thermal and renewable as we pursue a low-carbon future? Simply put, we need some highly-efficient and responsive thermal generation to provide a secure supply both to support ambitious national renewables growth and also to be there on those days when the sun doesn't shine or the wind doesn't blow. So – what follows outlines our progress in both areas during 2017.

INVESTING IN OUR EXISTING ASSETS

We continued to make significant investments (to the value of €55 million) in our existing generation portfolio, with overhauls in Aghada, Lough Ree, Turlough Hill and Dublin Bay stations. We also completed a refurbishment programme across our entire group of hydro stations – the original green energy generation.

NEW THERMAL OPPORTUNITIES

We also continued to develop options for flexible gas engine plants at Carrington, near Manchester, as well as developing a potential combined cycle gas turbine plant at Knottingley in Yorkshire.

ACCELERATING OUR RENEWABLES INVESTMENT

Meanwhile, we also focused on accelerating our investment in renewable energy to help reduce the carbon intensity of our portfolio, supporting the transition to a reliable, secure and affordable low-carbon future. Because diversity of energy sources is key to security of supply, we spread our efforts across a range of renewable opportunities during 2017, including:

ONSHORE WIND

We increased our renewable portfolio by 95MW, with four wind farms starting commercial operation: Crockdun (12.5MW) and Eglish (15MW), both in NI, plus Moneypoint (17MW) and Cappawhite (52MW) in ROI.

These wind farms were all built as part of an innovative framework approach to help accelerate the expansion of our wind portfolio. As part of that same framework, our wind team continued construction on Castlepook Wind Farm, a 35MW joint venture with Coillte and they started construction on a 115MW wind farm in Grousesmount, Co Kerry, as well as developing a site at Oweninny as a joint venture with Bord Na Mona (Phase 1: 43.5MW), with construction expected to start in early 2018.

We also continued development of up to 700 MW of wind generation in Scotland, in conjunction with Coriolis and with REG Holdings.

OFFSHORE WIND

We progressed early-stage development and due-diligence work carried out on various offshore opportunities off the coast of ROI, NI and GB.

ENERGY FROM WASTE

We completed construction on a 40MW waste wood to energy plant at Tilbury in London, which is also scheduled to go into commercial operation from early 2018. We also continued development work on a pipeline of potential energy-from-waste facilities in GB.

SOLAR

Our focus on solar also continued, with a number of potential projects progressing with our partners Terra Solar. We also saw the start of joint ventures with Bord na Móna (for up to 600MW of solar development in the Midlands) and Kingspan (Funded Solar in NI).

WHAT'S NEXT?

At the end of 2017, our renewables portfolio stood at 760MW – which puts us well on our way to rebalancing our portfolio and delivering substantial reductions in our carbon intensity. Over the coming months and years, we will continue to focus on growing our renewables portfolio. We look forward to our first step into offshore wind and we will continue to develop flexible assets and grow our ability to support national ambition by delivering a greater range of systems services to enable the transition to a low-carbon future.



INTEL GOES 100% RENEWABLE TO POWER 360-ACRE LEIXLIP CAMPUS

Intel has a long relationship with ESB ever since it first opened its Leixlip campus in 1989. Since 1 Jan 2016 Intel is now powered by 100% indigenous renewable electricity.

Ireland is the first major Intel location outside of the US to have bought 100% independently certified renewable electricity. This forms part of Intel Ireland’s multi-faceted approach to reduce its impact on the environment and to reinforce its commitment as a global energy sustainability champion.

Speaking at an announcement, ESB Chief Executive, Pat O’Doherty commented that: “The Electric Ireland agreement with Intel is an example of how we seek to place our customer at the centre of this low-carbon future, powered by clean reliable and affordable electricity”. Intel is the largest consumer of electricity in Ireland and now it is also the largest voluntary private purchaser of indigenous renewable energy in Ireland.



Eamonn Sinnott, MD, Intel Ireland and Pat O’Doherty, Chief Executive, ESB.

TESCO-ESB PARTNERSHIP WINS GREEN RETAILER OF THE YEAR

By Ronan Geraghty, Customer Solutions Manager, ESB Smart Energy Services.



Attendees at the awards from Tesco and ESB. Back Row L to R: James Tedd (ESB SES), Andrew Cashin (Tesco) and Gerard Keenaghan (ESB SES). Front Row L to R: Ronan Geraghty (ESB SES), Patrick Duffy (Tesco), Denis O’Leary (ESB Manager of Smart Energy Technologies) and Dervla O’Flaherty (ESB Innovation marketing).



Patrick Duffy, Property Manager from Tesco, accepts the award.



The Green Awards ceremony.

As part of Smart Energy Services (SES) partnership with Tesco, ESB entered the Green Awards a few months ago and were successful in claiming the Green Retailer of the Year category on 21st February. Based on the partnership with ESB, Tesco was also nominated in the Green Large Organisation of the Year. To get nominated was an achievement in itself so it was an honour to go one step further and claim the prize. This partnership with Tesco is a great example of how SES are delivering on ESB’s core purpose of creating a Brighter Future, by helping customers transition to a low-carbon, cleaner future.

Creating a Brighter Future

Winning this award marks the end of what has been a great first year for the Tesco and Smart Energy Services partnership. The focus now is to continue the partnership into next year which, for Tesco, began in March. SES is already making plans to deliver further energy efficiency in areas such as refrigeration, heating, ventilation and controls upgrades and improvements.

What’s next for SES

The awards event itself provided a very useful opportunity for SES to meet with potential future customers and many interesting conversations took place with individuals and organisations on the night who were interested to hear more about SES services. Thanks to all of those in Smart Energy Services who worked on the Tesco account for their hard work, which was the key to a successful year.

4.4 EFFLUENTS AND WASTE

In line with our overall focus of being a responsible corporate citizen, there has been a concerted effort to minimise the impacts from our operations, including waste. The focus on the area of waste management has led to improved segregation, 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. Framework contracts with key waste services providers have also increased our level of oversight and assurance of proper and legally compliant disposal methods being employed by waste contractors and ensuring the maximum possible levels of waste are diverted from landfill and that all waste streams are handled appropriately.

Waste Type	ESB Networks	NIE	G&WM (ROI)	G&WM (GB/ NI)	Electric Ireland	BSC	ESBI	TOTAL 2017
Non-Hazardous (tonnes)	4,968	2,086	1,296	1,502	37	225	76	10,190
Hazardous (tonnes)	1,256	1,345	613	117	1	2	2	3,336
Total (tonnes 2017)	6,224	3,431	1,910	1,619	37	227	77	13,526

2017 WASTE BY DISPOSAL METHOD

Disposal Method	ESB Networks	NIE	G&WM (ROI)	G&WM (GB/ NI)	Electric Ireland	BSC	ESBI	TOTAL 2017
Reuse	519.00	0.00	0.00	0.00	0.00	0.00	0.00	519.00
Recycling	5,515.00	3,368.15	1,244.15	272.09	18.37	187.25	71.64	10,676.65
Composting	52.00	0.00	0.00	0.00	13.57	28.37	0.72	94.66
Landfill	138.00	62.90	665.35	1,347.31	5.43	11.46	4.95	2,235.40
Disposed of directly by the organization or otherwise directly confirmed	0.00	0.00	186,313.00	0.00	0.00	0.00	0.00	186,313.00

Notes to Waste Disposal data provided;

1. Zero waste reported for the following categories (Recovery, including energy recovery, incineration (mass burn), 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.

ANNUAL ASH TOTALS GENERATION & WHOLESALE MARKETS

Emissions abatement technology to reduce greenhouse gas emissions and support efforts to ensure compliance with the EU Industrial Emissions Directive, from Moneypoint coal-fired generating station has been installed. The abatement technology includes flue-gas desulphurisation (FGD) equipment to reduce sulphurous oxide (SOx) emissions and selective catalytic reduction (SCR) equipment to reduce nitrous oxide (NOx) emissions. The FGD and SCR equipment is installed individually on each of the three generating units at Moneypoint, with the further addition of common plant to serve all three units. A FGD waste by-product is produced through the abatement process.

Station	2017	2016
Moneypoint	40,019	157,118
Lough Ree	27,819	32,178
West Offaly	46,566	45,979
Total Ash	114,404	235,275
FGD By Product	71,504	108,161

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.

There were no significant spills reported during 2017. (GRI 306-3).

4.5 ENVIRONMENTAL COMPLIANCE

ESB is committed to the highest standards of environmental management and to proactively addressing the challenges of climate change. We implement programmes across our operations to promote energy and resource efficiency, and develop new environmentally driven product and process innovation and new business opportunities. We believe that continued sustainable business success is built on maintaining excellent relationships with all stakeholders. 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 maintaining the highest levels of environmental management and sustainability in all aspects of its operations in order to minimise environmental impacts and enhance the reputation of ESB as an exemplar organisation.

ENVIRONMENTAL MANAGEMENT

Our Environmental Policy to environmental risk and ensuring our operational businesses operate in line with ISO14001 practices, puts the precautionary principle at the heart of our approach to managing and mitigating our potential impacts.

ESB recognises that our activities comprising of electricity generation, distribution and supply have environmental impacts and that it is our responsibility to manage these impacts in a manner that provides a high level of protection for our natural environment and contributes to the sustainable development of our economy. Responsibility for environmental management in ESB proceeds 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 Health Safety and Environment Committee are responsible for oversight of company strategy, policy and compliance in health, safety 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. 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.

ENVIRONMENTAL COMPLAINTS

ESB's website (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 and Electric Ireland, as does NIE Networks website (www.nienetworks.co.uk). The process for each of these public-facing business units is underpinned by a customer charter and code of practice, a complaints handling procedure, all with clear performance expectations stated publically, 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.

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.

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, and The Code of Practice on Pay As You Go Metering.

Other avenues to register complaints orenvironmental complaints include: Reporting to local authorities and the Environmental Protection Agency for IPPC licensed generating stations.

ENVIRONMENTAL PERFORMANCE

Category	2017	2016
Environmental Prosecutions	1 ¹	0
Enforcement Notices	0	0
Environmental Complaints		
- ESB Networks	8	14
- NIE Networks	0	0
- G&WM	27	5

Notes: 1. Moneypoint Generating Station (G&WM) prosecuted by EPA in Ireland for site drainage issues, identified in 2016, prosecution in 2017.

ENVIRONMENTAL COMPLIANCE 2017 GRI 307

No prosecutions were brought against ESB group companies during 2017 for alleged or actual breaches of environmental legislation occurring during the year. As highlighted in the table above, Moneypoint Generating Station were prosecuted in 2017 for a site drainage issue which was identified by the EPA during 2016.

NOTES

APPENDICES

- 5.1 Independent GRI Standards Option Check
- 5.2 GRI Standards Cross Referencing Table
- 5.3 Glossary of Terms



5.1 INDEPENDENT GRI STANDARDS OPTION CHECK

GRI Standards Option Check Independent Assessment

DNV GL Business Assurance Services UK Ltd ('DNV GL') was engaged by the Electricity Supply Board ('ESB') to carry out an independent review of ESB's declaration against the Global Reporting Initiative ('GRI') made in their Sustainability Report 2017 ('the Report').

The Report has been independently assessed by DNV GL as being in accordance with the 'Core' option of the GRI Standards 2016.

DNV GL's independent review confirms that the required set and number of disclosures for the 'Core' option have been addressed in ESB's reporting.

The GRI Cross Reference Table within the Report's appendix demonstrates a valid representation of the disclosures, in accordance with GRI Standards 2016 requirements.

This statement does not provide an opinion on ESB's sustainability performance in 2017 nor on the quality of information in the Report. DNV GL has not been engaged by ESB on any other commitments in 2018 which could compromise the independence of our opinion on ESB's GRI declaration.

20th December 2018, London.
For and on behalf DNV GL Business Assurance Services UK Ltd

Shaun Walden
Principal Consultant

5.2 GRI STANDARDS CROSS REFERENCING TABLE

GENERAL STANDARD DISCLOSURES			
Reference	Disclosure	Location	Notes on Disclosure
102-1	Name of the Organisation	Sec. 1	
102-2	Activities, brands, products, and services	Sec 1.3	
102-3	Location of headquarters	GRI Cross Reference Table, Cover	ESB Head Office, Gateway Two, East Wall Road, Dublin, D03 A995, Ireland
102-4	Location of operations	Sec 1.3, 3.3	
102-5	Ownership and legal form	Cover	
102-6	Markets served	Sec 1.3	
102-7	Scale of the Organisation	Sec 1.3, 3.3	
102-8	Information on employees and other workers	Sec 3.3	
102-9	Supply chain	Sec 2.3	
102-10	Significant changes to the organisation and its supply chain	Report	There were no significant changes to the organisation's structure and operations during 2017. An additional 95MW of wind capacity was added to the generation portfolio, with a further 173MW under construction.
102-11	Precautionary Principle or approach	Sec 3.7	
102-12	External initiatives	Sec 1.9	
102-13	Membership of associations	Sec 1.9	
102-14	Statement from senior decision-maker	Sec 1.1	
102-16	Values, principles, standards, and norms of behaviour	Sec 1.4,	
102-18	Governance structure	Sec 1.6	
102-40	List of stakeholder groups	Sec 1.8	
102-41	Collective bargaining agreements	Sec.3.3	
102-42	Identifying and selecting stakeholders	Sec. 1.7, 1.8	
102-43	Approach to stakeholder engagement	Sec 1.7, 1.8	
102-44	Key topics and concerns raised	Sec 1.8	
102-45	Entities included in the consolidated financial statements	Annual Report 2017	Note 33 / pg 183 to Financial Statements, ESB Annual Report 2017 lists all subsidiary, equity accounted investees and associate undertakings.
102-46	Defining report content and topic Boundaries	Sec 1, pg 6	
102-47	List of material topics	Sec 1.7	
102-48	Restatements of information	Sec 3.8, 4.3	
102-49	Changes in reporting		There were no significant changes to the organisation's structure and operations during 2017. An additional 95MW of wind capacity was added to the generation portfolio, with a further 173MW under construction.

102-50	Reporting period	Calendar Year 2017	Calendar Year 2017
102-51	Date of most recent report	2016	2016
102-52	Reporting cycle	Annual	Annual
102-53	Contact point for questions regarding the report	sustainability@esb.ie	sustainability@esb.ie
102-54	Claims of reporting in accordance with the GRI Standards	Sec 1	
102-55	GRI content index	Sec 5.2	Chapter 5 Appendix
102-56	External assurance	Sec 1	

GRI SPECIFIC DISCLOSURES			
Reference	Disclosure	Location	Notes on Disclosure
103-1 Direct Economic	Topic boundary	Sec 2.1	
103-2 Direct Economic	Explanation of management approach	Sec 2.1	
103-3 Direct Economic	Evaluation of management approach	Sec 2.1	
201-3	Defined benefit plan obligations and other retirement plans	Annual Report 2017	Annual Report 2017 ;Notes to Financial Statements; Note 1 (XXII) Page 125, Note 8c page 131, Note 21 page 157. Details on liabilities, pension schemes, the actuarial assessment. All permanent employees of ESB Group are members of one of the pension schemes detailed. Individual pension contributions (%) vary by scheme and adhere to scheme specific arrangements. Individual % contribution is confidential to the individual and are not disclosed publically. As part of retirement preparation, all employees complete a pre retirement programme to prepare them for the transition to retirement.
103-1 Indirect Economic	Topic boundary	Sec. 2.1, 2.3	
103-2 Indirect Economic	Explanation of management approach	Sec. 2.1, 2.3	
103-3 Indirect Economic	Evaluation of management approach	Sec. 2.1, 2.3	
203-1	Infrastructure investments and services supported	Sec 2.1, 2.3	
203-2	Significant indirect economic impacts	Sec. 2.3	
103-1 Anti-Corruption	Topic boundary	Sec 1.6, 2.4	
103-2 Anti-Corruption	Explanation of management approach	Sec 1.6, 2.4	

103-3 Anti-Corruption	Evaluation of management approach	Sec 1.6, 2.4	
205-1	Operations assessed for risks related to corruption	Sec 1.6, 2.4	
103-1	Topic boundary	Sec 4.1	
103-2	Explanation of management approach	Sec 4.1	
103-3	Evaluation of management approach	Sec 4.1	
302-1	Energy consumption within the organisation	Sec 4.1	Current electricity supply on the island of Ireland does not differentiate between renewable and non renewable sources at end use, unless by specific arrangement with an electricity supplier. With the exception of a small amount (14,000kWhs) of on site solar generation, all electrical and thermal energy consumed was from non renewable sources.
302-2	Energy consumption outside of the organisation	Sec 4.1	Conversion factors used are set annually be SEAI and Defra
302-3	Energy intensity	Sec 4.1	kWh/FTE is the indicator reported on
302-4	Reduction of energy consumption	Sec 4.1	
302-5	Reduction in energy requirements of products and services	Sec 4.1	
103-1 Biodiversity	Topic boundary	Sec 4.2	
103-2 Biodiversity	Explanation of management approach	Sec 4.2	
103-3 Biodiversity	Evaluation of management approach	Sec 4.2	
304-1	Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	Sec 4.2	All areas detailed are terrestrial protected areas.
304-4	IUCN Red List species and national conservation list species with habitats in areas affected by operations	Sec 4.2	
103-1 Emissions	Topic boundary	Sec 4.3	
103-2 Emissions	Explanation of management approach	Sec 4.3	
103-3 Emissions	Evaluation of management approach	Sec. 4.3	
305-1	Direct (Scope 1) GHG emissions	Sec 4.3	
305-2	Energy indirect (Scope 2) GHG emissions	Sec 4.3	
305-3	Other indirect (Scope 3) GHG emissions	Sec 4.3	

305-4	GHG emissions intensity	Sec 4.3	
305-5	Reduction of GHG emissions	Sec 4.3	
305-6	Emissions of ozone-depleting substances (ODS)	Sec 4.3	SF6 is included in disclosure
305-7	Nitrogen oxides (NOX), sulfur oxides (SOX), and other significant air emissions	Sec 4.3	
103-1 Effluents and Waste	Topic boundary	Sec 4.4	
103-2 Effluents and Waste	Explanation of management approach	Sec 4.4	
103-3 Effluents and Waste	Evaluation of management approach	Sec 4.4	
306-3	Significant spills	Sec 4.4	
306-4	Transport of hazardous waste	Sec 4.4	
103-1 Occupational Health & Safety	Topic boundary	Sec 3.1	
103-2 Occupational Health & Safety	Explanation of management approach	Sec 3.1	
103-3 Occupational Health & Safety	Evaluation of management approach	Sec 3.1	
403-1	Occupational health and safety management system	Sec 3.1	
403-2	Hazard identification, risk assessment, and incident investigation	Sec 3.1	
403-3	Occupational health services	Sec 3.1	
403-4	Worker participation, consultation, and communication on occupational health and safety	Sec 3.1	
403-5	Worker training on occupational health and safety	Sec 3.1	
403-6	Promotion of worker health	Sec 3.1	
403-8	Workers covered by an occupational health and safety management system	Sec 3.1	
403-9	Work-related injuries	Sec 3.1	
403-10	Work-related ill health	Sec 3.1	

403-1	Workers representation in formal joint management–worker health and safety committees	Sec 3.1	
403-2	Types of injury and rates of injury, occupational diseases, lost days, and absenteeism, and number of work-related fatalities	Sec 3.1	When considering the nature of the work and types of injuries that generally occur, reporting on injury rate, causation and type by gender is not considered relevant by ESB Group. Given our corporate focus on diversity and inclusivity , differentiation by gender would be unhelpful to further the promotion of equality.
403-3	Workers with high incidence or high risk of diseases related to their occupation	Sec 3.1	
403-4	Health and safety topics covered in formal agreements with trade unions	Sec 3.1, 3.3	
103-1 Training and Education	Topic boundary	Sec 3.2	
103-2 Training and Education	Explanation of management approach	Sec 3.2	
103-3 Training and Education	Evaluation of management approach	Sec 3.2	
404-3	Percentage of employees receiving regular performance and career development reviews	Sec 3.2	
103-1 Community Engagement	Topic boundary	Sec 3.4	
103-2 Community Engagement	Explanation of management approach	Sec 3.4	
103-3 Community Engagement	Evaluation of management approach	Sec 3.4	
413-1	"Operations with local community engagement, impact assessments, and development programs"	Sec 2.1, 3.4	
103-1	Topic boundary	Sec 3.5	
103-2	Explanation of management approach	Sec 3.5	
103-3	Evaluation of management approach	Sec 3.5	
416-1	Assessment of the health and safety impacts of product and service categories	Sec 3.5	
416-2	Incidents of non-compliance concerning the health and safety impacts of products and services	Sec 3.1, 3.5	
103-1	Topic boundary	Sec 3.6	

103-2	Explanation of management approach	Sec 3.6	
103-3	Evaluation of management approach	Sec 3.6	
418-1	Substantiated complaints concerning breaches of customer privacy and losses of customer data	Sec 3.6	

SECTOR SPECIFIC DISCLOSURES			
Reference	Disclosure	Location	Notes on Disclosure
G4-10	Report on total contractor workforce (contractor, subcontractor, independent contractor) by employment type, employment contract and regulatory regime.	Sec 3.3	Contractor workforce numbers are not gathered for all individual contracts. Numbers reported reflect regular contractors working on ESB Networks sites, NIE Networks sites, major construction and overhaul projects and facility service providers.
G4-11	Report on percentage of contractor employees (contractor, sub-contractor and independent contractor) working for the reporting organization covered by collective bargaining agreements by country or regulatory regime.	Sec 3.3	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 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, however, this data is not reported on as part of CES.
SS EU1	Installed capacity, broken down by primary energy source and by regulatory regime	Sec 3.8	
SS EU2	Net energy output broken down by primary energy source and by regulatory regime	sec 3.8	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.
SS EU3	Number of residential, industrial, institutional and commercial customer accounts	Sec 3.8	
SS EU4	Length of above and underground transmission and distribution lines by regulatory regime	Sec 3.8	
SS EU5	Allocation of co2e emissions allowances or equivalent, broken down by carbon trading framework	Sec 4.3	
SS EU10	Planned capacity against projected electricity demand over the long term, broken down by energy source and regulatory regime	Sec 2.3 Future Outlook	Future Outlook
SS EU12	Transmission and distribution losses as a percentage of total energy	Cross Reference Table	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 (6.35% for 2017, comprising Technical at 5.78% and Commercial at 0.56%) 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.
SS EU25	Number of injuries and fatalities to the public involving company assets, including legal judgments, settlements and pending legal cases of diseases	Sec 3.1	

SS EU26	Percentage of population unserved in licensed distribution or service areas	Cross Reference Table	100% of the population of ROI and NI have access to an electricity supply
SS EU27	Number of residential disconnections for non-payment, broken down by duration of disconnection and by regulatory regime	Sec 3.8	
SS EU28	Power outage frequency	Sec 3.8	Reported as Customer Minutes Lost (CML) in ROI, as required by the CRU. In NI, System Average Interruption Frequency Index (SAIFI) reporting methodology is employed by NIE Networks as required by URegNI
SS EU29	Average power outage duration	Sec 3.8	Reported as Customer Minutes Lost (CML) in ROI, as required by the CRU. In NI, System Average Interruption Frequency Index (SAIFI) reporting methodology is employed by NIE Networks as required by URegNI

5.3 GLOSSARY OF TERMS

Abbreviated Term	Explanation
BWR	Business Working Responsibly Award
CCGT	Combined Cycle Gas Turbine
CDP	Carbon Disclosure Protocol
CER	Commission for Energy Regulation
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
DCCAE	Department of Communications, Climate Action and Environment
DfE	Department for the Economy (NI, replaces DETI)
DAERA	Department of Environment and Rural Affairs (NI)
DTTAS	Department of Transport, Tourism and Sport
EAI (NEAI)	Electricity Association of Ireland
Eirgrid	Republic of Ireland System Operator
EPA	Environmental Protection Agency
EPRI	Electricity Power Research Institute
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
HSA	Health and Safety Authority
IBEC	Irish Business and Employer Association
IFA	Irish Farmers Association
IPPC	Integrated Pollution Prevention and Control Licence
IWEA	Irish Wind Energy Association
LTI	Lost Time Injury (in ESB defined as being absent from work on the next planned shift/day)
NOx, SOx,	Nitrous Oxides, Sulphur Dioxides,
NHA/PNHA/SAC/SPA	National Heritage Area, proposed NHA , Special Area of Conservation, Special Protection Area
NPWS	National Parks and Wildlife Service
RAB	Regulated Asset Base
SEAI	Sustainable Energy Authority of Ireland
SONI	System Operator Northern Ireland
UR	Utility Regulator of Northern Ireland
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

ESB Head Office
Two Gateway
East Wall Road
Dublin 3
D03 A995
Ireland
T: +353 1 676 5831
E: info@esb.ie
www.esb.ie
Twitter: @ESBGroup
LinkedIn: <https://www.linkedin.com/company/esb>
YouTube: <https://www.youtube.com/user/ESBVideo>

