LEADING THE WAY TO A BRIGHTER FUTURE

ANNUAL REPORT AND FINANCIAL STATEMENTS 2018

Energy for generations

ESB ANNUAL REPORT AND FINANCIAL STATEMENTS 2018

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ABOUT ESB

ESB was established in 1927 as a statutory body under the Electricity (Supply) Act 1927. With a holding of 95.4%, ESB is majority owned by the Irish Government. The remaining 4.6% is held by the trustees of an Employee Share Ownership Plan. As a strong, diversified, vertically integrated utility, ESB operates across the electricity market, from generation through transmission and distribution, to supply of customers, with an expanding presence in Great Britain's generation and supply markets. In addition, we extract further value at certain points along this chain by supplying gas and using our networks to carry fibre for telecommunications. ESB is a leading Irish utility with a regulated asset base (RAB) of approximately €9.6 billion (comprising ESB Networks €7.9 billion and NIE Networks €1.7 billion), a 38% share of generation in the all-island market and a significant supply business, supplying electricity and gas to approximately 1.3 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 2018, ESB Group employed over 7,800 people.

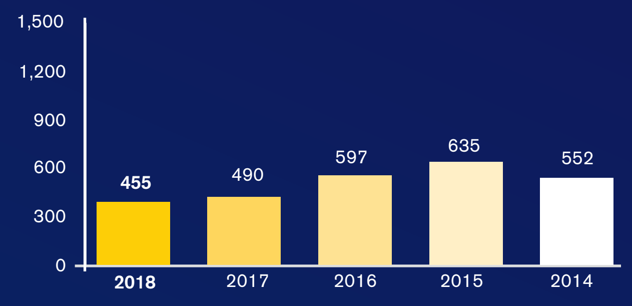
THE ESB NETWORKS DINGLE PROJECT IS PREPARING THE NETWORK **FOR THE FUTURE** BY FACILITATING THE ELECTRIFICATION OF HEAT AND TRANSPORT AND DEPLOYING SMART NETWORK TECHNOLOGIES ACROSS THE PENINSULA – THEREBY **EMPOWERING CUSTOMERS** TO PLAY THEIR OWN ROLE IN A LOW-CARBON ENERGY FUTURE.

LEADING THE WAY TO A BRIGHTER FUTURE

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

KEY FACTS AND FIGURES

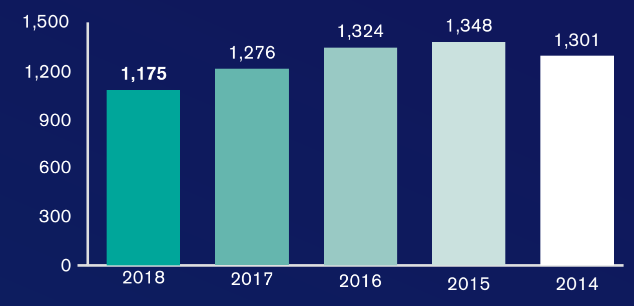
OPERATING PROFIT* €'M



(€35 million)

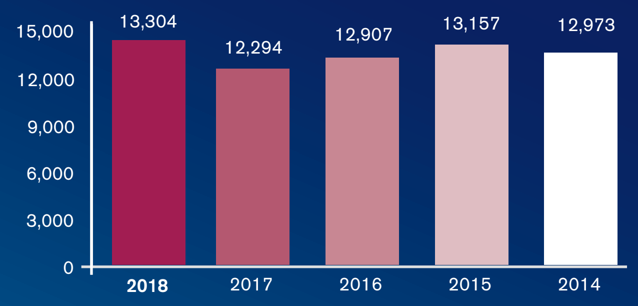
* Before exceptional items. See Financial Review page 50.

EBITDA* €'M



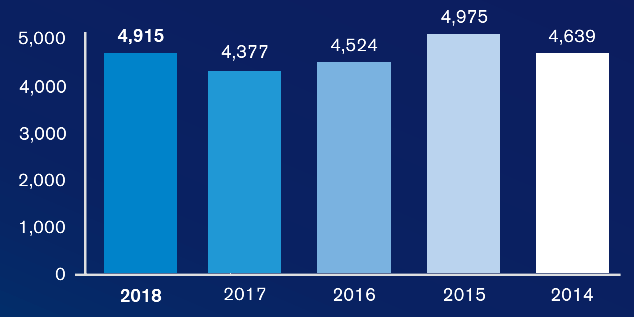
(€101 million)

TOTAL ASSETS €'M



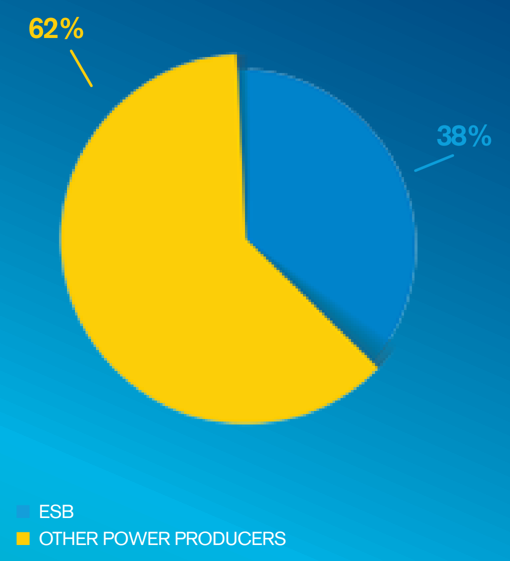
€1,010 million

NET DEBT €'M

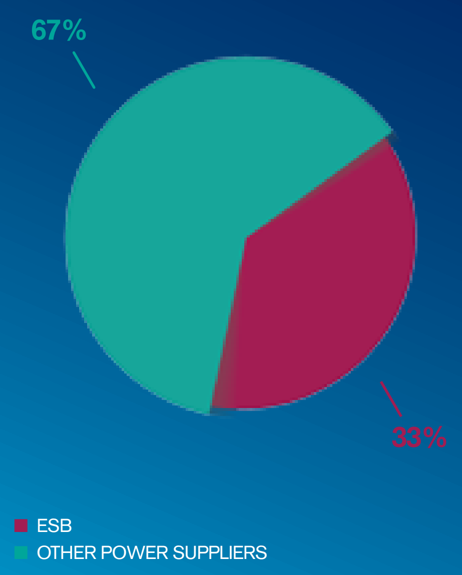


€538 million

GENERATION ALL-ISLAND MARKET SHARE



SUPPLY ALL-ISLAND MARKET SHARE



CONTENTS

ESB CURRENTLY HAS OVER **1,100** PUBLIC CHARGE POINTS ON THE ISLAND OF IRELAND AND HAS RECENTLY BUILT A RAPID CHARGE POINT NETWORK IN GREAT BRITAIN WITH OVER **60 CHARGE POINTS.**

1 CHAPTER 1

STRATEGY & PERFORMANCE

1 BUSINESS OVERVIEW

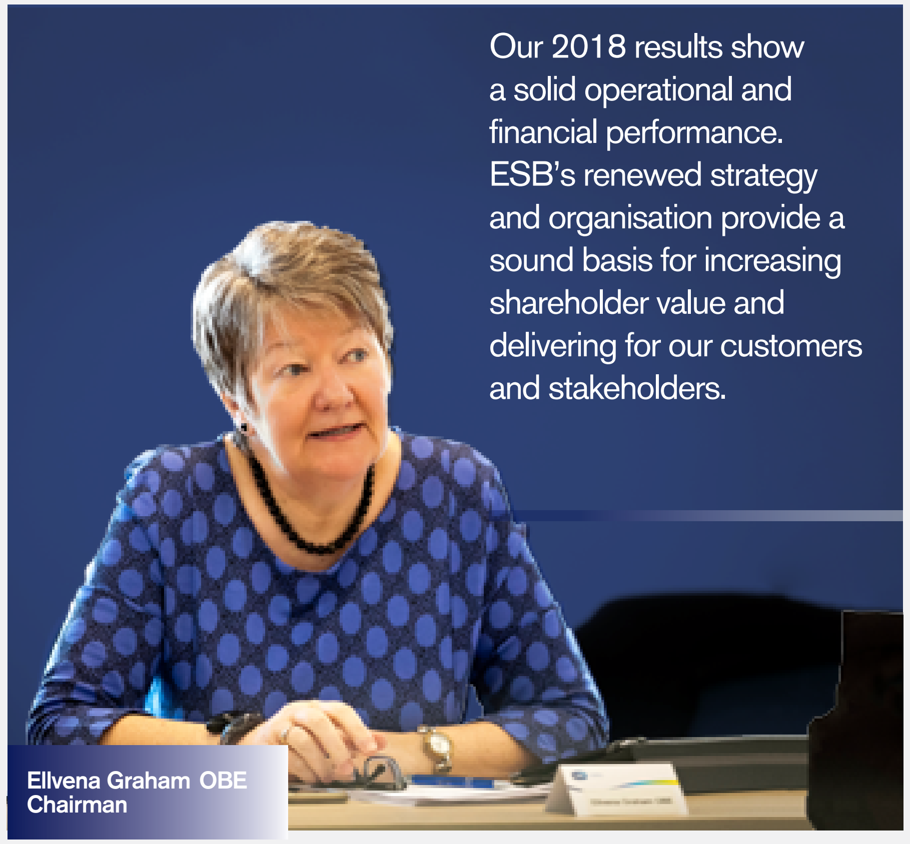
CHAIRMAN'S STATEMENT

I am delighted as Chairman to present the Annual Report and Financial Statements for ESB for 2018.

FINANCIAL PERFORMANCE AND DIVIDEND

In challenging market conditions as we transition to a low-carbon energy future, ESB delivered a satisfactory performance, with operating profit of €455 million and profit after tax of €181 million (both before exceptional items).

In line with ESB's dividend policy, the Board is recommending a final dividend of €5 million for 2018, which will bring the total amount of dividends for 2018 to €35 million and to €1.4 billion over the last decade. Our dividend policy provides for a dividend target of 40% of adjusted profit after tax each year.



Ellvena Graham OBE
Chairman

ESB STRATEGY AND BUSINESS ENVIRONMENT

The customers and communities we serve are at the heart of our strategy as we play our part to meet the challenge of climate change. We are doing this by connecting renewables to the networks, by increasing renewables in our own generation portfolio and by empowering customers to optimise their energy usage.

At EU and at national levels the competitive pressures in the energy sector are increasing. These developments include ever more stretching regulation of networks, the use of auctions to drive efficiencies among generators and high levels of new entrants to the supply market. ESB successfully met these challenges in 2018, as reflected in our operating profit for the year. However, lower margins have led to a significant impairment of our generation assets as more fully described in Notes 5 and 11 of the financial statements.

Responding to market constraints in Ireland, ESB has maintained business scale through successfully growing its UK revenues. Brexit therefore remains a source of uncertainty and ESB has adopted a range of measures to manage the associated financial and business risks.

ESB OPERATIONAL PERFORMANCE

The new, all-island wholesale electricity market - the Integrated Single Electricity Market (I-SEM) - commenced in October 2018. Most of ESB's power stations secured contracts in the first I-SEM capacity auction but some of ESB's older thermal units did not and as a result were decommissioned. We continued to renew our generation portfolio in 2018, by commissioning 78MW of renewable energy, with a further 158MW under construction.

In 2018 our energy supply business, Electric Ireland, provided excellent value and price transparency to its customers. In addition, Electric Ireland also announced a price freeze for residential customers for a second consecutive winter period.

The Smart Metering project, being carried out by ESB Networks, is a key part of the country's response to Climate Change. These new meters will support the transition to lower carbon generation and will allow all customers to be part of the sustainable energy future. They will eliminate estimated bills and will increase control for customers. Very good progress was made on this programme during 2018.

CAPITAL INVESTMENT

Total capital investment in 2018 was €1.2 billion across all our businesses, mostly in electricity infrastructure for the benefit of all the communities we serve.

HEAD OFFICE REDEVELOPMENT

One significant capital project is the redevelopment of the Fitzwilliam Street Head Office complex which commenced in 2017. The new development will set a standard for modern, sustainable office space in Dublin city with a design that is both sensitive to its surroundings and representative of its time.

GOVERNANCE AND VALUES

The Board is committed to the highest standards of corporate governance to manage risk and support sustainability and growth. ESB has put in place measures to comply with the Code of Practice for the Governance of State Bodies (2016). In addition, ESB complies, (on a voluntary basis to the maximum extent possible as a statutory corporation), with the UK Code of Corporate Governance 2016 and the Irish Corporate Governance Annex.

Delivering a high performance culture is one of ESB's five strategic objectives. We do this by applying and developing the values which have characterised ESB for over 90 years. Today, we express our values by saying we are courageous, caring, trusted and driven. The Board supports these values by engaging directly with staff, through holding board meetings at ESB locations throughout the country and by regular consideration of cultural indicators such as staff surveys, diversity initiatives and, of course, safety performance metrics. 'Safe and Sound', a major three year safety culture initiative, was launched in 2018 and is receiving excellent engagement from staff. (Please also see my Corporate Governance Report on page 88).

BOARD CHANGES

I would like to acknowledge the valuable contribution over the last four years of Peter O'Sullivan as a Board member and a member of the Health, Safety and Environment Committee. I also want to welcome Stephen Carrig who joined the Board from 1 January 2019.

CHIEF EXECUTIVE AND MANAGEMENT

I am delighted as Chairman that Pat O'Doherty has accepted the Board's invitation to remain as Chief Executive for the next three years. Pat has provided superb leadership to ESB over the last seven years and the Board looks forward to working with him as we continue to deliver our Brighter Future Strategy.
I would also like to congratulate Geraldine Heavey and Nicholas Tarrant who joined the Executive Director Team during 2018 and Paul Stapleton who was appointed Managing Director of NIE Networks and to wish them well in their new roles.

ESB STAFF

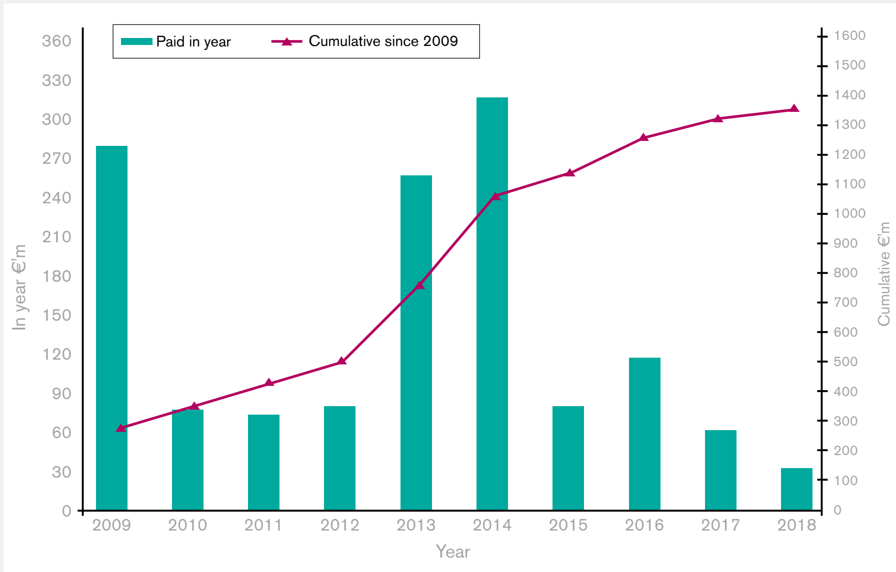
I want to acknowledge the commitment and loyalty of ESB staff in 2018. They continue to adhere to ESB culture and values to the benefit of all our stakeholders and the communities we serve.

CONCLUSION

In accordance with the provision of the Electricity (Supply) Acts 1927–2004, the Board presents the Annual Report and Financial Statements for the year ended 31 December 2018.

Ellvena Graham OBE, Chairman
1 March 2019

DIVIDEND PAYMENTS FROM 2009 UNTIL 2018



CHIEF EXECUTIVE'S REVIEW

Pat O'Doherty reflects on developments in ESB during 2018 and outlines his vision for a transformed energy system, powered by clean electricity in an in-depth interview with journalist Bernice Barrington.

Q 2018 saw major changes in the energy sector in Ireland, what impact did these have on ESB?

Many of the changes we saw in 2018 reflected broader trends that have emerged in recent years towards a more fragmented and competitive market, and an increased urgency in addressing climate change. We're now seeing much more international commentary on the future of the planet and it's increasingly accepted that clean electricity has a huge role to play in facilitating a low-carbon society. This is driving rapid change and presents new challenges and opportunities for ESB.

Q What is the biggest opportunity for ESB right now?

ESB's first Chief Executive, Thomas McLaughlin, talked in 1928 about electricity 'lightening human burdens, brightening human lives' and that rings very true today in the context of climate change. Electricity will be the catalyst for a low-carbon world. In ESB, we're looking in particular at heat and transport. If we can aid the electrification of these sectors, and remove carbon from the production of electricity, then electricity becomes a hugely transformative force.

Q Is ESB ready to take on such an ambitious challenge?

ESB, like many traditional utilities, is being challenged right across the value chain and we have to adapt our business to stay fit for purpose. In 2018, we carried out an organisation effectiveness review and reorganised our business to make sure that we have the right skills and structures in place to deliver on our strategy. This anticipates a future which will be much more collaborative and relationship based, and gives us the agility and flexibility to leverage our experience and capability to react quickly to change.

Q So what specifically is your focus?

There are three essential elements in delivering a low-carbon future. Firstly, we have to move the production of electricity from being predominantly fossil fuel-based to being low-carbon and renewable. Secondly, we need a network that can connect together new forms of generation and consumption, down to the level of industry, the consumer and the home, and thirdly, we need customers to use electricity in a way that maximises efficiency and minimises overall cost.

Q What do you mean by that?

Traditionally, power systems were designed for peaks; like in the evenings when everybody switches on their lights. We can't have that in a low-carbon and renewable future including electrified transport or heating because the costs would be prohibitive. Customers therefore have to become an integral part of the value chain; generating and storing their own electricity and moving their demand to different times of the day, i.e. when the wind blows or the sun shines and prices of electricity are lower. New technologies, both at a network and customer level, will facilitate this in a way that gives the customer much more control over when, and how, they use their energy, and the price they pay.

Q Are you sure that customers will engage in this way?

It can only happen if we truly understand and adapt to customers' needs and aspirations. In ESB, we are conducting trials and pilot initiatives to understand what will work best for customers. For example, at Electric Ireland we have been testing customers' responses to different scenarios where they might share control of their demand with their supplier in response to various price incentives. Separately, ESB Networks' Dingle Project is trying to figure out how the electricity network of the future will enable the participation and increasing involvement of the customer in a low-carbon future.

Q That sounds interesting - What specifically are you doing in Dingle?

In Dingle, we are creating an ecosystem of customers who will install a range of new technologies in their homes, such as electric vehicles, heat pumps, solar panels, battery storage and home automation. We are also putting automation devices into the network, which makes the network much smarter. In co-operation with the households and communities participating in the project, we will be understanding what happens in response to different signals and incentives, and how the network behaves under different conditions.

Q Coming back to the electrification of heat and transport, what is ESB doing to support the transition?

ESB has rolled out a fully integrated national electric vehicle charging infrastructure in the Republic of Ireland and Northern Ireland, and we are now about to undertake a significant upgrade to that network. We see that in the future, people will charge their cars predominantly at home but also at motorway and interurban charging hubs. Starting next year, we will expand and enhance the motorway charging infrastructure by installing fast charging multi-vehicle hubs. On the electrification of heat, we are working with policy makers to ensure that heat pumps are part of a wider vision for a decarbonised future.

Q So how far away is this future - is this something customers will see soon?

We are already well into this journey. We are currently the largest supplier of renewable energy in Ireland and over the next decade we plan to reduce the carbon intensity of our generation portfolio by two thirds. Similarly, our network already supports one of the highest penetrations of wind in the world. In 2018, we invested in the network to connect significant levels of renewable generation, while also furthering our smart network and our Smart Metering programmes to make the network smarter and more resilient. Customers are already benefiting, but in the next few years, they will see more products and services emerging that will give them greater control, comfort and convenience. For example, our Smarter Home product launched this year and will give customers more control over when and how they use their electricity.

Q Is it difficult to sustain profitability in the face of all this change?

There is certainly a challenge in today's highly competitive and demanding business environment. However, core to our operating model is the fact that we are a long term, capital-intensive business, so financial strength and an investment grade credit rating are an absolute must. We have to continually innovate and stay relevant to our customers as we transition to a reimagined energy system. To this end we are focusing our efforts on ensuring our regulated Networks businesses are fit for purpose in this new world, we will continue to invest in low-carbon and renewable generation.

Q Turning our attention to Electric Ireland, why did you increase electricity prices during the year and are you doing anything to mitigate the impact on customers?

Unfortunately, during the year, Electric Ireland had to increase prices on the back of rising wholesale energy costs. However, we froze electricity prices over the winter months knowing that it is the most difficult time for customers. Also, almost a million customers continue to enjoy enduring discounts through Electric Ireland's 'Stay Happy' programme that rewards loyal customers.

Q Are the right market and regulatory structures in place to support your vision for a low-carbon future?

The transition to a low-carbon energy future using clean electricity will have to be facilitated and enabled by the evolution of regulation and markets. A key development this year was the Integrated Single Electricity Market (I-SEM), the new wholesale electricity market in Ireland which went live during the year. ESB is now successfully trading in the I-SEM market.

Q Can you comment on ESB's financial performance?

In challenging market conditions ESB achieved a satisfactory financial performance in 2018 with an EBITDA and Operating Profit (before exceptional items) of €1,175 million and €455 million respectively. 2018 has been a challenging year for the generation business which has taken impairments on a number of its generation units due to a combination of lower plant running and downward pressure on energy margins. During 2018 ESB invested €1,165 million including circa €250 million in renewables as we lead the transition to low-carbon generation. The dividend for 2018 amounted to €35 million, bringing the total dividends paid over the past decade to €1.4 billion.

Q On a different note, there were four major storms in 2018, and they caused a lot of damage to the network. Is this something ESB will have to plan for in the future?

We see storms increasing in intensity, and we are planning for this through our investment in network resilience and automation, and in our storm response capability, so we can restore supply to customers, as effectively and as quickly as possible. Storm Ali was significant as it hit when most trees were still in leaf, causing much more timber damage than would have been expected from a similar storm later in the season.

Q Is the United Kingdom (UK) an important part of your strategy?

Yes. Part of our strategy is to expand into other markets because of the constraints we face in the Republic of Ireland (ROI). We now have less than 50% of both the generation and retail supply markets in ROI. The UK is 10 times the size of the ROI electricity market, and presents a real growth opportunity. We've expanded into the UK to maintain scale and capability in both our generation and retail businesses.

Q So what recent investments have you made in the UK?

Over the past 12 months, we made our first investment in offshore wind, buying a stake in Galloper, a 353MW offshore wind farm off the southeast coast of England. We also launched a new retail brand in Great Britain (GB) called ESB Energy, and increased our market share in NI. We are also developing a 700MW pipeline of onshore wind in Scotland.

Q Does this mean that Brexit is a big concern?

Brexit brings uncertainty to our business operations in ROI and the UK. Having said that, our operations are set up on a stand-alone basis and our Sterling revenues and our Sterling costs are reasonably matched. In terms of the trade of energy between I-SEM and GB, we don't expect a major impact because GB is very reliant on trading electricity and gas with Europe. Another consideration is the impact of Brexit on the ROI, NI and GB economies, and that's hard to predict as things stand.

Q It sounds like you've had a really busy year; to sum up, can you say what you are most proud of in 2018?

We made some really significant steps in 2018 that have put us in a much stronger position for the future. The Organisation Effectiveness Review to deliver on our 2030 Strategy, our move into offshore wind, and the Dingle Project are all key statements of intent in terms of preparing for a very different energy future. I'm also particularly pleased that in 2018, following the production of our report on 'Ireland's Low Carbon Future – Dimensions of a Solution', we're leading the debate on electrification and the role of electricity, and the role that we see for ESB in leading the transition to a low-carbon future.

I am extremely proud of the commitment, hard work and ongoing enterprise of ESB staff right across the Group in delivering on our Strategy and maintaining an efficient energy system for our customers, despite a very challenging and rapidly changing environment.

Q And looking ahead… what's next?

I'm very pleased that in 2018 my term as Chief Executive of ESB was extended for three years, and I'm looking forward to working on delivering ESB's strategy through 2019. Major areas of focus for me will be ensuring that our organisation review is implemented. This is critical for ESB in terms of positioning us to deliver on our strategy. In this context, safety remains an area of fundamental importance and we have put in place robust procedures to maintain the safety of our staff, contractors and the public.

Another area of focus for me will be working with regulatory, policy, and industry stakeholders, to ensure that the wider electrification agenda is put centre stage, in leading the transition to a low-carbon future.

Pat O'Doherty, Chief Executive
1 March 2019

01 STRATEGY AND PERFORMANCE
02 CORPORATE GOVERNANCE
03 FINANCIAL STATEMENTS

ESB AT A GLANCE

BUSINESS SEGMENT	GENERATION & TRADING (GT) FORMERLY GENERATION AND WHOLESALE MARKETS (G&WM)	ESB NETWORKS	NORTHERN IRELAND ELECTRICITY NETWORKS (NIE NETWORKS)	ELECTRIC IRELAND (PART OF CUSTOMERS SOLUTIONS DIRECTORATE)	OTHER SEGMENTS
REVENUE	€1,491m	€1,138m	€302m	€1,835m	€310m
OPERATING PROFIT*	€37m	€355m	€62m	€54m	(€53m)
CAPITAL EXPENDITURE**	€299m	€590m	€171m	€14m	€91m
AVERAGE EMPLOYEE NUMBERS	1,009	3,440	1,206	420	1,799
LINK TO OTHER SECTIONS IN THE REPORT	See page 56 GT Operational Review	See page 59 ESB Networks Operational Review	See page 62 NIE Networks Operational Review	See page 64 Electric Ireland Operational Review	See page 67 and 68 for Engineering & Mayor Projects and Enterprise Services Operational reviews

SEE NOTE 2 (SEGMENT REPORTING) IN THE FINANCIAL STATEMENTS FOR FURTHER DETAIL
SEE PAGE 40 FOR FURTHER DETAILS ON ORGANISATION EFFECTIVENESS REVIEW
*BEFORE EXCEPTIONAL ITEMS (SEE NOTE 5 IN THE FINANCIAL STATEMENTS FOR FURTHER DETAIL)
**GROSS OF SUPPLY CONTRIBUTIONS

HIGHLIGHTS

SHAREHOLDERS

DIVIDEND OF €35 MILLION FOR 2018

RETURN ON CAPITAL EMPLOYED OF 4.5%

RE-AFFIRMED CREDIT RATING A-

CUSTOMERS

ENDURING SAVING OF UP TO 8.5% TO RESIDENTIAL ROI CUSTOMERS LAUNCH OF ALL ELECTRIC DISCOUNT TARRIF AND SMARTER HOME

DELAY OF REQUIRED ELECTRICITY PRICE INCREASES UNTIL AFTER THE WINTER BILLS

CUSTOMER SATISFACTION OF 85%

32,000 NEW CUSTOMER CONNECTIONS

NATIONAL CUSTOMER CONTACT CENTRE ACCREDITED WITH CUSTOMER CONTACT ASSOCIATION GLOBAL STANDARD FOR THE ELEVENTH CONSECUTIVE YEAR

IRISH ECONOMY

ESB INVESTED OVER €900 MILLION IN ENERGY INFRASTRUCTURE AND OTHER INVESTMENTS DURING 2018

ESB CONTRIBUTES ALMOST €1.7 BILLION ANNUALLY TO THE IRISH ECONOMY

OVER 7,800 EMPLOYEES

OVER €2 MILLION WAS DISBURSED ACROSS A RANGE OF COMMUNITY INITIATIVES

1 STRATEGY, BUSINESS MODEL, RISK REPORT AND KEY PERFORMANCE INDICATORS (KPIs)

STRATEGY

During 2017, the Board undertook a review of ESB's strategy to test and validate the underlying assumptions, reaffirm the overall strategic direction of the Group and extend the planning horizon out to 2030. Based on this analysis, a new multi-year Strategic Framework was approved by the Board in November 2017. Developments with regards to key drivers for this framework were reviewed by the Board at a November 2018 strategy session. In 2018, ESB completed an Organisation Effectiveness Review (OER) to ensure that ESB's organisation structure is fit for purpose to deliver on its stategic objectives (for more details on OER, see page 40).

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 and 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 maintain 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.

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

Since its establishment in 1927, ESB has been characterised by a commitment to driving society forward and creating opportunities for the communities it serves. The challenge for ESB today is to be a leader in the transition to reliable, affordable, low-carbon energy and to serve its customers better and achieve sustainable growth.

ESB'S VALUES

ESB's values to be courageous, caring, trusted and driven are deeply rooted in the organisation and encapsulate the integrity and ambition that ESB stands for. They are integral to the development and delivery of Strategy 2030 – informing ESB's day-to-day behaviour and decisions, and they underpin our commitment to earning the trust that customers and communities place in ESB.

STRATEGIC FRAMEWORK

The Strategic Framework for Strategy 2030 (see page 20) will ensure that ESB's strategic objectives, which are outlined further below, are commercially driven and are consistent with ESB's overarching purpose and values, as already described above.

In implementing Strategy 2030, ESB will be guided by its Strategy Statement which articulates ESB's geographic focus, business focus and its commitments to customer centricity, collaboration and innovation.

STRATEGY STATEMENT

Through our diverse businesses across the Republic of Ireland, Northern Ireland and Great Britain 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

STRATEGIC OBJECTIVES

Strategy 2030 sets out the following five Strategic Objectives described in further detail on page 21:

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

ESB'S BUSINESS ENVIRONMENT

A summary of the key business environment factors that significantly impact on the ESB Strategy are set out below:

1. Climate and energy policy
2. Advances in technology
3. Changing customer preferences
4. Emergence of new business models
5. Brexit (the decision by the United Kingdom (UK) to exit the European Union (EU))

1 CLIMATE AND ENERGY POLICY

Climate change is one of the biggest challenges facing humanity and there is a critical need to reduce global greenhouse gas (GHG) emissions to protect current and future generations. This is acknowledged in a range of international agreements and national policies that set ambitious targets to curtail global warming.

In the near term, under the EU 2020 framework, there are legally binding targets at national levels to decrease carbon emissions for sectors such as transport, agriculture and buildings. The Republic of Ireland (ROI) and the UK have also set targets for the proportion of electricity to be produced from renewable sources of 40% and 30%, respectively.

Current EU policy foresees reducing total GHG emissions produced by 80–95% by 2050. ROI is committed to the long-term, progressive decarbonisation of its energy system, targeting 80% reduction by 2050 and 100% reduction by 2100. This is in addition to its 2050 target of carbon neutrality between agriculture and other land uses such as forestry. The UK Government set a similar national target of an 80% reduction in GHG emissions by 2050, independently of the EU targets.

A pan-European Emissions Trading Scheme (ETS) imposes quotas on the quantity of permissible emissions from large installations including electricity generation stations. These quotas are being progressively lowered each year to drive the technological innovation necessary to achieve full decarbonisation by 2050. The legal and market structures of the ETS make individual companies, rather than governments, liable for reducing emissions. The electricity sector, which accounts for 18% of emissions in Ireland (Figure 2), is on track to achieve the targets that have been set. This is illustrated in Figure 1 which sets out the progress already made in ROI in reducing the carbon content of the electricity sector and the projected further progress.

In contrast to the ETS, the responsibility and associated compliance costs of reducing emissions from agriculture, transport and buildings rests with each national government. Together, these sectors account for over 75% of national emissions, significantly more than those from the electricity sector as illustrated in Figure 2. Government policy in both ROI and the UK now explicitly recognises that removing carbon from transport and heat is key to meeting national emissions targets and addressing climate change.

During 2017, as part of its contribution to the national debate, ESB, with Poyry, published a comprehensive report – 'Ireland's Low-Carbon Future – Dimensions of a Solution' setting out a technically feasible and practical pathway for Ireland to meet its carbon reduction targets. The report is available to download from ESB's website (www.esb.ie) and has informed ESB's strategy. In 2018, ESB has continued to contribute actively and constructively to European and national debate on the optimal mode of decarbonisation.

2 ADVANCES IN TECHNOLOGY

Rapid advancements in technology have impacted the cost and pace of change in the utilities sector across the value chain. The EU Clean Energy Package cites an 80% reduction in solar-photovoltaic costs between 2009 and 2015 and a 30–40% reduction in wind generation costs (both onshore and offshore) over the same period. During the past year, these trends have continued as both the cost competitiveness of low-carbon power generation technologies (and of the battery and other storage technologies required to support their usage) have continued to improve. In the medium to long term, there are choices to be made to cover intermittent sources of electricity generation and the best technologies to deliver the end result are not yet obvious – there is a range of options but no single solution.

The application of communications and digital technologies such as data analytics, the integration of business IT systems with operational technology systems, cloud computing and artificial intelligence all have the potential to drive significant change in the design and operation of electricity networks. Technological advances will also enable a greater level of electricity production, storage and control, either directly by customers, or by service providers controlling and managing energy demand on their behalf.

3 CHANGING CUSTOMER PREFERENCES

Emerging technologies present a range of new options for customers to engage with the electricity system in different ways. This is creating a shift in the energy landscape and the willingness and ability of people to adapt their lifestyles and adopt new technologies will be at the heart of the transition to a low-carbon future. Customer expectations are increasingly influenced by their experiences beyond the utility sector – such as digitally-based service offerings including real-time responses. These changing preferences are all in addition to, not instead of, customer's ongoing expectations regarding secure, affordable and increasingly low-carbon energy.

4 EMERGENCE OF NEW BUSINESS MODELS

ESB sees advances in technology, energy and regulatory policy combined with changing customer preferences giving rise to a range of new business models. The business models create an increasingly competitive landscape, creating both challenges and opportunities for traditional utilities. ESB expects that this new landscape will see an increased focus on services both at a customer "energy as a service" level and at a wholesale level for the system to complement energy delivery. ESB also expects that the traditional distinction between generation, supply and network assets will become less easily defined as business models seek to extract value from technologies such as storage or demand response. To address this trend, and the other major changes to ESB's landscape, during 2018 ESB completed a major review of Organisation Effectiveness and implemented a new reporting structure and key business processes in order to enhance agility and focus on emergent customer needs. (See page 40 for further details).

5 BREXIT

The UK has voted to leave the EU and this is scheduled to take place by 29 March 2019. There is much uncertainty about the form and phasing of the UK's exit and the full consequences will play out over years rather than months.

ESB's investments in the UK have been guided by the strategic objective of having a diversified presence of scale across the value chain in both regulated and unregulated businesses where diversity is key to balancing risks and returns. ESB has adopted a range of prudent financial management policies to manage the financial risks and business risks of Brexit.

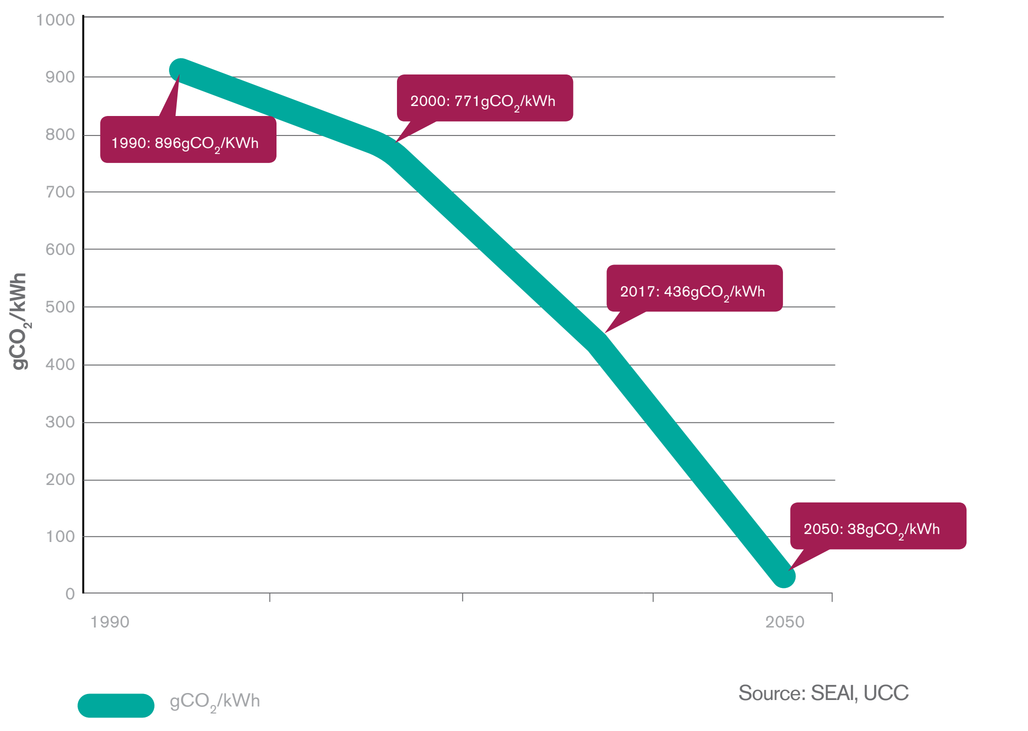
ESB's investment in Northern Ireland Electricity Networks (NIE Networks) increases the scale of its regulated asset base, and irrespective of Brexit, ESB would expect to operate within a stable system of regulation that encourages investment in Northern Ireland (NI).

ESB's Strategy 2030 seeks to grow its Generation-Trading-Supply (GTS) business of scale in Republic of Ireland, Northern Ireland and Great Britain. As Ireland and the UK 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 and transport by means of electrification should grow these opportunities further.

Subsequent to the UK's decision to leave the EU, the Regulatory Authorities in NI and the ROI jointly reaffirmed their commitment to the Integrated Single Electricity Market (I-SEM) project (which went live in 2018), which maintains a single, harmonised, wholesale all-island market.

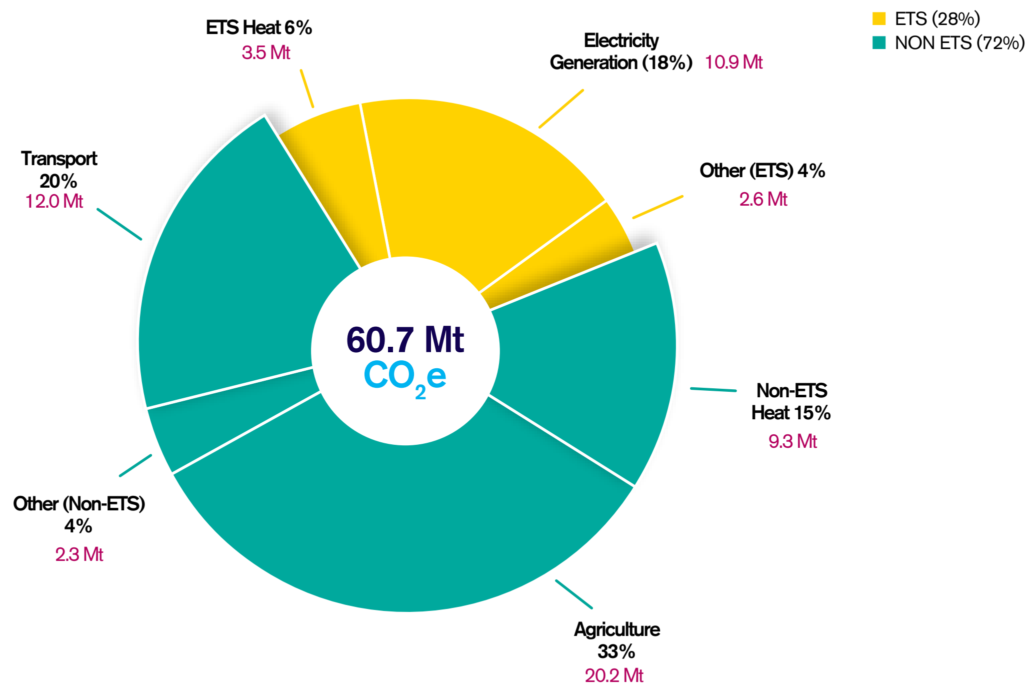
In summary, notwithstanding the uncertainty related to Brexit the UK energy sector continues to provide a pipeline of growth opportunities in proximate markets. ESB will continue to monitor and manage the current and emerging Brexit related impacts.

FIGURE 1: CARBON INTENSITY OF ELECTRICITY IN ROI - HISTORIC AND PROJECTED



Source: SEAI, UCC

FIGURE 2: ROI GREENHOUSE GAS EMISSIONS IN 2017



Source: ESB analysis based on EPA 2018 Reports

01 STRATEGY AND PERFORMANCE
02 CORPORATE GOVERNANCE
03 FINANCIAL STATEMENTS

STRATEGIC FRAMEWORK

OUR PURPOSE

ESB's purpose is to create a brighter future for the customers and communities we serve and we will do this by leading the transition to reliable, affordable, low-carbon energy

OUR VALUES

WE'RE COURAGEOUS

Every one of us has a responsibility and the opportunity to shape ESB into a business we can all be proud of

WE'RE TRUSTED

Trust is precious – we must continue to earn and be worthy of it

WE'RE CARING

We want to look the next generation in the eye knowing that we have done all we can to leave a positive legacy and have built a brighter future for everyone

WE'RE DRIVEN

We do our very best to make a genuine difference for our customers, our colleagues and our communities, continuously looking for ways in which we can improve our services to them

STRATEGY STATEMENT

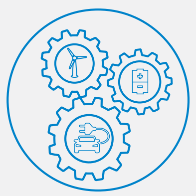
Through our diverse businesses across the Republic of Ireland, Northern Ireland and Great Britain we aim to meet customer energy needs by bringing the best of our capabilities together to deliver innovative and value-driven solutions for a low-carbon world

STRATEGIC 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

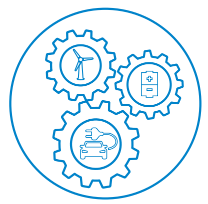
DELIVER A HIGH-PERFORMANCE CULTURE THAT SUPPORTS INNOVATION AND COLLABORATION

STRATEGIC OBJECTIVES

2018 BUSINESS ENVIRONMENT

• Climate and Energy Policy • Advances in Technology • Changing Customer Preferences • Emergence of New Business Models • Brexit





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
■ ESB will adopt a customer centric culture across all of its business activities which will not only build on our reputation for customer service and trust, but proactively look beyond traditional services to develop new and innovative insight-driven solutions to meet diverse customer needs	■ ESB's unique position as a player of scale in both Networks and Generation markets enables it to take a leading role in the decarbonisation of society ■ We will strengthen and adapt our traditional business models, and actively encourage and adopt new business models which leverage existing and new Generation and Networks assets to develop other products and services	■ The transition away from fossil fuels and the development of new technologies is creating a demand for new services to both balance the grid and give customers more control over their energy use ■ This presents an opportunity for ESB to capture value in this rapidly-growing market – both in terms of system services for the grid and energy services for supply customers	■ Maintaining a strong financial performance is key to ESB's strategy as it will determine our ability to raise capital to invest in the transition to a low-carbon future ■ ESB will continue to ensure activities are aligned to upholding its strong investment grade credit rating target (BBB+ on a stand-alone basis) ■ It will seek to maximise the value of its existing assets in order to maintain acceptable levels of financial headroom	■ Our ambition to lead the transition to a low-carbon future will depend on our ability to harness the talents, creativity and intrinsic motivation of our people to deliver on our strategy ■ ESB will cultivate a high-performing, innovative and customer-focused culture that encourages collaboration to share knowledge and insights on industry developments

STRATEGY IN ACTION - SEE PAGES 56 TO 68 FOR DETAILS OF PROGRESS ON STRATEGIC OBJECTIVES BY BUSINESS UNIT

STRATEGIC PERFORMANCE INDICATORS (SPIs)

INDICATOR	METRIC	2018	2030 TARGET
Scale Across the Value Chain	EBITDA* €Ms	€1.2 billion	>€1.9 billion
Market Shares	%	38% of SEM Generation 33% of SEM Supply 53% SEM System Services	>30% SEM Generation c.40% SEM Supply ≥40% SEM System Services
Carbon Intensity of the Electricity ESB Produce	gCO_2/kWh	454 CO_2/kWh	≤200g CO_2/kWh
Scale of Low-Carbon Energy Connected to our Networks	MW of Renewables Connected	4.0 GW in ROI 1.6 GW in NI	5GW in ROI 2GW in NI
Strong Investment Grade Credit Rating	Rating Equivalents	Credit ratings of A- or equivalent and BBB+ on a stand-alone basis	BBB+ on a stand-alone basis
Return on Capital Employed	ROCE (%)	4.5%	ROCE >WACC
Staff Engagement	Staff Survey Response Rate (%)	62%	75%
Safety Culture	Lost Time Incidents (LTIs)	52 employee LTIs	0 LTIs

See page 56 to 68 for short to medium-term priorities in the business unit sections.

*Earnings before interest, taxation, depreciation, impairment, amortisation (including amortisation of supply contributions) and exceptional items.

BUSINESS MODEL

Our Purpose is to '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
- 5,564 MW of generation capacity
- Over 229,000 kms of network across ROI and NI

Financial Capital
- A- credit rating
- Total net assets €3.6 billion
- Liquidity of €1.6 billion

Intellectual Capital
- Promotion of innovation
- Corporate governance structure

Human Capital
- 7,874 employees
- Employee development programmes
- Safety Leadership Strategy

Social and Relationship Capital
- Over 1.3 million customers

Natural Capital
- 816 MW of renewable generation

GENERATE

ESB develops, operates and trades the output of ESB's electricity generation assets. The portfolio consists of 5,564 MW of thermal and renewable generation assets across ROI, NI and GB, with a further 158 MW under construction

See page 56 for further detail

TRANSMIT

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

See page 59 and 62 for further detail

SUPPLY

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

See page 64 for further detail

OUTPUTS

Customers
- Customer satisfaction 85%
- 33% market share
- Enduring residential customer savings up to 8.5%
- 38% generation market share

Shareholder
- Dividend of €1.4 billion over the last decade
- Return on capital employed 4.5%
- €1.2 billion EBITDA

Irish Economy
- Invested over €900 million
- Contributes €1.7 billion to economy
- Over €2 million disbursed over a range of community based initiatives

WE'RE COURAGEOUS

WE'RE TRUSTED

WE'RE CARING

WE'RE DRIVEN

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

RISK REPORT

APPROACH TO RISK MANAGEMENT

The effective management of risks and the pursuit of opportunities supports the development of ESB's strategy while protecting the interests of its stakeholders. (see Risk Managment framework on page 26).

ESB is exposed to a number of risks and opportunities which could have a material impact on its performance and long-term development. The effective identification, management and mitigation of these risks and opportunities is a core focus of the ESB Group.

HOW ESB MANAGES RISK

The Board has overall responsibility for risk management and internal control. The current UK Corporate Governance Code 2016 (the UK Code) (C.2) and related guidance sets out the Board's responsibility for determining the nature and extent of the principal risks it is willing to take in achieving its strategic objectives. The Code of Practice for the Governance of State Bodies (Section 7.2) also refers to the Board's oversight of risk management including the requirement to "approve the risk management plan and risk register at least annually".

The Board ensures that the Group's risk exposure remains proportional to the pursuit of its strategic objectives and longer term shareholder value. It has adopted a Risk Management Policy and Governance Framework to support its oversight of risk throughout the Group.

The Board delegates responsibility for oversight of its principal and emerging risks to Board Committees in accordance with the Committees' Terms of Reference and their respective areas of expertise. The Committee Chairs report to the full Board on key developments and matters requiring further discussion and consideration. The Audit and Risk Committee has overall responsibility for ensuring that enterprise risks and opportunities are properly identified, assessed, reported and controlled on behalf of the Board and advises the Board on its consideration of the overall risk appetite, risk tolerance and risk strategy of the Group.

The details of the activities undertaken by the Board and the Audit and Risk Committee during 2018 in respect of their risk responsibilities are outlined on page 96.

ESB's approach combines a top-down strategic assessment of risk and risk appetite which takes account of the external business environment and any changes to the business model along with a bottom-up operational identification and reporting process, arising from a review and assessment of the business unit risk registers.

ESB's Risk Management Policy and Governance Framework was further enhanced during 2018 ensuring consistency of approach to risk management across the Group. Enhancements to the Governance Framework included updates to the Group Outsourcing Risk Guidelines, the development of a new Reputation Risk Guideline and a manual to assist businesses with external inspections. These resources are provided to support the businesses in their management of different aspects of risk. The Quarterly Risk Reporting packs provided to the Audit and Risk Committee were refreshed during the year to support the committee with its oversight responsibilities.

FOCUS DURING 2018

In early 2018, the Audit and Risk Committee reviewed and recommended to the Board the Group Risk Plan for 2018 which set out the Principal and Emerging Risks facing the Group. The Plan also included a comprehensive Work Plan for the Committee detailing its risk oversight activities for the year. The Committee identified a number of specific topics they wished to focus on during the year including:

- Cyber Risk
- Data Protection
- Brexit
- Technology and digital developments
- Outsourcing

The Committee held a full day off-site workshop to which all members of the Board were invited to examine these topics in more detail. External speakers provided additional insights for the Board members.

A full review of the Group's High Impact Low Probability (HILP) Risks was undertaken in 2018. HILPs are a class of risks with the potential to cause long-term, catastrophic damage to the business. This review resulted in a number of new HILPs being included in the Register.

Group Risk, Group Internal Audit and Group Finance functions continued to meet quarterly to review internal control and risk reporting. This ensures alignment between the functions, better information-sharing and opportunities to identify areas for improvement in the overall internal control framework.

RISK CULTURE

Our risk culture determines the way in which our employees identify, understand, discuss and act on the risks they take and are faced with on a daily basis (see values on page 20).

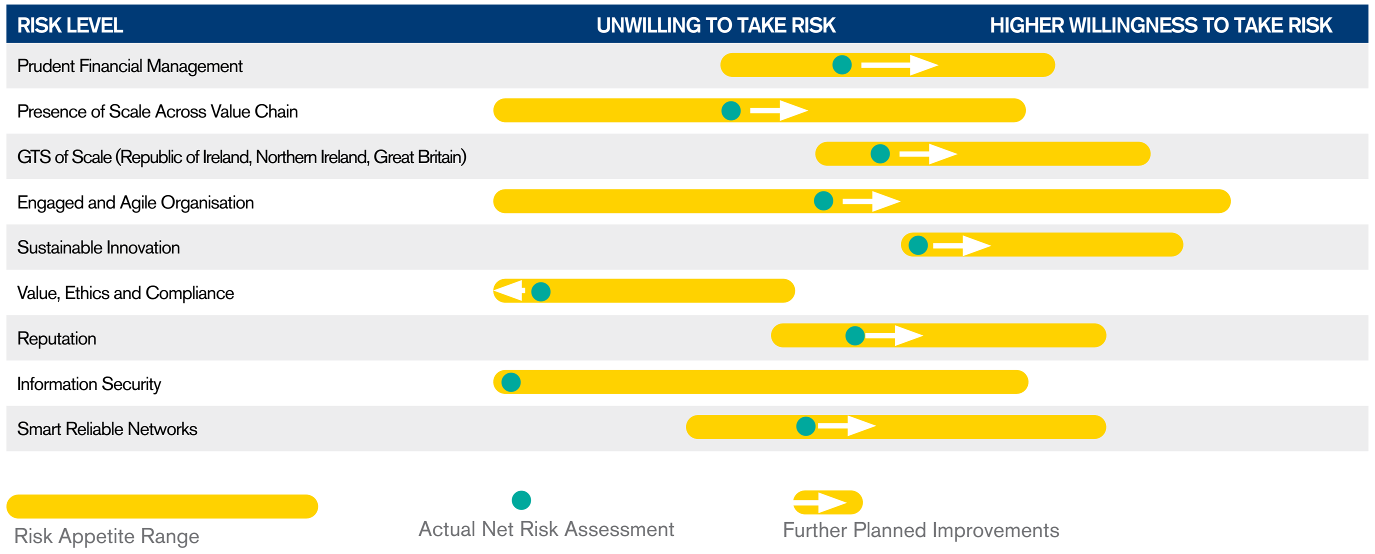
To enhance risk awareness, our values were discussed by senior managers through town hall gatherings with their teams as part of the Organisation Effectiveness Review - this helped to create clear and consistent understanding of how we will work. To support the embedding of risk culture, ESB has adopted policies which facilitate and encourage an environment where people can feel comfortable in raising issues and where management treat concerns seriously, professionally and in accordance with legal obligations applying under the Protected Disclosures Act 2014. Decision making is supported by having clear authority levels and the conduct of rigorous risk analysis as part of business/project planning. Specific training is provided for high-risk activities including cyber risk awareness, network operations, data privacy and energy trading activities. This approach has ensured that risks and uncertainties are highlighted at an early stage so that prompt action can be taken to minimise any impact they might have on employees and other stakeholders.

The Board is ultimately responsible for setting the tone at the top of the organisation. The approaches outlined have provided the Board with assurance that the risk culture supports the effective management of enterprise risk.

RISK APPETITE

ESB's Risk Appetite Framework is focussed on setting risk appetite at the Group level across different risk dimensions and provides the basis for communicating risk appetite down through the organisation. Consideration is given to our presence across all aspects of the industry value chain, our commitment to prudent financial management and our strong ethical approach to how we do business.

CURRENT RISK APPETITE



Risk appetite guides the annual business planning process by defining the desired forward-looking risk profile of the group in achieving our strategic objectives. It is embedded in day-to-day risk management decisions through the use of risk tolerances and limits for material risk types (e.g. energy trading and treasury operations). This ensures our risk profile remains aligned with our risk appetite, balancing risk and returns.

The Group Risk Appetite Statement is approved by the Board on the advice of the Audit and Risk Committee. The Brighter Future Strategy is consistent with the Risk Appetite signed off by the Board in 2017 in terms of focus of investment, geographies, technology and customer focus, the principal risks continued to be monitored by reference to the approved Risk Appetite Statement throughout 2018.

A full review of the Risk Appetite will be undertaken by the Board in 2019.

GROUP PRINCIPAL RISKS 2018

The 2018 Risk Plan takes at its starting point the Board's approved strategy "A Strategy for a Brighter Future – ESB 2030" (Strategy 2030). Additional external considerations included the National Risk Assessment 2017[1] and 2017 Global Risks Report[2], external market developments and other legal and regulatory considerations which can impact the business model. Emerging Risks are included, insofar as this is possible, for the period 2019 to 2021, to help identify exposures as early as possible.

The Principal Risks for 2018 are set out on pages 28 to 35. These risks are considered material to understanding how ESB creates value. A number of our Principal Risks remain constant from 2017, including Health Safety and Environment risk, Market/Innovation risk and Reputation risk. Two risks were moved from the Group Principal Risk Register to the Business Unit Risk Registers – the Network Access risk and Industrial Relations risk. The remaining risks persist from 2017, but the precise make-up of the risk has altered or the statement of the risk is more focused. Four new risks have been added to the Group Principal Risk Register.

The Group Risk Plan for 2018 is designed to provide adequate assurance that:

- specific consideration has been given to the risks to the achievement of our strategic objectives
- risks have been properly identified and measured on a bottom-up basis by the businesses and adequately challenged and reviewed on a top-down basis by Group Risk, the Risk Management Committee and the Executive Director Team Risk Forum
- risks and risk appetite have been aligned
- appropriate risk mitigations to reduce the probability of risks emerging and recovery mechanisms to reduce the impact of an event are in place
- emerging risk developments over time are being tracked
- management preparedness to manage risk is understood
- responsibility for risk is allocated to ensure accountability
- a Communications Plan is in place to apprise the Board and the relevant sub-committees on key risk topics throughout the year.

FINANCIAL RISKS

The main financial risks faced by the Group relate to liquidity, foreign exchange, interest rate and commodity (electricity and fuel) price movements. 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 (and the details are outlined in note 27 of the financial statements).

EMERGING RISKS

The risk management framework enables the Group to identify, analyse and manage emerging risks to help identify risk exposures as soon as possible. This is managed as part of the same process that identifies the principal risks. These are monitored and reviewed in conjunction with principal risks.

BUSINESS CONTINUITY

ESB is responsible for the provision of critical infrastructure and disruptions to certain services and operations are potentially damaging to the economy, to society and to ESB's business. ESB has in place a robust set of business continuity plans and processes to ensure that our responses are well managed and executed. The exercising and testing of these plans is key to ensuring ESB's preparedness.

[1] Published by Department of the Taoiseach
[2] Published by World Economic Forum

RISK MANAGMENT FRAMEWORK

TOP DOWN

CONTROLS

ROLE OF BOARD

Approves ESB Group Strategy

Approves Risk Policy, overall Risk Management Framework, Risk Appetite, Risk Plans and Performance Targets

AUDIT AND RISK COMMITTEE	FINANCE AND INVESTMENT COMMITTEE	HEALTH, SAFETY AND ENVIRONMENT COMMITTEE	REMUNERATION AND MANAGEMENT DEVELOPMENT COMMITTEE	MARKETING AND CUSTOMER COMMITTEE
Advises on risk appetite, risk governance and other high-level risk related matters	Advises on energy trading, treasury and investment / project related risk	Advises on policies and procedures to ensure ESB meets its health, safety and environmental obligations	Ensures alignment between approved risk appetite, compensation, selection and related decision-making processes	Ensures marketing and customer initiatives and programmes are aligned to ESB's strategic objectives

ROLE OF SENIOR MANAGEMENT

Formulate and implement strategy within risk appetite

Responsible for risk governance and controls

PROCESSES

RISK APPETITE

Describes risks the Group is prepared to accept based on long-term strategy, core risk principles, values and risk management competencies

RISK MANAGEMENT POLICIES AND GOVERNANCE FRAMEWORK	THREE LINES OF DEFENCE MODEL	RISK CULTURE	INDEPENDENT RISK FUNCTION
Ensures appropriate oversight of accountability for management of risk	Defines roles and responsibilities for risk management	Empowers people to do the right thing for stakeholders, customers and employees	Ensures the necessary review and monitoring of risk

RISK MANAGEMENT PROCESSES AND PROCEDURES

- PRINCIPAL AND EMERGING RISKS
- RISK AND CONTROL HEAT MAP
- BUSINESS CONTINUITY TESTING
- PROCESSES TO IDENTIFY, MONITOR AND MITIGATE RISKS THAT EXCEED THE RISK APPETITE

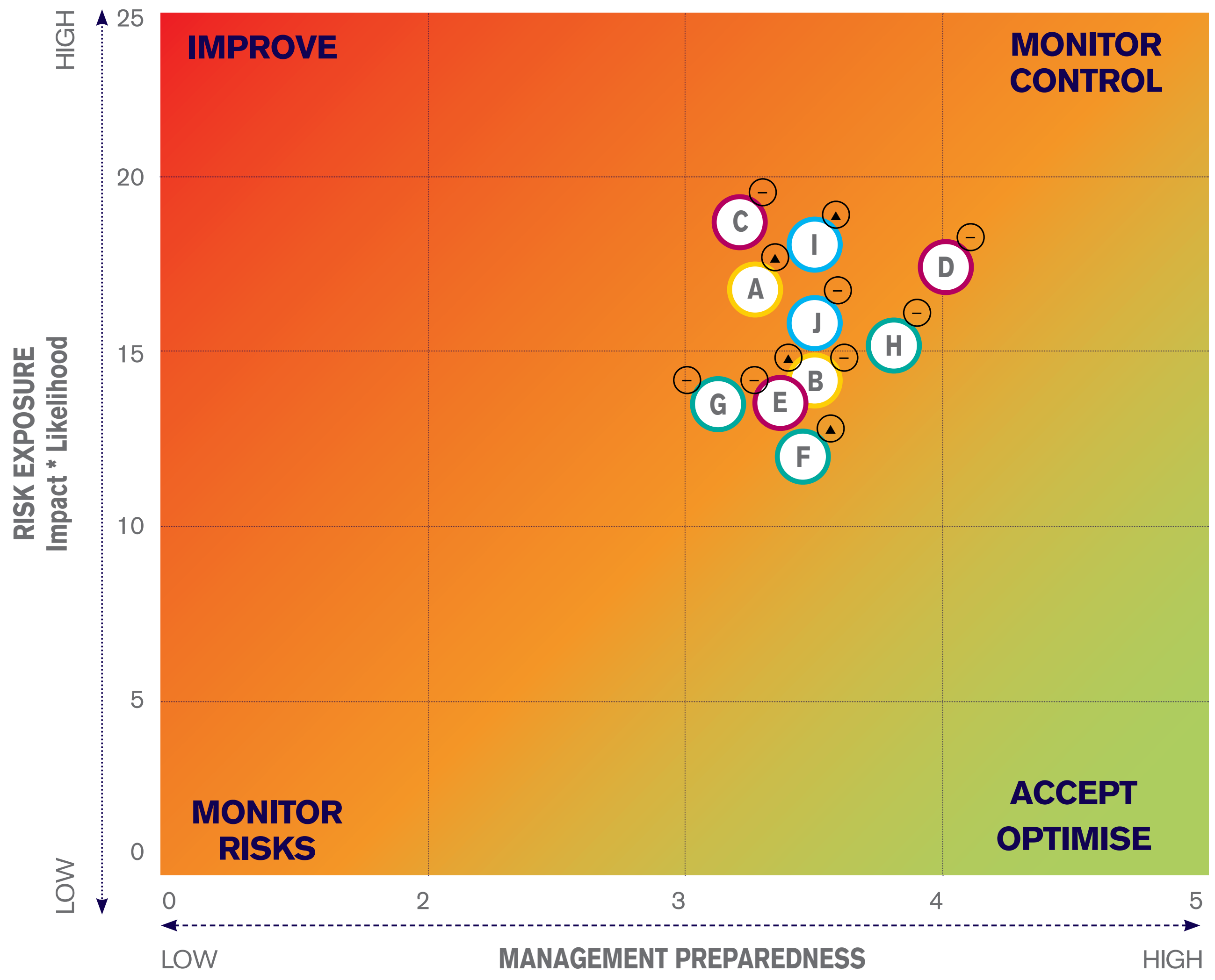
PRINCIPAL BUISNESS UNIT RISKS

Risks arising from business activities that are measured, monitored and managed

UNDERPINNED BY ESB VALUES

BOTTOM UP

RISK AND CONTROL HEAT MAP



FINANCIAL:
A Market Revenues
B I-SEM Transition and Energy Trading Risks

OPERATIONAL:
C Health, Safety and Environment
D Cyber and Systems Availability
E Data Protection
F Infrastructure

REGULATORY:
G Smart Metering programme delivery
H Brand/Reputation

STRATEGIC:
I Strategy
J Competition and Innovation

Risk Climate

INCREASE UNCHANGED DECREASE

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PRINCIPAL RISKS AND OPPORTUNITIES

The principal risks and opportunities that have the potential to have a significant impact upon the Group's strategic objectives are set out below, together with an indication of the strategic objective to which they relate, any change in the risk climate during the year, who is responsible for monitoring the risk, the principal mitigations, developments in relation to the risk during 2018 and areas of focus for 2019.

FINANCIAL

A. MARKET REVENUES

Risk Climate

Oversight: Finance and Investment Committee

What is the risk?

Risk of sustained, supressed market revenue in our generation and supply businesses

Risk Drivers

- Unfavourable regulatory interventions in the energy, capacity and ancillary services markets
- Uncertainty arising from change to market design – risk that Integrated Single Electricity Market (I-SEM) delivers lower than expected revenues for sustained periods
- Sufficiency of capabilities to operate effectively in the I-SEM and British Electricity Trading and Transmission Arrangement (BETTA) markets
- Increasing competition in the retail markets
- Volatility in commodity prices

Mitigations

To prevent the risk materialising:

- Interact with regulatory bodies to understand basis for decisions
- Challenge market design to address unintended consequences
- Enhance trading capabilities to deliver sustainable revenue stream from the market
- Active hedging of risk to protect market revenues
- Increased volume of energy commodity trading on exchange to increase market access to products
- Access to expert advice as required

If the risk materialises:

- Change trading strategy/systems to realise value of ESB's assets in the market
- Enhance trading capabilities
- Consider approach to future investment plans
- Deepen pool of available energy trading counterparties to spread risk
- Maintain strong liquidity buffer to ensure trading collateral demands are met

Developments in 2018

- I-SEM market went live in October 2018, the systems, processes and capability have been found to be robust through early operations of the new market
- Following on from the first I-SEM Capacity Auction, ESB decided to close its plant at Marina and one unit at Aghada
- Separate capacity contracts with 3rd parties were approved by the I-SEM Regulators which had not been expected
- The challenge to the GB Capacity Mechanism and subsequent suspension is being monitored for any impact on our GB activities (see page 45 for details)
- Electric Ireland increased electricity prices and gas prices in 2018 due to rising wholesale market costs, however, a price freeze has been put in place for Winter 2018/19

2019 Areas of Focus

ESB expects that market conditions in I-SEM will continue to be challenging in 2019. ESB will continue to compete vigorously in the market, consider its investment options and continue to provide value to its customers through prudent trading strategies

B. I-SEM TRANSITION AND ENERGY TRADING

Risk Climate ENERGY TRADING I-SEM TRANSITION

Oversight: Finance And Investment Committee

What is the risk?

Risk of a problematic I-SEM Transition and increased operational errors during changeover

Risk Drivers

- Overall I-SEM Project Delivery Risk – SEMO systems
- ESB Systems Delivery Project Risks
- Governance arrangements for the new Market
- Availability of key resources
- Cut-over risks
- Change management
- New energy trading systems workarounds and processes, along with new and increasing regulatory compliance
- Financial loss through material and operational error due to failure in systems, people and processes

Mitigations

To prevent the risk materialising:

- Formal project management approach adopted
- Risk management identified key risks throughout project delivery
- External support and expertise sourced
- Active participation in all industry forums
- Clear policies and procedures supported by regular training and updates for traders
- Comprehensive review of reportable control incidents
- Annual internal audit completed, which included a review of the overall framework to manage trading risk and included data analytics assessment of trades to identify areas for which a further assessment of controls was completed

If the risk materialises:

- Ability to flex resourcing model
- Escalation for significant risks to senior management
- Plan put in place prior to go-live with limited functionality developed as fall back
- Consider options for diverting less critical tasks to subsequent work plan
- Activate investigation procedures /crisis management plans if appropriate

Developments in 2018

- I-SEM went live on 1 October 2018
- ESB project team successfully transitioned systems and capability to the business
- ESB Project delivered on budget
- All necessary resourcing in place and training provided in time to go-live
- ESB has successfully traded in I-SEM without significant incident since go-live
- Operational risk management strengthened for I-SEM
- There were a number of unexpected reliability option events in 2018, further investigations and analyses are being undertaken

2019 Areas of Focus

As the new market continues to bed down, ESB will continue to enhance our systems and processes to ensure the opportunities for efficient trading in the new market arrangements are optimised. ESB will continue to work with the System Operator and the Regulatory Authorities to improve systems and processes to drive a successful I-SEM. Brexit developments will be kept under review

OPERATIONAL

C. HEALTH, SAFETY AND ENVIRONMENT

Risk Climate

Oversight: Health, Safety And Environment Committee

What is the risk?

Risk of serious injury or death to employees, contractors or the public or damage to the environment arising from our operations

Risk Drivers

- Inadequate policies and procedures
- Inadequate competence (training, knowledge and experience)
- Lack of compliance with standards and procedures (human behaviour)
- Deficiency in site supervision
- Failure to maintain assets
- Contracting partners unfamiliar with ESB Health, Safety and Environment policies
- Greater scrutiny and compliance with laws and regulations
- Failure to stay abreast of changes in standards/ industry practices
- Poor safety communications/low environmental awareness
- Occupational injury or disease

Mitigations

To prevent the risk materialising:

- Setting of Group standards
- Detailed training, development and approvals processes
- Safety Culture Transformation Programme
- Confidential Disclosures facilitated via Internal Audit Hotline
- Building the Safety and Environment/Sustainability Communities of Practice
- Maintenance Management Systems, Equipment Inspection and Certification, Statutory Inspections
- Public Safety Programme
- Governance and performance management processes
- Assurance & Audit Processes (External and Internal)
- External certification e.g. ISO
- External benchmarking of Environment and Sustainability performance level

If the risk materialises:

- Critical Incident Management and Response procedure
- Scenario testing
- Crisis management/Business Continuity processes
- Deployment of Occupational Health & Wellbeing Services to support employees
- Incident Investigation Standard & Procedures
- Monitoring, Tracking and Reporting of Serious Incident Action Completions

Developments in 2018

- Improvements noted in the number of serious safety incidents
- Improvements noted in key performance indicators including on time closure of actions from serious investigations and good catches
- Public safety awareness of the dangers of electricity improved and the dangers associated with electricity networks
- Implementation of ESB's Safety Strategy remains a priority and is progressing as planned
- Reduction in incidents of third party interference and theft of electricity assets
- Cross company reviews were carried out in relation to fire safety and contractor safety with recommendations being actioned
- Full review of all EPA licence conditions and related business risks completed in every Generation and Trading (GT) location and improvement plans have been developed as necessary

2019 Areas of Focus

Health, Safety and the Environment will continue to be a central focus for the Group in 2019 and we strive to embed a high performance culture as part of our Brighter Future Strategy

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

D. CYBER AND SYSTEMS AVAILABILITY

Risk Climate ↔

Oversight: Audit And Risk Committee

What is the risk?

Risk of major failure of Information Technology (IT) / Operational Technology (OT) systems arising from malicious or non-malicious IT infrastructural failures or successful cyber-attack.

Risk Drivers

- Successful cyber attack on ESB/outsource partners' systems
- Successful ransomware/phishing attack on ESB/ outsource partners' systems
- Significant hardware issue, software error, networking failures resulting in failure of IT infrastructure/systems
- Availability of expertise
- Increasing reliance on technology/systems for business processes
- Increasing frequency and sophistication of attacks
- Human error
- Challenges related to outsourcing

Mitigations

To prevent the risk materialising:

- Continuous monitoring of ESB's cyber environment (both internal and external)
- Regular review of IT systems and their resilience
- Suite of IT policies/procedures, in line with best industry standards
- Systems access controls
- IT security awareness across the organisation
- Timely upgrade of key IT systems and applications
- Use of encrypted devices
- Spam monitor for suspicious emails
- Up to date anti-virus software deployed
- Disaster recovery and failover arrangements
- External maturity assessments
- In-house expertise available
- Risk assessments for new systems

If the risk materialises:

- Activate crisis management plans
- Implement lock-down of firewall if appropriate
- Implement cyber incident response plans and recovery plans
- Continue to strengthen IT security's response and recovery capability

Developments in 2018

- ESB Cybersecurity Programme being implemented
- Significant ongoing investment in prevention and detection capabilities
- Preparations underway for Network and Infrastucture System (NIS) Directive implementation
- Implementation of 24 X 7 SIEM (Security Incident & Event Monitoring) system
- New OT Cybersecurity roles identified

2019 Areas of Focus

As a key national infrastructure provider, cyber risk is a priority for the Board. Aim is to maintain top quartile maturity

E. DATA PROTECTION

Risk Climate ↔

Oversight: Audit and Risk Committee

What is the risk?

Risk of significant personal data leakage or breach of data protection law.

Risk Drivers

- Inadequate IT security controls/standards
- Incorrect and unapproved use of personal data by employees or outsourced partners
- Human error while processing personal data
- Roles and responsibilities for data protection not understood
- Inadequate governance/oversight of data processors
- Failure to embed a culture of compliance due to lack of training and awareness of privacy rights and obligations
- Inability to demonstrate compliance with General Data Protection Regulation (GDPR) to the satisfaction of the Data Protection Commissioner (DPC)

Mitigations

To prevent the risk materialising:

- ESB IT Security Standards defined
- Policy on Data Protection updated for GDPR
- Governance framework developed to support demonstration of compliance with our obligations under the legislation
- Breach management process defined and operational
- Rights/Access request process operational
- Any process that includes personal data has a record of processing developed and is reviewed on a cyclical basis
- Maintain dialogue with DPC
- Embed privacy by design in ESB culture

If the risk materialises:

- In case of major breach, implement Major Incident Response Plan
- Provide accurate and timely communications to Regulators, employees and customers in accordance with our values
- Conduct immediate review of business process to identify root cause of breach and remedy
- Consider legal options with regard to contractual position where a third party processor of ESB data has caused breach

Developments in 2018

- ESB's GDPR Implementation Programme concluding having delivered significant enhancement to our Data Privacy Framework in 2018
- Policies including key roles and responsibilities, privacy notices, key processes in place to comply with GDPR
- Established Data Protection Officer (DPO) for the Group and governance processes finalised
- Significant effort put into training and awareness raising across the Group
- Systems improvements identified and investment committed to data deletion
- Meeting arranged with DPC to brief on key processing initiatives

2019 Areas of Focus

ESB respects the rights and freedoms of its customers, employees and others who trust ESB with their personal data. In 2019 the DPO will continue to work closely with the business units to ensure that ESB remains compliant. This will include co-operation and liaison with the DPC and other key privacy stakeholders. The Information Governance Council will continue to support the embedding of a culture of compliance across the Group

F. INFRASTRUCTURE

Risk Climate ↑

Oversight: Audit and Risk Committee

What is the risk?

Challenges to the build out of electricity infrastructure.

Risk Drivers

- Locational increase in infrastructure demand, both commercial (e.g. data centre) and domestic
- Challenges to the Transmission System Operator technical design solutions
- Delays to North-South Interconnector project
- Pressures related to connection of renewable generation within the timelines expected
- Planning permission challenges
- Land access challenges
- Growth in volume and quantum of compensation claims in relation to loss of development and/or land damage
- Scale and concentration of development puts strain on resources and project management structures
- Constraints in recruiting experienced staff such as project managers, planners, operators, jointers and commissioners to cater for workload

Mitigations

To prevent the risk materialising:

- Collaborative development of a 10 year plan to determine Dublin infrastructure and reinforcement requirements between ESB Networks and EirGrid
- Establishment of Projects Delivery team in ESB Networks Customer Delivery to deliver demand reinforcement across four regions
- Establishment of Engineering & Major Projects to deliver major infrastructure projects
- Provision of prioritised work programmes to ESB Networks Customer Delivery organisation
- Structured proactive engagement with key stakeholders (including EirGrid) regarding the delivery of North-South Interconnector
- Close engagement with developers, including clear communications regarding connection dates.
- Submission made to Law Reform Commission consultation on law relating to arbitration and compensation

If the risk materialises:

- Consider alternative innovative approach to connections
- Fully defend against any legal claims
- Review optimal resource model to deliver work programmes
- Consider recruiting new network planners
- Wider stakeholder engagement as part of our Brighter Future strategy to secure support for infrastructure development
- Development of turnkey capabilities in ESB to deliver large customer connection projects.
- Implement temporary connections while deeper reinforcement work is underway

Developments in 2018

- Following the completion of the Organisation Effectiveness Review, Engineering and Major Projects was established to deliver major infrastructure projects. New structures have been implemented in the networks business to drive project delivery and high performance
- Data centre demand growth (particularly in Dublin) has increased significantly in recent years and is forecasted to account for c.30% of total electricity demand by 2027. This step change in demand growth in such a relatively short time frame potentially results in a strain on infrastructure delivery resources and erodes the traditional reserve capacity available for organic growth

2019 Areas of Focus

ESB Networks will continue to innovate and engage with customers, Regulators, EirGrid and policy makers to understand and respond to their infrastructure needs for the benefit of the economy, society and the environment

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REGULATORY

G. SMART METERING PROGRAMME DELIVERY

Risk Climate ⟷

Oversight: Audit and Risk Committee / ESB Networks DAC Board

What is the risk?

Risk of reputational and financial risk associated with nationwide meter replacement programme and associated changes to retail market processes and IT systems

Risk Drivers

- Complex IT work programme required to deliver changes to central retail market systems
- Risk of legal challenge to procurement process
- Customer engagement challenges – failure to explain the benefits
- Various legal and regulatory risks
- Speed and complexity of roll-out
- Resourcing model

Mitigations

To prevent the risk materialising:

- Formal Project Management methodology adopted
- External support and expertise sourced
- Active participation in all industry forums
- Ongoing employee engagement
- Ongoing engagement with regulatory authorities / key stakeholders

If the risk materialises:

- Risk management identifies key risks throughout project delivery
- Ability to flex resourcing model
- Escalation of significant risks to senior management

Developments in 2018

- Project Manager and project resourcing in place
- Senior Stakeholder Forum established
- Key contracts awarded
- First phase of enabling system changes delivered
- Customer awareness and engagement strategy agreed with Commission for Regulation of Utilities (CRU) and industry

2019 Areas of Focus

2019 will be a significant year for the project as the first meters are installed in customers premises as well as the scheduled delivery (April 2019) of a major upgrade of the IT systems and retail market process. The Project remains on-track to meet this key milestone. Significant effort will be put into customer communications in advance of roll-out commencing

H. BRAND / REPUTATION

Risk Climate ⟷

Oversight: Marketing And Customer Committee

What is the risk?

Risk of damage to brand or reputation

Risk Drivers

- Materialisation of any Principal Risks
- Inadequate media/public response following damage to the network arising from adverse weather conditions
- Risk that ESB's suppliers or partners behave in a way that is inappropriate/ misaligned with ESB's values
- Adverse regulatory findings
- Failure to respond to a crises or negative media/social media campaign or actual event in a timely manner with accurate information
- Sustained negative public reaction to ESB activities that are contributing to climate change

Mitigations

To prevent the risk materialising:

- Corporate Communications Team in place
- External support available on brand, PR and media
- Social Media and Digital Communications Strategy
- Active monitoring of social media
- Integrated stakeholder communication and reputation programme
- Regularly review, update and test crisis and stakeholder management plans
- Stringent process for partner and supplier selection and clarity regarding expectation/values
- Ongoing monitoring of customer satisfaction and reputation metrics
- External Communications Strategy/Policy in place
- Ongoing engagement with media to facilitate open and clear communication

If the risk materialises:

- Activate relevant emergency plans, storm action plans, crisis and stakeholder management/ communications plans, as appropriate
- Corporate Communications activate external PR support arrangements, as appropriate
- Supplement resources of Corporate Communications Team in a crisis situation
- Timely, accurate response to issues with the fullest information possible provided
- Ensure response to any crisis is consistent with our Purpose and Values

Developments in 2018

- ESB's new brand advertisement "Brighter Future" supporting the transition to a low-carbon energy future was launched
- ESB launched Ireland's 'Low-Carbon Future - Dimensions of a Solution Report' as a contribution to the debate on solutions to address climate change.
- Our Sponsorship Portfolio was renewed with a focus on Science, Technology, Engineering, Arts and Maths (STEAM) related sponsorships in support of the Brighter Future Strategy
- ESB's values have been clearly articulated and communicated to all employees.
- Reputation score (externally validated) has increased and is now in the strong category

2019 Areas of Focus

ESB will strive to further enhance our reputation in 2019 through continued investment in our brands, leading the conversation about the transition to a low-carbon energy future and excellence in stakeholder engagement

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STRATEGIC

I. STRATEGY

Risk Climate ↑

Oversight: ESB Board

What is the risk?

Risk to successful delivery of our Brighter Future Strategy due to organisational capability or financial performance challenges

Risk Drivers

- Failure to achieve financial and operating performance targets in our regulated Networks businesses, required by challenging price controls
- Inability to achieve target returns for commercial investments
- Challenge of achieving necessary performance improvement targets in all our businesses
- Failure to achieve the scale and speed of new generation asset growth targets particularly in renewables
- Significant adverse policy or regulatory decisions impact profitability
- Challenge to attract/develop/ retain the optimal skill set required to operate the business and deliver the strategy

Mitigations

To prevent the risk materialising:

- Annual assessment of external business environment including Brexit assessments
- Strategic Performance Indicators (SPIs) defined and actively monitored
- Annual 5 year target setting and Business Planning to ensure alignment to Strategy delivery
- Monthly performance reviews of Business Plan
- Strategic approach to Human Resource Management used to identify critical roles /skill sets
- Clear communication of need for organisation changes

If the risk materialises:

- Annual review of Corporate Strategy
- Consider range of financial management options
- Review resourcing capability to deliver 2030 strategy

Developments in 2018

- Following the completion of an Organisation Effectiveness Review, new structures have been implemented to align the organisation to deliver the strategy
- The Board discussed strategy and risk at its regular meetings including holding specific strategy reviews as part of its work programme in 2018
- Challenging targets for performance improvement were set by the Board for all businesses
- A challenging market environment in Republic of Ireland (ROI), Northern Ireland and Great Britain has required impairments of certain generation assets and Joint Venture investments
- Despite changes in the business risk environment, ESB has maintained an investment grade credit rating A- (BBB+ standalone) due to prudent financial management

2019 Areas of Focus

ESB expects market conditions to remain challenging as we face into 2019. Brexit developments will be kept under review

ESB will continue to focus on achieving its key objectives under the Brighter Future to 2030 strategy:

- Putting customers' current and future needs at the heart of all our activities
- Producing, connecting and delivering clean, secure and affordable energy
- Developing energy services to meet emerging market needs
- Growing the business while maintaining ESB's financial strength
- Delivering a high performance culture that supports innovation and collaboration

J. COMPETITION AND INNOVATION

Risk Climate ↔

Oversight: Marketing And Customer Committee

What is the risk?

Inability or delay in identifying and implementing step changes in key markets due to competition and rapid technological or disruptive changes

Risk Drivers

- New/existing competitors with aggressive pricing/discount campaigns
- New products or services introduced more rapidly by competitors
- Competition based on Smart & Connected energy technologies
- Disruptive new entrants
- Failure to optimise opportunities arising from changes in the energy value chain
- Customer centricity/ collaboration not embedded
- Investment in new technologies fails to deliver returns
- Lack of agility

Mitigations

To prevent the risk materialising:

- Delivery of competitive price offerings and innovative products
- Customer Brand and Loyalty campaigns including "Stay Happy"
- Investment in capabilities and systems to enhance customer focus and service
- Digital Strategy to reduce costs and improve customer engagement
- Cost base flexibility to maintain competitiveness and adapt to changing customer needs
- NI & GB residential market expansion plans
- Exploit the business development pipeline in GB
- Provide customers with greater visibility and control over their energy use through continued development of smart and connected home solutions
- New innovation structures implemented as part of Organisation Effectiveness Review (OER)
- Targeted research & development effort on key corporate strategic objectives
- Work with strategic partners to champion adoption of new technologies
- Exploit existing assets and capabilities to achieve new revenue streams

If the risk materialises:

- Increase advertising and marketing campaigns to support and differentiate brand
- Scale business to address risk or opportunity
- Establish entry / exit options if required
- Re-organise the business and divert investment to alternative technologies or business models
- Stakeholder engagement
- Accelerate investment to either win back or develop new business model approaches
- Keep corporate strategy under review to inform potential options to enter new markets, acquire new business or pursue additional investments

Developments in 2018

- ESB's Dimensions Report maps the pathway to a low-carbon energy future
- Dingle Project launched to pioneer new Smart Technologies
- Electric Vehicle Infrastructure investment plans announced
- Projects for new technologies including battery storage in the pipeline
- ESB participates in the Global Utility Accelerator Programme "Free Electrons"
- Technology Roadmaps developed for low-carbon generation, Big Data, Smart Grids and Prosumer
- Improvements to Electric Ireland's online portals, enhancing self-serve capabilities for customers
- Growth in GB Market through ESB Energy, Smart Energy Services (SES) and ecars

2019 Areas of Focus

2019 will continue to be a very challenging year for the business. Competitive pricing will be key to delivering a profitable business and retaining customers in an uncertain market for wholesale pricing. Furthermore, the pace of innovation, disruption and technological change is set to increase over the coming years as we lead the transition to a low-carbon future

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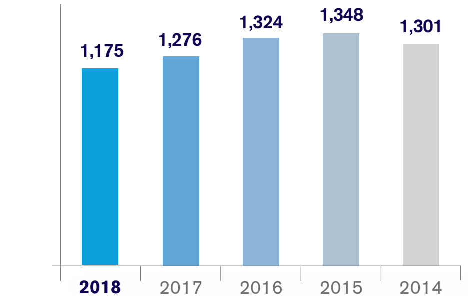
KEY PERFORMANCE INDICATORS (KPIs)

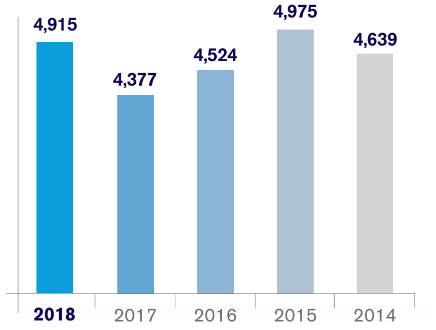
ESB employs financial and non-financial key performance indicators (KPIs), which signify progress towards the achievement of ESB's Strategy to 2030 (Strategy 2030). Each business unit has their own KPIs, which are in direct alignment with those of the Group and are included in the business units section on pages 56 to 68.

FINANCIAL

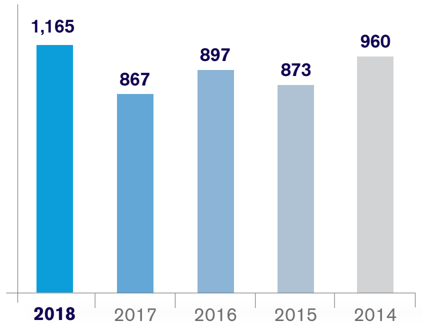
EBITDA €'m



Net Debt €'m



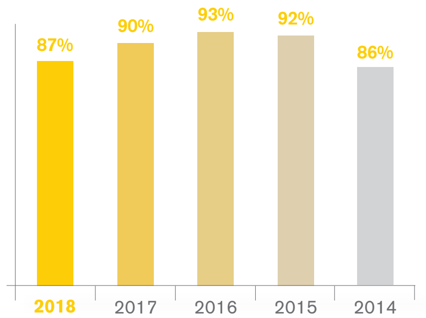
Capital Expenditure €'m



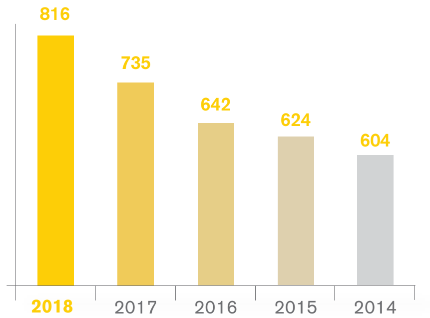
KPI	DEFINITION	STRATEGIC RELEVANCE	PERFORMANCE	STRATEGIC PRIORITY
EBITDA	Earnings before interest, taxation, depreciation, impairment, amortisation (including amortisation of supply contributions) and exceptional items.	EBITDA is a key measure of the cash generated in the Group during the year which is then available for strategic investments, repayment of debt and dividend payments.	The decrease in EBITDA is driven by factors impacting on operating profit. For further detail, see financial review on page 50.	
Net Debt	Borrowings and other net debt of cash and cash equivalents.	Net debt is a measure of how leveraged the Group is and if it is in line with its key covenants. Net debt will continue to grow as ESB partly funds its capital investment programmes with borrowings.	Net debt has increased reflecting continued capital investment, finance costs, dividends and tax payments, offset by positive EBITDA. For further detail see financial review on page 50	
Capital Expenditure	Additions for property, plant and equipment, intangible assets and financial asset investments. *2018 figure is gross of capital contributions in line with IFRS15 - revenue from customers.	ESB is in a period of significant capital investment for both its networks businesses and Generation and Trading (GT). This is so that ESB can develop the electricity network and compete within the all-islands environment.	For further detail see financial review on page 50. The increase in 2018 reflects change in accountancy treatment of capital contributions and ESB's investment in 353 MW Galloper offshore wind farm.	

OPERATIONAL

Plant Availability %

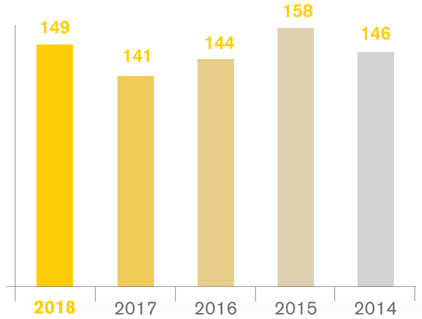


MW Renewable Operational*



*wind, solar and hydro

Customer Minutes Lost (CMLs)*

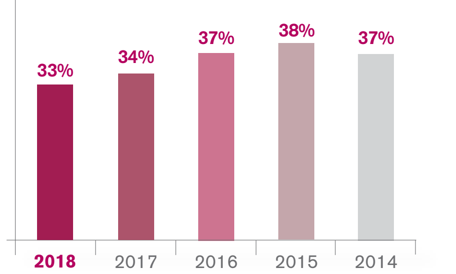


*ESB Networks

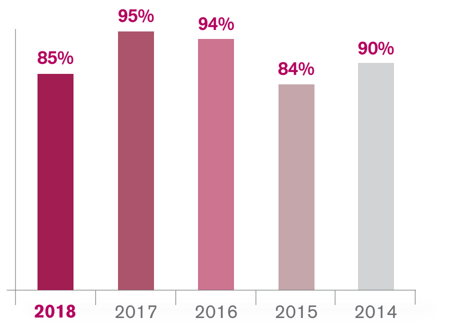
KPI	DEFINITION	STRATEGIC RELEVANCE	PERFORMANCE	STRATEGIC PRIORITY
Plant Availability	Percentage of the time in the year that generation plant was available to produce electricity, whether they generated or not.	Delivering strong operational performance across ESB's generation plant through best practice operations and maintenance and timely completion of overhauls is critical to ESB's commercial performance.	Plant availability reduced by 3% in 2018 primarily due to extended outage at Moneypoint. For further detail see GT business unit section page 56.	
MW Renewable Operational	Total MWs of renewable generation where the assets have reached their commercial operation date.	Renewable generation is key to ESB's objective to reduce the carbon intensity of its generation fleet.	The increase of 78MW relates to Castlepook Wind farm 34MW and ESB's share (12.5%) of Galloper offshore wind farm 44MW. For further detail see GT business unit section on page 56.	
Customer Minutes Lost (CMLs) ESB Networks	The average duration of interruptions (planned and fault) for all customers during the year.	The reliability of the grid and minimising interruptions to customers is of key importance to ESB.	ESB Networks remain committed to reducing the occurrence and duration of customer interruptions. The increase in CMLs in 2018 is due to increased number of storms in 2018 relative to 2017. For further detail see ESB Networks business unit section on page 59.	

CUSTOMER AND MARKET

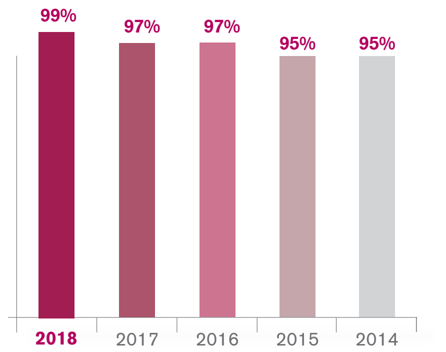
Retail Market Share %



Residential Customer Satisfaction %



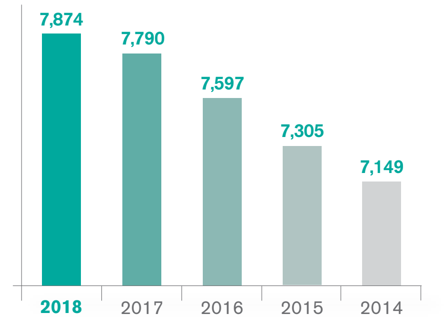
Brand Awareness %



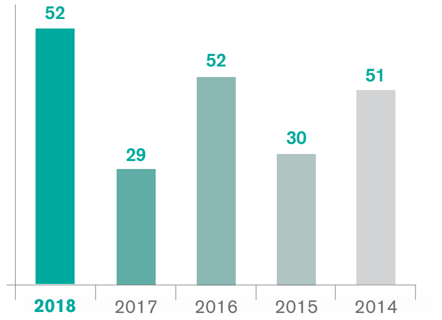
KPI	DEFINITION	STRATEGIC RELEVANCE	PERFORMANCE	STRATEGIC PRIORITY
Retail Market Share	Total Single Electricity Market (SEM) all-island market share.	Retention and growth of market share is key to ESB so that it can compete within the all-island competitive environment.	Electric Ireland's overall market share decreased by 1% during 2018 to 33% primarily as a result of customer losses in the industrial and commercial market sectors. For further detail, see Electric Ireland business unit on page 64.	
Residential Customer Satisfaction	Provides a measure of residential customer satisfaction (Source: Research Perspective Monthly Survey Results). (Methodology has been updated for 2018 to combine phone, email and the consumer panel as a range of contact channels used to report on customer satisfaction. 2017 and prior years were based entirely on phone. The updated methodology provides a more holistic view of our customers' satisfaction).	ESB strive to provide excellent customer service and introduce new initiatives to improve the customer experience in order to retain market share.	Residential customer satisfaction performed strongly throughout 2018. This can attributed to areas such as customer focus, brand and new smart solutions. Activities such as the winter price freeze and offering customers best long term value on market also reflect Electric Ireland's loyalty to customers. For further detail, see Electric Ireland business unit section on page 64.	
Brand Awareness	Awareness of Electric Ireland as an Energy Supplier (Source: IPSOS Mori Customer Survey Results).	Maintain the Electric Ireland brand as the leading energy supply brand in Ireland.	Brand awareness performance was strong in 2018 at 99% owing to enhanced marketing, sponsorship and promotional campaigns. For further detail, see Electric Ireland business unit section on page 64.	

PEOPLE

Headcount No.



Employee Lost Time Injuries (LTIs) No.



KPI	DEFINITION	STRATEGIC RELEVANCE	PERFORMANCE	STRATEGIC PRIORITY
Headcount	Average number of employees in the year including temporary employees employed by ESB.	The delivery of the strategy will require an organisation that is of a certain scale and is flexible, highly motivated and adaptable.	Headcount has increased in 2018 as a result of recruitment for new business lines along with apprentice and graduate recruitment. For further detail, see note 9 of the financial statements.	
Employee LTIs	Employee LTIs are work-related injuries that involve an absence of at least one day (not including the day the injury occurred).	Safety is at the centre of everything we do. ESB continues to focus on reducing risks in the business that gives rise to injurious incidents. For further detail, see safety on page 73.	LTIs have increased when compared to 2017, this is primarily due to manual handling incidents and will remain an area of focus for 2019.	

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1 OPERATING AND FINANCIAL REVIEW

ORGANISATION EFFECTIVENESS REVIEW

Organisational Re-structuring

During the year ESB carried out an organisation restructuring following an Organisation Effectiveness Review (OER) in order to ensure that the structures and processes in ESB are aligned with the delivery of the 2030 Brighter Future strategy, which aims to lead the transition to a low-carbon energy future.

Implementation of the new organisation commenced on 30 October 2018 but there will be a period of transition required in terms of people moves, processes and systems configurations to embed the new organisational structure.

The segmental information included in the financial statements reflects the previous organisation structure, which applied for financial management throughout 2018

The key features of the new organisation are:

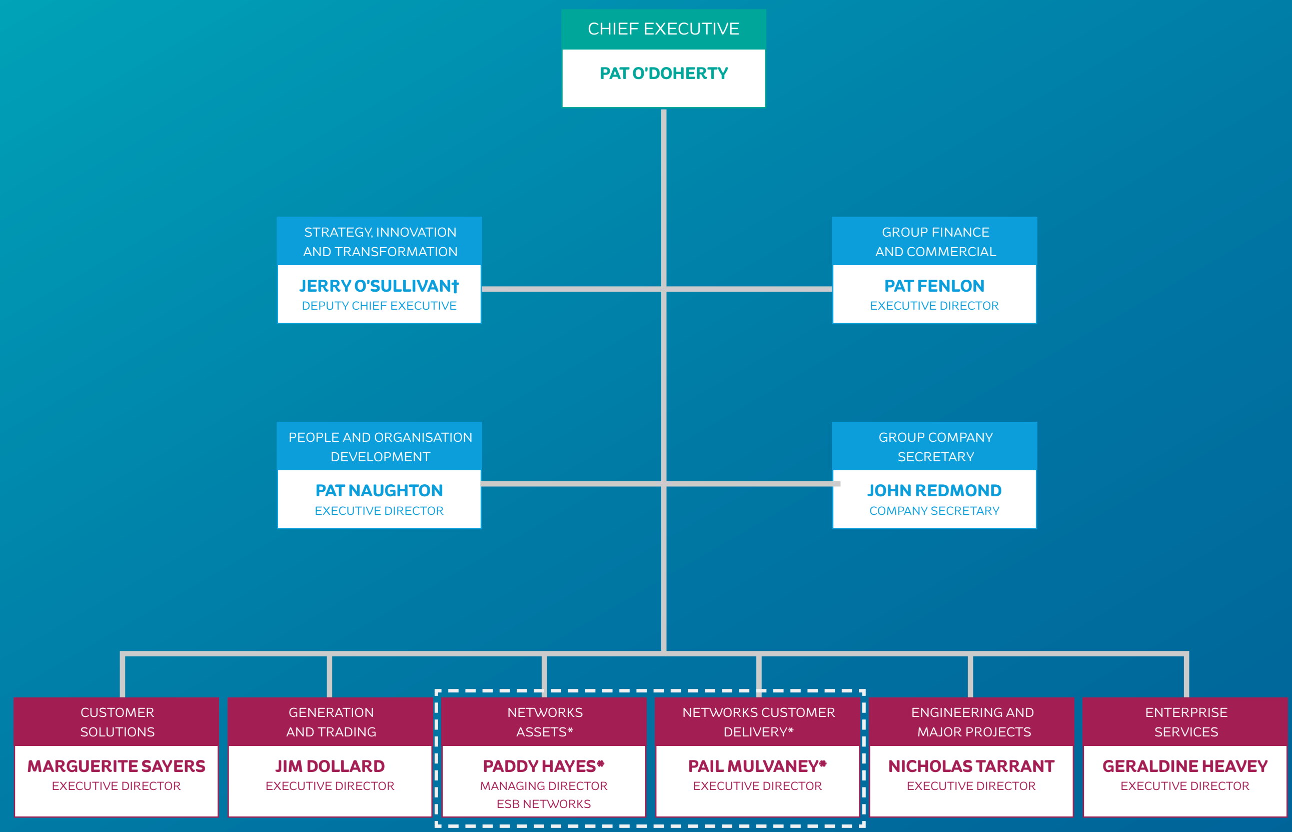
- A single face to the customer, bringing all our retail / business customers offerings together under Customer Solutions
- Strategically focused business units and functions, working with Engineering and Major Projects (E&MP) and enhanced shared services through Enterprise Services with improved end-to-end processes and capabilities
- Driving innovation at every level across ESB, with clearer innovation roles and a centralised innovation function managing pre-commercial opportunities up to business hand over stage
- An empowered ESB-wide trading capability with better connections to our customers
- A structured approach to talent across ESB, reinforced by centres of excellence and increased collaboration
- Common standards and processes across ESB whenever possible that can be adapted quickly to give us competitive advantage
- Strong, focussed digital and analytics capability delivering on business priorities, enabling greater use of data and adoption of digital technologies to empower employees

The organisation restructure involved the rebranding and re-organising of existing business units; a summary of the changes in the organisation structures can be found below:

OVERVIEW OF CHANGES

OLD	NEW
Electric Ireland	Customer Solutions: consolidation of the customer-facing brands (including Electric Ireland, Smart Energy Services, ecars and Telecoms) into one business
Generation and Wholesale Markets	Generation and Trading (GT): sets and delivers long-term strategy to maximise profits from both existing and new assets
ESB Networks	Networks Customer Delivery: strong customer focus and safe delivery of projects and programmes Networks Assets: focus on network strategy and investment
Business Service Centre	Enterprise Services: delivery of strategic advisory and core business services to support all business units in strategy delivery
Innovation	Customer facing parts of Innovation such as ecars, Smart Energy Services ecars, and Telecoms have moved to Customer Solutions ESB International is now part of Engineering & Major Projects New innovation products and business lines are now part of the Strategy, Innovation & Transformation (SIT) business unit
	Engineering and Major Projects (E&MP): develop cross-company engineering and technical capability to deliver major projects and engineering services across the ESB Group. This business unit includes ESB International Engineering consultancy business
	Strategy, Innovation and Transformation: set and manage strategic direction, influence energy policy and manage enterprise risk to deliver ESB's ambition for a low-carbon future. This business unit includes investments in NIE Networks, investment in SIRO, NovusModus Investments and innovative pre-commercial projects

ORGANISATION STRUCTURE



* Member of Board of ESB Networks

†NIE Networks reporting through Deputy Chief Executive

EXECUTIVE TEAM

The Executive Team focuses on the execution of the ESB Strategy to 2030 (Strategy 2030), technological and commercial developments, programme execution, financial and competitive performance, people development, governance, organisational development and Group-wide policies.

Pat O'Doherty Chief Executive

Appointed: December 2011, term extended by a further three years, effective 1 December 2018.
Career Experience: Pat joined ESB in 1981. Prior to his current role, Pat headed up ESB's largest businesses as Executive Director of ESB International, Managing Director of ESB Networks DAC and Executive Director of ESB Power Generation. Pat holds both primary and master's degrees in engineering from University College Dublin. He completed the Advanced Management Programme at Harvard Business School. He is a trustee of The Conference Board of the United States, a Director of Energy UK and Chair of the Apprenticeship Council of Ireland.

Jerry O'Sullivan
Deputy Chief Executive

Appointed:
October 2014
Career Experience: Prior to his current role, Jerry was Managing Director of ESB Networks DAC. He joined ESB in 1981 and held a number of positions in Power Station Construction, Distribution and Transmission, Retail, Contracting, Marketing and Customer Service. He was appointed Head of Network Services in 2002 and Head of Sustainability and Network Systems in 2008. He holds a primary degree in civil engineering from University College Cork and is a Fellow of Engineers Ireland.

Pat Fenlon
Executive Director Group Finance and Commercial

Appointed: July 2016
Career Experience: Prior to his current role, Pat held a number of senior financial, commercial and general management positions across ESB including Group Finance and Commercial Manager, Group Treasurer, General Manager of Electric Ireland and Corporate Change Manager. He is a Fellow of Chartered Accountants Ireland and worked with PwC in Dublin before joining ESB in 1993.

Paddy Hayes
Managing Director
ESB Networks DAC

Appointed: June 2012
Career Experience: Prior to his current role, Paddy was Executive Director of Generation and Wholesale Markets and held various senior management positions in ESB including Head of Independent Generation. Before joining ESB in 1999, Paddy worked with British Steel. A chartered engineer, he holds a master's degrees in engineering from University College Dublin and an MBA from the University of Warwick.

Marguerite Sayers
Executive Director
Customer Solutions

Appointed: November 2014
Career Experience:
Marguerite was appointed Executive Director Customer Solutions in May 2018. Prior to this she held the role of Managing Director of ESB Networks DAC. Marguerite joined ESB in 1991 and holds a primary degree in electrical engineering from University College Cork. Previously, she was Head of Asset Management for ESB Networks and Customer Service Manager for Dublin South, and has had roles in HR, Network Planning, Operations and Construction. Marguerite was also Manager of ESB Generation where she was responsible for ESB's generation portfolio in Ireland and the UK. She is currently Vice President of Engineers Ireland and is a member of the National Paediatric Hospital Development Board.

Geraldine Heavey
Executive Director
Enterprise Services

Appointed: June 2018
Career Experience:
Geraldine Heavey was appointed to the position of Executive Director Enterprise Services in June 2018. Prior to this she held a number of senior financial and general management positions across ESB Group including Finance Controller, Business Service Centre (BSC) and Electric Ireland, Manager, ESB Trading and most recently Group Finance and Commercial Manager. She is an accountant and holds a master's degree in business administration (MBA) from Dublin City University.

Paul Mulvaney
Executive Director
ESB Networks Customer Delivery

Appointed: October 2014
Career Experience: Paul Mulvaney was appointed Executive Director Customer Delivery ESB Networks in May 2018. Prior to this he held the position Executive Director Innovation. Paul joined ESB in 1985 and has held a number of senior management positions, including Manager of Great Island and Moneypoint Generation Stations, Group Manager of Coal / Oil / Gas Stations, Asset Manager Power Generation and Programme Manager, Corporate Change. He was appointed Managing Director of ecars in 2009 and Head of Distribution and Customer Service, ESB Networks in 2012. Paul holds a primary degree in mechanical engineering and has completed the advanced management programme at the Business School of the University of Navarra, Spain.

Pat Naughton
Executive Director People and Organisational Development

Appointed: June 2012
Career Experience:
A mechanical engineer, Pat has worked in a variety of roles since joining the Group in 1978. He previously held senior positions as HR Manager in ESB Energy International, Manager Strategy and Portfolio Development, ESB Energy International and Manager of Hydro Stations, ESB Power Generation.

John Redmond
Company Secretary

Appointed: October 2002
Career Experience: Prior to his current role, John was Assistant Secretary and then Group Secretary and Senior Vice President, Corporate affairs of GPA Group plc. / AerFi Group plc. and subsequently Company Secretary of Debis AirFinance BV. From 1980 to 1988, he worked in the Department of Foreign Affairs and the Department of Finance. John holds a Bachelor's degree in Philosophy from Maynooth University and holds postgraduate qualifications in corporate governance from Napier University, Edinburgh and from University College Dublin. He became a Fellow of the Institute of Chartered Secretaries in 1997.

Nicholas Tarrant
Executive Director Engineering and Major Projects

Appointed: June 2018
Career Experience:
Nicholas Tarrant was appointed Executive Director Engineering and Major Projects in June 2018. Prior to this he held the position of Managing Director, Northern Ireland Electricity Networks. Nicholas joined ESB in 1993 where he held a number of senior management positions including Generation Manager with responsibility for ESB's generation portfolio. He is a chartered engineer at the Institute of Engineers of Ireland and holds an MSc in Management from Trinity College Dublin, and completed the Standford Executive Program in 2014.

Jim Dollard
Executive Director
Generation and Trading

Appointed: July 2013
Career Experience: Jim Dollard was appointed Executive Director Generation and Trading in May 2018. Prior to this he held the position of Executive Director, Business Service Centre and Electric Ireland. A chartered management accountant, Jim began his career at ESB in 1992 and has held a number of senior management positions throughout the Group. Jim holds a Bachelor's degree in commerce and a master's degree in business studies from University College Dublin. He completed the Advanced Management Programme at Harvard Business School in 2017.

MARKET STRUCTURE AND OPERATING ENVIRONMENT 2018

1. OVERVIEW OF THE ELECTRICITY MARKETS STRUCTURE IN THE REPUBLIC OF IRELAND (ROI), NORTHERN IRELAND (NI) AND GREAT BRITAIN (GB)

The structure of the electricity market in ROI, NI and GB can be divided into four segments: generation, transmission, distribution and supply. Electricity generation and supply are open to full competition throughout ROI, NI and GB. Electricity transmission and distribution are regulated monopolies in ROI, NI and GB, with the respective regulator determining the allowed revenue for the price review period.

ENERGY POLICY AND REGULATION

Energy policies are set by the Minister for Communications, Climate Action and Environment in ROI, the Department for the Economy in NI and Secretary of State for Business, Energy and Industrial Strategy in GB. Energy policy and regulation are heavily influenced by European Union (EU) law.

The Commission for Regulation of Utilities (CRU) is the independent regulator of the energy market in ROI. The Northern Ireland Authority for Utility Regulation (NIAUR) is the independent regulator of the energy market in NI. The Office of Gas and Electricity Markets (OFGEM) is the regulator of the energy market in GB.

SINGLE ELECTRICITY MARKET (SEM)

The Single Electricity Market (SEM) was the single wholesale market (pool) for electricity in ROI and NI, which had been in operation from 2007 until 30 September 2018. On 1 October 2018, the Integrated Single Electricity Market came into effect (further details below). As a mandatory gross pool, all generators were required to sell and suppliers were required to buy power through the pool. The pool set the spot price for electricity, known as the System Marginal Price (SMP) every half hour. Generators received separate payments for the provision of stable generation capacity through a capacity payment mechanism. Price volatility in the pool was managed by generators and suppliers who entered into fixed financial contracts (contracts for differences).

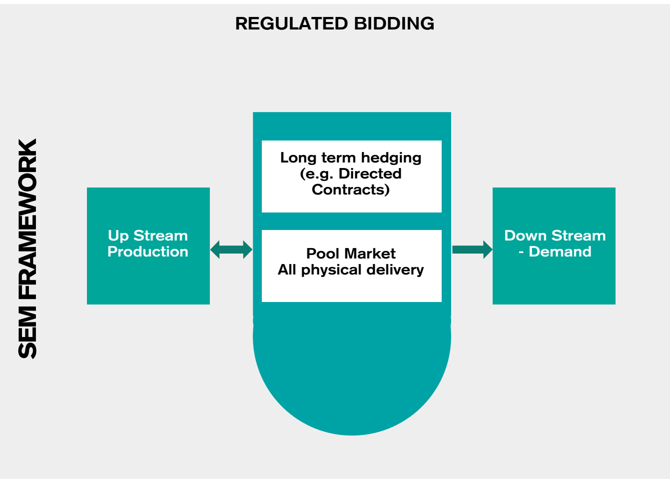
INTEGRATED SINGLE ELECTRICITY MARKET (I-SEM)

The new I-SEM market arrangements commenced 1 October 2018, replacing the centralised pool of the SEM with Day-Ahead, Intraday and Balancing Markets as well as a competitive capacity remuneration mechanism in place of the SEM's capacity payment regime. These changes have been driven primarily by the requirement to comply with EU harmonised arrangements for cross-border trading of wholesale energy and balancing services across Europe and by EU State aid guidelines for capacity remuneration. ESB had established a suite of I-SEM programmes to ensure that the business was ready for the new market arrangements. I-SEM had been scheduled to go-live on 23 May 2018, but a decision was made by regulations to delay implementation until 1 October 2018.
The process for remunerating capacity in I-SEM differs significantly from the SEM capacity scheme, where generators received payments based on availability. The new mechanism not only introduces an element of competition for capacity contracts via the auction process but also imposes reliability penalties on the holders of those contracts (if they are called upon to deliver capacity and are unable to do so). The first I-SEM capacity auction, which took place in December 2017 allowed generators to compete for Reliability Options for one year ahead (T-1) but subsequent auctions will feature time frames of four years out (T-4) plus an adjustment auction for the year ahead. The results of the first auction were announced in early 2018 with the auction clearing at €41.80/kW, and 7.77 GW of de-rated capacity being procured.

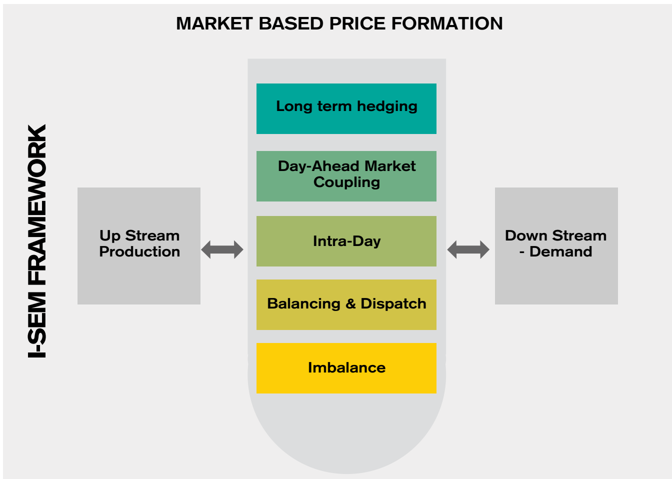
While most of ESB's power stations were awarded contracts in the auction, Aghada Unit 1 and Marina were not. Having considered the options for these units and after many years of excellent performance and service, it was decided that there was no commercial basis for their continued operation and they were subsequently closed at the commencement of I-SEM.

Pre-qualification results for the 2019/20 T-1 auction were announced in December 2018 and the auction took place later in the month. All of ESB's generating units, with the exception of North Wall gas plant (North Wall), pre-qualified. North Wall will continue to operate until the end of September 2019 under its existing contract, after which there is no commercial basis for its continued operation and ESB will decommission the existing capacity. The T-1 auction cleared at €40.65/kW which represents a reduction of €1.15/kW from last year's auction price. The majority of those awarded capacity contracts were existing assets, although approximately 130MW of new capacity was added.

SINGLE ELECTRICITY MARKET (SEM)



INTEGRATED SINGLE ELECTRICITY MARKET (I-SEM)



BRITISH ELECTRICITY TRADING AND TRANSMISSION ARRANGEMENTS (BETTA)

BETTA is the wholesale electricity market operating in GB. Unlike I-SEM, trading can take place between generators and suppliers either bilaterally or through exchanges, and both physical and financial contracts can be struck to manage price volatility, for timescales ranging from several years ahead to intra-day trading markets. As part of its Electricity Market Reform (EMR) initiative to incentivise investment in low-carbon electricity and improve the security of supply and affordability, the British Government operates a capacity remuneration scheme, where generators are awarded capacity contracts (based on the outcome of an auction) that enable them to receive payments for the provision of generation capacity while also incurring penalties for non-delivery during scarcity events. On 15 November 2018, the General Court of the European Union ruled in favour of Tempus Energy, a company specialising in demand-side response services, which had challenged the European Commission's decision to approve state aid for a UK capacity market. As a result of this judgement, pending a new application for state aid clearance, GB capacity market payments for 2018/19 have been suspended. In December 2018, the British Government signalled its intent to hold a replacement, top-up auction during the summer of 2019 for delivery in 2019/20.

ELECTRICITY NETWORKS

The electricity transmission system is a high-voltage network for the transmission of bulk electricity supplies. The distribution system delivers electricity to individual customers over the 38kV/medium/low voltage networks. In ROI, ESB owns the transmission and distribution system network and operates the electricity distribution system network, while EirGrid operates the transmission system network. In NI, NIE Networks (owned by ESB) owns the electricity transmission and distribution system network and operates the electricity distribution system network. The System Operator for Northern Ireland (SONI) operates the transmission system network.

INTERCONNECTION

For geographical reasons, the electricity transmission systems on the island of Ireland are isolated compared to systems in mainland Europe and GB. The Moyle Interconnector links the electricity grids of NI and Scotland through submarine cables running between converter stations in NI and Scotland; this link has a capacity of 500 MW. However from 10 November 2017, there has been a limit of 80 MW imposed on exports (West to East flow). The East-West Interconnector links the electricity transmission system in ROI to the electricity transmission system in Wales, enabling two-way transmission of electricity. The East-West Interconnector runs between Deeside in north Wales and Woodland, County Meath in ROI. Approximately 260 kilometres in length, the underground and undersea links can transport 530 MW.

In 2018, there was a net import flow on both interconnectors but I-SEM has resulted in some significant periods of exports to GB in periods of high wind and extending across daytime periods. This is a substantial change from SEM arrangements where day imports and night exports were prevalent and is due to harmonised trading arrangements where efficient interconnector flows are driven by price in the respective interconnected markets. ESB was an active participant in the interconnector market during 2018. (See Figures 1 and 2).

ELECTRICITY GENERATION

The SEM/I-SEM generation sector comprises approximately 15,985MW of capacity connected to the system on an all-island basis, up from 15,291 MW in 2017. The capacity connected to the system includes a mix of older generation plants alongside modern combined cycle gas turbine (CCGT) plants and renewable energy sources such as wind power. These stations generate electricity from fuels such as gas, coal and oil as well as indigenous resources including hydro, wind, peat and biomass.

SEM/I-SEM has 4,790MW of wind installed, which is key to the Government's target of 40% of electricity to be generated from renewable sources by 2020. Wind contributed 25% of generation in 2018, up from 22% in 2017, with a maximum wind output of 3,990MW being recorded on 12 December 2018. ESB was responsible for 38% of generation in SEM/I-SEM in 2018, slightly down from last year (see figure 6).

2018 saw 76% availability of baseload thermal generation in SEM/I-SEM, with gas and coal continuing to be the dominant fuels in the market.

ENERGY TRADING

The electricity and gas markets in ROI, NI and GB are linked in two ways, through gas being used for electricity generation and through the physical interconnection of electricity and gas networks. In common with a number of other companies in the Irish market, ESB is active in both Irish and GB markets in gas and electricity.

FIGURE 1: IMPORT OF ELECTRICITY MARKET SHARE

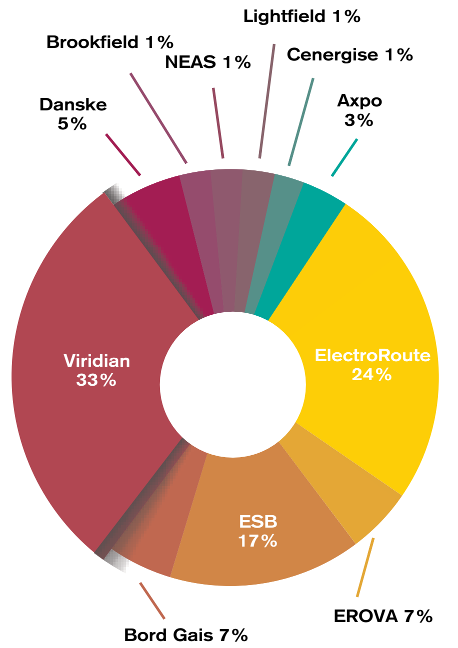
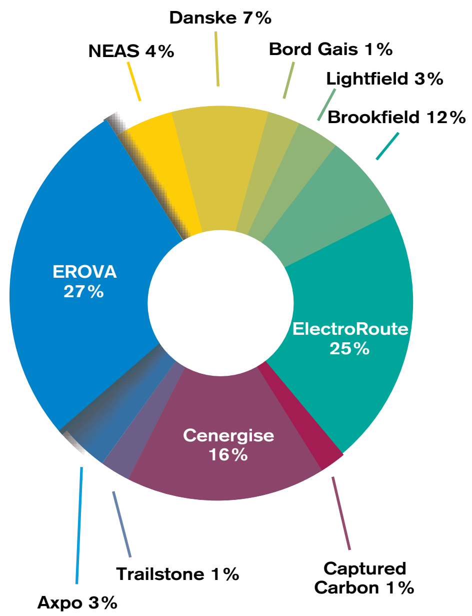


FIGURE 2: EXPORT OF ELECTRICITY MARKET SHARE



In addition to ESB's generation interests, ESB is active in all sectors of the gas market from residential to large commercial and is one of the biggest gas shippers on the island.

2. OPERATING ENVIRONMENT

THE GLOBAL ENERGY MARKETS

GAS PRICES

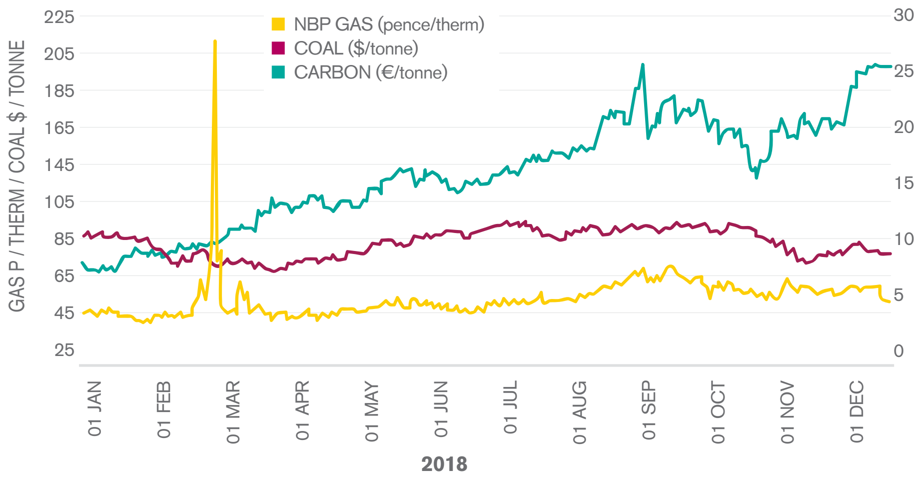
2018 saw gas prices reach 207 p/therm, as a result of the 'Beast from the East' cold snap. Overall average 2018 gas prices have increased by 31% from 2017. The primary driver behind the rise in gas price has been the oil price, with many gas contracts in Europe still index-linked to oil. The USA's sanctions on Iran's energy industry, caused oil prices to grow strongly. 2018 also saw China increase its imports of liquified natural gas (LNG) by 37% as it aims for cleaner electricity production in cities. China is expected to become the world's biggest importer of LNG in 2019.

However since Q3, oil prices have fallen dramatically as global supply has outstripped demand. While the collapse in oil price towards the end of 2018 did not have such a dramatic effect on the gas price, gas prices did however see a downward trend during the last quarter of 2018. The monthly average gas price in January 2018 was 50.27 p/therm, rising to a monthly average high of over 73 p/therm in September before falling to 64.16 p/therm in December. The annual average gas price for 2018 was 58.81 p/therm, up from 44.74 p/therm in 2017.

COAL PRICES

2018 coal prices, started the year on a high at c. $95/tonne before falling in the first quarter to c. $78/tonne only to recover to the $90–$100/tonne level by mid-year and remaining there until the end of October. The primary driver of global coal prices in 2018 was increased demand for higher quality, lower polluting coal in Asian power generation markets, as environmental controls tighten. However tighter environment controls on coal mining meant that supply struggled to keep up with demand. This was particularly so in Australia where most of the higher quality coal is sourced. Prices however began to soften in November when China ceased imports of coal, having built up enough stockpiles to last until the beginning of 2019. The annual average coal price for 2018 was $91.65/tonne, up from $84.41/tonne in 2017.

FIGURE 3: GAS, COAL AND CARBON PRICES



CARBON PRICES

Carbon continued a strong trend upwards in 2018, starting the year around the €8/tonne level before reaching a high of c. €24/tonne in September before falling off slightly and finishing the year around the €20/tonne mark. Carbon prices rose in 2018 due to a tightening of the market caused by a carbon market reform decision in September 2017 aimed at reducing greenhouse gas emissions by at least 40% by 2030. This decision introduced a "Market Stability Reserve" which removes surplus carbon allowances over time at a rate of 24% per year between 2019 and 2023 possibly leaving a deficit of up to 1.4 billion tonnes per year. As a result, it is expected that sectors traditionally holding surplus carbon allowances will no longer have or make them available to those participants that have traditionally been short, i.e. the power sector. This decision has contributed to the rising carbon price evident throughout 2018.
The monthly average carbon price in January was €7.78/tonne and this has steadily increased throughout the year, particularly during Q3 and Q4, ending the year with a monthly average of €20.21/tonne in December. The annual average carbon price for 2018 was €14.84/tonne, up from €5.84/tonne in 2017.

SEM/I-SEM WHOLESALE ELECTRICITY PRICES

In SEM, the System Marginal Price (SMP) was made up of two components, the short-run marginal cost of production (SRMC) which is the cost of fuel, and the uplift which is the recovery of start-up and no-load costs – these are fixed costs which do not vary with the level of output. In SEM such costs were distinct elements of the wholesale price and determined centrally through the market operators algorithm. Under I-SEM how generators recover uplift and hence how it is reflected in the market price is fundamentally different, in that it is no longer a centrally determined and explicit proportion of the wholesale price, but is embedded into a generators bid into the market and should in theory reflect how a generator expects to operate in the short term. This introduces an element of behavioural bidding into the I-SEM.

As noted previously, I-SEM is marked with the introduction of Day Ahead, Intraday and Balancing Markets. To date and as expected, the most liquid of these markets has been the Day Ahead Market (DAM) where over 95% of market transactions have taken place, and where the vast majority of supply companies seek to purchase their power requirements.

In 2018, 64% of generation in ROI was met by fossil fuels, predominately gas and coal. With gas CCGT units being the most efficient units on the system, the electricity price is very closely linked to the wholesale gas price. Year on year, the 2018 SMP has increased by 33.5% to an annual average value of €63.39/MWh, up from €47.48/MWh, which has primarily been driven by increased gas prices. Prices in SEM were influenced in 2018 by a significant cold snap in late February/early March. Average gas prices on one day jumped above 200 p/therm. There was also significantly low periods of wind and hydro generation over the summer months as well as extended unplanned outages at both Moneypoint and Great Island generating stations, which also coincided with the commencement of I-SEM.

The year started off with a monthly average SMP in January of just over €50/MWh, before rising steadily after Q1 in line with the rise in gas price to over €70/MWh. The year closed out with a monthly average price of €75.50/MWh in December, compared to €56.88/MWh in December 2017. (See Figure 5)

Within SEM, uplift remained at similar levels to previous years at around 15% of SMP.

Under I-SEM, the Day-Ahead Market (DAM) price on average has not shown any significant and/or observable differential from the SEM SMP price and is still fundamentally driven by the gas price as can be seen from Figure 4, which shows how SMP and DAM have tracked gas prices across the year. However on a day by day basis several zero price periods sustained over a number of hours coinciding with periods of high wind/low demand (night time) have been observed. Within the intraday timeframe, liquidity has been much lower and prices on average tend to trade at a premium to the DAM.

FIGURE 4: SMP AND DAM VERSUS GAS PRICE, 2018

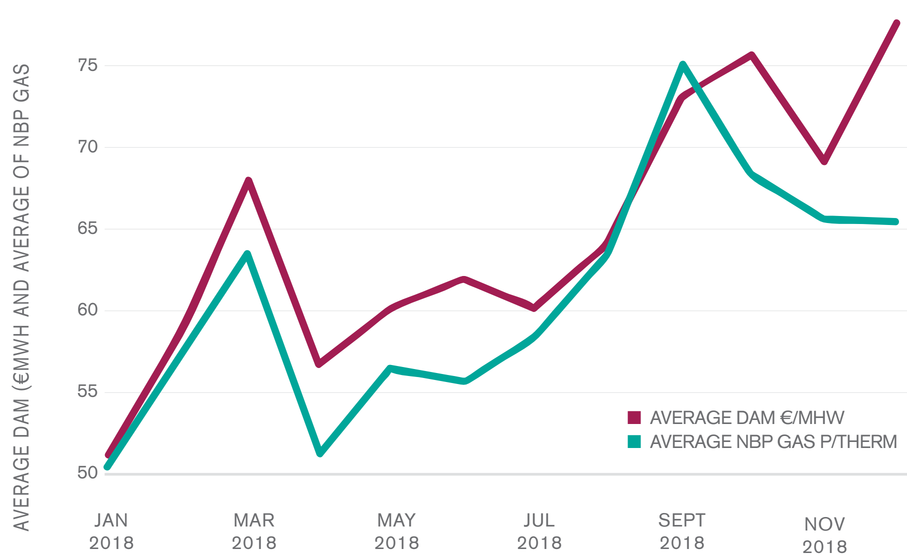
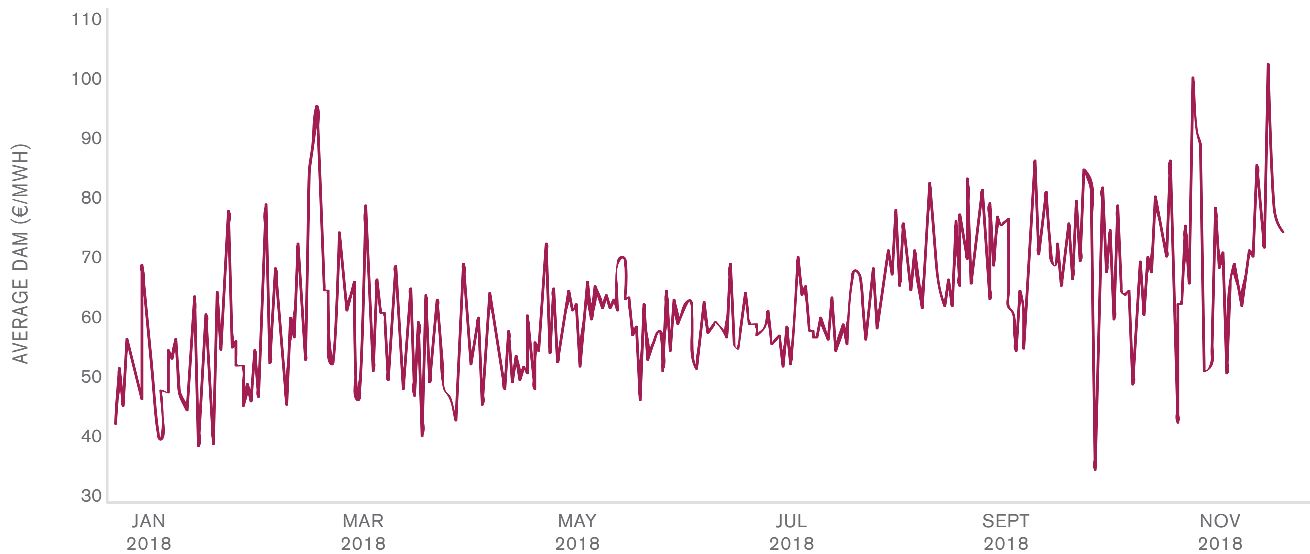


FIGURE 5: SMP (€/MWH)



I-SEM BALANCING MARKET

One of the most significant changes introduced with the I-SEM trading rules has been the balancing market or mechanism. Under the balancing market the Transmission System Operator (TSO) takes control (after generators and suppliers have transacted) to ensure that supply meets demand and that all system constraints are managed. Participation in the balancing mechanism is mandatory for all generators who must submit bids and offers in order for the TSO to be able to move them from contracted positions if required to maintain system integrity.

To date, given the high levels of constraints and significant wind generation in the system, volatility has been a significant feature since market go-live, which is not unusual following the introduction of new market systems. As Figure 7 demonstrates, prices have fluctuated from lows less than -€200/MWh to in excess of €1,400/MWh. The balancing market has, on the whole, been short of power (i.e. demand has exceeded contracted generation) yet average prices have traded at a discount to the DAM. This may reflect higher wind than forecast spilling into the balancing market and could also be a feature of the significant element of system constraint balancing actions. In addition there have been 5 Reliability Option events, where the imbalance settlement price has spiked above €500/MWh, triggering difference payments from generators holding Reliability Options from the capacity market.

GB ELECTRICITY MARKET AND PRICES

Overall electricity generation volumes in GB have been broadly stable over the past three years, with renewables continuing to play an ever increasing role in the overall electricity system mix. The rapid increase in solar photovoltaic generation capacity observed from 2011 to 2017 has eased in 2018, with a total capacity of c. 13GW installed on the system for the summer generation season. A new solar generation peak was recorded on 14 May 2018. In addition, a new wind generation record was set in GB on 28 November 2018, with 14.9GW of wind generation meeting 33% of the overall system demand. This record is supported by the ongoing development of offshore generation assets, which included the 353MW Galloper offshore windfarm which commissioned in 2018, of which ESB owns a 12.5% share. The total installed wind fleet capacity in GB is now c. 21GW.

Year on year coal generation volumes in GB continue to drop, with lower coal fleet generation volumes in 2018 compared to 2017 as a whole. UK's Carbon Price Support plays an important role in driving this trend, which results in a substantially higher effective carbon price relative to other European countries. A number of coal units have exited the system during 2018 either by retirement, or conversion to biomass in one case. However coal fleet load factors did increase in both March 2018 during a sustained cold period, and again in October/November 2018, which was due to a greater rise in natual gas prices than coal prices. The unseasonably severe cold snap in March 2018 resulted in high gas system demand resulting in high gas and associated power prices.

2018 saw the conclusion of the first Capacity Market delivery year in the GB Electricity Market, without a Capacity Market Notice or System Stress Event being triggered. 55GW of derated capacity has been contracted for the second delivery year, which came into effect in October 2018. This includes ESB's 880MW Carrington and 350MW Corby CCGT facilities. The Capacity Market was suspended on 15 November 2018 following a finding by the General Court of the Court of Justice of the European Union. Following this intervention, the UK Government has stated that its view is that the Capacity Market is the correct method to deliver a secure electricity supply at the least cost. The UK Government has also confirmed its intention to hold a T-1 top up auction during the summer of 2019.

It is clear that the GB electricity system is changing due to the nature of the increased penetration of intermittent generation, leading to provide increased opportunities to provide system services. ESB is seeking to maximise the value of its GB generation portfolio by entering into ancillary services contracts, and has demonstrated this by the commissioning of its 7MW Millfarm battery project during 2018, which has successfully participated in both Firm Frequency Response market and the balancing mechanism.

FIGURE 6: ELECTRICITY GENERATION IN I-SEM BY FUEL TYPE

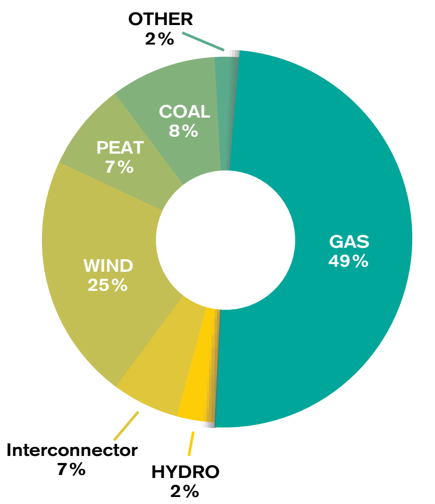


FIGURE 7: BALANCING MARKET

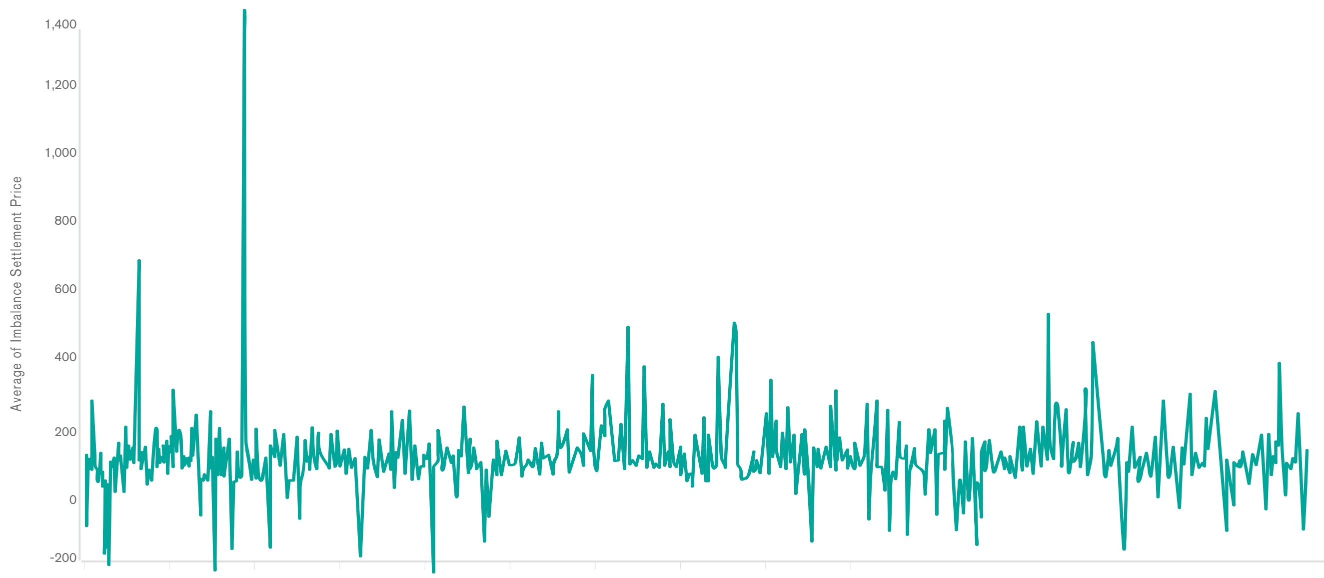
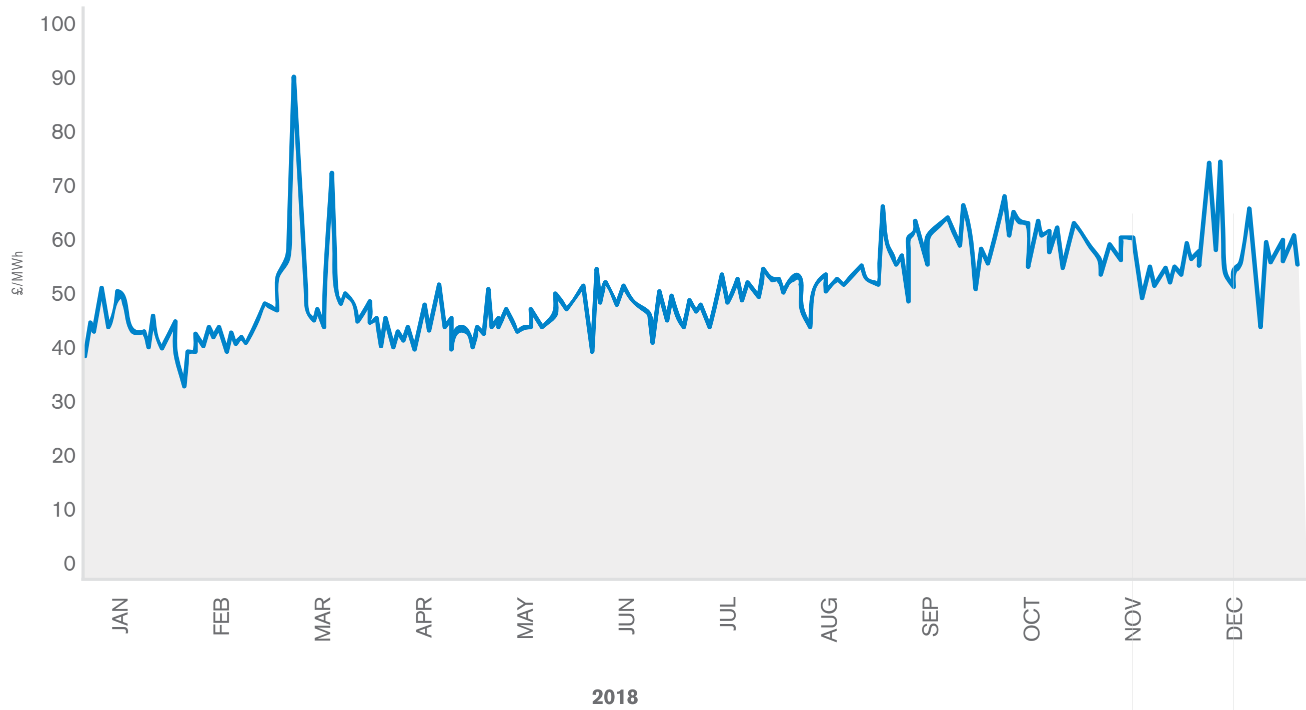


FIGURE 8: GB BASELOAD PRICES



01 STRATEGY AND PERFORMANCE
02 CORPORATE GOVERNANCE
03 FINANCIAL STATEMENTS

FINANCIAL REVIEW

Pat Fenlon
Executive Director, Group Finance and Commercial

Q. How would you describe financial performance in 2018?

In 2018, in the context of challenging market conditions, we delivered a satisfactory performance with Earnings before Interest, Tax, Depreciation, Impairment, Amortisation and Exceptional Items (EBITDA) of €1,175 million, Operating Profit before exceptional items of €455 million, and capital investment of €1,165 million, with gearing at a moderate level of 56%. In 2018, ESB, Ireland's leading energy utility, retained its stable business profile with over two-thirds of its earnings, assets and capital investment accounted for by regulated electricity networks in Ireland under established and transparent regulatory frameworks.

This performance reflects:

- ESB Networks and NIE Networks continuing to deliver reliable networks with significant capital and maintenance programmes in accordance with their regulatory contracts, as well as an excellent customer focussed response to the various storm events in 2018;
- Electric Ireland continuing to innovate and create value for customers, including the application of enduring long-term savings to almost one million of its residential electricity and gas customers;
- Generation and Trading successfully transitioning to the new Integrated Single Electricity Market (I-SEM) delivering continued growth in our renewable assets portfolio (including our first investment in offshore wind, with a 12.5% investment in the 353 MW Galloper project in GB), but with increased competition and downward pressure on energy margins.

2018 Operating Profit before exceptional items is down 7% on 2017, primarily reflecting downward pressure on energy margins, particularly for generation thermal plants. These lower energy margins are projected to continue and it is in this context ESB has made an exceptional impairment charge of €122 million on its generation asset portfolio in 2018 and €18 million relating to shareholder loans advanced to Tilbury Green Power Holdings Limited (a joint venture) in GB. This charge represents approximately 1% of ESB's total asset base at the end of 2018.

ESB invested €1,165 million in capital expenditure in 2018. 65% was invested in the network's businesses in line with agreed regulated capital programmes. As part of the transition to low-carbon generation ESB invested c.€250 million in renewable generation projects.

Notwithstanding the exceptional non-recurring impairment charge, as outlined above, ESB has delivered a satisfactory underlying financial performance in 2018, with Group EBITDA at €1,175 million, a strong liquidity position of €1.6 billion and credit ratings of A- or equivalent with Standard & Poor's and Moody's (BBB+ standalone).

HIGHLIGHTS

EBITDA EXCLUDING EXCEPTIONAL ITEMS
€1,175 MILLION

PROFIT AFTER TAX BEFORE EXCEPTIONAL ITEMS
€181 MILLION

OPERATING PROFIT BEFORE EXCEPTIONAL ITEMS
€455 MILLION

2018 DIVIDENDS
€35 MILLION

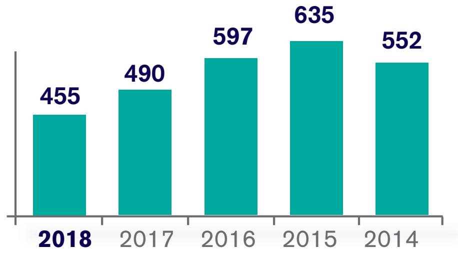
CAPITAL EXPENDITURE
€1,165 MILLION

RETURN ON CAPITAL EMPLOYED
4.5%

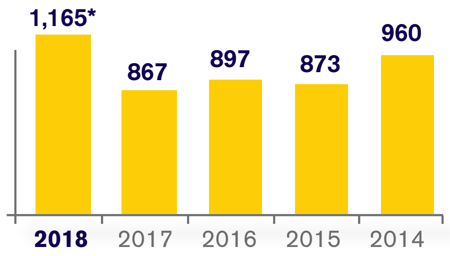
GEARING
[1]Net debt divided by the sum of net assets and gross debt (excluding joint ventures)
56%

FIGURE 1: FIVE-YEAR SUMMARY

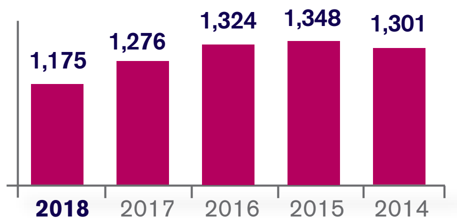
OPERATING PROFIT BEFORE EXCEPTIONAL ITEMS[1] € MILLION



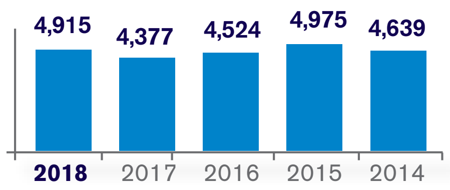
CAPITAL EXPENDITURE € MILLION



EBITDA BEFORE EXCEPTIONAL ITEMS[1] € MILLION



NET DEBT € MILLION



[1] Before the following exceptional items: 2018: impairment charge (€140 million) 2017: impairment charge (€276 million) 2015 impairment charge (€104 million) 2014: profit on asset disposal (€38 million) and non-cash gain (€94 million)
*2018 Capex is gross of supply contributions

FIGURE 2: SUMMARISED INCOME STATEMENT

	2018	2017
	€'m	€'m
Revenue and other operating income before exceptional items	3,433	3,262
Operating costs*	(2,978)	(2,772)
Operating profit	**455**	**490**
Exceptional items	(140)	(276)
Operating profit after exceptional items	**315**	**214**
Net finance costs	(193)	(211)
Fair value movements on financial instruments	(30)	(5)
Share of equity accounted investees loss	(14)	(8)
Profit / (Loss) before tax	**78**	**(10)**
Tax charge	(18)	(22)
Profit / (Loss) after tax	**60**	**(32)**

*Includes non-exceptional impairment of financial assets (note 16)

REVENUE

Revenue and other operating income before exceptional items at €3,433 million has increased by €171 million compared to 2017 (€3,262 million).

The increase is driven by higher revenue in Electric Ireland as a result of price increases (due to wholesale energy cost increases), increased regulated income in ESB Networks and NIE Networks and an increase in supply contribution revenue due to a change in accounting treatment under IRFS 15 'Revenue from Contracts with Customers', offset by lower revenues in Generation and Trading as a result of lower volumes due to plant outages during 2018.

FIGURE 3: OPERATING COSTS (EXCLUDING EXCEPTIONAL ITEMS)

	2018	2017
	€'m	€'m
Fuel and other energy related costs	1,141	956
Depreciation and amortisation	779	815
Employee costs	493	467
Operating and maintenance costs*	560	530
Impairment (excluding exceptional items)	5	4
	2,978	**2,772**

*Includes non-exceptional impairment of financial assets (note 16)

OPERATING COSTS

Overall operating costs before exceptional items at €2,978 million have increased by €206 million.

- Fuel and other energy costs have increased by €185 million on 2017 due to higher gas prices during 2018 resulting in higher fuel costs in Generation & Trading and higher wholesale energy costs in Electric Ireland.
- Depreciation is down by €36 million on 2017 due to the impact of the 2017 exceptional write downs of generation assets offset by higher depreciation in Networks businesses due to a change in accounting treatment of supply contributions under IFRS 15 'Revenue from Contracts with Customers'.
- Employee costs are up €26 million primarily due to a voluntary severance costs in the NIE Networks and Generation and Trading businesses in 2018 combined with non-recurring release of restructuring related provisions in 2017.
- Operating and maintenance costs have increased by €30 million primarily due to costs associated with scheduled major generation plant overhauls.

A breakdown of the operating costs by business segment is provided in note 2 to the financial statements.

EXCEPTIONAL ITEMS

Following impairment reviews of the generation assets ESB recognised an exceptional impairment charge of €122 million in relation to Aghada Unit 2 (€87 million), Synergen (€33 million) and €2 million across certain wind farms. These impairment charges reflect a reduction in forecast energy margin for gas plant operating in the I-SEM market. This exceptional non-recurring, non-cash, generation asset impairment represents 1% of ESB's total assets at the end of 2018. An impairment of €18 million was also recognised in respect of amounts advanced to Tilbury Green Power Holdings Limited (an equity accounted investee waste to energy plant in GB) primarily due to downward pressure on future GB energy prices which impacted the projected recoverability of the amounts advanced. [See note 5, note 11 and note 16 in the financial statements for further detail.]

OPERATING PROFIT

Operating profit before exceptional items has decreased by €35 million. The decrease is driven by the following:

- Lower energy margin of €35 million across Generation & Trading and Electric Ireland, partially offset by higher margin in ESB Networks and NIE Networks due to higher regulated income.
- Higher operating and maintenance costs of €30 million and higher employee costs of €26 million – see operating costs for further detail.
- Lower depreciation costs of €36 million – see operating costs for further detail.
- Higher other revenue of €20 million primarily due to higher amortisation of supply contributions relating due to change in accounting treatment under IFRS 15' Revenue from Contracts with Customers'.

The movement in operating profit between 2017 and 2018 is set out in the reconciliation of operating profit in Figure 4.

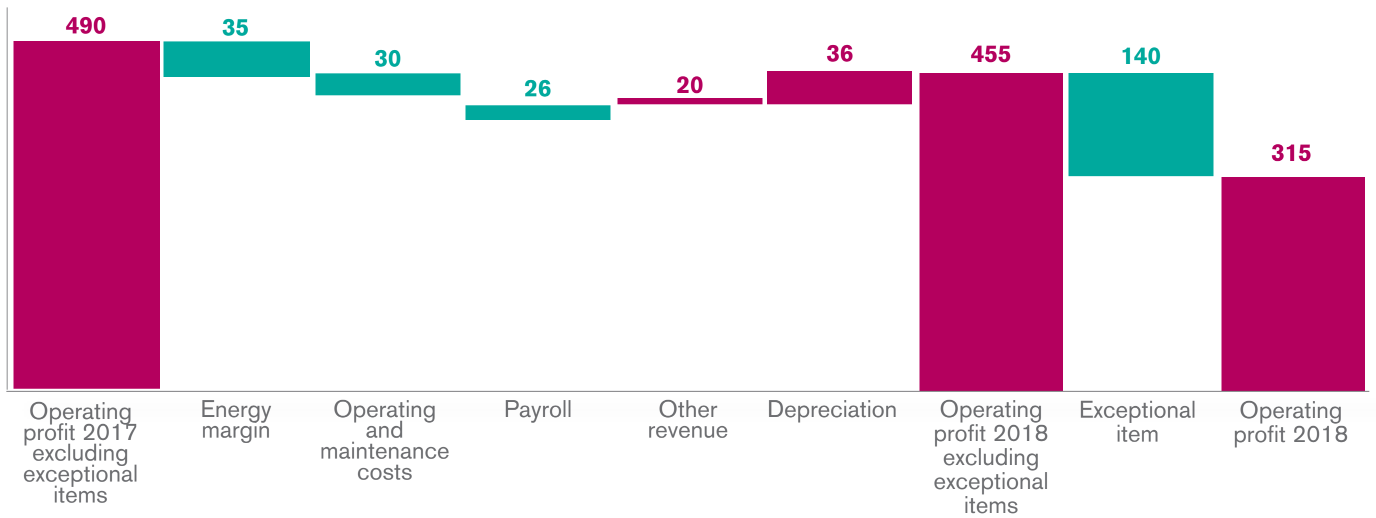
EBITDA

EBITDA excluding exceptional items for 2018 at €1,175 million is €101 million lower than 2017. This decrease is driven by lower operating profit (excluding depreciation) as described above.

ADJUSTED PROFIT BEFORE TAXATION

Adjusted profit before taxation for 2018 is €224million (2017: €262 million). The variance relates to the lower energy margin, higher operating costs and lower depreciation as described above and higher total finance costs, see Figure 5.

FIGURE 4 : RECONCILIATION OF OPERATING PROFIT 2017- 2018



TOTAL FINANCE COSTS

Total finance costs for 2018 are €7 million higher than 2017 costs.

The decrease in net interest on borrowings follows the re-financing of bonds in 2017 and 2018 at lower rates. The decrease in financing charges relates to the remaining outstanding liability relating to the ESB pension scheme following the 2017 payment.

The movement on the inflation linked interest rate swaps is outlined on page 187, the increase on the fair values loss is primarily due to Carrington 'out of the money' interest rate swaps which crystallised to the income statement when the Carrington project financing was repaid during 2018 and re-financed with lower cost Group debt from the bond market. Further detail is included in note 21 to the financial statements.

TAXATION

The lower tax charge of €18 million primarily reflects the change in profit mix year on year. ESB's effective tax rate on profits before exceptional items has reduced due to a higher proportion of profits in Ireland and a lower proportion of profits overseas. Further detail is included in note 19 to the financial statements.

SEGMENTAL PERFORMANCE

The Group is organised into five main reportable segments or strategic divisions, which are managed separately. Details on the financial performance of the business segments are included in the business unit review sections pages 56 to 68 and in note 2 to the financial statements.

NET DEBT AND GEARING

The increase in net debt to €4.9 billion in 2018 from €4.4 billion in 2017 reflects continued capital investment, finance costs, tax and dividend payments in 2018 offset by positive EBITDA.

The gearing level has increased from 52% in 2017 to 56% reflecting the higher net debt.

CAPITAL EXPENDITURE

Capital expenditure totalled €1,165 million in 2018 an increase of €298 million on 2017. The 2018 Capex figure is gross of supply contributions in line with IFRS 15 'Revenue from Contracts with Customers', the impact of this change in accounting treatment results in higher network capex of €133 million year on year.

FIGURE 5: RECONCILIATION OF ADJUSTED PROFIT BEFORE TAXATION

	2018	2017
	€'m	€'m
Profit / (Loss) before taxation	78	(10)
Exceptional items	140	276
Fair value movement on RPI linked interest rate swaps	6	(4)
Adjusted profit before taxation	**224**	**262**

FIGURE 6: TOTAL FINANCE COSTS

	2018	2017
	€'m	€'m
Net interest on borrowings	177	188
Financing charges	19	29
Finance income	(3)	(6)
Net finance costs	**193**	**211**
Inflation linked interest rate swaps	6	(4)
Fair value losses on financial instruments	24	9
Total finance costs	**223**	**216**

Capital investment in the networks businesses continued in 2018 with €761 million (65% of the total capital investment) invested in the networks infrastructure in ROI and Northern Ireland (NI) in line with agreed regulatory programmes.

Expenditure in Generation & Trading in 2018 amounted to €299 million (2017: €128 million). This expenditure primarily related to continued investment in renewable generation including €127 million in the 353MW Galloper (GB) offshore windfarm, €56 million in the 34MW Castlepook wind farm and €72 million in the construction of 114MW Grousemount windfarm.

Capital investment of €105 million in other segments includes various Group projects such as the redevelopment of the Fitzwilliam Street Head Office and IT systems for I-SEM. (see figure 8 on the next page)

TREASURY MANAGEMENT FRAMEWORK FOR TREASURY AND TRADING OPERATIONS

The main financial risks faced by the Group are:

- Liquidity availability and maintenance of access to the debt capital markets
- Foreign exchange volatility
- Interest rate movements on the Group's existing and projected future debt portfolio
- Commodity price movements
- Counterparty credit exposure, and counterparty risk generally

FIGURE 7: SUMMARISED CASH FLOW STATEMENT

	2018	2017
	€'m	€'m
EBITDA (excluding exceptional items)	1,175	1,276
Provision utilisation and other movements	(70)	(139)
Interest and tax	(264)	(221)
Net cash inflow from operating activities	**841**	**916**
Sale proceeds	18	31
Capital expenditure and loans to equity accounted investees	(1,120)	(843)
Other	4	4
Net cash inflow /(outflow) from investing activities	**(1,098)**	**(808)**
Net cash inflow /(outflow) from financing activities	**106**	**(90)**
Net increase/(decrease) in cash	**(151)**	**18**

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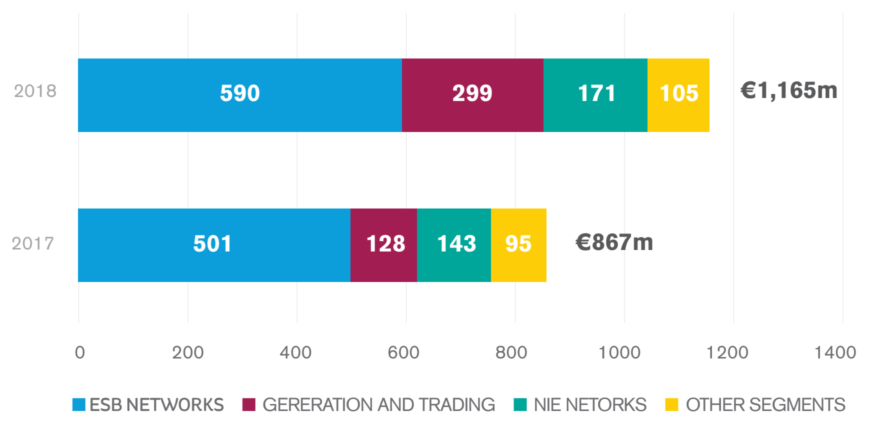
FIGURE 8: CAPITAL EXPENDITURE



- Operational risk, including exposure to the risk of misappropriation of funds, through fraud or error.

Group Treasury is responsible for the day-to-day treasury activities of the Group, and therefore for the management, in whole or in part, of each of these financial risks. Some of these risks can be mitigated through the use of derivative financial instruments. Where this is the case, such instruments are executed in compliance with the Specifications of the Minister for Finance issued under the Financial Transactions of Certain Companies and Other Bodies Act 1992. This Act enables ESB to enter into derivative contracts to eliminate or reduce the risk of loss arising from changes in interest rates, currency, commodity prices or other risk factors similar in nature. Cash flow hedge accounting treatment under IFRS 9 is applied to the Group's derivative positions where appropriate.

The Finance and Investment Committee of the Board is updated on an ongoing basis on key treasury matters. Group Treasury's approach to the management of the key financial risks of ESB is set out in more detail the Financial Risk Management and Fair Value note 27 in the Financial Statements.

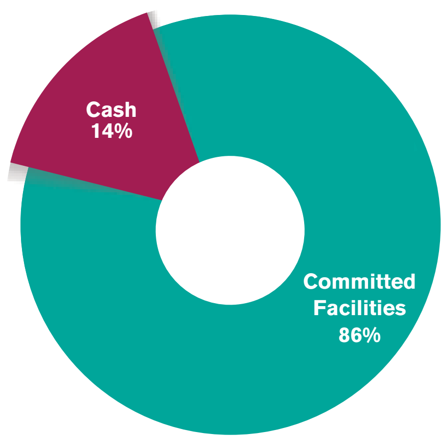
LIQUIDITY AND FUNDING ACTIVITIES

Group Treasury's funding activities are of strategic importance to the Group, supporting ESB's capital expenditure programme, the refinancing of maturing debt, and the maintenance of an appropriate liquidity buffer to guard against future economic shocks.

ESB had a strong liquidity position at 31 December 2018 with almost €1.6 billion in cash and available committed facilities. ESB's €1.44 billion Revolving Credit Facility, provided by 14 relationship banks, and which is the Group's main source of standby liquidity, currently extends out to January 2022.

During 2018, despite sometimes volatile market conditions, ESB raised over €1 billion in new borrowings. These comprised primarily of a STG £350 million 7 year bond issued by NIE Finance plc in September 2018, with a coupon of 2.5%, and a €500 million 15 year bond issued by ESB Finance DAC in October 2018 at a coupon of 2.125%. Most of the latter bond was swapped from euro to sterling for the majority of its life, using cross currency swaps syndicated to a group of international banks. These transactions enabled the replacement of STG£560 million of longstanding, relatively expensive sterling debt, relating to the NIE Networks business and to the Carrington Power Plant in Greater Manchester, which had interest rates ranging from 5.3% to 6.875%. In the context of Brexit related uncertainty, the refinancing of this STG denominated debt, at much lower rates of interest, is of significant benefit to the Group.

FIGURE 9: LIQUIDITY



Available liquidity at 31 December 2018 (€1.6 billion)

These public bond transactions were supplemented by the raising of additional bilateral bank debt, helping to maintain diversity of funding sources. As an example, in May 2018, financial close was achieved on the 89MW Oweninny wind farm in North County Mayo (a joint venture with Bord Na Móna). The wind farm's 29 turbines will supply clean energy to the equivalent of over 50,000 homes and represents an overall investment of €160 million. The project will be financed with long-term debt from a consortium of banks including the European Investment Bank (EIB), which is providing 50% of the funding, as well as MUFG Bank, BNP Paribas and AIB.

By year end, the weighted average interest rate on Group borrowings had fallen to 3.4% (December 2017: 3.9%), and just 29% of Group borrowings were repayable within 5 years, compared to over 36% at the end of 2017, and over 42% at the end of 2016. This further increase in the average duration of the Group's debt portfolio (now 7.5 years), is appropriate given the long-term nature of Group assets, and reduces funding risk.

FOREIGN EXCHANGE AND INTEREST RATE RISK MANAGEMENT

The vast majority of the Group's business is located in the Republic of Ireland (ROI) and the United Kingdom (UK). Accordingly, the majority of operating and investing cash flows are denominated in euro or sterling. The main exceptions to this are coal purchases, which are generally denominated in US dollars. ESB's policy is to hedge any material foreign currency exposures as they arise using currency derivatives such as FX forwards, at competitive rates in the market. The maintenance by Group Treasury of credit lines with a broad range of well-rated counterparts is essential to the execution of this policy.

The Group's policy is to finance its euro denominated business by borrowing directly in euro or to convert any foreign currency borrowing to euro through the use of derivative instruments, such as cross currency swaps. Investments in the UK (including NIE Networks) are generally funded by debt either issued in, or swapped to, pounds sterling. At 31 December 2018 approximately 65% of ESB's underlying debt is denominated in euro, with the remaining 35% in sterling.

The Group's interest rate policy is to maintain a significant majority of its debt at fixed interest rates, with a minimum of 50% fixed at all times. At 31 December 2018, approximately 95% of Group borrowings were fixed to maturity, or inflation linked.

COMMODITY PRICE RISK

Fuel and carbon prices paid by ESB in connection with its electricity generation activities can exhibit some volatility, depending on market conditions. The resulting exposures to fuel price movements on future earnings are managed by ESB on a selective-hedging basis. ESB has entered into forward commodity price contracts in relation to gas, coal and carbon emissions allowances for up to three years ahead in order to reduce the Group's exposure to movements in wholesale electricity prices arising from such commodity price fluctuations. The Group's supply businesses in Ireland and, increasingly, in Northern Ireland and Great Britain, provide a natural hedge in this respect.

COUNTERPARTY RISK

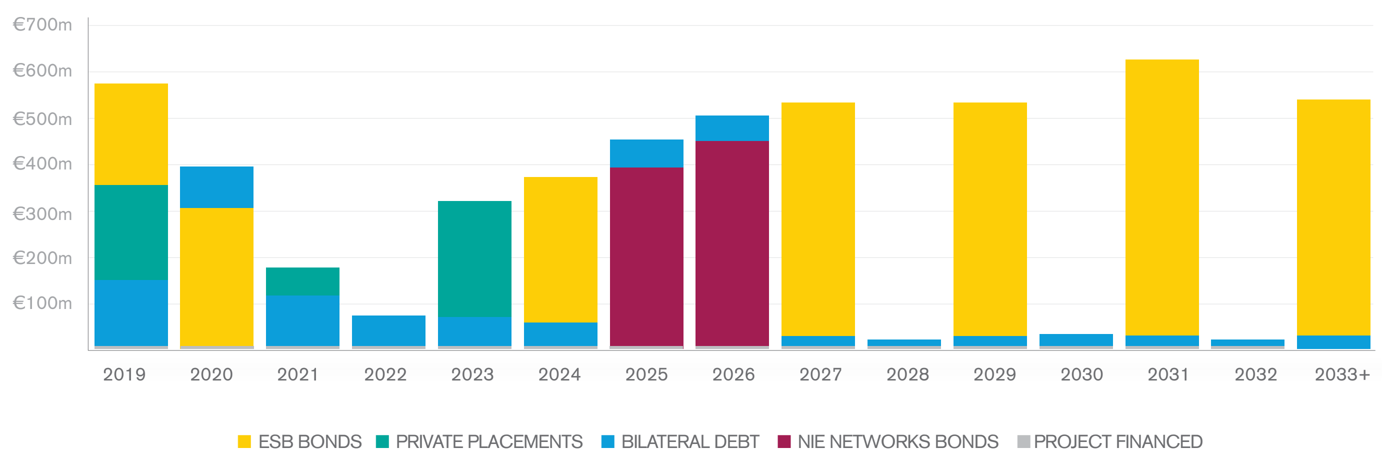
The Group is exposed to credit risk from the counterparties with which it holds its bank accounts and transacts with in financial and commodity markets. The Group's policy is to limit exposure to counterparties based on credit risk assessments. Exposures and related limits are subject to ongoing review and monitoring in each business unit, and, on a Group-wide basis, by the Group Trading Committee (GTC). Dealing activities are controlled by establishing dealing mandates with counterparties.

In general, counterparty credit limits set by the GTC are closely linked to the credit rating of each counterparty as determined by the leading credit rating agencies, although other factors, including security provided and the legal structure of the transaction, may also be taken into account. The limit set for a counterparty is the amount by which the sum of the settlement amount, the mark to market value and the potential future exposure may not be exceeded, and these positions are reviewed on a regular basis. During 2018, a higher proportion of the Group's fuel commodity trades were transacted through energy market exchanges, rather than bilaterally. Exchanges trading in general reduces, although it does not eliminate, counterparty risk, as well as providing trading liquidity and pricing transparency.

OUTLOOK

ESB's position as Ireland's leading energy utility, its stable business profile and its solid financial position ensures it is well positioned to meet the challenges that lie ahead and to support its strategic ambition to lead the transition to reliable, affordable low-carbon energy for the benefit of its customers.

FIGURE 10: ESB DEBT MATURITY* PROFILE AS AT 31 DECEMBER 2018



*Cash flows associated with private placement repayments reflect hedging arrangements in place

GENERATION AND TRADING (GT)

Jim Dollard
Executive Director
Generation and Trading

Q What are the key achievements in 2018 for GT?

GT will support ESB's Brighter Future strategy by transitioning to a low-carbon generation fleet in the next number of years. During 2018, GT continued to build its pipeline of development projects primarily in renewables so as to reduce the carbon intensity of the generation portfolio. In terms of operating assets, good progress has been made during 2018 with 78MW of additional renewable assets added to the portfolio including a 12.5% shareholding in an offshore wind farm in the UK and the development of a 34MW wind farm in Co.Cork in partnership with Coillte (subsequently, in December, GT purchased Coillte's 50% shareholding).

Major progress has been achieved on the construction of 114MW Grousemount wind farm in Co. Kerry and the first phase on the 89MW Oweninny wind farm in Co. Mayo, (a 50% joint venture with Bord Na Móna (BnM)). Overall GT safety and general operational performance was satisfactory – overall plant availability was 87%. The introduction of the new I-SEM market in October was a major development - it required new processes and systems, and its successful delivery in ESB was a major achievement for the business.

Q How does the business help ESB fulfil its strategic and financial objectives?

In line with ESB Strategy, GT is transitioning its generation portfolio to renewables. At the end of 2018, renewables made up 14% of ESB's generation portfolio. By 2030 that will have grown to 50%.

GT is working to develop a pipeline of projects across a range of technologies - battery storage, solar, onshore wind, offshore wind, energy from waste, biomass and gas-fired plants for delivery over the next decade.

One of ESB's strategic objectives is to provide system services to the market to support system stability. This will require creative and innovative solutions and GT has a significant role to play in ensuring that our existing plant ramps up the level of services it provides.

OPERATING PROFIT*

2018 €37 million

2017 €121 million

(€84 million)

CAPITAL EXPENDITURE

2018 €299* million

2017 €128 million

(€171 million)

*before exceptional impairment charge of €140 million (2017: 276 million)

OVERVIEW

The GT business develops, operates and trades the output of ESB's electricity generation assets. The portfolio consists of 5,564MW of generation assets across I-SEM and Great Britain (GB), with a further 158MW under construction. With a strong focus on safety, GT delivers value by:

- Providing wholesale and traded products to meet market and customer needs;
- Offering system services to support a robust electricity grid and facilitate the integration of renewables;
- Optimising the operation of the ESB generation portfolio;
- Delivering new energy assets to support the transition to low-carbon energy; and
- Engaging constructively in communities close to construction projects and operating assets.

FINANCIAL PERFORMANCE

GT's operating profit before exceptional items at €37 million is down €84 million on 2017. This primarily reflects lower margins in both I-SEM and GB as well as lower plant running. While overall plant availability at 87% was solid, the Moneypoint units had significant outages during the year. Otherwise plant overhauls were completed as expected. The reduction in forecast energy margin for gas plants operating in the I-SEM market resulted in an impairment review of ESB's generation assets, leading to an exceptional impairment charge of €122 million. During the year, ESB also impaired loans (€18 million) advanced to Tilbury Green Power Holdings Limited (an equity accounted investee waste to energy plant located in the UK) due primarily to lower projected GB spreads.

Capital expenditure at €299 million was €171 million up on 2017, primarily due to ESB's 12.5% investment in the 353MW Galloper offshore wind project and further expenditure on the construction of the 114MW Grousemount windfarm.

OPERATING ENVIRONMENT

A significant focus in 2018 was preparation of I-SEM go-live, the launch of the new market on the island of Ireland which went live on 1 October. The introduction of trading in the day-ahead, intra-day and balancing markets, as well as the introduction of a new capacity market and changes to the system services market, are fundamental shifts in the market. This year has seen a rise in commodity prices with significantly higher gas, coal and carbon prices than observed for a number of years. Summer saw a significant period of low wind, high gas fired power generation and drought conditions leading to low hydro load factors. SEM coal fired generation remained in merit throughout the summer period, primarily due to a particularly high summer gas price. Wind load factors are up on 2017 while spark spreads have remained at similar levels in SEM (c. €10/MWh) although they have fallen slightly in GB (£4.5/MWh versus £5.5/MWh).

PROGRESS ON STRATEGIC OBJECTIVES

GT made significant progress on its objective of growing a balanced, low-carbon energy portfolio during 2018 by:

Asset Delivery

- ESB's renewable generation portfolio increased by 78MW, as the Castlepook wind farm and the Galloper offshore wind farm, of which ESB owns a 12.5% share, entered commercial operation.

Asset Development

Biomass

- Completion of construction on the 40MW renewable waste wood to energy plant at Tilbury (a joint venture with the Green Investment Group and the EPC consortium), with commercial operation achieved in January 2019;
- Continued development work on a number of potential waste-to-energy facilities in GB.

Onshore Wind

- The 34MW wind farm at Castlepook, entered commercial operation.
- Construction progressed on the 114MW wind farm at Grousemount in Kerry;
- Construction continued on Oweninny wind farm (89MW), a joint venture with BnM, with project financing secured in 2018;
- Continuing development of up to 700MW of wind generation in Scotland, in conjunction with Coriolis and with REG Holdings, of which 100MW is now fully consented.

Solar

- Continuing development of potential solar projects, in conjunction with Terrasolar and by means of joint ventures with BNM and Kingspan (Funded Solar).

Offshore Wind

- Acquisition of a 12.5% shareholding in the 353MW Galloper offshore wind farm;
- Continued assessmet of other offshore opportunities off the coast of ROI and GB;
- Commencement of early stage development of new offshore wind farm projects off the ROI coast.

Gas/Other

- Development of potential flexible gas plants and batteries in GB and ROI to bid into the T-4 capacity auctions in I-SEM and GB markets.

INVESTMENT IN EXISTING ASSETS

- GT continued to make significant investments in our existing plant through overhauls of Moneypoint Units 1 and 3, Aghada, Carrington Unit 2, and Ardnacrusha.
- Defects found in Moneypoint units during overhaul inspections required extended outages to repair, resulting in lower than planned overall portfolio availability.
- Planning applications were lodged for West Offaly Power and Lough Ree Power to extend the life of these peat plants by fully converting to biomass on a phased basis up to 2027.

GT CUSTOMERS

GT continues to offer a variety of traded contracts to all supply companies in I-SEM on a non-discriminatory basis via an over-the-counter trading platform that in 2018 has moved to provide weekly trading windows. These trading windows provide suppliers with the opportunity to hedge their power exposures to mitigate against market volatility risk for their customers. ESB agreed new forwards power market contracts in Q4 2017 and executed its first deals under these contracts for the new I-SEM market. Throughout 2018 ESB Trading have increased the volume executed in the market and will continue to provide suppliers with ongoing hedging opportunities. During 2018 GT finalised its arrangements to support the successful market entry for the new ESB GB market supplier entity ESB Energy.

PEOPLE

At 1,009, employee numbers in GT are in line with 2017. Operating with these numbers, while maintaining the safe and effective performance of the business and delivering the strategy, continues to be a key focus.

Health, safety and wellbeing is of fundamental importance and GT's safety improvement programme during 2018 was directed at embedding the process safety programme, increasing the focus on behavioural safety through our Safe and Sound Programme, and the promotion of health and wellbeing. Our Safe and Sound Programme is now up and running in eight locations across the business.
All locations within GT are covered by externally-audited OHSAS-certified safety management systems for which accreditation was maintained in 2018.

Employee engagement is key to successful performance for the GT business. During 2018, various business lines and stations have received the accredited quality standard for Excellence Through People (ROI) and Investors in People (UK). While working to increase our diversity and inclusion, our disability trainee programme recruited a further six employees in 2018 and we have also launched the BeMe@ESB ally programme in the business.

SUSTAINABILITY

GT operates its business with a focus on minimising environmental impact, aiming to significantly increase renewable generation and reduce the overall carbon intensity of generation. ESB is committed to leading a secure and affordable transition away from the use of coal and peat for power generation. CO_2 output from GT's generation plants is lower than 2005 (reference date) by approximately 43%, and the carbon intensity of generation reduced by 32% to 454 kg/KWh.

LEADING THE WAY TO A BRIGHTER FUTURE

Galloper

Galloper is a 353MW offshore windfarm located off the south coast of England. This is an ideal location for offshore wind developments given wind speeds, water depths and proximity to areas of electricity demand. It is a joint venture led by Innogy SE (25%) and includes Siemens Financial Services (25%), Sumitomo (12.5%), ESB (12.5%) and a consortium managed by Green Investment Group and Macquarie Infrastructure and Real Assets (25%). The project reached commercial operation in September 2018.

Why did ESB invest in Galloper?

Galloper is ESB's first major investment in offshore wind generation and provides the company with a solid platform from which to build similar developments off the coast of ROI and GB. Galloper is a key enabler to ESB in its efforts to rebalance its portfolio of generation assets and in reducing it's carbon intensity.The development generates enough electricity each year to power approximately 380,000 average GB households.

UPDATE ON 2018 PRIORITIES AND PRIORITIES FOR 2019

2018 Priority	2018 Progress	2019 Priority
OPERATIONAL		
Continue to maintain a healthy and injury-free workplace Further embed process safety continuing to improve safety assurance.	■ Phase 2 of the Process Safety Programme was completed and embedded. ■ The first implementation group of our Safety Culture transformation Project (Safe & Sound) started work. Incident and Injury Free Safety Culture Change Pilot Programmes were completed at Aghada/Marina and Dublin Bay Power Stations	■ Continue to maintain a healthy and injury-free workplace. ■ Continue to improve safety assurance. ■ Continue with further implementation groups in our Safe and Sound programme. ■ Embed the process safety programme into the business.
Safely complete the construction of Tilbury Green Power and the portfolio of wind projects.	■ The construction of the Tilbury Energy from waste plant (40MW) was substantially completed in 2018, with commercial operation achieved in January 2019, and Castlepook wind farm (34MW) went into commercial operation.	■ Safely build out the Grousemount and Oweninny Wind projects.
Maintain a high level of performance in both generation and trading Prepare for I-SEM.	■ Annual availability of the generation fleet was solid despite a number of forced outages in Q3/Q4. ■ Trading performance remained solid against a backdrop of difficult market conditions. ■ Preparation for I-SEM continued with go-live of the new market on 1 October.	■ Maintain a high level of performance in both generation and trading. ■ Consolidate operations in I-SEM.
STRATEGIC		
Construct additional renewable projects, while continuing to develop diverse renewable and transition growth opportunities.	■ 78MW of additional renewable generation projects were completed, with 158MW in construction.	■ Increase the number of opportunities for investment in low-carbon generation including solar and offshore wind. ■ Finalise plans for biomass conversion of the Midland Stations.

ESB NETWORKS

Paddy Hayes
Managing Director
ESB Networks DAC

Paul Mulvaney
Executive Director
Customer Delivery ESB Networks

Q What were the key achievements in 2018 for ESB Networks?

Key achievements in 2018 are outlined under the following headings:

Connecting more homes and businesses: ESB Networks connected over 26,900 new homes and businesses.

Connecting more renewable generation: ESB Networks continued to support the transition to a low-carbon future, connecting 336MW of new renewable generation, bringing the total of renewables installed on our network to over 4GW.

Innovating for the future: Our eight Innovation Roadmaps are driving out better ways of delivering for our customers and include the Dingle Project to better understand how communities and evolving technologies can interact in the electricity network of the future.

Reinforcing the network: Important projects to improve resilience, increase capacity and strengthen the network were completed in 2018 including the Garrycastle 38kV station in Athlone and the Cherrywood 110kV Station.

Investing in People: Continued investment in people was recognised when ESB Networks was presented with the 2018 European Alliance for Apprenticeships (Large Companies) Award for Vocational Education and Training Excellence.

Reacting to Extreme Weather: 2018 was characterised by a number of major storms requiring strong restoration responses from all teams in ESB Networks. ESB Networks would like to thank our customers for their patience during the restoration effort for these events.

Introducing Smart Meters: Smart Meters will be key to putting customers at the centre of a sustainable energy future and the first milestone of the Smart Metering project, a significant IT upgrade, was successfully delivered in August 2018.

Q How does the business help ESB fulfil its strategic and financial objectives?

In 2018, ESB Networks increased its RAB by €0.2bn, through good progress on its transmission and distribution programmes under the Price Review (PR4).

In leading the transition to a low-carbon future powered by secure and affordable clean electricity, ESB Networks plans to;

- Connect greater volumes of renewable generation;
- Develop the network to support the widespread electrification of transport and heat;
- Connect and respond to the changing needs of customers;
- Reinforce and improve the resilience, performance and safety of the network; and
- Maximise networks utilisation and value for money.

OPERATING PROFIT
2018 €355 million
2017 €317 million
€38 million

CAPITAL EXPENDITURE
2018 €590* million
2017 €501 million
€89 million

REGULATED ASSET BASE (RAB)
2018 €7.9 billion
2017 €7.7 billion
€0.2 billion

*Gross of supply contributions

OVERVIEW

ESB Networks builds, manages and maintains a transmission and distribution network of over 180,000 kilometres in the Republic of Ireland (ROI). The business holds both ISO 55001 and OHSAS 18001 certifications which cover asset management and occupational health and safety management. These certifications are important in providing assurance that ESB Networks is being run consistently to high external benchmarks.

ESB Networks invested €590 million in reinforcement and constructing new networks in 2018 of that €67 million was spent on maintaining the existing network.

2018 was the third year of the regulatory price review period PR4 and ESB Networks has continued to make good progress on the approved investment and maintenance programmes.

FINANCIAL PERFORMANCE

ESB Networks operating profit for 2018 at €355 million is up €38 million on 2017 due to higher revenue arising from higher regulated tariff income and volumes. Capital expenditure at €590 million is up by €89 million on 2017. The increase primarily reflects the change in accounting treatment of supply contributions, higher spend on transmission assets, increased asset replacement in line with the PR4 programme and significant progress on the smart metering project.

OPERATING ENVIRONMENT

Electricity demand was up for the first half of 2018 due to a colder start to the year but returned to more normal levels from the summer onwards. Connections of new houses continued to rise, particularly in the Dublin area.

The government's renewable feed in tariff scheme drove the demand for renewable generation, with a further 336 MW of new connections, resulting in over 4GW of renewable generators now being connected to the transmission and distribution systems in ROI.

The Regulator has introduced a new Enduring Connection Policy and implementing this new policy, in conjunction with EirGrid and industry, will enhance ESB Networks' ability to connect more renewables to the network.

In 2018 a number of major storms Eleanor (January), Emma (March - snow), Hector (June), Ali (September) and Callum (October) had a serious impact on the network and our

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customers. The arrival of Storm Ali in particular, at a time when most trees were still in leaf, resulted in significant levels of network damage from falling timber and required an enormous restoration response from ESB Networks crews. ESB Networks would like to thank our customers for their patience and support during the restoration efforts.

PROGRESS ON STRATEGIC OBJECTIVES

Connecting renewable generation

ESB Networks connected 336MW of renewable generation of which 328MW was wind generation including Knockalough (33.6MW), Magheramore & Cloontooa (40.8MW) and Boolinrudda (44.5MW). Continued renewable connections also require significant reinforcement of the transmission network.

Supporting the widespread electrification of transport and heat

ESB Networks have adapted and increased the design standards for new connections at Low Voltage to increase the capability to support the electricification of heat and transport.

Smart Metering is a nationally significant infrastructure transformation project supporting Ireland's efforts to tackle climate change and meet its 2030 de-carbonisation targets. The first phase of the Project, which is scheduled to run until the end of 2020 started in 2017. The project is divided into six major delivery milestones and the first of these, a significant IT upgrade, was successfully delivered in August 2017. Phase 1 will see the installation of 250,000 smart meters across the country by the end of 2020, with the first meters being upgraded in the second half of 2019. The delivery of Phase 1 will provide the opportunity for electricity supply companies to offer new Time-of-Use (ToU) based tariffs to customers from 2021.

Connect and respond to the changing needs of customers

Ballymahon 38kV Station was completed and energised ahead of target, against a very tight timeline. ESB Networks teams responded to the timeline, developing a modular design that allowed the station to be built off-site in parallel with the on-site civil works. The station was delivered in modules when the site was ready to accept it. This approach allowed energisation six months ahead of schedule and will be considered for other appropriate customer connections.

Investment in the network to reinforce and improve resilience and performance

At transmission level, key investments in 2018 include the Bellacorrick-Castlebar line upgrade project, completion of the refurbishment of Ardnacrusha Gas Insulated Switchgear station, completion of a connection at Snugborough for a data centre, and significant progress on the Cushaling-Thornsberry line.

A number of key projects to reduce risk and strengthen the distribution network were completed in 2018. These included energisation of Garrycastle 38kV station in Athlone (with the associated retirement of Cartrontroy 38kV station), Kildare 38kV station and Cherrywood 110kV station. A significant survey and review of all our wooden poles on the network was carried out to support safety and continuity of supply.

2018 was also characterised by significant development associated with new demand growth particularly in the Dublin region.

Innovation

As part of its Innovation Strategy, ESB Networks is committed to supporting customers as their needs evolve and how they use the electricity network changes. In 2018, ESB Networks' Low Voltage Design Standards were updated to ensure that as customers adopt new technologies, such as electric vehicles and heat pumps, the network can support this.

The smart electricity trial in the Dingle peninsula has begun which will see the deployment of electrified heat, battery storage, solar PV and peer-to-peer trials and smart network devices in over 100 locations. The Dingle project is focussed not only on technical innovation but also on understanding the impact, the interaction and the response of individuals and communities to the opportunities of developing technologies. We announced five ambassadors for the Project, selected out of almost 70 applicants from the broader community. The ambassadors interact with a range of sustainable technologies, including solar panels, battery management systems, heat pumps and electric vehicle chargers. They will share their experiences of the technologies with ESB Networks and the local community so ESB Networks can understand the impact and the benefit for the network, the community and the individual customer.

SAFETY

ESB Networks is committed to protecting the safety, health and wellbeing of our employees, approved contractors, members of the public and others who may be affected by our activities. The ESB Networks Safety Strategy 2013 - 2018, was successfully implemented with projects such as OneSource (enhanced Document Management System), Safety Engagement and our wide-ranging public safety programmes.

ESB Networks Safety Strategy 2019 - 2023 includes an organisation wide safety culture programme aiming to create 'an open and inclusive workplace where people feel valued and trusted, and where everyone chooses to take responsibility for their own safety and the safety of others'.

ESB NETWORKS' CUSTOMERS

The electricity customer is at the heart of everything for ESB Networks.

Customers' Interactions

Customers interact with ESB Networks across many touchpoints including:

- The Customer Care Centre: which deals with 1.6 million calls per year, achieving customer satisfaction ratings above 90% across industry performance indicators, successfully retaining the Customer Care Centre Accreditation for the 11th year in a row.
- Storms: which result in the most impact on customers, and during which ESB Networks activated additional call centres to effectively manage the volume of customer calls which rose to 65,000 during Storm Ali. Throughout the storms, ESB Networks experienced peaks in social media attention with 4.4 million views on Twitter and 720,000 hits to Powercheck. TV, radio campaigns and media interviews were also used to communicate and engage with customers in a timely and proactive manner.
- Social Media: where ESB Networks now has 40,000 Twitter and 27,000 Facebook followers.

Customer Developments

In 2018 ESB Networks continued to develop online services to enhance the customer experience. An enhanced New Connections service was piloted in Cork and Arklow, seeking to improve the experience of any customer looking for a new connection to the network. The plan is to extend this across the network during 2019, along with an online tracking app designed to allow customers to track the progress of their new connection.

Public Safety

ESB Networks continued its work to improve awareness on staying safe with electricity. Safety campaigns and initiatives in 2018 included:

- A national advertising campaign, 'Are You Sure It's Safe?' which has delivered 88% awareness amongst the target audience;
- Working with the Irish Farmers Journal to co-develop a series of 'Safe Family Farm' videos with over 1.4 million views to date;
- Working with the Construction Industry Federation (CIF) to promote 'Dial Before You Dig' campaign and the launch of the safety booklet for 192,000 CIF members and ESB Networks contractors.

ENGAGING WIDELY

Over the course of 2018 ESB Networks reached out to stakeholders and customers at nationwide events including the SEAI Energy Show, the Ploughing Championships, CIF Annual Conference and

Data Centre Conferences and 12 regional events with Chambers Ireland. In September 2018, ESB Networks launched a new Stakeholder Engagement Strategy to evolve and enhance relationships with customers and stakeholders as ESB Networks continue to develop and invest in the network. This will be important in 2019 as ESB Networks consult widely as an essential input to the process for the next regulatory Price Review (PR5).

PEOPLE

ESB Networks' 3,440 employees are central to successfully implementing its business strategy and delivering for customers.

During 2018, ESB Networks employees were awarded industry awards including:

- The Freight Transport Association Technician of the Year;
- The Leadership in Infrastructure Transformation award at the Oracle Open World Conference: and
- The EPRI PDU Technology Transfer Award for Leadership in Integration.
- The ESB Networks Apprentice Programme won the 2018 European Alliance for Apprentices (Large Company) Award for Vocational Education and Training Excellence and ESB's own Apprentice of the Year competition (Shane Conlan Perpetual Award) was won by Joseph O'Sullivan.

ESB Networks' apprenticeship recruitment campaign was very successful with over 5,500 candidates (including an increasing number of women applicants) for 72 places.

Network Technician recruitment continued in 2018 with 95 new employees taken on during the year, including technicians recruited externally and technicians qualifying from the ESB Networks Apprentice programme.

In 2018, the organisation structure of ESB Networks changed to better deliver for customers. Significant changes include alignment of the areas covered by projects and customer delivery teams, increasing focus on electrification, and changes to respond to the expected increase in new generation and demand connections.

SUSTAINABILITY

ESB Networks is committed to supporting the Irish Government's target of 40% of energy consumption coming from renewable sources by 2020. Some 336MW of renewable generation was connected in 2018, bringing total renewable generation connected to the network to over 4GW. Plans are in place to connect a further 550 MW of renewable generation in 2019.

UPDATE ON 2018 PRIORITIES AND PRIORITIES FOR 2019

2018 Priority	2018 Progress	2019 Priority
OPERATIONAL		
The safety journey will continue to ensure ESB Networks protect the health and safety of employees, contractors and the public.	The ESB Networks Safety Strategy 2013 - 2018, was successfully completed.	ESB Networks' Safety Strategy 2019 – 2023 includes an organisation wide safety culture programme: Safe & Sound.
Continue to deliver and monitor performance of PR4 capital and operational programmes.	In 2018, ESB Networks' organisation was reconfigured to maximise delivery and performance.	Facilitate the connection of more low-carbon electricity generation.
In line with the PR4 contract, efficiently deliver transmission and distribution capital and maintenance projects.	ESB Networks invested €590 million in reinforcement and constructing new networks in 2018 of which €67 million was spent on maintaining the existing network.	In line with the PR4 contract, efficiently deliver transmission and distribution capital and maintenance projects to reinforce the resilience, performance and safety of the network and maximise Networks' utilisation and value for money.
Continue to examine emerging trends in electricity networks across Europe and develop strategic plans accordingly.	ESB Networks has joined the European Distribution System Operators Association for Smart Grids.	Facilitate the widespread electrification of transport and heat, and the adoption of the Clean Energy Package.
STRATEGIC		
Begin the process of preparing the 2021 – 2025 (PR5) investment plans for submission to the CRU, through an open and constructive process that reflects what Irish customers need and want.	From late 2018 onwards, conversations began with customer representative bodies, societal interests, major customers, and the wider public to learn what customers care about most, and to reflect this into ESB Networks plans.	Submit the 2021 – 2025 (PR5) investment plans to the CRU, detailing all capital investment and operational expenditures and activities through this critical period of the energy transition.
Deliver projects set out under the ESB Networks Innovation strategy.	ESB has advanced a number of projects as part of its Networks Innovation Strategy. The Dingle project is deploying Electrified Heat, Battery Storage, Solar PV and smart network devices in over 100 locations.	Connect and respond to the changing needs of customers.
As part of the Smart Metering project, progress procurement for deployment of contractors and initiate internal preparations for deployment of meters.	The Smart Metering Project has made substantial progress during 2018 with a number of key deliverables achieved in line with project timelines.	Deliver the Smart Metering project so that customers can play their part in the low-carbon energy future.

LEADING THE WAY TO A BRIGHTER FUTURE

Tackling climate change is a massive challenge. ESB Networks understands that its role is pivotal to a future where renewable generation displaces the carbon in electricity and where electrification displaces the carbon in transport and heat. Through the Innovation Strategy, ESB Networks are engaging through key partnerships with communities, industry, academic and government agencies to develop a common vision, to deliver the innovation this demands, and to publicise and leverage the learnings. Underpinning this approach is The Dingle Project, which is a primary example of this, aiming to enable and stimulate active energy citizens and communities through digitalisation and deployment of smart technologies. The project has deployed electrified heat, battery storage, solar PV and peer-to-peer trials and smart network devices in over 100 locations on the Dingle Peninsula. These efforts will allow the facilitation of electrification and empower all customers to play their role in the sustainable energy future.

NORTHERN IRELAND ELECTRICITY NETWORKS (NIE NETWORKS)

Jerry O'Sullivan
Deputy Chief Executive

Q What were the key achievements in 2018 for NIE Networks?

2018 was marked by the occurrence of a high number of storms, most notably the extreme weather experienced during Storm Ali in September when 100,000 customers lost supply with NIE Networks safely reconnecting all customers within 3 days.

Alongside continuing to invest in the Network in 2018, NIE Networks improved its service to customers, reducing the number of minutes for which customers lost connection to the Network compared to the prior year.

Good progress has been made in 2018 implementing initiatives to deliver cost savings to meet the challenging allowances set by the Northern Ireland Authority for Utility Regulation (NIAUR) as part of the current price control which commenced on 1 October 2017 (RP6). In September 2018 NIE Networks successfully issued a £350 million bond at a 2.5% coupon to part fund its programme of work for RP6 as well as repaying its expiring £175 million bond, which matured in September 2018. NIE Networks has delivered full market opening for all new customer connections on 28 March 2018. NIE Networks also connected a further 200MW of renewable generation to the network in 2018 bringing total renewable generation connected to 1.65GW.

OPERATING PROFIT

2018 €62 million
2017 €35 million
€27 million

CAPITAL EXPENDITURE

2018 €171* million
2017 €143 million
€28 million

REGULATED ASSET BASE (RAB)

2018 £1.5 billion
2017 £1.5 billion

*Gross of supply contributions

Q How does the business help ESB fulfil its strategic and financial objectives?

NIE Networks owns and operates the electricity distribution network in Northern Ireland (NI). NIE Networks' revenues are derived primarily from its regulated businesses significantly increasing the proportion of ESB's revenue from regulated businesses. NIE Networks' BBB+ credit rating from Standard and Poor's demonstrates the financial strength of the company.

NIE Networks' role in facilitating the connection of renewable generation to the network also aligns with transitioning to a low-carbon future. In 2018 NIE Networks secured funding from NIAUR to pilot innovation projects. The objective of these projects is to develop cost effective alternatives to conventional network investment.

NIE Networks issued a Call for Evidence in 2018 in a bid to understand, from a Northern Ireland perspective, what changes are required to be made to its current functions as a Distribution Network Operator (DNO) to transition to a Distribution System Operator (DSO) in the future. Understanding this evolution will be a key focus for plans to decarbonise the energy system of the future.

OVERVIEW

NIE Networks is responsible for the transmission and distribution of electricity from generators to every home, farm and business in NI. NIE Networks' employees develop, build and repair the electricity network and operate the distribution network to keep the lights on for customers. NIE Networks is also responsible for metering activities, providing meters and metering information to all electricity suppliers. NIE Networks develops and reconfigures the electricity network to facilitate the connection of further renewable generation.

As required under its regulatory licences, NIE Networks is an independent business within ESB with its own Board of Directors, management and employees.

FINANCIAL PERFORMANCE

NIE Networks operating profit for 2018 at €62 million is up €27 million on 2017 due to higher Public Service Obligation (PSO) income and Use of System (UoS) income as well as lower operating costs due to higher capitalisation.

Gross capital expenditure at €171 million is up €28 million, primarily due to the change in accounting treatment of supply contributions. Capital expenditure (net of supply contributions) at €122 million is down €22 million on 2017. 2018 capital expenditure was primarily related to the refurbishment and replacement of worn distribution and transmission assets to maintain reliability of supply and ensure safety of network. The reduction in expenditure (net of supply contributions) from 2017 reflects an increased level of investment in 2017 to successfully deliver the outputs specified in the RP5 price control, which conlcuded on 30 September 2017.

OPERATING ENVIRONMENT

In 2018 NIE Networks has been focused on implementing its RP6 plan to meet the challenging allowances set by its regulator.

In addition preparations were completed in quarter one 2018 in readiness for full market opening to competition in customer connections in NI. Notwithstanding the challenges faced in 2018 (including the high number of storms experienced), NIE Networks reduced the number of customer complaints and overall customer minutes lost year on year. NIE Networks had two lost time incidents in 2018.

PROGRESS ON STRATEGIC OBJECTIVES

NIE Networks has successfully raised £350 million in new finance to partly meet its requirements for funding in RP6. NIE Networks has also commenced its programme of work under its RP6 network investment plan and delivery of the associated outputs required, to achieve reliability of supply and ensure the safety of the network for customers. Investment continued during 2018 to facilitate the connection of additional renewable generation and to replace customers' meters, with the installation of over 42,000 meters during 2018.

NIE NETWORKS' CUSTOMERS

Despite the high number of adverse and severe weather events in 2018, NIE Networks has continued to manage outages in order to minimise the length of time that customers are off supply. The average number of customer minutes lost due to planned outages was 41 (2017: 62). The average number of minutes lost due to faults in the distribution network was 53 (2017: 57). There was 1 complaint taken up by the Consumer Council for NI (CCNI) on behalf of customers during the year (2017: 2).

In recognition of the efforts made to provide the best possible customer service to its customers, NIE Networks won the Customer Engagement Award at the 2018 Contact Centre Awards in NI.

PEOPLE

Ensuring the safety of employees, contractors and the general public continued to be the number one value at the core of all NIE Networks' operations. The aim is to provide a zero-harm working environment where risks to health and safety are assessed and controlled. NIE Networks had 2 lost time incidents during the year (2017: 1), showing the commitment of employees to maintaining the highest standards of safety.

NIE Networks completed a redundancy programme during the year with 79 employees exiting under the programme in 2018. The average number of employees during the year reduced to 1,206 (2017:1,288).

SUSTAINABILITY

During the year, 179 large-scale wind farms, 24 small-scale renewable generation projects and several hundred micro-generation projects were connected to the network, together providing an additional 200 MW of renewable generation. By the end of the year, there was a total of 1.65 GW of renewable generation connected.

LEADING THE WAY TO A BRIGHTER FUTURE

NIE Networks' preparations for a low-carbon future involve trialling technologies that can reduce costs to customers in the long term with up to £6.4 million in allowances approved by NIAUR in 2018. Pilot projects have been identified across five areas: smart asset monitoring, demand side response, low-voltage active network management, voltage management and facilitation of energy storage services. These projects will help to facilitate the connection of low-carbon technologies to the network and to release network headroom at a lower cost than conventional reinforcement. Plans for innovation will focus on integrating suitably advanced smart solutions into business as usual. In addition, some forward investment in the communications network is planned to enable a wider roll-out of smart solutions in future price control periods. Following a Call for Evidence process initiated by NIE Networks on its evolution to DSO, NIE Networks has also been engaging with external stakeholders to help develop a consultation document to issue in 2019.

UPDATE ON 2018 PRIORITIES AND PRIORITIES FOR 2019

2018 Priority	2018 Progress	2019 Priority
OPERATIONAL		
Ensure the health and safety of employees, contractors and the general public and achieve a zero-harm work environment through implementation of injury and accident-free initiatives.	■ 2 lost time incidents ■ Retained both ISO accreditations.	■ Ensure the health and safety of employees, contractors and the general public and achieve a zero-harm work environment through implementation of injury and accident-free initiatives.
Continue to consistently provide high standards in network performance and customer service while delivering the RP6 investment programme and the high level of generation connections.	■ High customer satisfaction survey score following roll-out of Think Customer initiative. ■ Continued management of outages to reduce customer minutes lost. ■ Significant progress in connection of 200MW renewable generation.	■ Continue to consistently provide high standards in network performance and customer service while delivering the RP6 investment programme and the high level of generation connections.
Delivery of full market opening for connections by 28 March 2018.	■ Delivered full market opening.	■ Operate successfully in a contestable connections market.
Deliver RP6 programme while maintaining a safe and secure network Deliver total expenditure in line with RP6 allowances.	■ Substantial capital investment (€171 million) during 2018 with spend incurred in line with allowances.	■ Continue to accelerate delivery of the RP6 programme while maintaining a safe and secure network. ■ Continue to deliver total expenditure in line with RP6 allowances.
STRATEGIC		
Continue investment in employees through effective employee development and increased employee engagement with focus on encouraging continuous improvement.	■ Engagement with employees via a number of forums throughout the year. ■ Leadership capability across all levels enhanced through a variety of training and development initiatives.	■ Continue investment in employees through effective employee development and increased employee engagement with focus on encouraging continuous improvement.
Continue effective engagement with key stakeholders.	■ Significant engagement undertaken with customers and other stakeholders in 2018 with new engagement strategy approved and implementation commenced.	■ Continue effective engagement with key stakeholders.
Access finance at optimal cost to fund the RP6 programme of work and refinance expiring bond.	■ £350 million bond issued in September 2018 at 2.5% rate of interest.	■ Continue to monitor funding market conditions to assess optimal timing for next fundraising.
		■ Understanding the impacts and changes required going forward in a decarbonised, decentralised and digital world evolving from a DNO to a DSO.
		■ Prepare the Network for transition to a low-carbon future.

ELECTRIC IRELAND* (PART OF CUSTOMER SOLUTIONS)

*As part of the Organisation Effectiveness Review (OER), the Electric Ireland Business Unit along with other customer facing businesses were re-organised into Customer Solutions. The results and narrative below relate to Electric Ireland. Please see Page 40 for further details of OER

Marguerite Sayers
Executive Director
Customer Solutions

Q What were the key achievements for Electric Ireland in 2018?

During 2018, Electric Ireland continued to deliver value to its customers, offering improved customer experience through enhanced digital service capability and innovative products.

As part of its ongoing commitment to its customers, Electric Ireland has focussed on minimising the impact of increasing energy costs and delivering the best long term value in the market for residential customers. In 2018, Electric Ireland continued to offer the cheapest standard unit rate in the market. In addition, for the second winter in a row, Electric Ireland applied a winter price freeze when bills are typically at their highest, thereby maximising the benefit of lower prices for longer for our customers. Electric Ireland has almost one million customers on enduring discounts which rewards our loyal customers year after year.

At the same time, Electric Ireland has progressed the development of its product offerings through the launch of the 'Smarter Home' product for residential customers. Smarter Home is all about giving customers control, convenience and insights over their energy usage, appliances, heating and hot water. In 2018, Electric Ireland's All Electric discounted tariff was launched. This offer is for customers moving into new all electric homes, rewarding those who are using the most environmentally friendly heating technology. In addition, Electric Ireland is the only supplier in the market currently offering customers an Electric Vehicle (EV) home charger product.

In 2018 Electric Ireland confirmed its position in Northern Ireland (NI) capturing a 10% share (c. 86,000 customers) of the residential electricity market. The level of brand awareness also significantly increased in NI during the year.

Our electricity and gas retail business in Great Britain (GB), ESB Energy, launched in the residential market in 2017 and continues to develop its capabilities and grow customer numbers. With a strong focus on the customer journey and user experience ESB Energy had acquired over 36,000 at the end of 2018, many being dual fuel customers.

Q How does the business help ESB fulfil its strategic and financial objectives?

Engaged, connected customers are a key strand in transitioning to a low-carbon future. Recognising this, Electric Ireland plays a critical role in putting customers at the heart of ESB's activities. With new product and services offerings, Electric Ireland are embracing technological advances to respond to customers' changing needs, and in doing so, make it easier for customers to control their energy costs and to make low-carbon choices. Electric Ireland is constantly evolving and shaping its business to continue to deliver a strong benefit to society.

While offering the best enduring value to customers over the last number of years, Electric Ireland has consistently delivered operating profits, which help the Group provide a dividend to the State, maintain its investment grade credit rating and provides funds for future investment. This has been achieved through active management of commodity exposures and maintaining a focus on all costs of supply.

REVENUE

2018 €1.8 billion

2017 €1.7 billion

€0.1 billion

OPERATING PROFIT

2018 €54 million

2017 €68 million

(€14 million)

OVERVIEW

Electric Ireland is the retail arm of ESB, supplying electricity, gas and energy services to customers across the island of Ireland and GB. With over 1.3 million customers and an electricity all-island market share of 33%, Electric Ireland serves all market segments, from domestic households to large industrial and commercial businesses, in both ROI and NI. With a strong focus on customer service, providing value for all customers and contributing to communities across the country, Electric Ireland is recognised as a leading retail brand by Irish consumers and businesses.

FINANCIAL PERFORMANCE

Revenue in Electric Ireland in 2018 was €1.8 billion, an increase of 6% compared to 2017. Increase in revenue was driven by increased unit rates for residential electricity and gas customers arising from increased wholesale energy prices. Electric Ireland's overall market share decreased by 1% during 2018 to 33% primarily as a result of customer losses in the industrial and commercial market sectors.

Electric Ireland reported an operating profit of €54 million, which represents an operating profit margin of 3%. This is a €14 million decrease on 2017's financial performance. The reduction in operating profit is driven primarily by higher wholesale energy prices and the investment underpinning our market into GB retail electricity and gas market.

OPERATING ENVIRONMENT

In ROI, Electric Ireland operates in one of the most dynamic and competitive markets in Europe, evidenced by the high level of customer switching.

Electric Ireland's residential market share reduced slightly in 2018, continuing the trend from previous years. Electric Ireland continues to compete by focusing on competitive pricing and innovative offerings and has the lowest electricity standard unit rate in the market. Electric Ireland has sought to protect customers as much as possible from increasing fuel prices during 2018 and is the only supplier to announce a price freeze for a second consecutive winter period for its customers.

2018 also brought the transition to the Integrated Single Electricity Market (I-SEM) for all market participants on the island of Ireland. Electric Ireland ensured that customer interests were at the forefront of all market design consultations so that customers see the benefits of the Irish electricity market integrating with the EU energy model.

PROGRESS ON STRATEGIC OBJECTIVES

During 2018, Electric Ireland has taken significant steps to deliver on its strategic objective to put customers' current and future needs at the centre of all its activities. Electric Ireland continues to deliver the lowest average residential price across a rolling three-year period for residential customers. Electric Ireland has also progressed the development of its Smarter Home solution which was launched in 2018. This product will allow customers a greater level of control over their energy usage, facilitate customers to monitor consumption and therefore enable customers to save money.

Electric Ireland delivered a range of digital solutions for our small and medium business ("SME") customers allowing for increased online functionality, personalised insights and online service help.

In 2018, Electric Ireland launched an all-electric and smarter home offer which rewards customers for adopting the most environmentally friendly and efficient heating technology. Approximately 40% of new homes now have air-source heat pumps as their primary energy source and so would qualify for this tariff and product.

Electric Ireland further established its brand in the NI market and was shortlisted for two European Sponsorship Awards for the "Game Changers" campaign. Game Changers focussed on celebrating female football talent, boost participation and raise awareness about women in sport. In ROI, the sponsorship of Darkness into Light was also recognised as the number one most impactful sponsorship in the National Sponsorship Index (Ireland's first national benchmark for sponsorship

UPDATE ON 2018 PRIORITIES AND PRIORITIES FOR 2019

2018 Priority	2018 Progress	2019 Priority
OPERATIONAL		
Deliver additional improvements to the online portals, improving the customer journey experience and further empowering Electric Ireland's customers.	■ Customer Insights for SME customers provides business customers personalised insights and energy efficiency recommendations to allow them to manage and potentially reduce their energy usage.	■ Deliver best in class digital customer journey by improving personalisation, online functionality, capability and insights through continued investment in our online portals.
Deliver performance improvements across the cost base to ensure Electric Ireland's market commitments on price will be delivered.	■ Cost management allowing for delivery on commitment on being the best long term value in the market for residential energy customers. ■ Only supplier in the market to announce a price freeze for residential customers for second consecutive winter.	■ Strong and robust management of the cost base to allow Electric Ireland to deliver on the price commitments across the product and service range.
Continue to deliver a customer focused but effective credit management strategy and ensure vulnerable customers are protected.	■ Range of products and payment plans in place coupled with proactive early interaction with customers. ■ Disconnections less than 20 per 10,000 customers.	■ Continue to deliver a customer focused but effective credit management strategy and ensure vulnerable customers are protected.
Formally launch the Smart Home solution to all customers.	■ Smarter Home offer launched in 2018 allowing customers control over appliances, heating and hot water from their smartphone or tablet.	■ Deliver customers a range of innovative products and services building on the Smarter Home offering.
STRATEGIC		
Ongoing focus on customer convenience, empowerment and control through continued development of the digital service capability across the entire customer experience journey.	■ Significant developments to deliver increased digital capability for customers including the launch of the Premium Insights tool for SME customers and the Price Check website for residential customers. ■ Electric Ireland is the only provider in Ireland that offers online sign up for SME customers.	■ Improving our customer experience, across all market segments, is of critical importance for Electric Ireland. Ongoing investment and development of our digital capability is central to this.
Continue to focus on the delivery of increasing efficiency targets. Electric Ireland will start offering specific electrification tariffs in 2018.	■ Electric Ireland is on track to achieve its energy efficiency targets. ■ All Electric and Smarter Home Tariff launched in 2018. ■ Solar PV & EV charger offer available to customers.	■ Electric Ireland will lead the way to a brighter future by focussing on delivering on all energy efficiency targets as well as offering customers new products and services to encourage more energy efficient behaviours.
Ensure Electric Ireland operates and trades successfully within the new wholesale electricity market arrangements.	■ Ensured customer interests remained at forefront of all market design consultations for the new I-SEM market. ■ Successful operation within the new I-SEM market achieved in 2018 for Go Live in October.	■ Continue to operate successfully within the new I-SEM to competitively source electricity for customers.
■ Electric Ireland will continue to develop the brand and increase market share in NI and GB.	■ Significant growth in market share achieved in both NI and GB markets. ■ Shortlisted for two European sponsorship awards for NI Sponsorships.	■ Electric Ireland will continue to grow our brand and market share within the ROI and NI market and also in GB through ESB Energy.

effectiveness). The Electric Ireland “This is Major” sponsorship of the GAA Minor Championship has also been a highlight of 2018 with the Player of the Week initiative and All Star Awards raising awareness of the Minor championship across digital and traditional media channels.

LEADING THE WAY TO A BRIGHTER FUTURE

Electric Ireland is rewarding customers who undertake measures to improve the energy efficiency of their homes through its Energy Efficiency Incentive Scheme, which gives customers additional discounts on their bills. Electric Ireland has also pioneered the introduction of Smart Heating Controls, offered as part of price plans to assist customers in managing their energy requirements. Electric Ireland also delivers energy savings as part of the National Energy Efficiency Obligation Programme. In 2018, Electric Ireland assisted local authorities and housing associations around the country to improve the energy efficiency of social housing through a variety of measures including attic and wall insulation, heating system improvements and heating control upgrades.

ELECTRIC IRELAND’S CUSTOMERS

The customers are central to everything that Electric Ireland does. In addition to launching new and innovative products, Electric Ireland continues to deliver customer service improvements to simplify and improve its excellent customer experience.

With continued focus on a quality customer service offering, Electric Ireland maintained its high level of customer satisfaction. In 2018’s Customer Experience Index Report, a report which ranks all of the main brands in Ireland based on customers’ experience, Electric Ireland has moved up 41 places in the overall rankings this year, and now ranks at no. 32 in the Top 100. In addition, it was voted the Customer Champion in Utilties Section in the 2018 CX Excellence Awards. Which? Magazine also ranked Electric Ireland as the Joint Top Electricity Supplier for Customer Satisfaction in NI for 2018.

Building on these successes while maintaining a focus on customer empowerment and self-service, Electric Ireland further developed its digital service capability during 2018 with the introduction of:

- Smarter Home Solution for customers which gives customers control over appliances, heating and hot water from their smartphone or tablet.
- Electric Ireland Price Check website which allowed customers and potential customers to compare the long term value of the Electric Ireland offer versus the other larger energy providers in the ROI market.
- Premium Insights, an on-line tool to provide business customers personalised insights and energy efficiency recommendations to allow them to manage and potentially reduce their energy usage.
- Webchat for all business customers within our business online portal.
- Electric Ireland online sign up for SME Customers, Electric Ireland is the only electricity provider offering this service to customers.

PEOPLE

A key element in the successful delivery of Electric Ireland’s strategic and operational priorities is the capability, knowledge and performance of employees, aligned with our Brighter Future objectives.

- In 2018, Electric Ireland recruited key new employees from various disciplines, many linked to our important growth strategy in NI and GB. Their skills and experience included digital analytics, marketing and sales and industry metering and services.
- A continued strong focus on employee development, performance management and targeted recruitment across a range of disciplines will ensure that Electric Ireland continues to provide competitive offerings, excellent customer service and new and innovative products to meet its growing customer needs.

SUSTAINABILITY

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

ENGINEERING AND MAJOR PROJECTS

Nicholas Tarrant
Executive Director Engineering and Major Projects (E&MP)

Q What are the key achievements in 2018 for E&MP?

Engineering and Major Projects (E&MP) was established in 2018 following an internal re-organisation to effectively support the delivery of ESB’s Brighter Future Strategy. Its purpose is to deliver the major projects and engineering solutions required by ESB and its customers to lead the transition to reliable, affordable and low-carbon energy. E&MP was established to ensure consistent best practice major project delivery across ESB and to provide a centre of engineering to drive ESB’s Brighter Future strategic objective to enable the production, connection and delivery of low-carbon electricity

Working with Generation and Trading, the completion of the delivery of Grousemount 114MW wind farm and ESB’s construction responsibilities for the delivery of Oweninny 89MW wind farm, a joint venture with Bord Na Mona, are migrating to E&MP. Working with ESB Networks, a number of large projects, including construction delivery of the North South interconnector project, are now under the responsibility of E&MP. The delivery of major projects by E&MP and other work programmes by ESB Networks Customer Delivery will maximise the delivery of the overall ESB Networks’ work programme.

Under Group Property and Security, the redevelopment of ESB’s head office, Project Fitzwilliam, progressed well during the year.

ESB International continued the provision of a range of engineering, operations and maintenance solutions and consultancy services across a range of national and international clients.

Q How does the business help ESB fulfil its strategic and financial objectives?

Engineering and major project delivery bring the Brighter Future Strategy to life by delivery of major projects and engineering solutions which enable the production, connection and delivery of low-carbon electricity.

Whether it is new wind farms, electricity transmission or distribution projects, or technologies such as biomass, battery storage or flexible power generation, a commercial engineering capability is a core requirement for ESB. This capability also supports the ongoing maintenance of existing infrastructure, ensuring that these generation and network assets perform efficiently throughout their lives to meet customer and market needs.
The aim of a centralised approach to major project delivery is to deliver projects efficiently, which supports ESB’s financial objectives.
This approach is based on having best practice project and contract management capability that can be applied across the Group, while observing regulatory requirements.

OVERVIEW

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

CENTRE OF ENGINEERING

The Centre of Engineering includes civil and environmental, networks and generation engineering, and asset management services. These engineering functions are involved in new development projects from concept through to construction and commissioning. They also support the operation and maintenance of existing assets both in Generation and Trading and ESB Networks, and work with Group Property and Security and ESB International.

MAJOR PROJECT DELIVERY

There are separate functional areas within E&MP with responsibility for generation projects and networks projects. These work with the respective businesses and are building an enhanced capability to ensure these projects are delivered and that ESB reaches the goals set out in the Brighter Future Strategy.

GROUP PROPERTY AND SECURITY

Group Property and Security (GP&S) manages ESB’s property portfolio. The flagship project for GP&S is the development of ESB’s head office in Fitzwilliam St., Dublin 2.
ESB commenced redevelopment of its Fitzwilliam Street site in Dublin 2 in June 2017 and work progressed well during 2018. This new 45,000 sqm development will deliver a near zero energy building, one of the most efficient and sustainable commercial office developments in Dublin city, while sensitively respecting and enhancing the Georgian streetscape. The project involves the demolition of the existing buildings, the retention and refurbishment of a number of protected Georgian structures and the construction of a new seven-storey office block.

ESB INTERNATIONAL

ESB International, a global provider of engineering consultancy services, is currently working in the Middle East, Africa and the Far East. It also continues to work across Europe including Ireland and the UK. During 2018, ESB International won a contract for the provision of operation and maintenance expertise to EDC in the Philippines for their Geothermal power generation fleet as well continuing work with existing international clients. ESB International’s services are strongly linked to ESB’s engineering, management and project delivery capabilities and allows it to bring these capabilities to international clients.

ENTERPRISE SERVICES

Geraldine Heavey
Executive Director Enterprise Services

Q What are the key achievements in 2018 of Enterprise Services?

Enterprise Services was established in 2018 following an internal re-organisation to effectively support the delivery of ESB's Brighter Future Strategy. As the provider of a wide range of key business processes and services across ESB Group, Enterprise Services' achievements in 2018 included :

- Ensuring ESB Group requirements were met in relation to core enterprise services.
- Leading the IT direction of ESB Group, ensuring excellent IT system availability including management of cyber security risks.
- Successfully managing IT programmes and projects across ESB group; and
- Managing financial and people operations for ESB Group.

Q How does Enterprise Services help ESB fulfil its strategic and financial objectives?

Enterprise Services' purpose is to enable ESB's Brighter Future Strategy by leading, advising and delivering in its core areas of expertise. Enterprise Services' strategic priorities are:

- Delivery of strategic advisory, business process and IT services effectively and efficiently so as to enable strategy delivery and support ESB's financial objectives across ESB Group.

- Accelerating delivery of digital and analytics across ESB Group as an enabler of business transformation and performance.

- Driving performance improvement and operational / performance excellence across all parts of Enterprise Services; and

- Continuing to build an engaged, safe and collaborative team in the newly formed Enterprise Services Business Unit.

A critical element in the successful delivery of Enterprise Services' strategic and operational priorities is the capability, knowledge and performance of its employees. Working in collaboration and partnership with the rest of ESB Group, Enterprise Services has an essential role to play in the delivery of ESB's Brighter Future Strategy through a continued focus on operational / performance excellence including cost leadership, process improvement leveraging centralised capabilities and technology leadership.

OVERVIEW

As ESB's internal service provider, Enterprise Services enables ESB's Brighter Future Strategy by leading, advising and delivering in its core areas of expertise. Enterprise Services is:

- The strategic advisor to ESB Group in relation to areas covered by Enterprise Services.

- Responsible for providing business critical processes and services to the rest of ESB Group through its two delivery arms, Business Operations and IT Delivery; and

- Responsible for leading the digital transformation of ESB Group, as well as leading process improvement across ESB.

AN OVERVIEW OF ENTERPRISE SERVICES FUNCTIONS IS OUTLINED BELOW:

Legal The role of Legal is to provide legal expertise and services across a wide range of practice areas and to advise on legal risks across ESB Group, while observing regulatory requirements.

Procurement The role of Procurement is to manage procurement activity across ESB Group while observing regulatory requirements. This includes development of procurement strategy, policies and procedures, strategic procurement planning and tendering services.

Pensions & Insurance The role of Pensions & Insurance is to manage all pensions and insurance activities across ESB Group. This includes development of strategies, provision of expert advice and risk management. It also manages staff insurance services and the Medical Provident Fund.

Process Improvement The role of Process Improvement is to deliver process improvement projects and drive a culture of continuous improvement across ESB Group.

CIO The role of CIO is to shape world-class technology solutions that enable business growth and efficiencies and to oversee cyber security. This includes leading the transformation of ESB Group from an IT, Digital and Analytics perspective.

IT Delivery The role of IT Delivery is to implement, scale and support IT and Digital projects, products and services and manage cyber security.

Business Operations The role of Business Operations is to provide core business support functions such as people operations, finance operations, treasury operations, requisition to pay, facilities, as well as customer support.

1 RESPONSIBLE BUSINESS REPORT

OVERVIEW

Pat Naughton
Executive Director, People and Organisation Development

2018 has been a hugely important year for ESB and for our people. We have reshaped our organisation to enable us to deliver our strategy and ensure the capability to realise our success.

2018 saw us build on the work we undertook in 2017. We carried out an Organisation Effectiveness Review in order to reshape ESB to best meet our strategic goals. Through this review we critically examined the capabilities we will require as we progress in a changed energy industry. This led to the redesign of our organisation over the course of 2018 to a fit-for-purpose ESB, focussed on delivering our Strategy for a Brighter Future.
Engaging our employees around the vision for this new ESB has been a key feature for 2018. Along with explaining why we need to change, we also talked about staying true to the values that have shaped everything we are today – courageous, caring, driven and trusted. As we move forward and deliver our ambition for a low-carbon future powered by clean electricity, our values will guide the behaviours we need to succeed.

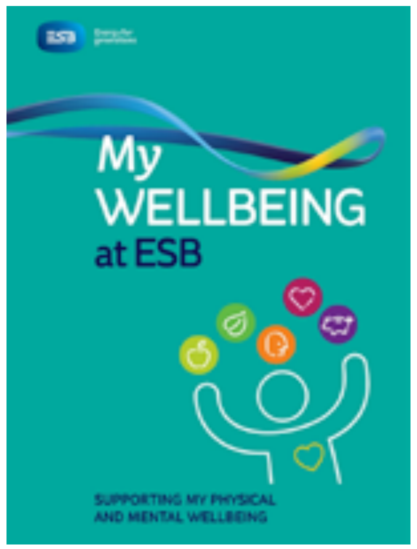
Our newly designed organisation has seen us redefine our approach to human resources management and assuring the people capability of ESB into the future. Bringing the responsibility for Safety, Health and Wellbeing into the People and Organisation Development function sees us take a step forward and focus on people and behaviours as an enabler of a high performance culture. Our strategy is built around a low-carbon ambition to address the challenges of climate change and is sustainable at its core. Delivering on this in an authentic way will see us evolve our own behaviours and our businesses so that, in every way, we become increasingly sustainable.

As we look forward to 2019, we will use our values to bring focus to behaviours, defining our standards and the way we work at ESB. How we lead and manage people, develop inclusive and vibrant workplaces and enable every individual to perform to their best will continue to be significant success factors in 2019.

Pat Naughton

Pat Naughton,
Executive Director,
People and Organisation Development

FIGURE1: MY WELLBEING HANDBOOK



SAFETY

OVERVIEW

ESB's Board, management and employees are committed to protecting the health and safety of employees, customers, contractors and the people ESB serves; their safety is always considered first in business actions and activities. ESB believes that all operational processes can be designed and operated in a safe manner. This belief guides its approach to safety across all business activities and is reinforced through strong and visible leadership throughout the Group.

The Chief Executive has overall responsibility for the management of health, safety and wellbeing in ESB. The ESB Group Safety Statement, as approved by its 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. Further details of the Health, Safety and Environment Committee are outlined on page 105.

SAFETY PERFORMANCE IN 2018

The number of lost time injuries (LTIs) in 2018 was 69 compared to 63 in 2017 and 72 in 2016. 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.

In addition to focusing on LTIs, ESB categorises all injurious incidents and near misses with a particular focus on high potential incidents that could lead to more serious outcomes.
In 2018, 102 high potential incidents were recorded. Although this is a high number, the rate at which these incidents are occurring is lower compared to 2017 (163) and 2016 (255). All high potential incidents and LTIs are investigated to determine their root causes. The most significant safety risks arising from high potential incidents for ESB are: electricity, driving and transport, working at height and using tools and equipment.

A good catch is when someone intervenes when they observe an unsafe act or unsafe condition, and helps prevent a safety incident from occurring. Good catches are a key element in helping ESB achieve world class performance. In 2018 a target of 10,000 good catch reports was set for ESB group. The target was achieved by October. The final number of good catches recorded by employees for 2018 was 11,466.

HEALTH AND 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 where 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.

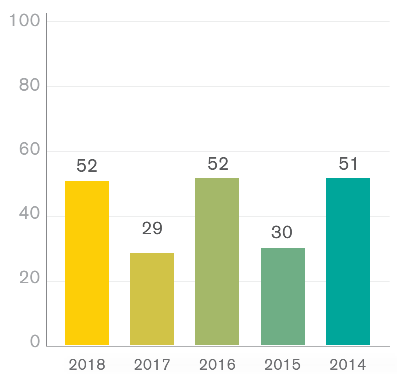
SAFETY STRATEGY

The safety programme in 2018 continued to focus on the implementation of the Safety Strategy. Each business area models its annual health and safety programmes and annual safety improvement plans on the strategy.

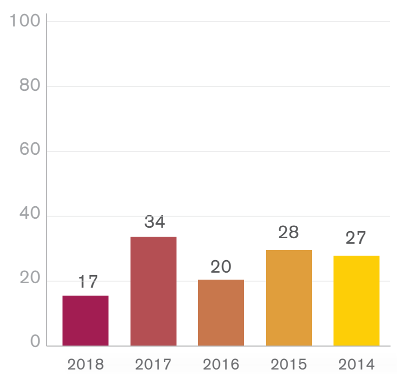
KEY INITIATIVES AND PROGRAMMES IMPLEMENTED OR CONTINUED IN 2018

- 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.
- ESB continued to progress and monitor leading indicators of safety and health performance. These are Good Catches, Leadership Conversations, P1 Investigation and P1 Action closure.
- The Safety Culture Transformation ('Safe and Sound') project is up and running with the first Implementation groups in Networks and Generation and Trading. Due to its success, this programme will now be implemented across all of ESB. Detailed implementation plans have been developed to cover the next two years. The focus of this project is to establish a culture where safety is central to everything we do, where there is a mind-set that is intolerant of incidents and injuries, where we take responsibility and care for our own safety and for those around us, where we speak up when we see something unsafe, where we choose to follow the safety rules, where we are compliant, where we implement sensible safety systems and where we take pride in our achievements.
- ESB continued to make progress in 2018 on improving its safety performance through delivery of key improvement projects in ESB Networks and Generation and Trading.
- ESB established a company-wide safety assurance process that commenced during Quarter 2 2018.
- In recognition of the diversity of employees and their wellbeing needs, ESB developed a new Health and Wellbeing Strategy. A Wellbeing Handbook (see Figure 1 on opposite page) was developed and launched during European Health and Safety Week.
- ESB has eight centres of competency to cover its key risks. These are: Road Safety, Electrical Safety, Safe Work at Height, Health and Wellbeing, Workplace Safety, Contractor Safety, Process Safety and Public Safety. A number of actions were driven out by each centre of competency during 2018.
- Cross-company reviews were carried out in relation to Fire Safety and Contractor Safety with recommendations being actioned.
- Delivery of the Public Safety Strategy and Action Plan continued in 2018 with active engagement with stakeholders in the farming, construction and emergency services sectors. New safety materials including videos were developed to help raise awareness of electricity safety for construction workers and emergency services personnel. The independent Public Safety Audit confirmed ongoing compliance with public safety licence conditions. Public safety communications ranged across all media including TV, radio, digital and the press to educate and raise public awareness of the dangers of fallen wires especially during storms and to highlight the risks associated with operating tall machinery and transporting high loads.

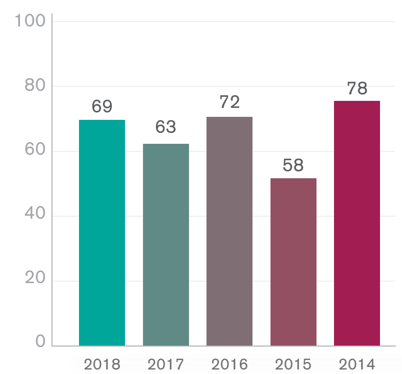
EMPLOYEE LTI



CONTRACTOR LTI



TOTAL LTI



PEOPLE

ORGANISATION EFFECTIVENESS REVIEW (OER) – CREATING STRATEGIC ALIGNMENT

2018 saw People and Organisation Development lead an Organisation Effectiveness Review to enable ESB reshape the organisation in support of delivering ESB's Strategy for a Brighter Future. Through this process ESB critically examined the capabilities it will require as it moves forward in a changed energy industry. ESB has designed an organisation that is fit for purpose, with a structure, processes and interfaces through which it will deploy its capability to realise its strategic ambition. This new organisation came into effect on the 30 October with people transitioning to their roles in the new organisation context.

ENGAGING PEOPLE IN A SHARED VISION FOR THE FUTURE

Building employees' understanding of the need to make this change, while building their support and involvement is critical to ensuring ESB can transform its business. Over the course of 2018, ESB continued to talk about its purpose and where this now takes ESB as it leads the transition to a low-carbon future. ESB engaged its people across the company in the story of its past, its present and its future. ESB explained the industry and how it is changing and how ESB has positioned its business to succeed in this new context so that ESB can continue to serve the customers and communities who trust and depend on it. This communication effort culminated in a companywide Day 1 celebration to mark the transition to a new and vibrant ESB.

PEOPLE AND ORGANISATION DEVELOPMENT LOOKING TO THE FUTURE

Through the OER process, ESB redesigned its approach to HR through the design of the People and Organisation Development function. The People and Organisation Development function represents a significant step forward in the development of ESB's One HR model; a single, enterprise-wide and strategy-led approach to human resource management. A key change in this approach is the inclusion of the Safety, Health & Wellbeing team into the People and Organisation Development function. This important decision reflects the way forward to achieve injury-free workplaces, which involves a significant refocus on manager and employee behaviours.

ESB's core purpose is to work across the business to ensure that its people have the capability and motivation to deliver the strategy. In doing so we recognise the importance of the overall employee experience, of allowing people reach their full potential and of ESB's responsibility to create a safe working environment. The design brings focus to a business partnering model providing strategic people advisory to the businesses, centres of excellence focussed on the key strategic themes for ESB, in the current and future context, and quality HR services delivered through efficient and digitally enabled processes.

BUILDING AN INCLUSIVE AND VALUES-LED CULTURE

ESB's Strategy for a Brighter Future calls out a high performance culture as critical to its success in delivering this strategy. Shaping the organisation around the delivery of the strategy, aligning the activities of all its people with strategic objectives and creating workplaces where people can perform and be their best will enable ESB's success.

ESB recognises the power of a diverse workforce when leveraged through an inclusive culture, where people can be at their best because they can be themselves. Building inclusion through understanding and supporting difference continued to be a key activity in 2018.

ESB had our highest ever numbers of employees participate in Dublin Pride. BeMe@ESB (ESB's lesbian, gay, bisexual, transgender (LGBT+) and Allies Employee network) organised the outing and families and friends joined in the celebrations.

DEVELOPING THE CAPABILITY TO DELIVER OUR STRATEGY

The behaviours of its leaders are critical to ensuring ESB builds employee engagement to enable high performance and delivery of the strategy. In 2018, ESB completed delivery of its Future Leader Programme, in which over 200 managers companywide participated. The programme focussed on building self-awareness among participants to better understand impact on people as a manager. The programme was designed around ESB's core values of being courageous, caring, driven and trusted and is integral to ensuring ESB builds a values-led culture through values-led leadership.

Understanding the capability requirements of the strategy over the coming years will be important to ESB's success. Changing capabilities and new ways of resourcing led ESB to develop a focus on Future Workforce in the new organisation design. This along with Strategic Resource Planning will ensure it has the appropriate capability at every point in the journey to 2030.

WORKFORCE RENEWAL ACROSS ESB

Over 2018, ESB continued to recruit across a number of key areas to ensure the capability needed to deliver Strategy for a Brighter Future.

- Through the Graduate Recruitment Programme ESB recruited 77 people across Engineering, Finance, HR, IT and Business
- The Networks Apprentice Programme to develop Network Technicians for ESB Networks, brought 72 people at a variety of levels and graduates into their first year of the four-year programme
- 95 new Network Technicians were recruited in 2018 - 63 from the ESB Networks Apprentice Programme and 32 from outside industry
- 290 experienced personnel were recruited across all capability areas.

In 2018, ESB recruited 12 women out of a total of 72 into the craft apprenticeship programme. This is significant within the industry for the craft area and has been achieved through a focused programme to engage with schools and a marketing campaign showing our female craft employees.

	2018	2017
Average Number of Employees	**7,874**	7,790
Female	**24%**	23%
Senior Management Level Female	**25%**	23%
Employees with Disabilities*	**3%**	4%

Average number of employees by business unit is included in note 9 of the financial statements.

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

SUSTAINABILITY

ESB's Brighter Future Strategy puts sustainability at the heart of our strategic objectives and our purpose as an organisation. With the ambition to 'Create a Brighter Future for the customers and communities we serve, by leading the transition to reliable, affordable, low-carbon energy', our progress during 2018 in putting this into action has begun to deliver on that ambition. Aligning our activities and progress to the broader global efforts to deliver the Sustainable Development Goals, allows ESB to demonstrate its contribution to the global purpose and climate action focus that underpins the SDGs.

13 CLIMATE ACTION: RENEWABLE CONNECTIONS: 336MW IN ROI, 200MW IN NI IN 2018, BRINGING TOTAL RENEWABLES (ALL ISLAND) CONNECTED TO THE GRID TO 5.6GW

13 CLIMATE ACTION: ESB SIGNS LOW CARBON PLEDGE COMMITTING TO 50% REDUCTION IN CARBON INTENSITY BY 2030

9 INDUSTRY, INNOVATION AND INFRASTRUCTURE: ESB NETWORKS GREW ITS REGULATED ASSET BASE BY €0.2BN THROUGH DELIVERY OF TRANSMISSION AND DISTRIBUTION PROGRAMMES

7 AFFORDABLE AND CLEAN ENERGY: OVER 20,000 HOUSES CONNECTED DURING 2018

7 AFFORDABLE AND CLEAN ENERGY: 34 MW CASTLEPOOK WIND FARM COMMISSIONED. 158MW IN CONSTRUCTION

7 AFFORDABLE AND CLEAN ENERGY: 12.5% SHAREHOLDING IN THE 353 MW GALLOPER OFFSHORE WIND FARM IN UK

7 AFFORDABLE AND CLEAN ENERGY: BIOMASS: COMPLETION OF 40MW RENEWABLE WASTE WOOD TO ENERGY PLANT AT TILBURY

PRODUCE, CONNECT AND DELIVER CLEAN, SECURE AND AFFORDABLE ENERGY

7 AFFORDABLE AND CLEAN ENERGY: ELECTRIC IRELAND CONTINUES TO FOCUS ON REDUCING DISCONNECTION RATES, NOW BELOW 20 PER 10,000

13 CLIMATE ACTION: ELECTRIC IRELAND LAUNCHED ITS ALL ELECTRIC DISCOUNTED TARIFF FOR CUSTOMERS WITH ALL ELECTRIC HOMES

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

OUR PURPOSE

ESB's purpose is to create a brighter future for the customers and communities we serve and we will do this by leading the transition to reliable, affordable, low-carbon energy

9 INDUSTRY, INNOVATION AND INFRASTRUCTURE: SMART METERING IS A NATIONALLY SIGNIFICANT INFRASTRUCTURE TRANSFORMATION PROJECT SUPPORTING IRELAND'S EFFORTS TO MEET ITS 2030 DECARBONISATION TARGETS

DEVELOP ENERGY SERVICES TO MEET EVOLVING MARKET NEEDS

DELIVER A HIGH-PERFORMANCE CULTURE THAT SUPPORTS INNOVATION AND COLLABORATION

4 QUALITY EDUCATION: ESB BECOMES NATIONAL SPONSOR OF BITC TIME TO COUNT NUMERACY PROGRAMME, BUILDING STEAM CAPABILITIES FOR THE FUTURE

8 DECENT WORK AND ECONOMIC GROWTH / 5 GENDER EQUALITY: 12 OF 72 APPRENTICESHIP STARTERS IN 2018 WERE WOMEN, A SIGNIFICANT INCREASE ON PREVIOUS YEARS

GROW THE BUSINESS WHILE MAINTAINING ESB'S FINANCIAL STRENGTH

9 INDUSTRY, INNOVATION AND INFRASTRUCTURE: ESB DELIVERED EBITDA OF €1.2BN IN 2018. CAPEX OF €1.2BN WAS SPENT ON INCREASING ESB'S ASSET BASE.

ENERGY USAGE

ENERGY USAGE 2018

Under SI426/2014 ESB is required to disclose its annual energy usage and outline the initiatives being undertaken to improve energy performance, including delivery of a 33% energy efficiency improvement target by end 2020. In the most recent SEAI Annual Report, ESB's energy performance had progressed to 31.6% against the 2020 target. SEAI revise conversion factors annually based on overall efficiency of the energy conversion process and energy mix nationally.

ENERGY IMPROVEMENT PROGRAMME

Generation & Trading continued to make significant investments in existing plant through overhauls of Moneypoint Unit 1 and Unit 3, Aghada, Carrington, and Ardnacrusha.

A buildings energy management Hub began roll out during 2018, installing sub metering and providing for detailed energy analysis of consumption patterns and the identification of savings opportunities.

A deep retrofit was undertaken at one depot and a second is at advanced planning stage for upgrade of building management systems and building fabric. An LED framework replacement programme is underway.

A fleet analysis project has identified 70 small vans within the fleet that are suited to replacement with fully electric alternatives. The trial programme successfully proved the technology and the deployment and replacement will be delivered during 2019.

The redevelopment project of ESB headquarters with a new state of the art energy efficient premises continues.

CARBON MANAGEMENT

ESB is committed to finding a secure and affordable transition away from the use of coal and peat for power generation. CO2 output from GT's SEM generation plants remains lower than 2005 (baseline) by approximately 43%, and the carbon intensity of generation reduced by 32% to 454 g/kWh.

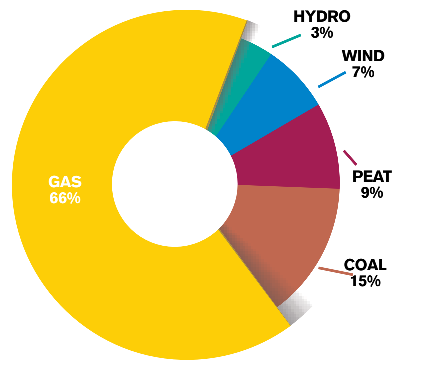
Since 2009, ESB has disclosed on its carbon emissions through CDP, a global disclosure not-for-profit charity that runs the carbon disclosure system for investors, companies, cities, states and regions to manage their environmental impacts, representing the most comprehensive collection of self-reported environmental data globally. ESB's 2018 disclosure scored B- on the CDP scoring methodology.

During 2018, ESB joined the Leaders Group on Sustainability, a Business In The Community Ireland (BITCI) led group of leading businesses who hold the Business Working Responsibly Mark. One of the first actions announced by the Group is the Low Carbon Pledge – the first dedicated public commitment generated by Irish business to lead on the transition to a low carbon economy and reduce the carbon intensity by 50% by 2030.

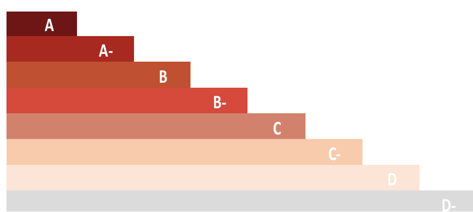
OPERATIONAL ENERGY CONSUMPTION		
ENERGY SOURCE	2018* (GWh)	2017 (GWh)
Coal	**5,683**	10,091
Natural Gas	**22,925**	21,981
Peat	**4,045**	4,253
Oil	**205**	300
OPERATIONAL ENERGY (PRIMARY ENERGY EQUIVALENT IN KWH) *		
Electricity	**53,489,805**	64,539,479
Thermal	**4,986,783**	2,827,693
Transport	**56,146,927**	54,148,236
ENERGY PERFORMANCE INDICATOR (ENPI)		
kWh/FTE Employee	**20,852**	22,692

* Operational Primary Energy Equivalent (non Generation) as reported to Sustainable Energy Authority of Ireland, Annual Report 2018 on Public Sector Energy Efficiency Performance.
2018 preliminary energy source figures for generation.

GENERATION OUTPUT BY FUEL TYPE



CDP SCORING FRAMEWORK



CDP
DRIVING SUSTAINABLE ECONOMIES

YOUR CDP SCORE

MANAGEMENT B-

Sector average: C

Regional average: C

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CORPORATE SOCIAL RESPONSIBILITY

Since its foundation in 1927, ESB has always had a strong sense of social purpose or corporate social responsibility (CSR). It has always supported communities and programmes that enhance the Irish economic and social fabric, helping to bring light and energy to the people it serves, allowing individuals and communities to fulfil their potential in every walk of life.

ENERGY FOR GENERATIONS FUND

ESB is committed to playing a role in addressing some of the key social issues facing the country today. ESB has been involved in formal funding since it established its ElectricAid Ireland Fund in July 2005. In 2014, the ElectricAid Ireland Fund was rebranded to the Energy for Generations Fund. The aim of the Energy for Generations Fund is to maximise the impact of the investment by taking a more strategic approach to drive change. In 2018, over €2 million was disbursed by ESB across a range of community and issues-based initiatives.

Nearly €1 million of this was direct funding through a quarterly fund, managed by a cross-ESB committee, to 94 charities (across 105 projects) working in the areas of suicide, homelessness and education access and support. These projects are rooted in communities across Ireland and aim to improve the quality of life for those living in the community.

EDUCATION MATTERS

Like many other Irish companies, ESB needs 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 educational start possible. The support of programmes such as Time to Read, TechSpace and Science Blast allows ESB to do this, while also providing employees with a meaningful volunteering opportunity.

ESB is pleased to continue to support An Cosán's Virtual Community College, Ireland's first virtual adult education platform, which aims to increase access to further and higher education nationwide and address social inequality through online and mobile technology.

In 2018 ESB continued its commitment to support the Dublin Institute of Technology's (DIT) Access to Apprenticeship programme which aims to address the current obstacles faced by young people from areas of socio-economic disadvantage in securing an apprenticeship. ESB's support will provide local youth with the essential skills and knowledge they need to begin a rewarding career through an apprenticeship.

SUICIDE PREVENTION

ESB has been committed to supporting suicide prevention programmes since 2005. Over the past 13 years, one of the key areas of work has been in suicide prevention and support. To reflect this, ESB has given over €6.5 million towards suicide services since 2005. Suicide is a very serious issue that has touched every community in the country, and ESB has identified the need to support robust, resilient services and capacity building in this sector. By aligning CSR efforts with national policy, ESB is committed to playing a key role in contributing to the broader improvement of Irish society.

ESB joined forces with Aware in a 3-year partnership to support the nationwide roll-out of their Life Skills for Schools programme for Transition Year students. This 4-week intensive programme aims to teach young people how to manage their feelings, anger and irritation, and how to deal with many challenges that may come during adolescence, to improve their wellbeing.

ENERGY FOR GENERATIONS FUND

Since its launch in 2016 the programme has reached over 4,000 students aged 15–18.

In 2018, ESB continued its support for Jigsaw's My World Survey 2, the largest research study of its kind ever undertaken in Ireland, aimed at mapping today's youth mental landscape. The study will improve the collective knowledge in the area of youth mental health so that they can see the world through the eyes of young people and identify how best to support them.

EMPLOYEE VOLUNTEERING SUPPORT

ESB recognises that funding is only part of the story and ESB need to leverage the skills and knowledge that are within ESB to bring about more sustainable and positive outcomes. ESB encourages volunteerism by its employees and local community support and the Energy for Generation Fund runs a comprehensive volunteering programme and provides support to ESB employees who volunteer in their communities.
Any employee who volunteers for over 20 hours with a charity can request that ESB donates €250 to that organisation. In 2018, €25,000 was donated through employees volunteering support to a range of charities including Alone, COPE Foundation, Special Olympics Ireland and St Vincent de Paul (SVP).

HOMELESSNESS

ESB, through its Energy for Generations Fund, is committed to fighting homelessness. Throughout 2018, the Fund donated €231,840 to organisations working to end homelessness in Republic of Ireland and Northern Ireland.

WIND FARM COMMUNITY FUND

ESB is committed to being a good neighbour and supporting the communities in which our subsidiary wind farm companies operate. This is part of our commitment to ensure clear and lasting benefits in the communities which surround the wind farms. In making over €1.1 million available to groups close to wind farms across the Republic of Ireland (ROI), Northern Ireland (NI) and Great Britain (GB), the community funds are contributing to the development of essential infrastructure and services, and the creation of a Brighter Future for the residents of neighbouring rural communities.

SPONSORSHIP

The Group manages an active sponsorship portfolio including the following:

- Promoting young people in sport through the Electric Ireland GAA All-Ireland minor championship and Ireland's under-20s rugby
- Proud supporter and sponsor to the Pieta House Darkness into Light annual event
- Supporting the arts and music through sponsorships of Feis Ceoil, Electric Picnic and the National Gallery of Ireland
- Supporting the development of skills in science, technology engineering, art and maths (STEAM) through partnerships with TechSpace, Science Blast and Engineers Ireland.

INTERNATIONAL CSR

ElectricAid is the social justice and development charity of ESB (and EirGrid) employees and pensioners. ElectricAid has 2,500 contributing members and receives strong and consistent support from ESB in the form of 2:3 matching contributions, up to an annual ceiling of €250,000. ElectricAid is a 30-year success story and is the premier occupationally based charity in the country.

In 2018, ElectricAid supported 113 development and relief projects with funding of almost €1 million. Funding was made available in Ireland and in 35 different developing countries in Asia and sub-Saharan Africa.

A copy of the ElectricAid Annual Report is available from the ElectricAid website – www.electricaid.ie

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USING OUR PROFITS IN A SUSTAINABLE WAY

INVESTMENT

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

€1,165 MILLION

TAXES

Annual payments across various headings

OVER €400 MILLION

SUPPORTING COMMUNITIES

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

OVER €2 MILLION

EMPLOYMENT

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

149 APPRENTICES AND GRADUATES RECRUITED IN 2018

RETURN TO THE SHAREHOLDER

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

€35 MILLION FOR 2018

DEBT INVESTORS

Annual interest and repayments

€1,133 MILLION

RESIDENTIAL CUSTOMER SATISFACTION

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

85%

CHAPTER 2
CORPORATE GOVERNANCE

IN 2018 ELECTRIC IRELAND LAUNCHED ITS **SMARTER HOME PRODUCTS,** ENABLING OUR CUSTOMERS TO USE TECHNOLOGY TO HAVE MORE CONTROL OVER WHEN AND HOW THEY USE THEIR HEATING AND HOT WATER APPLICANCES. SMARTER HOME **GIVES OUR CUSTOMERS CONTROL,** CONVENIENCE AND INSIGHTS OVER THEIR ENERGY USAGE ALL FROM THEIR SMART DEVICE.

THE BOARD IN 2018

The Board provides leadership and direction to the business and is responsible for the long-term success of ESB. Decisions are made only after all appropriate information has been made available to Board members and following due consideration of the risks identified through the risk management process. The Board constructively challenges and helps develop proposals on strategy, which are then reviewed and approved by the Board.

ELLVENA GRAHAM OBE

Chairman

Appointment to the Board: October 2010 and appointed as Chairman with effect from July 2015.
Tenure: Eight years and three months (three years and five months as Chairman).
Career experience: Ellvena brings wide-ranging experience of business and regulatory/policy issues to her role as Chairman of ESB. For over 30 years she worked in banking, most recently at senior executive level in Ulster Bank / Royal Bank of Scotland (RBS) in both the Republic of Ireland (ROI) and Northern Ireland (NI) and managed large-scale operations in Europe, the Middle East and Africa. She is a Fellow of the Institute of Banking.
External appointments: Chairman of the Belfast Waterfront and Ulster Hall, Member of Queen's University Senate, President of the Northern Ireland Chamber of Commerce & Industry (until December 2018), Chairman of the Economic Advisory Group (EAG) in Northern Ireland.

PAT O'DOHERTY

Chief Executive

Appointment to the Board: January 2013 as Board member and December 2011 as Chief Executive. Term as Chief Executive and Board member extended by a further three years, effective 1 December 2018.
Tenure: Six years as Board member.
Career experience: Holds primary and master's degrees in engineering from University College Dublin (UCD). Prior to his current role, Pat headed up ESB's largest businesses as Executive Director, ESB International, Managing Director, ESB Networks and Executive Director, ESB Power Generation. He completed the Advanced Management Programme at Harvard Business School.
External appointments: Trustee of The Conference Board of the United States, Director of Energy UK and Chair of the Apprenticeship Council of Ireland.

ANNE BUTLER

Independent Board Member

Appointment to the Board: November 2012.
Tenure: Six years and two months.
Career experience: Chartered engineer. Worked in engineering consultancy, for Dublin local authorities and was a founding Director (Executive) of the Environmental Protection Agency (EPA). Former President of the Institution of Engineers and a member of the Irish Academy of Engineering.
External appointments: Served on a number of boards including the National Roads Authority (NRA), Ordinance Survey Ireland (OSI) and Dublin Institute of Technology (DIT) and currently serves on REPAK and the National Paediatric Hospital Development Board.

DAVE BYRNE

Worker Board Member

Appointment to the Board: January 2011 under the Worker Participation (State Enterprises) Act 1977. Re-appointed to the Board in September 2018 for a term of four years commencing 1 January 2019.
Tenure: Eight years.
Career experience: Member of a team that is now part of ESB's Enterprise Services organisation and previously worked in Customer Supply (now Customer Solutions).
External appointments: President of ESB Officers Association (ESBOA) until April 2010 and then appointed as the Group of Unions' representative in Central Partnership.

SEÁN KELLY

Worker Board Member

Appointment to the Board: January 2011 under the Worker Participation (State Enterprises) Act 1977. Re-appointed to the Board in September 2018 for a term of four years commencing 1 January 2019.
Tenure: Eight years.
Career experience: A 20-year career in ESB Networks, currently in the field of Safety and Technical Services. Holds an honours degree in business from UCD and a higher diploma in mediation and conflict resolution from Maynooth University. He holds certificates in health and safety from UCD and in company directorship from the Institute of Directors in Ireland.
External appointments: Former chairperson and current member of the ESB Defined Benefit Superannuation Committee, Chairperson of the Networks National Safety Committee and Training Officer for the National Worker Directors Group. He is a member of the Chartered Institute of Personnel and Development (CIPD).

ANDREW HASTINGS

Independent Board Member

Appointment to the Board: July 2015.
Tenure: Three years and six months.
Career experience: Independent Non-Executive Director and Mentor following a 30-year career in banking and financial services. A Chartered Director, Chartered Banker and Certified Bank Director, held CEO position of Barclays Bank Ireland plc until March 2015, which included responsibility for NI. Previously, CEO of BNP Paribas Ireland from 2007 to 2011.
External appointments: Director of Elavon Financial Services DAC, the Dublin-based subsidiary of US Bancorp, Pepper Finance Corporation (Ireland) DAC and a consultant to London-based Valuation Consulting LLP.

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ALF SMIDDY

Independent Board Member

Appointment to the Board: October 2016.
Tenure: Two years and three months.
Career experience: A Chartered Accountant, who trained with PwC. Chairman and Managing Director of Cork headquartered Beamish & Crawford plc for over 12 years and on the Board of its parent company, Scottish & Newcastle (UK) Ltd. Member of the National Executive Council of IBEC, Director of Cork Chamber of Commerce, Chairman of the Cork Local Government Committee and served on the Board of Cork Airport Authority. He is a Fellow of the Irish Marketing Institute.
External appointments: Senior Independent Non-Executive Director of The Dalata Hotel Group Plc, Chairman of Quintas (Accountancy, Taxation and Corporate Finance) and a Director of the Government-backed Social Innovation Fund Ireland.

PAUL LYNAM

Independent Board Member

Appointment to the Board: October 2016
Tenure: Two years and three months.
Career experience: Holds a BSc in analytical science from Dublin City University (DCU), a postgraduate diploma in business studies from UCD and an MBA from City University Seattle. He has a total of 25 years' experience in business, having served as CEO of the Whitfield Clinic in Waterford, as CEO of Siemens Limited Ireland and previously as CFO of Siemens Limited Ireland in the period 2008 to 2010. Before his 10 years with Siemens, Paul spent 14 years in Germany in various management roles in both the Smurfit Group and Kappa Packaging.
External appointments: Served as a Director of Siemens Limited Ireland and Director of Whitfield Clinic associated companies.

NOREEN O'KELLY

Independent Board Member

Appointment to the Board: April 2013
Tenure: Five years and eight months.
Career experience: A Chartered Accountant, who trained with KPMG. Held a number of senior positions in Independent News and Media Group including Head of Treasury and Group Secretary and was also Company Secretary of C&C Group. She currently works as a consultant on corporate governance.
External appointments: Director, Vice Chair and Chair of Audit Committee of Rehab and external member of the Audit Committee of the Institute of Technology, Sligo.

NOREEN WRIGHT

Senior Independent Board Member

Appointment to the Board: June 2011.
Tenure: Seven years and six months.
Career experience: Called to the Bar of Northern Ireland in 1976. Worked in the electricity industry for 25 years and held a number of senior management posts in both Northern Ireland Electricity plc and Viridian Group plc, including Company Secretary and Head of Legal Services.
External appointments: Lay Magistrate, member of both the Industrial and Fair Employment Tribunals of Northern Ireland and the Northern Ireland Valuation Tribunal. Non-Executive Director of Camerata Ireland.

PETER O'SULLIVAN

Worker Board Member

Appointment to the Board: January 2015 under the Worker Participation (State Enterprises) Act 1977. Peter completed his tenure at the end of 2018.
Tenure: Four years.
Career experience: Joined ESB as a network technician in 1980. He was formerly the Safety Representative in Kerry / West Cork.
External appointments: Former President of Network Technicians' Association, negotiation member of Group of Unions. Board member of ESOP Trustee Limited.

TONY MERRIMAN

Worker Board Member

Appointment to the Board: January 2007 under the Worker Participation (State Enterprises) Act 1977. Re-appointed to the Board in September 2018 for a term of four years commencing 1 January 2019.
Tenure: Twelve years.
Career experience: Joined ESB as a network technician in 1979. Served as an officer with the ESB Group of Unions.
External appointments: Board member of ESB Employee Share Ownership Plan (ESOP) Trustee Limited and Chairman of the National Worker Directors Group.

NEW MEMBER TO THE BOARD IN 2019

Stephen Carrig was appointed as a Worker Board member effective from 1 January 2019 under the Worker Participation (State Enterprise) Act 1977.
Appointment to the Board: January 2019
Career Experience: Joined ESB as apprentice electrician in 1985. Holds primary and master's degree in engineering from Trinity College Dublin and UCD respectively. Currently, Controls and Instrument (C&I) Asset Management Specialist for the Generation Portfolio.
External Appointments: Member of the Institute of Engineers Ireland (IEI) and former Chair of Energy Sector Professional Association (ESPA) from 2014 to 2018.

KEY TO COMMITTEE MEMBERSHIP

AUDIT AND RISK COMMITTEE	PAGE 98
HEALTH, SAFETY AND ENVIRONMENT COMMITTEE	PAGE 105
MARKETING AND CUSTOMER COMMITTEE	PAGE 106
REMUNERATION AND MANAGEMENT DEVELOPMENT COMMITTEE	PAGE 106
FINANCE AND INVESTMENT COMMITTEE	PAGE 104

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CHAIRMAN'S CORPORATE GOVERNANCE STATEMENT

Good governance provides the foundation for long-term value creation and is a core focus for the ESB Board and for me as Chairman. In this regard, and in line with the UK Corporate Governance Code 2016 (the UK Code), and the Code of Practice for the Governance of State Bodies 2016 (State Code), we see our duties as including responsibility for the long-term success of the ESB 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.

Management has the knowledge and expertise for the operational requirements of the business. It is not the role of the Board to duplicate that. The Board establishes the company's purpose, values and strategy and we challenge and support management in the light of ESB's values and strategic direction. In our view, the best decisions are made through the dynamic interaction between Board and management.

GOVERNANCE

ESB, in pursuit of its governance objectives complies with 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. A revised UK Corporate Governance Code was issued by the Financial Reporting Council (FRC) in July 2018 and applies for periods commencing on or after 1 January 2019. ESB is completing a detailed review in relation to compliance with the revised UK code. ESB is already compliant with certain aspects of the revised UK code such as the requirement for Board engagement with the workforce which is addressed in ESB through four Worker Director positions on the Board. In this way, ESB adheres as closely as possible to listed company governance standards.

ESB has put in place the appropriate measures to comply with the State Code, which sets out the governance framework established by the Government 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. A report is issued annually to the Minister for Communications, Climate Action and Environment which confirms compliance with the requirements of the State Code.

The Board is satisfied that appropriate steps have been undertaken to monitor ESB's Irish subsidiaries' compliance with the applicable requirements of the Companies Act 2014.

As a statutory body ESB is not subject to the disclosure requirements prescribed in the EU (Disclosure of non-financial and diversity information by certain large undertakings and Groups) Regulations 2017. However, on a voluntary basis, ESB discloses non-financial information in relation to Safety (page 72), People (page 74), Sustainability (page 76), Energy Usage (page 77), Corporate Social Responsibility (page 78), Board Diversity (page 94) and Modern Slavery Policy (page 107).

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 can 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 published on the ESB website. Group Internal Audit investigates any reported breaches and updates the Audit and Risk Committee. A detailed description of our governance compliance framework is set out on pages 90 to 97.

BOARD EFFECTIVENESS

The Board continually strives to improve its effectiveness on an ongoing basis. This is done informally by holding discussion amongst Board members with feedback to the Chairman and Company Secretary. A formal evaluation is carried out annually, and every third year this is done independently by an external evaluator. The most recent independent review was carried out in 2017. The results of the 2018 formal evaluation confirmed that the Board is operating effectively and a full description of the review are set out on page 93.

BOARD AND COMMITTEE CHANGES

There were no changes to the Board during 2018. Sean Kelly, Dave Byrne and Tony Merriman were re-appointed and Stephen Carrig was appointed for the first time for four-year terms commencing 1 January 2019 in line with Worker Participation (State Enterprises) Act 1977. Peter O'Sullivan retired as a Worker Board member when his term expired on 31 December 2018; I would like to thank Peter for his contribution as a Board Member over the past four years. He demonstrated a wide knowledge and experience of ESB's business as well as a commitment to the Group and its staff. I also want to welcome Stephen Carrig who joined the Board as a Worker Board Member in January 2019.

There were no changes in Committee membership during the year and details of the Committees and their activities during the year are set out on pages 98 to 106.

RISK MANAGEMENT

Risk management and reporting continues to be a key area of focus for both the Board and the Audit and Risk Committee, with ESB's approach to managing risk being defined by the ESB Risk Policy and a strong internal control framework. While the Board has overall responsibility for the Group's approach to risk, the responsibility for supporting the Board's review of the effectiveness of internal control and risk management has been assigned to the Audit and Risk Committee which played a key role in 2018 in ensuring that appropriate governance and challenge around risk and assurance were embedded across the Group. The approach to risk is set out in the Risk Report on pages 24 to 35.

BOARD DIVERSITY

The Board, both for itself and the Group as a whole, is fully committed to diversity as a key value in itself and as important to achieving ESB's business objectives. The Board is committed to achieving the optimal balance of skills, experience and diversity among its members. In relation to Board diversity, the Chairman of the Board, in assisting the Department of Communications, Climate Action and Environment (DCCAE) in drawing up the specification for Board appointments has regard for the benefits of diversity on the Board, as provided for under the State Code of Practice Guidelines and the related "Guidelines on Appointment to State Bodies". Board member details are set out on page 84 to 87.

CULTURE

Good governance is good business and is built on competency, transparency and accountability. In pursuit of our goals, the Board and management remain committed to achieving competency, transparency and accountability in all we do. In my role as Chairman, I am responsible for making sure that the Board operates effectively by facilitating the full participation of each Board member and ensuring effective communication with ESB's owners and stakeholders.

Culture is the "combination of values, attitudes and behaviours manifested by a company in its operation and relations with its stakeholders" (FRC Report "Corporate Culture and role of the Board"). A more succinct definition is: "the way we do things around here".

The Board gives careful thought to how culture is assessed and reported through employee engagement survey, through formal survey of our stakeholders and through site visits by the Board and direct engagement with employees.

In this regard, the following "Cultural Indicators" are reported at Board level:

- Whistle-blowing data;
- Legal and regulatory issues;
- Employee surveys;
- Taxation policy;
- Diversity;
- Health and Safety;
- Financial indicators;
- Customer satisfaction data;
- Engagement with charities.

CONCLUSION

In the following pages, we outline in detail how the Board and its Committees have fulfilled their responsibilities during the year to ensure that robust governance practices are embedded across the Group.

Ellvena Graham, OBE
Chairman
1 March 2019

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THE BOARD'S GOVERNANCE REPORT

PRINCIPLES OF GOVERNANCE

ESB, in pursuit of its governance objectives, complies with the Code of Practice for the Governance of State Bodies 2016 (the State Code) and to the maximum extent possible with the UK Corporate Governance Code 2016 (the UK Code) and the Irish Corporate Governance Annex (the Irish Annex). A revised UK Corporate Governance Code was issued by the Financial Reporting Council (FRC) in July 2018 and applies for periods commencing on or after 1 January 2019. ESB is completing a detailed review in relation to compliance with the revised UK Code. A copy of the State Code can be obtained from the Department of Public Expenditure and Reform website www.per.gov.ie. A copy of the UK Code can be obtained from the FRC's website www.frc.org.uk and a copy of the Irish Annex is available at www.ise.ie.

The UK Code sets out five key principles of governance: Leadership, Effectiveness, Accountability, Remuneration and Relationship with Shareholders. The Board's Governance Report is structured accordingly.

1 LEADERSHIP

THE BOARD

The Board provides the leadership of the Group and, either directly or through the operation of Committees, applies independent judgement on matters of values, strategy, performance, resources and governance. During 2018, the Board comprised of the Board members detailed on pages 84 to 87, of whom the Chairman, the Chief Executive and the Independent Board members were appointed by Government and the four Worker Board members were appointed pursuant to the Worker Participation (State Enterprises) Act 1977. The Board size and structure is governed by the Electricity Supply Acts 1927–2004 and by the Worker Participation (State Enterprises) Act 1977. The roles of the Chairman and Chief Executive are not exercised by the same individual.

BOARD MEMBERSHIP

The ESB Board members in 2018 brought diverse experience, independence and challenges to support effective decision-making. The range of Board members' experience in engineering/technical, finance, legal, marketing and in ESB's operations is set out in their biographies on pages 84 to 87. The Board is confident that all its members have the knowledge, ability and experience to perform the functions required of them.

The Board's primary role is to exercise objective and informed judgement in constructively challenging and helping to develop and approve the ESB Group Strategy, to ensure there is a strong management team in place to execute the strategy and drive business performance and to maintain a framework of prudent and effective controls to mitigate risk. The State Code provides that the Chairman may engage with the Government on Board succession and this provides an opportunity for ensuring an appropriate mix of skills, diversity and experience on the Board.

Two critical factors determine how the Board is equipped to fulfil those duties and obligations successfully:

- A diverse and deep range of skills and experiences among Board members;
- Processes to ensure that all of the Board members develop a good understanding of the Group's operations and external environment and are therefore well placed to make informed decisions. See page 93 for further detail on the induction process.

SENIOR INDEPENDENT BOARD MEMBER

The Board appoints one of the Independent Board members to be the Senior Independent Board Member, to provide a sounding board for the Chairman and to serve as an intermediary for the other Board members and shareholders when necessary. Noreen Wright is the current Senior Independent Board Member.

INDEPENDENT PROFESSIONAL ADVICE

The Board members, in the furtherance of their duties, may take independent professional advice at the expense of ESB. All Board members have access to the advice and services of the Company Secretary. Insurance cover is in place to protect Board members and officers against liability arising from legal actions taken against them in the course of their duties.

2 EFFECTIVENESS

BOARD MEETINGS

The Board met on ten occasions in 2018. The Board is responsible for reviewing the operational and financial performance of the Group and for ensuring effective internal control and risk management. The Board has a formal schedule of matters specifically reserved to it for decision, which are described on page 91.

The Board has delegated authority to management for decisions in the normal course of business subject to specified limits and thresholds. Oversight of decisions, which are delegated by the Board, is retained through a robust reporting framework, central to which are effective relationships with the Board Committees, Chief Executive, Executive Director Group Finance and Commercial and the Executive Team.

There is ongoing financial and operational reporting to the Board and papers are sent to each Board member electronically in advance to allow sufficient time to review and consider matters for discussion/decision. The Board papers include the minutes of Board Committee meetings.

The intention at the Board meetings is to achieve the right balance of oversight of people, culture, strategy, operations, finance and governance and risk management matters. This is monitored through the Board Evaluation and informal feedback to ensure adequate time is devoted to each matter to maintain the required balance. The Board is satisfied that the Chairman and each of the Board members committed sufficient time during the year to enable them to fulfil their duties as Board members of ESB.

The Board's focus for 2019 will be on the execution of the Strategy to 2030: leading the transition to reliable, affordable, low-carbon energy. This will be achieved by focusing on ESB's five associated strategic objectives as follows:

- 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.

The Board will also continue to monitor:

- Further developments in the Integrated Single Electricity Market (I-SEM).
- The continuing Brexit negotiations so as to continue to manage and monitor the challenges and opportunities in Northern Ireland (NI) and Great Britain (GB).

THE WAY WE ARE STRUCTURED

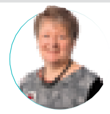
The organisation is structured to allow for effective and efficient decision-making with clear accountability.

ROLE OF THE BOARD

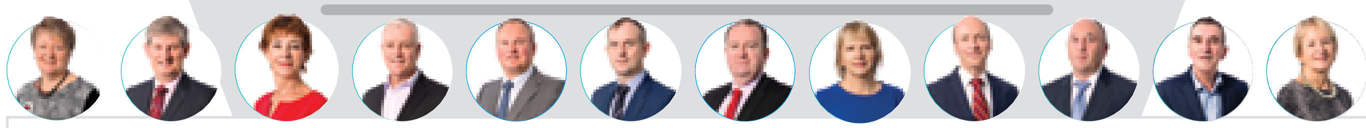
The Board provides leadership and direction to the business as a whole and is responsible for the long-term success of ESB. Decisions are made only after all appropriate information has been made available to Board members and following due consideration of the risks identified through the risk management process. The Board constructively challenges and helps develop proposals on strategy, which are then reviewed and approved by the Board. The Board has reserved the following key decisions for its own consideration:

- Approval of ESB Group Strategy, annual budgets and annual and interim financial statements including dividends
- Review of operational and financial performance
- Approval of major capital expenditure, borrowings and treasury policies
- Overall review of Group health and safety performance
- Appointment of the Chief Executive
- Appointments to the Executive Team on the recommendation of the Chief Executive
- Appointment of the Company Secretary
- Major acquisitions, disposals or retirements of assets
- Assessment and approval of the Group governance framework, internal controls and risk management
- Residential Tariffs
- Key regulatory, legal, industrial relations, accounting and policy matters

Chairman - Ellvena Graham OBE



- Leading the Board
- Determining the Board agenda
- Ensuring its effectiveness and facilitating full participation by each Board member
- Ensuring effective communication with the Group's owners and stakeholders



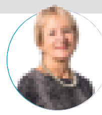
BOARD

- Chairman, six independent Board members, four worker Board members and the Chief Executive
- Responsible for the long-term success of ESB and for its overall judgement on matters of strategy, performance, resources and governance

Chief Executive - Pat O'Doherty

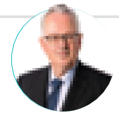
- Executive leadership of the Group's business
- Implementation of the Group's strategies and policies
- Maintaining a close working relationship with the Chairman
- Leading the Executive Team

Senior Independent Board Member - Noreen Wright



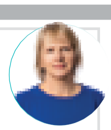
- Act as a sounding board for the Chairman
- Serving as an intermediary for the other Board members and the shareholders when necessary

Company Secretary - John Redmond



- Assists the Chairman in ensuring that all Board members have access to all relevant information and in facilitating Board induction / professional development
- Is responsible for ensuring that correct Board procedures are followed and advises the Board on corporate governance matters
- Liaison between Board and Executive Team

Audit & Risk Committee
Chairman - Noreen O'Kelly

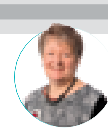


- To assist the Board with its responsibilities in relation to:
  - Financial reporting
  - Internal control and risk management
  - Compliance, whistle-blowing and fraud
  - External and internal auditors

Health, Safety & Environment Committee
Chairman - Anne Butler

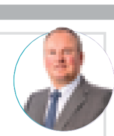
- To advise the Board on health & safety and environmental matters
- Monitor progress against agreed health, safety and key environmental performance indicators and risk management in these areas

Remuneration & Management Development Committee
Chairman - Ellvena Graham



- Setting the remuneration of (i) the Chief Executive and (ii) the Executive Team following consultation with the Chief Executive
- To monitor the development of current and future leaders of ESB

Finance & Investment Committee
Chairman - Andrew Hastings



- Review capital raising and capital expenditure proposals
- Review treasury and energy trading policies and procedures
- Review investment and divestment proposals aimed at ensuring the positioning of ESB for future success, consistent with the strategy approved by the Board

Marketing & Customer Committee
Chairman - Alf Smiddy

- Alignment of marketing and customer initiatives and programmes with company strategic objectives
- New products and services and associated revenue projections
- Engagement with major customers
- Advertising and sponsorship programmes and assessment of their impact

EXECUTIVE TEAM
Leadership and Control of the Group

Biographical details of the Chairman, Chief Executive and Senior Independent Member can be found on pages 84 and 86.
Biographical details of the Board Members can be found on pages 84 to 87.
Biographical details of the Company Secretary can be found on page 43.
Biographical details of the Executive Team can be found on pages 42 to 43.

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BOARD COMMITTEES

Five Committees of the Board assist in the discharge of its responsibilities and the Board delegates specific responsibilities to those Board Committees as set out in their Terms of Reference. The Committees assist the Board by giving more detailed consideration to business, operational, financial and governance issues and they report to the Board with any necessary recommendations. The Committees have access to adequate resources to carry out their duties. The Committees and their membership are set out on pages 98, 104 to 106 of this report.

BOARD APPOINTMENTS

As Board appointments are a matter for Government or for election by employees, ESB does not undertake an evaluation of individual Board members. However, the Chairman does engage with Government in advance of the Board appointment process about the specific skills and benefits of diversity that are required on the Board. The Department of Public Expenditure and Reform in November 2014 published guidelines on appointments to State Boards and these guidelines apply to appointments to the Board of ESB. Board members are normally appointed for terms of five years, or four years in the case of Worker Board members, and therefore are not subject to re-election to the Board at lesser intervals. The Chief Executive and Independent Board members may be re-appointed to the Board by Government and any reappointment of Worker Board members is pursuant to the Worker Participation (State Enterprises) Act 1977.

EXAMPLES OF MATTERS CONSIDERED AND/OR APPROVED BY THE BOARD IN 2018

PEOPLE

- Organisational Effectiveness Review
- Senior Executive Appointments
- Group Health, Safety and Wellbeing Report
- Group People Strategy
- Employee Engagement Survey Results

OPERATIONS

- Chief Executive operations reports
- Health and safety reports
- Energy trading updates
- Plant investment and overhauls programme
- Advertising campaign for Brighter Future strategy
- Capital investment evaluations
- Performance of ESB Novusmodus fund
- Joint venture reports
- Regulated business updates
- Updates on ESB head office redevelopment
- ESB ecars investment and strategy

STRATEGY

- Strategy review and update
- Energy policy and market updates
- Competitor activity and utility sector trends
- I-SEM commercial enablement programme and I-SEM capacity auction
- NIE Networks
- Smart Metering
- Renewables including offshore wind

GOVERNANCE AND RISK MANAGEMENT

- Effectiveness of risk management and internal control
- Internal audit plan for the year
- Committees Terms of Reference
- ESB Board Code of Ethics
- Effectiveness of internal control and risk management
- Group Treasury policies
- Group authority levels and Group Trading authority levels
- ESB Group's Risk Policy and Governance Framework
- Cyber security
- General Data Protection Regulation (GDPR) updates
- Business Continuity Planning

FINANCE

- Annual and half-yearly published results
- Quarterly financial performance and forecasts
- Monthly key performance indicators (KPIs)
- Annual budget and five-year business plan
- Interim and final dividend
- Capital markets funding
- Cost of capital and hurdle rates for new investments
- ESB regulatory accounts

ATTENDANCE AT MEETINGS IN 2018

There were nine General Board meetings and one special Board meeting during 2018. The attendance by each Board member during the year is set out below. In addition to the Board members and Company Secretary, a number of senior managers attend relevant sections of Board meetings, by invitation.

BOARD MEMBERS 2018	MEETINGS ATTENDED
Ellvena Graham OBE	10
Anne Butler*	9
Dave Byrne^	9
Andrew Hastings*	10
Sean Kelly^	9
Paul Lynam*	10
Tony Merriman^	9
Noreen O'Kelly*	10
Peter O'Sullivan^	10
Alf Smiddy*	10
Noreen Wright*	10
Pat O'Doherty	10

* Independent Board member
^ Worker Board member

RECOMMENDATIONS FROM 2018 INTERNAL BOARD EVALUATION

2018 RECOMMENDATIONS	ACTIONS TAKEN IN 2018
Programme of Board visits to company sites to meet staff to be maintained and developed.	Of the nine general Board meetings in 2018, four were held off-site at ESB locations.
Board papers should be as succinct as possible.	Succinctness and readability of Board Papers are carefully reviewed prior to issue.
Greater opportunities for Board members to engage with managers and outside specialists on key risks for the business.	In addition to regular risk reporting to the Board/Audit and Risk Committee a full-day session on key risks took place in 2018 with Board members, management and external advisors/specialists.
Greater engagement with stakeholders on key issues of concern to them.	In addition to the stakeholder engagement required under the Code of Practice for the Governance of State Bodies, a number of key stakeholders were invited to meet/address the Board in 2018.

BOARD EFFECTIVENESS

The Board conducts an annual evaluation of their own performance and that of their Committees. This evaluation is undertaken in order to comply with the State Code and, so far as possible, with the UK Code. The evaluation relates to the Board's and Committees' collective performance and not to the individual performance of Board members. The purpose of the evaluation is to review the Board's own operation and to identify ways to improve its effectiveness. It also helps to identify specific skills required or desirable in Board members and the Chairman can make suggestions to Government for consideration when appointments are being made.

The evaluation provides assurance that the Board is committed to the highest standards of governance. The evaluation is led by the Chairman and supported by the Company Secretary. The annual evaluation consists of a questionnaire and based on Board members' replies, a report is made to the Board on the outcomes with proposed actions to address the issues raised. Implementation is reviewed at mid-year. An independent evaluation based on one-to-one interviews between Board members and the external facilitator is conducted every three years and one such independently facilitated evaluation took place in early 2017 by the Institute of Chartered Secretaries and Administrators (ICSA) Board Evaluation (who have no connection with the Group). An overview of the 2018 internal evaluation process and details of the findings are set out above.

In addition, the Chairman meets with Board members including the Senior Independent Board member for an open exchange among Board members concerning the efficiency and effectiveness of the Board.

INFORMATION AND BRIEFINGS

To maintain and enhance the effectiveness of the Board, it is essential that Board members are kept up to date with key business developments. A summary of the Board's activities in 2018 is set out on page 92. The Board receives regular updates on the regulatory environment, the market and operations including monthly Key Performance Indicator reports.

Board meetings were scheduled outside the head office location in 2018 including NIE Networks offices in Belfast, Ardnacrusha Power Station in Co. Clare, ESB Networks offices in Co. Sligo and ESB International offices located at Dublin Airport. Site visits are arranged for individuals and groups of Board members to allow for a greater understanding of the ESB business.

INDEPENDENCE

The Board has determined that those Board members (details on pages 84 to 87) were independent during 2018. This determination took account of the relevant provisions of the UK Code regarding Board members' independence in character and judgement and the absence of relationships or circumstances which could compromise Board members' independence. In light of these factors, the Board is satisfied as to the independence of the Board members identified above.

CONFLICTS OF INTEREST

Board members make annual disclosures of any potential or actual conflicts of interest. Board members are responsible for notifying the Company Secretary on an ongoing basis should they become aware of any change in their circumstances regarding conflicts of interest.

Biographical details for all the Board members, including details of their external appointments are set out on pages 84 to 87.

INDUCTION

An induction programme is in place to familiarise new Board members with the operations of the Group. The programme is tailored to the experience, background and the requirements of the individual. Key elements are meeting the Executives, visiting sites and receiving a briefing on the ESB Group Strategy and on individual businesses.

ONGOING TRAINING AND DEVELOPMENT

A continuing development programme is in place for all Board members. The Chairman and Company Secretary liaise with Board members for their specific needs such as briefings by managers on specific topics or attendances at conferences/courses relevant to the business.

3 ACCOUNTABILITY

COMPLIANCE WITH CORPORATE GOVERNANCE CODES

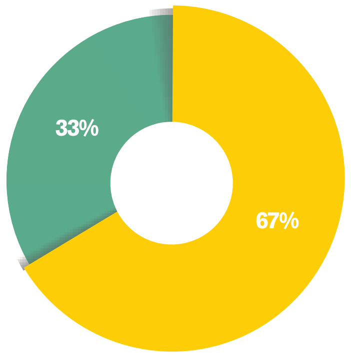
ESB complies with the State Code, which sets out the principles of corporate governance, which the Boards of State Bodies are required to observe. ESB also complies with the corporate governance guidelines and other obligations imposed by the Ethics in Public Office Act, 1995, the Standards in Public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

ESB complies as far as possible and on a voluntary basis with the UK Code and the Irish Annex. The UK Code consists of principles (main and supporting) and provisions. Companies listed on the Irish Stock Exchange are required, as part of the Listing Rules, to describe how they apply the principles and comply with the provisions of the UK Code and the related Irish Annex and to provide an explanation in the event of non-compliance.

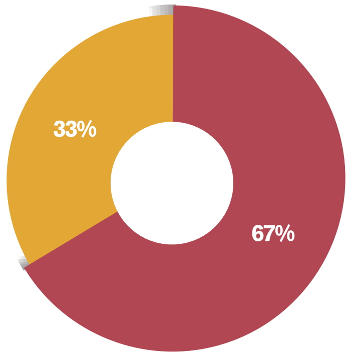
ESB is a statutory corporation established under the Electricity (Supply) Act 1927 (as amended) and is not obliged to comply with the UK Code or the Irish Annex. As stated above, ESB supports the principles and provisions of the UK Code and the Irish Annex and voluntarily complies with them, subject to the following exceptions:

- Appointments to the Board are a matter for the Government and accordingly ESB does not have a Nominations Committee.
- Board members are appointed for terms of five years, or four years in the case of Worker Board members, and therefore are not subject to re-election to the Board at lesser intervals.
- ESB's policies and disclosures in relation to remuneration of the Chief Executive are in accordance with applicable Government guidelines. The details of Board members' remuneration on page 97 do not include amounts paid to the four Worker Board members as employees of ESB (as such pay is neither increased nor decreased because of their membership of the Board), but do include amounts paid to them by way of Board fees.
- The Board evaluation process has not to date evaluated the individual performance of Board members as the Board does not have a formal role in determining its own composition. This matter is kept under review.
- The Board Chairman is also Chairman of the Remuneration and Management Development Committee, given the importance of compliance by ESB with Government policy in this area and the role of the Chairman as the primary interface with Government.
- The Independent Board members do not meet without the Chairman present to appraise the Chairman's performance as the appointment of the Chairman is a matter for the Government.

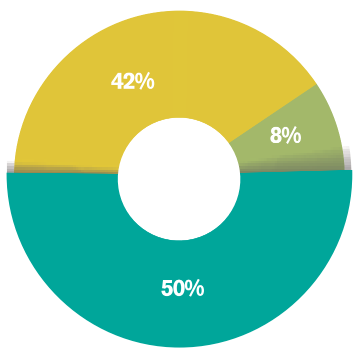
LENGTH OF TENURE



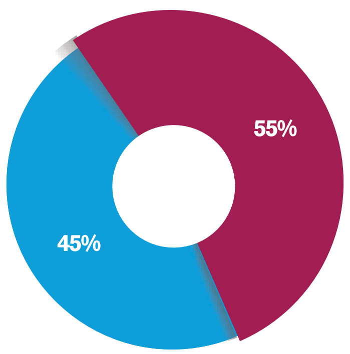
COMPOSITION OF BOARD (GENDER)



BOARD EXPERIENCE



INDEPENDENCE OF BOARD*



*Independence of Board excluding Chairman

FINANCIAL AND BUSINESS REPORTING

The Board recognises its responsibility in preparing the Annual Report and Financial Statements and in presenting a fair, balanced and understandable assessment of the Group's position and prospects. The Board members' responsibilities regarding financial statements and going concern are set out on page 113.

PROCUREMENT

ESB carries out its procurement activities in compliance with applicable procurement laws and the State Code.

INTERNAL CONTROL

The Board has overall responsibility for the Group's system of internal control and for monitoring its effectiveness. The system of internal control is designed to provide reasonable but not absolute assurance regarding the achievement of the following objectives:

- Effectiveness and efficiency of operations and safeguarding of the organisation's assets against loss
- Reliability of reporting for internal and external use
- Compliance with applicable laws and regulations

In order to discharge their responsibilities in a manner which ensures compliance with legislation and regulations, the Board has established an organisational structure with clear operating and reporting procedures, lines of responsibility, authorisation limits, segregation of duties and delegated authority.

The Group uses the integrated internal control framework as developed by the Committee of Sponsoring Organisations of the Treadway Commission (COSO) as guidance for designing, implementing and conducting internal control and assessing its effectiveness. The COSO framework was first released in 1992 and updated in 2013.

COSO FRAMEWORK

ESB INTERNAL CONTROL FRAMEWORK

Control Environment
1. Demonstrates commitment to control and ethical values
2. Exercises oversight responsibility
3. Establishes structure, authority and responsibility
4. Demonstrates commitment to competence
5. Enforces accountability

Risk Assessment
6. Specifies suitable objectives
7. Identifies and analyses risk
8. Assesses fraud risk
9. Identifies and analyses significant change

Control Activities
10. Selects and develops control activities
11. Selects and develops general controls over activities
12. Deploys through policies and procedures

Information and Communication
13. Uses relevant information
14. Communicates internally
15. Communicates externally

Monitoring Activities
16. Conducts ongoing and / or separate evaluations
17. Evaluates and communicates deficiencies

ESB has in place a strong internal control framework, which includes the following:

- A code of ethics that requires all Board members and employees to maintain the highest ethical standards in conducting business
- A clearly defined organisational structure, with defined authority limits and reporting mechanisms to higher levels of management and to the Board, which support the maintenance of a strong control environment
- A corporate governance framework which includes risk analysis, financial control review and formal annual governance compliance statements by the management of business lines and joint ventures (JVs)
- A comprehensive set of policies and procedures relating to operational and financial controls
- Large capital projects require the approval of the Board and are closely monitored on an ongoing basis by the Finance and Investment Committee and they are also subject to post completion audits
- Comprehensive budgeting systems with an annual budget approved by the Board
- A comprehensive system of financial reporting
- Cumulative actual results and key performance indicators are reported against budget and considered by the Board on a regular basis
- A helpline service to provide employees with a confidential and if required, anonymous means to report any fraud or ethical concerns

These controls are reviewed systematically by Group Internal Audit. In these reviews, emphasis is placed on areas of greater risk as identified by risk analysis. Where weaknesses in the internal control system have been identified through the monitoring framework above, plans for strengthening them are put in place and action plans are regularly monitored until completed.

RISK MANAGEMENT

Effective risk management is critical to the achievement of ESB's strategic objectives and the long-term sustainable growth of its business. The rapid changes taking place in ESB (and the market and operating environment in which ESB operates) makes it all the more important to continuously reassess risks and have clear strategies to manage them. The Board has overall responsibility for the Group's approach to risk.

Specifically the Board is responsible for:

- Ensuring that an adequate process designed to identify the principal risks and uncertainties is in place
- Overseeing that an appropriate risk culture is embedded throughout the Group
- Managing the risk management and crisis management processes
- Assessing the likely effectiveness of management's mitigation measures and controls

The Board has carried out a robust assessment of the principal risks facing the Group, including those that might threaten its business model, future performance, solvency and liquidity. A cyclical review process for identifying, assessing and managing its significant risks has been in place for the year under review and up to the date of approval of this Annual Report. The principal risks and uncertainties facing the Group and the mitigating strategies are set out on pages 28 to 35.

The Board is aware that it must lead by example in shaping and supporting the updated Group values that underpin the approach to risk. It also seeks to ensure that sufficient risk management skills and capabilities are available in the business and that the knowledge and experience of all the employees in ESB who understand the risks associated with operations is utilised. Regular reporting has facilitated the Board to stay abreast of emerging risks and uncertainties.

The Board focusses primarily on those risks that could undermine ESB's strategy or which could adversely affect the long-term viability or reputation of the Group. The Board delegates responsibility for oversight of specific risks to Board committees in accordance with Committees' Terms of Reference and their respective area of expertise. The Board agrees how committees will keep one another, and the Board itself, informed about risks and risk oversight practices. Efficiency and effectiveness call for clear boundaries, communication channels, and hand-off points. The Board defines these elements clearly, making adjustments as needed. The Committee Chairs report to the full Board on key developments and matters requiring further discussion and consideration. The Audit and Risk Committee retains overall responsibility for ensuring that enterprise risks are properly identified, assessed, reported and controlled on behalf of the Board.

Risk appetite may also vary over time and the Board has explicitly considered the level of this appetite and how specific risks are managed within this risk appetite. The propensity to take risk is always balanced by a focus on exercising control.

ACTIVITIES UNDERTAKEN BY THE BOARD AND THE AUDIT AND RISK COMMITTEE DURING 2018 IN RESPECT OF ITS RISK RESPONSIBILITIES INCLUDED:

ACTIVITY	DETAIL
Group Risk Plan	The Audit and Risk Committee reviewed and challenged the 2018 Group Risk Plan and recommended it to the Board for approval.
Business Continuity Planning (BCP) and Crisis Management Review	Review of the report submitted to the Audit and Risk Committee on the effectiveness of BCP plans and resilience testing arrangements across the Group including a lessons learned review based on the experiences in 2018.
Review of ESB Group's Risk Policy and Governance Framework	Annual review by the Audit and Risk Committee of ESB Group's Risk Policy and Governance Framework.
Mid-Year Risk Review	The Audit and Risk Committee considered and reported to the Board any changes to the Group principal risks and emerging risks as approved at the start of the year, including a review of material changes to risk profile.
Quarterly Risk Reports	The Audit and Risk Committee reviewed changes to the status of the principal risks on a quarterly basis, including the effectiveness of operation of controls and status of mitigating actions.
Cyber Risk	A thorough review of cyber risk with the Audit and Risk Committee was completed. It included an external perspective of the cyber risk environment at a national level, an update on EU Network and information systems (NIS) Directive preparations and a status update on a programme of actions to support ESB's project on strengthening cyber security arrangements.
Outsourcing Risk	ESB have identified dependencies on certain key third parties providers as a High Impact Low Probability Risk from a Group perspective. A presentation was provided on the nature and scale of the risk and related controls and mitigations in place to manage the risk
General Data Protection Regulation (GDPR)	A number of updates were provided to the Audit and Risk Committee on the Group's preparations for the implementation of GDPR and compliance performance since go-live on 25 May 2018.
Emerging Technology	A briefing was provided which assessed the potential impact of disruptive technologies such as Artificial Intelligence, drone technologies and the 'Internet of Things', on the energy and utilities industry.
Brexit	Details were provided to the Audit and Risk Committee of ESB's contingency planning arrangements to address the implications of a disorderly or hard Brexit.
Code of Practice for the Governance of State Bodies Compliance	An update was presented to the Audit and Risk Committee regarding the processes to ensure compliance with the updated State Code.
Off-site Day	A planned Audit and Risk Committee meeting was enlarged to extend an invitation to the full Board to spend a day examining in detail the Principal and Emerging Risks of particular concern.

THE 2018 REVIEW OF THE EFFECTIVENESS OF INTERNAL CONTROL AND RISK MANAGEMENT

The Board retains overall responsibility for internal control and risk management. During 2018, 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 2018 and will ensure a similar review is performed in 2019.

The process used by the Board and the Audit and Risk Committee to review the effectiveness of the system of internal control includes:

- A designated risk management function in ESB
- Review and consideration of the half-yearly risk review process and regular risk management updates
- Independent advice on the adequacy of the current risk management process operating in ESB (the last review was carried out in 2015)
- Review and consideration of certification from management of satisfactory and effective operation of systems of internal control, both financial and operational
- A review of the programme of Group Internal Audit and consideration of their findings and reports. Group Internal Audit also report regularly on the status of implementation of recommendations raised previously from their own reports.
- Independent assessment of the effectiveness of the internal audit function (this is carried out every five years; the last assessment was carried out in 2016)
- A review of reports of the external auditors which contain details of work carried out on the key audit risks

On the basis of this review, the Board confirms the following for 2018:

- There is an ongoing process for identifying, evaluating and managing the principal risks of the Group
- Systems of internal control have been in place for the year under review and up to the date of approval of this Annual Report
- The systems comply with the Financial Reporting Council (FRC) Guidance on Risk Management, Internal Control and Related Financial and Business Reporting
- No significant failings or weaknesses were identified in the review and where areas of improvement were identified, processes are in place to ensure necessary action is taken and progress is monitored until completed

Through its ongoing involvement and overview of internal control and risk management activities, the Board is satisfied that internal control and risk management processes are effective.

GOING CONCERN

The Group's performance, business model, strategy and principal risks and uncertainties and how these are managed are set out in the strategy and performance report on pages 1 to 81.

The financial position of the Group, its cash flows, liquidity position and borrowing facilities are described in the Financial Review on pages 50 to 55. Note 27 of the financial statements includes an overview of financial risk management, details of its financial instruments and hedging activities and its exposure to credit and liquidity risks.

The Group has considerable financial resources and the Board believe that the Group is well placed to manage its risks successfully. After making appropriate enquiries, the Board is satisfied that ESB has adequate resources to continue in operational existence for the foreseeable future.

Accordingly, the Board continue to adopt the going concern basis in preparing the Group's financial statements.

VIABILITY STATEMENT

In accordance with the UK Code, the Board members have assessed the prospects of the Group over a longer period than that required in adopting the going concern basis of accounting.

The Group's assessment has been made over a five-year period, which is consistent with the time frame of the Group's business planning process. The assessment is based on consideration of ESB's current position and prospects, maintenance of its financial strength (page 50 to 55), progress against ESB 2030 Strategy (page 21), risk appetite (page 25), principal risks (pages 28 to 35) and how these are managed.

The Board believe that a five-year assessment is most appropriate as it aligns with the business planning process completed annually and is underpinned by regular Board briefings provided by business units along with strategic performance indicators (SPIs) to measure progress. The projections in the business plan consider the Group's cash flows, committed funding and liquidity positions and examine future funding requirements and financial covenants, and other key financial ratios including those relevant to maintaining investment grade credit ratings. The metrics in the business plan are subject to sensitivity analysis, which involves flexing a number of the main assumptions underlying the plan to assess key financial metrics, such as Net Debt and EBITDA (Earnings Before Interest Tax Depreciation and Amortisation). Appropriate analysis is carried out to evaluate the potential financial impact of the Group's principal risks actually occurring. As part of the Enterprise Risk Management (ERM) processes, all potential consequences of a principal risk materialising are identified and, where possible and appropriate, the financial impact estimated. In addition, the ERM processes identify the interdependency of principal risks, particularly in terms of impact.

The Board recognises the significance of ESB's strong balance sheet. The Group's funding operations are of strategic importance and support capital expenditure, the refinancing of maturing debt and the maintenance of adequate liquidity. The Group's debt management strategy targets a debt portfolio profile with a diverse mix of counterparties, funding sources and maturities. The Group's revolving credit facility of €1.44 billion provides ESB with a substantial level of standby liquidity. ESB's funding position reflects its underlying financial strength and at least BBB+ (or equivalent) credit ratings from two major credit rating agencies. Further details on debt maturity are set out on page 55.

The Board has carried out a robust risk assessment of the principal and emerging risks facing the Group. In addition, business continuity and disaster recovery testing is conducted annually to assess scenarios that could adversely impact the organisation and to what degree these risks can be mitigated. These risks and the way they are being managed and mitigated are outlined on pages 28 to 35.

Based on the results of the above analysis, the Board members have a reasonable expectation that the Group will be able to continue in operation and meet its liabilities as they fall due over the five-year period of their assessment.

4 REMUNERATION

CHIEF EXECUTIVE'S REMUNERATION

The Chief Executive's remuneration is set within a range determined by the Minister for Public Expenditure and Reform and the Minister for Communications, Climate Action and Environment. Pat O'Doherty was appointed Chief Executive, effective 1 December 2011 and was appointed a Board member in January 2013. His remuneration consists of an annual salary of €318,083, a company car and employer pension contribution. He is a member of the ESB Pension Scheme. In line with Government policy that the Chief Executive of State companies should not receive performance related payments, he did not receive any performance related payments in 2018.

WORKER BOARD MEMBERS' REMUNERATION

Worker Board members appointed under the Worker Participation (State Enterprises) Act 1977 are remunerated as employees of ESB. They are members of the ESB Pension Scheme.

INDEPENDENT BOARD MEMBERS' REMUNERATION

The remuneration of the Independent Board members (including the Chairman) is determined by the Minister for Public Expenditure and Reform and the Minister for Communications, Climate Action and Environment and they do not receive pensions or any other remuneration. The terms and conditions are set out in their letter of appointment and this is available on request from the Company Secretary.

BOARD MEMBERS' EXPENSES

In compliance with the State Code, disclosure is required of the expenses paid to Board members. During 2018, €55,251 was reimbursed to, or paid on behalf of, Board members for travel expenses, accommodation and other related expenses. The above expenses do not include those of the Chief Executive or the Worker Board members in respect of their Executive or employee duties.

BOARD MEMBERS' REMUNERATION

CHAIRMAN	2018	2017
	€	€
Ellvena Graham OBE	31,500	31,500

CHIEF EXECUTIVE	2018	2017
	€	€
Salary	318,083	295,000
Taxable benefits	15,570	15,570
Pension contributions	52,166	48,380
	385,819	358,950

INDEPENDENT/WORKER BOARD MEMBERS	2018	2017
	€	€
Anne Butler	15,750	15,750
Dave Byrne	15,750	15,750
Andrew Hastings	15,750	15,750
Seán Kelly	15,750	15,750
Paul Lynam	15,750	15,750
Tony Merriman	15,750	15,750
Peter O'Sullivan	15,750	15,750
Noreen O'Kelly[1]	10,806	-
Alf Smiddy	15,750	15,750
Noreen Wright	15,750	15,750
	152,556	141,750

[1]Ms O'Kelly fully waived her Board fees in 2017 and part of 2018

5 RELATIONSHIP WITH SHAREHOLDERS

DIALOGUE WITH SHAREHOLDERS

ESB is owned 95.4% by the Irish Government and 4.6% by the Trustee of the Employee Share Ownership Plan (ESOP). ESB engages in active and ongoing consultation with the Government on key polices and strategic issues as required by legislation and the State Code. It also provides detail on the annual budget and five-year plan and quarterly updates on its financial performance. ESB also regularly engages and consults with the Trustee of the ESOP.

ESB ANNUAL GENERAL MEETING (AGM)

ESB holds an AGM each year, no later than 15 months after the last AGM. The requisite notice is given to all shareholders. Board members including the Chairman of the Audit and Risk Committee are invited to attend. The Chairman gives an overview of the year and invites shareholders to make any comments they may have. The external auditors attend the AGM.

01 STRATEGY AND PERFORMANCE
02 CORPORATE GOVERNANCE
03 FINANCIAL STATEMENTS

AUDIT AND RISK COMMITTEE REPORT

CHAIRMAN'S INTRODUCTION

On behalf of the Audit and Risk Committee, I am pleased to introduce the Audit and Risk Committee Report for the year ended 31 December 2018. The purpose of the report is to provide an insight into the workings of the Audit and Risk Committee over the last 12 months. I confirm that the Audit and Risk Committee satisfied its responsibilities as set out in its Terms of Reference and under the UK Corporate Governance Code 2016 (the UK Code).

Under the UK Code, the Board has a responsibility to confirm that the Annual Report and Financial Statements taken as a whole, are fair, balanced and understandable and provides all the necessary information for shareholders/stakeholders to assess the Group's performance, business model and strategy.

The Audit and Risk Committee has reviewed the Annual Report and Financial Statements and is satisfied that it meets these criteria and has recommended them to the Board for approval. The Audit and Risk Committee also considered the significant issues in relation to the financial statements and how these issues were addressed. This work is summarised on pages 100 to 101.

The Audit and Risk Committee will keep its activities under review to ensure that future developments relating to the work of the Audit and Risk Committee are fully considered. The responsibilities of the Audit and Risk Committee are summarised on page 99 and are set out in full in its Terms of Reference. The Audit and Risk Committee currently consists of four Independent Board members whose biographical details are set out on pages 84 to 87. The members bring a broad range of experience and expertise from a wide range of industries, which is vital to supporting effective governance. The Board has confirmed that each member of the Audit and Risk Committee is independent and that the membership meets the requirements of the UK Code in terms of recent and relevant financial experience and competence relevant to the sector in which the Group operates.

The key areas of focus in 2019 by the Audit and Risk Committee will include the following:

- Continued focus on cyber risks, impact of emerging technologies and further General Data Protection Regulation (GDPR) developments
- Focus on Group's preparedness for the risks arising from Brexit
- Continued focus on improving process, communications and reporting between management, the Audit and Risk Committee and the Board.
- Review the Group's preparation and impact of new accounting standards
- Monitor upcoming legislative/regulatory developments

THE AUDIT AND RISK COMMITTEE HELD 7 MEETINGS DURING 2018. THE MEMBERS OF THE COMMITTEE, LENGTH OF SERVICE AND THE NUMBER OF MEETINGS ATTENDED ARE SET OUT BELOW:

MEMBERS	DESIGNATION	LENGTH OF SERVICE	MEETINGS ATTENDED
Noreen O'Kelly, Chairman[1]	Independent Board Member	5 years and 6 months	7
Andrew Hastings[2]	Independent Board Member	3 years and 3 months	7
Alf Smiddy[1]	Independent Board Member	2 years	7
Noreen Wright[3]	Independent Board Member	3 years and 3 months	7

[1] Fellow of Chartered Accountants Ireland
[2] Senior banking and financial services experience
[3] Energy sector experience through previous roles in Northern Ireland Electricity Networks plc.

KEY OBJECTIVES

The role of the Audit and Risk Committee is set out in its Terms of Reference, a copy of which can be found on the ESB website, www.esb.ie. The Terms of Reference sets out the duties of the Audit and Risk Committee under the following headings:

- Financial Reporting
- Internal Control and Risk Management
- Compliance, Whistle-Blowing and Fraud
- Internal Audit
- External Audit

DUTY	ACTIVITIES CARRIED OUT IN 2018
Financial Reporting Review the Annual Report and Financial Statements to ensure that when taken as a whole, they are fair, balanced and understandable and that appropriate accounting standards, estimates and judgements have been applied	▪ Reviewed the clarity and completeness of the disclosures in the Annual Report and Financial Statements and the material information presented within them ▪ Reviewed whether the Group had applied appropriate accounting standards and made appropriate estimates and judgements, taking into account the views of the external auditors ▪ Considered and challenged the methods used to account for significant or unusual transactions and how these were presented and disclosed in the financial statements ▪ Reviewed going concern assumptions/viability statement ▪ Reviewed the interim results which consist of Financial Statements and explanatory notes ▪ Reviewed and considered the key messages for the financial result publications ▪ Reviewed ESB Annual Report and financial statements to ensure they were fair, balanced and understandable ▪ Reviewed and recommended to the Board for approval, the ESB regulatory financial statements ▪ Reviewed and recommended to the ESB Finance DAC Board for approval, ESB Finance DAC financial statements
Internal Control and Risk Management Review the effectiveness of internal control and risk management	▪ Reviewed and monitored the effectiveness of the Group's system of internal control ▪ Reviewed the arrangements for business continuity planning and crisis management ▪ Reviewed ESB's Risk Management Policy and Governance Framework, Risk Plan, and regular Risk Reports and recommended them to the Board for approval ▪ Considered a detailed review of cyber security and the impacts of emerging technologies ▪ Considered updates on implementation findings of an external review of ESB IT Security ▪ Considered updates on Brexit assessments ▪ Considered update on approach to outsourcing
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	▪ Reviewed the controls and procedures in place to provide assurance of compliance with statutory obligations ▪ Reviewed the procedures and policies for preventing and detecting fraud and were informed of any instances of fraud ▪ Reviewed the adequacy and security of the arrangements for raising concerns confidentially about possible wrongdoing in financial reporting or other matters ▪ Reviewed updates on GDPR project following GDPR go-live
Internal Audit Monitor and assess the role and effectiveness of the internal audit function	▪ Reviewed the internal audit plan and monitored progress against this plan to assess the effectiveness of the function ▪ Reviewed reports detailing the results of key audits, management's response and the timeliness of resolution of actions ▪ Met with the Head of Internal Audit without management being present ▪ Reviewed internal audit key performance indicators ▪ Consulted on appointment of new Head of Internal Audit
External Audit Monitor and review the objectivity, independence and quality of the external auditors and review the findings of the audit with the external auditors	▪ Oversaw the continued transition to PwC as external auditors ▪ Assessed the effectiveness of the external audit process including auditor independence and objectivity ▪ Reviewed and challenged the proposed external audit plan to ensure that PwC had identified all key risks and developed robust audit procedures ▪ Reviewed the report from PwC on its audit of the financial statements and their comments on accounting, financial control and other audit issues ▪ Considered and reviewed non-audit services provided by PwC and adherence to ESB policy ▪ Met with the external auditors without management being present, giving PwC the opportunity to raise any matters in confidence ▪ Reviewed PwC's internal control recommendations and managements response to these recommendations

01 STRATEGY AND PERFORMANCE
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FINANCIAL REPORTING

The Audit and Risk Committee receives and considers the interim and year-end financial statements from management as well as receiving reports from the internal audit team and discussing the audit strategy and focus of the external auditors. Taking into account information from these activities, the Audit and Risk Committee determined the key areas of judgement in the Group's financial statements related to the following:

- Carrying value of long-lived assets and goodwill
- Pension obligations
- Derivatives and hedging arrangements
- Legal contingent liabilities and disclosures

These issues were discussed with management during the year, with the auditors at the time the Audit and Risk Committee reviewed and agreed the auditors' Group audit plan, as part of the auditors' review of the half-year interim financial statements and at the conclusion of the audit of the year-end financial statements.

SIGNIFICANT ISSUES CONSIDERED	HOW ISSUES WERE ADDRESSED BY THE AUDIT AND RISK COMMITTEE
CARRYING VALUE OF LONG-LIVED ASSETS AND GOODWILL **Republic of Ireland (ROI) and United Kingdom (UK) Generation Portfolio** Impairment reviews were performed on the ROI and UK generation portfolios to ensure the carrying values are supported by forecast future discounted cash flows. An impairment charge of €122 million with respect to ROI generation assets was necessary following this review. Further details (including details of the assumptions used) are in note 5 and note 11 of the financial statements. **Networks Transmission and Distribution Long-Lived Assets** As at 31 December 2018, there were no indicators of impairment of the carrying value of the asset base of ESB Networks (€7.9 billion), which determines the future regulated income to be earned. **Northern Ireland Electricity Networks Limited (NIE Networks) Long-Lived Asset and Goodwill** As at 31 December 2018, there were no indicators of impairment of the carrying value of the asset base of NIE Networks (£1.5 billion), which determines the future regulated income to be earned. Goodwill recognised in the NIE Networks business as at 31 December 2018 amounted to €170 million. Consequently an annual impairment test of the carrying value of NIE Networks was carried out in accordance with IAS 36 and no reduction in the value of goodwill was required. The significant judgements used to carry out this test are explained fully in note 13 of the financial statements.	The Audit and Risk Committee recognises that the impairment reviews for the carrying value of assets involve a range of judgemental decisions largely related to the assumptions used to assess the value-in-use of the assets being tested. To assist with their decision on the level of impairment charge, the Audit and Risk Committee carried out the following: ▪ Considered detailed papers prepared and presented by the Executive Director, Group Finance and Commercial, including details of the methodologies and assumptions applied in determining the recoverable values including the discount rates and market and tariff assumptions used ▪ Constructively challenged the assumptions and projections presented in the papers ▪ Considered the sensitivity analysis provided including scenarios with different discount rates and market and tariff assumptions ▪ Considered the detailed reporting from, and findings of the external auditors. Following the review above, the Audit and Risk Committee is satisfied with the impairment review approach, key assumptions used and that the exceptional impairment charge of €122 million for I-SEM generation assets is appropriate.
PENSION OBLIGATIONS - ESB DEFINED BENEFIT PENSION SCHEME (THE SCHEME) In accordance with IAS 19 Employee Benefits, ESB continues to reflect its existing committed obligations on the balance sheet as set out in note 22 of the financial statements. This treatment is based on the following key factors, none of which changed for the year ended 31 December 2018. ▪ The Scheme is registered as a Defined Benefit Scheme with the Pensions Authority. The regulations governing the Scheme stipulate the benefits that are to be provided and they also stipulate contributions to be paid by both ESB and the contributing members. ▪ The Scheme is not a typical balance of costs Defined Benefit Scheme (where the employer is liable to pay the balance of contributions required to fund benefits). ESB does not intend that any further contributions, other than the normal ongoing contributions and the remaining balance of ESB's €591 million additional contribution (committed to under the 2010 Pensions Agreement and indexed at 6.25%), will be made. ▪ Should a deficit arise in the future, ESB is obliged under the Scheme regulations to consult with the parties to the Scheme. However, ESB has no obligation to increase contributions to maintain benefits in the event of a deficit and its rate of contribution cannot be altered without the agreement of ESB and the approval of the Minister for Communications, Climate Action and Environment.	The accounting for the obligations to be reflected in the financial statements requires the exercise of judgement. The Audit and Risk Committee is satisfied that the appropriate accounting treatment, determined in accordance with IAS 19 Employee Benefits, is to reflect its existing committed obligations, as set out in the notes of the financial statements.

SIGNIFICANT ISSUES CONSIDERED	HOW ISSUES WERE ADDRESSED BY THE AUDIT AND RISK COMMITTEE
DERIVATIVES AND HEDGING ARRANGEMENTS The Group uses derivative financial instruments and non-derivative instruments to hedge its exposure to foreign exchange, interest rate and commodity price risk arising from operational, financing and investing activities. The principal derivatives used include interest rate swaps, currency swaps, foreign currency contracts, Retail Price Index (RPI) swap contracts and commodity swaps and future contracts relating to the purchase of fuel and sale of electricity. Future purchase contracts which are not designated as own-use contracts are primarily accounted for as cash flow hedges, where they meet cash flow hedge accounting criteria under IFRS 9 Financial Instruments and consequent fair value movement impact principally on equity rather than on the reported earnings of the Group. Derivative financial instruments include the Northern Ireland Retail Price Index (RPI) linked interest rate swaps. As part of the acquisition of NIE Networks in 2010, ESB acquired the RPI swaps. The purpose of these swaps is to manage NIE Networks' risk and reduce exposure to movements in inflation and interest rates. The RPI swaps do not qualify for hedge accounting (as they did not meet the criteria to qualify for hedge accounting under IFRS 9 when acquired by ESB) and therefore all fair value movements in the RPI swaps are recorded in the income statement.	The Audit and Risk Committee recognises the inherent complexities around the accounting for derivatives and hedging arrangements and that a significant level of judgement is required in arriving at the appropriate accounting treatment and assumptions used in the models. To assist with their decision on the reasonableness of the accounting treatment (in particular the assumptions used in the valuation models) they carried out the following work: ▪ Discussed valuation models with management ▪ Considered hedging policy, risks being hedged and accounting for such hedges ▪ Relied on the third party processes in relation to the valuation of certain derivatives ▪ Considered the results of the work of the external auditors in relation to derivatives. Based on its work, the Audit and Risk Committee is satisfied that the valuation of and accounting treatment for derivatives is appropriate.
LEGAL CONTINGENT LIABILITIES AND DISCLOSURES Following flooding in Cork in November 2009, Aviva as University College Cork's (UCC) insurer pursued a legal action against ESB in the High Court seeking recovery of €19 million for property damage. On 5 October 2015, the High Court delivered its judgement in the case and found ESB 60% liable for the damage caused and UCC 40% contributory negligent. Based on legal advice received, ESB appealed the decision to the Court of Appeal. On 20 March 2018 the Court of Appeal delivered its judgment which held that ESB is not liable for any damage caused to UCC's property by the flood. In October 2018, the Supreme Court granted UCC leave to appeal the judgment of the Court of Appeal. It is expected that the Supreme Court Appeal will be heard during the first half of 2019. The issue of the legal costs of the High Court and Court of Appeal cases is stayed pending the outcome of the Supreme Court appeal. In addition to the UCC claim ESB has, since the judgment of the High Court in the UCC case, been served with 387 sets of proceedings relating to the flooding in Cork in November 2009. Details of amounts claimed in relation to these proceedings have not yet been received and therefore it is not possible to make a reliable estimate of their cost (should the Supreme Court not uphold the decision of the Court of Appeal) at this time. However, ESB does not anticipate that the total amount of damages awarded, if any, and related costs for all of the actions, including the Aviva/UCC action, would exceed its applicable insurance cover. On the basis of the internal and external legal advice received, and as the only ongoing appeal is by UCC which ESB does not believe will be successful, no provision has been made for such claims in the financial statements. See note 28 for further details.	The Audit and Risk Committee recognise that in relation to legal claims, judgement is necessary on the appropriate level of disclosure and provisioning. To assist with the decision on the classification of the claim as a contingent liability, the Audit and Risk Committee carried out the following work: ▪ Considered both the internal and external legal advice in relation to the case ▪ Challenged the views taken by management where necessary. Based on this work, the Audit and Risk Committee is satisfied that the claim represents a contingent liability and it is appropriate not to make a provision in relation to the UCC case and other related outstanding cases.

The above description of significant issues considered should be read in conjunction with the Independent Auditors' Report on pages 114 to 120 and the statement of accounting policies disclosed in note 1 of the financial statements on page 129.

FAIR, BALANCED AND UNDERSTANDABLE

At the request of the Board, the Audit and Risk Committee has considered whether, in its opinion, the Annual Report and Financial Statements taken as a whole, are fair, balanced and understandable and provides all the necessary information for shareholders/stakeholders to assess the Group's performance, business model and strategy. Consideration is also given to whether the information is presented in a clear and concise format, avoids the use of jargon and is easily understood by the reader.

To assist in the process of supporting the fair, balanced and understandable assessment statement, management prepared a report to the Audit and Risk Committee setting out the key considerations in arriving at the statement and to assist in its challenge and testing of a fair, balanced and understandable assessment.

In reaching their conclusion, the Audit and Risk Committee considered the following:

- All Board members received copies of the Annual Report and Financial Statements to review early in the reporting cycle to ensure the key messages in the Annual Report were aligned with the Group's position, performance and strategy and the narrative sections of the Annual Report were consistent with the financial statements
- That a robust process was put in place by management for the preparation of the Annual Report and Financial Statements for the year ended 31 December 2018, including early planning, taking into consideration regulatory changes and best practice
- Clear linkages to the strategic objectives are provided throughout the report
- That the key performance indicators (KPIs) used and reported in the Annual Report are consistent with those provided by management to the Board throughout the year.

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- Review of data and information included in the Annual Report by Internal Audit
- Review of External Auditor's Report
- That all key events and issues reported to the Board during the year, both positive and negative, have been adequately referenced or reflected in the Annual Report.

Following its review, the Audit and Risk Committee is of the opinion that the Annual Report and Financial Statements taken as a whole, are fair, balanced and understandable and provides all the necessary information for shareholders / stakeholders to assess the Group's performance, business model and strategy.

AUDIT AND RISK COMMITTEE EFFECTIVENESS

As part of the Board evaluation process, the operation of the Audit and Risk Committee is also evaluated. One of the findings of this evaluation was the challenge posed by the range and volume of material which had to be considered by the committee given its extensive remit. The committee accepted that this is a common issue for Audit and Risk committees and by its nature a dynamic process with the Committee and management needing to work together in a supportive way. To achieve this, the committee chairman meets regularly with management to ensure that key topics are identified and reported on as succinctly as possible. Also during 2018, the Committee Chairman, Company Secretary and Executive Director, Group Finance and Commercial and Deputy Chief Executive agreed that there should be greater focus on risk and a full-day session on risk took place in 2018 to enhance the Committee's assessment of risk.

EXTERNAL AUDIT

Audit quality

To maintain audit quality and provide assurance on the integrity of financial reporting, the Audit and Risk Committee reviews and challenges the proposed external audit plan, including its scope and materiality prior to approval, to ensure that the external auditors have identified the key audit risks and developed a robust approach. The Audit and Risk Committee considers the external auditors' response to accounting, financial control and audit issues as they arise and meets with them at least once annually without management present, providing the external auditors with the opportunity to raise any matters in confidence. The Audit and Risk Committee met with PwC privately in February 2019.

Discussions with External Auditors

The Audit and Risk Committee has received and discussed a report from the external auditors on the findings from the audit, including those relating to the judgemental areas noted on pages 100 to 101.

After reviewing the presentations and reports from management and internal audit, and taking into account views expressed by the external auditors, the Audit and Risk Committee is satisfied that the financial statements appropriately address critical judgements and key estimates. The Audit and Risk Committee is also satisfied that the significant assumptions used for determining the value of assets and liabilities have been appropriately scrutinised, challenged and are sufficiently robust.

Throughout the year, ESB and PwC were engaged in ongoing, open communication on current matters as and when they arose.

Independence

The Audit and Risk Committee assesses the auditors' independence on an ongoing basis. The Committee considers the appointment of the external auditors every five years and this process is subject to public tender. The last tender process was completed in 2016.

Auditor independence and objectivity is safeguarded by a number of control measures, including:

- Limiting the nature and value of non-audit services performed by the external auditors as covered under the policy for non-audit services
- Monitoring the changes in legislation related to auditor objectivity and independence
- PwC confirming that they have appropriate internal safeguards in place that are consistent with applicable standards
- Rotating the audit partner every five years
- Providing opportunities to meet with the Audit and Risk Committee privately
- Reviewing annually the effectiveness of the external auditors
- Annual confirmation of independence by the external auditors

The Audit and Risk Committee is satisfied that the auditors, PwC, are both independent and objective.

Auditor Effectiveness

The effectiveness of the external auditors is reviewed annually, taking into account feedback from a questionnaire on the evaluation of the external auditors by the Audit and Risk Committee. The evaluation focuses on such areas as the robustness of the audit process, audit team, communications and governance.

Overall, the Audit and Risk Committee is satisfied with the effectiveness of the external audit based on the quality of presentations received, management's assessment of the audit process, technical knowledge of PwC and their robust understanding of ESB's business.

A review of the effectiveness of the external process was formally conducted in early 2018. A detailed review of all the key areas of the audit process was undertaken to ensure any year one audit learnings from the audit are implemented.

Non-Audit Services

The Audit and Risk Committee considered and approved a revised policy on the engagement of ESB's external auditors for non-audit services to take account of the implementation of the EU Audit Regulation and Directive on non-audit services in compliance with Statutory Instrument No 312/2016 - European Union (Statutory Audits) (Directive 2006/43/EC, as amended by Directive 2014/56/EU, and Regulation (EU) No. 537/2014) Regulations 2016 in Ireland and with the Ethical Standard for Auditors issued in April 2017 by the Irish Auditing and Accounting Supervisory Authority (IAASA).

The policy outlines the governance arrangements that apply to the provision of non-audit services. The key changes made were to update the list of prohibited services, outline the governance arrangements that apply to the provision of such services and set out the transition arrangements for permitted non-audit services commenced prior to appointment of PwC. The revised policy includes a defined approval process and is in compliance with ESB procurement procedures and Group authority levels.

Fees earned by ESB's external auditors in respect of non-audit services in any financial year, excluding permitted non-audit services under the transitional arrangements, shall not exceed the annual audit fee for that year. An update on the nature of PwC non-audit services provided and the value of such services is presented to the Audit and Risk Committee bi-annually to demonstrate that the services are in compliance with the policy and the value is within the cap.

PwC became subject to the non-audit service policy on the provision of non-audit services from December 2016, save for a derogation, under transitional arrangements, in relation to an existing contract with PwC for the provision of change management support services.

A summary of the audit and non-audit fees paid to the external auditors is set out in note 10 of the financial statements. The primary non-audit related services provided by the external auditors during the year were in respect of the Integrated Single Electricity Market (I-SEM) programme and permitted tax advice. PwC also provided administrative assistance directly to the ESOP in relation to the ESOP auction process.

The Audit and Risk Committee are satisfied that the fees paid in 2018 did not compromise the independence or integrity of the external auditors. The Committee will continue to monitor the type and level of services provided to prevent any perceived or actual impact on auditors' independence.

MEETINGS

The internal and external auditors have full and unrestricted access to the Audit and Risk Committee. The Audit and Risk Committee Chairman reports the outcome of its meetings to the Board. Meetings, or part thereof, are routinely attended by the Board Chairman, Chief Executive and/or Deputy Chief Executive, Executive Director, Group Finance and Commercial, Head of Group Internal Audit, Group Risk Manager and representatives of the external auditors. Committee-only sessions are arranged at the beginning/end of meetings, as determined by the Audit and Risk Committee Chairman.

On behalf of the Audit and Risk Committee

Noreen O'Kelly,
Chairman,
Audit and Risk Committee
1 March 2019

THE BOARD COMMITTEES IN 2018

Andrew Hastings, Chairman

Role

The Finance and Investment Committee's responsibilities are set out in its Terms of Reference.

FINANCE AND INVESTMENT COMMITTEE

Committee Meetings

The Committee held 11 meetings during 2018. The members of the Committee, length of service and the number of meetings attended are set out below:

MEMBERS	DESIGNATION	LENGTH OF SERVICE	MEETINGS ATTENDED
Andrew Hastings, (Chairman)	Independent Board Member	3 years and 3 months	11
Dave Byrne	Worker Board Member	5 years and 9 months	11
Seán Kelly	Worker Board Member	3 years and 3 months	10
Paul Lynam	Independent Board Member	2 years	11
Pat O'Doherty	Chief Executive	5 years and 9 months	11
Noreen O'Kelly*	Independent Board Member	3 years and 3 months	10

*Ms O'Kelly did not attend the April meeting as her re-appointment to the Board was pending.

KEY ACTIVITIES OF THE FINANCE AND INVESTMENT COMMITTEE IN 2018

Duty	Activity
Review annual capital budgets prior to submission to the Board	Reviewed and recommended to the Board (where applicable): ■ 2019 Budget and the five-year business plan ■ Quarterly financial and capital expenditure reports ■ Quarterly loans, swaps and bonds report ■ SIRO revised business plan
Examine major business proposals for investment and capital expenditure	Reviewed and recommended to the Board (where applicable): ■ Renewables investments ■ Participation in the I-SEM & UK capacity auctions ■ Generation assets investment and overhaul programme 2019–2021 ■ Quarterly report on consultancy services ■ Integrated Facilities Management Framework approval ■ ecars expenditure approval ■ ESB Novusmodus fund performance ■ Outsource contracts – debt collection and credit control ■ Generation framework agreement for provision of Mechanical Services ■ Major IT system upgrade
Examine key policy issues concerning the financial requirements of ESB including credit ratings, borrowings, financial instruments and debt management	Reviewed and recommended to the Board (where applicable): ■ Capital markets funding ■ Investment decision hurdle rates ■ Treasury market update ■ Credit rating update
Review the energy trading policies and procedures of the Group	Reviewed and considered: ■ ESB Trading Risk Position (market, credit and operational) ■ I-SEM Programme and go-live updates ■ ESB Trading Strategy

Anne Butler, Chairman

Role

The Health, Safety and Environment Committee's responsibilities are set out in its Terms of Reference. The Committee Chairman meets as required with the Chairman of the Audit and Risk Committee to agree and update as appropriate the specific risk responsibilities of the Health, Safety and Environment Committee.

➔ See pages 72 to 73 for further information on Health, Safety and Environment in 2018 as set out in the Responsible Business Report Section.

HEALTH, SAFETY AND ENVIRONMENT COMMITTEE

Committee Meetings

The Committee held 5 meetings during 2018. The members of the Committee, length of service and the number of meetings attended are set out below:

MEMBERS	DESIGNATION	LENGTH OF SERVICE	MEETINGS ATTENDED
Anne Butler, (Chairman)	Independent Board Member	3 years and 3 months	5
Paul Lynam	Independent Board Member	2 years	5
Pat O'Doherty	Chief Executive	7 years and 1 month	5
Peter O'Sullivan	Worker Board Member	3 years and 3 months	5

KEY ACTIVITIES OF THE HEALTH, SAFETY AND ENVIRONMENT COMMITTE IN 2018

Duty	Activity
Monitor the development of health, safety and environmental strategy and translation of the strategy into policies and programmes	Reviewed and considered: ■ Group Safety KPIs ■ Group Safety, Health, and Environment Improvement Projects ■ ESB Networks Safety Programme ■ 2018 Environmental Plan and Sustainability Update ■ Workplace Safety Centre of Competency ■ Safe & Sound safety culture transformation project plan including a review of the Dupont and Safety Climate Tool Safety Culture Assessments ■ Revised Group safety statements ■ My Wellbeing at Work handbook ■ Good Catch app for smart devices
Review and consider information on key health, safety and environmental trends in Ireland, Europe and elsewhere, where relevant	Reviewed and considered: ■ Key safety risk updates including lost time injuries, high potential incidents, near-misses and good catches ■ Address by external speaker with perspective on safety best practices ■ External assessment of safety culture
Review and consider reports on compliance with all applicable health, safety and environmental legislation	Reviewed, considered and suggested actions in respect of: ■ Reports on incidents/non-compliance ■ Environmental law developments and challenges ■ Update on compliance with Access to Information on the Environment (AIE) regulations
Support the Board in carrying out Board responsibilities in ensuring that health, safety and environmental risks are properly identified , assessed, reported and controlled	Considered the risks in the following areas: ■ Contractor Safety ■ Public Safety ■ Business Unit safety improvement projects

Ellvena Graham OBE¹, Chairman

Role
The Remuneration and Management Development Committee's responsibilities are set out in its Terms of Reference.

REMUNERATION AND MANAGEMENT DEVELOPMENT COMMITTEE

Committee Meetings

The Committee held 4 meetings during 2018. The members of the Committee, length of service and the number of meetings attended are set out below:

MEMBERS	DESIGNATION	LENGTH OF SERVICE	MEETINGS ATTENDED
Ellvena Graham OBE, (Chairman)	Chairman	7 years	4
Andrew Hastings	Independent Board Member	3 years and 3 months	4
Noreen Wright	Independent Board Member	7 years	4

KEY ACTIVITIES OF THE REMUNERATION AND MANAGEMENT DEVELOPMENT COMMITTEE IN 2018	
Duty	**Activity**
Keep under review senior management succession and development plans	■ Review of the new organisation structure. See details on the Organisation Effectiveness Review on page 40 ■ Review of succession planning and leadership competencies ■ Review of senior management appointments
Agree with the Chief Executive his specific annual performance targets	■ Reviewed performance against 2017 targets ■ Set 2018 performance targets
Determine the remuneration packages for ESB's Executive Team	■ Reviewed and approved remuneration packages for the Executive Team

1. The Board Chairman is a member of one committee - The Remuneration and Management Development Committee - but regularly attends meetings of the Finance and Investment Committee and the Audit and Risk Committee.

Alf Smiddy, Chairman

Role
The Marketing and Customer Committee's responsibilities are set out in its Terms of Reference.

MARKETING AND CUSTOMER COMMITTEE

Committee Meetings

The Committee held 4 meetings during 2018. The members of the Committee, length of service and the number of meetings attended are set out below:

MEMBERS	DESIGNATION	LENGTH OF SERVICE	MEETINGS
Alf Smiddy, (Chairman)	Independent Board Member	2 years	4
Anne Butler	Independent Board Member	2 years	4
Tony Merriman	Worker Board Member	2 years	4
Pat O'Doherty	Chief Executive	2 years	3

KEY ACTIVITIES OF THE MARKETING AND CUSTOMER COMMITTEE IN 2018	
Duty	**Activity**
Review and consider marketing and customer initiatives and programmes and ensure they are aligned with ESB's strategic objectives	Reviewed and considered: ■ ESB Networks customer update ■ Electric Ireland customer update ■ ESB International customer update ■ Smart Energy Services Update ■ ESB Networks Dingle Project (Smart Networks Project, see page 60) update ■ ESB Reputation Management ■ Smart Metering Project (ESB Networks)
Review and consider new products and services and associated revenue projections	Received an update on: ■ GB Retail Market
Review and consider proposed advertising and sponsorship programmes and the assessment of their potential impact	Reviewed and considered: ■ ESB Brighter Future advertising campaign ■ Brighter Future sponsorship of RDS Primary Science Fair and TechSpace

Each Board Committee has its Terms of Reference reviewed and approved by the Board annually. Terms of reference of all committees are available upon request from the Company Secretary.

BOARD MEMBERS' REPORT

The Board members present their report together with the audited financial statements of ESB and of the Group for the year ended 31 December 2018.

PRINCIPAL ACTIVITIES

The principal activities of the Group are the generation, transmission, distribution and supply of electricity in the Republic of Ireland (ROI) and Northern Ireland (NI). The Group also operates internationally, in generation and supply in Great Britain (GB) and is involved in a number of consultancy projects in Asia and Africa.

BUSINESS REVIEW

Commentaries on performance in the year ended 31 December 2018, including information on recent events and potential future developments, are contained in the Chairman's Statement and the Chief Executive's Review. The performance of the business and its financial position and the principal risks faced by the Group are reflected in the reviews for each major business unit on pages 56 to 68, the Financial Review on pages 50 to 55 and the Risk Report on pages 24 to 35.

RESULTS AND DIVIDEND FOR THE YEAR

The financial results of the Group show a profit after tax before exceptional items of €181 million for the financial year 2018, compared with a profit of €209 million for 2017. Profit after tax and exceptional items is €60 million (2017: loss of €32 million). The dividend policy agreed with the Government in 2013 provides for targeted dividends of adjusted profit after tax of 40% in 2017 and thereafter. An interim dividend for 2018 of €30.0 million (1.52 cent per unit of stock) was declared and paid in October 2018. The Board is now recommending a final dividend for 2018 of 0.25 per cent per unit of stock, or €5.0 million, which brings the total dividend for 2018 to €35.0 million. This would bring the total dividends paid over the past decade to €1.4 billion.

SHARE CAPITAL

An Employee Share Ownership Plan (ESOP) market liquidity proposal was approved at the Board meeting in May 2015. The objective of the proposal is to improve liquidity in the ESOP market where the ESOP Trustee is committing to spend €25 million of funds to acquire capital stock in the ESOP internal market. ESB agreed to match the expenditure committed by the ESOP Trustee in the period 2014 to 2018. ESB purchased and cancelled capital stock worth €4.8 million in 2018 (2017: €5.6 million). Further details are outlined in notes 18 and 31. Details of the Group's share capital are outlined in note 18 of the financial statements.

FUTURE DEVELOPMENTS

ESB is a strong diversified, vertically integrated utility operating right across the electricity market: from generation, through transmission and distribution to supply of customers, with an expanding presence in the GB market. The Strategy to 2030 ensures that ESB continues to grow as a successful business while maintaining the financial strength to invest in a low-carbon future at the necessary scale and pace (See pages 17 to 21 for more information).

PRINCIPAL RISKS AND UNCERTAINTIES

A description of the principal risks and uncertainties facing the Group is set out in the Risk Report on pages 24 to 35.

FINANCIAL INSTRUMENTS

The financial risk management objectives and policies of the Group along with a description of the use of financial instruments is set out in note 27 of the financial statements.

ACCOUNTING RECORDS

The Board members believe that they have employed accounting personnel with appropriate expertise and provided adequate resources to the financial function to ensure compliance with ESB's obligation to keep proper books of account. The books of account of ESB are held at Two Gateway, East Wall Road, Dublin 3.

REPORT UNDER SECTION 22 OF THE PROTECTED DISCLOSURES ACT 2014

Section 22 of the Protected Disclosures Act 2014 requires ESB to publish an Annual Report relating to protected disclosures made under the Protected Disclosures Act 2014. In accordance with this requirement, ESB confirms that as at 31 December 2018 one protected disclosure was made to ESB and this is currently being investigated by the Group.

REGULATION OF LOBBYING ACT 2015

In accordance with the requirements of the Regulation of Lobbying Act, ESB is registered on the Lobbying Register at www.lobbying.ie and has made the required return for the period 1 January to 31 December 2018.

MODERN SLAVERY ACT

Modern slavery is a criminal offence under the UK Modern Slavery Act 2015. The Act imposes obligations on organisations of a certain size, which carry on a business in the United Kingdom. Modern slavery can occur in various forms, including servitude, forced and compulsory labour and human trafficking, all of which have in common the deprivation of a person's liberty by another in order to exploit them for personal or commercial gain. As the parent of a number of subsidiary companies with significant operations in the UK, ESB has adopted a Policy on Modern Slavery with the aim of preventing opportunities for modern slavery occurring within its business and supply chains. In accordance with the Act, ESB publishes an Annual Statement setting out the steps that ESB has taken during the previous financial year to ensure that slavery and human trafficking is not operating within either its own business or its supply chains. The most recent annual statement was published by ESB on 27 March 2018.

SUSTAINABILITY

Sustainability and corporate social responsibility (CSR) concepts are embedded in all ESB operations and activities. Information on the Group's approach to sustainability and CSR is set out on pages 76 to 79.

ELECTORAL ACT 1997

The Board made no political donations during the year.

PRINCIPAL SUBSIDIARY, JOINT VENTURE AND ASSOCIATED UNDERTAKINGS

Details of the principal subsidiary, joint venture and associated undertakings are outlined in note 34 of the financial statements.

PROMPT PAYMENTS REGULATION

The Board acknowledges its responsibility for ensuring compliance, in all material respects, with the provisions of the Prompt Payment of Accounts Act, 1997 and European Communities (Late Payments in Commercial Transactions) Regulations, 2012 (S.I. No. 580 of 2012) as amended by European Communities (Late Payment in Commercial Transactions) (Amendment) Regulations 2016 (S.I. No. 281 of 2016) 2002. The Board is satisfied that ESB has complied with the requirements of the Regulations.

RELATED PARTY TRANSACTIONS

Related party transactions are set out in note 29 of the financial statements.

RESEARCH AND DEVELOPMENT

ESB's business is involved in innovative projects and programmes to develop the energy sector. A number of these projects and programmes are referred to in the Strategy and Performance Section on pages 1 to 68.

STATEMENT UNDER SECTION 330 OF THE COMPANIES ACT 2014

The ESB Regulations require ESB to observe the provisions of the Companies Act 2014 applying to a Companies Act entity in regard to audit and/or auditors. This requires the Board members to make a statement in the form required by Section 330 of the 2014 Act. In compliance with this requirement, the Board confirms that it applies the standards in Section 330 of the Companies Act 2014 and in this regard, each of the Board members confirms that:

- so far as the Board member is aware, there is no relevant audit information of which ESB's statutory auditors are unaware
- each Board member has taken all the steps that he or she ought to have taken as a Board member in order to make himself or herself aware of any relevant audit information and to establish that ESB's auditors are aware of that information (within the meaning of Section 330).

AUDIT AND RISK COMMITTEE

ESB has an Audit and Risk Committee, the members of which are set out on page 98.

AUDITORS

It is expected that the appointment of PwC as ESB's auditors for the 2019 financial year will, in accordance with Section 7(2) of the Electricity (Supply) Act 1927 (as amended), be confirmed at the AGM of the company.

At the AGM, the shareholders will be asked (i) to authorise the directors to fix the remuneration of the auditors in respect of the year ended 31 December 2019 and (ii) to appoint PwC as auditors for the 2019 financial year (in accordance with the applicable provisions of section 7(2) of the Act, which provides that the auditors are appointed annually).

APPROVAL OF THE 2018 ANNUAL REPORT AND FINANCIAL STATEMENTS

The Board is satisfied, after taking into account the recommendation of the Audit and Risk Committee, that the Annual Report and Financial Statements taken as a whole, are fair, balanced and understandable.

Ellvena Graham OBE,
Chairman

Pat O'Doherty,
Chief Executive

1 March 2019

ESB IS **LEADING** THE TRANSITION TO RENEWABLE GENERATION AND IS WORKING TO **REDUCE THE CARBON INTENSITY** OF ITS GENERATION PORTFOLIO BY OVER TWO THIRDS BY 2030

3 CHAPTER 3

FINANCIAL STATEMENTS

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Financial Statements

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STATEMENT OF BOARD MEMBERS' RESPONSIBILITIES

The Board members are responsible for preparing the annual report, incorporating financial statements for ESB (the Parent) and for ESB Group comprising ESB and its subsidiaries ("the Group").

Under ESB's governing regulations, adopted pursuant to the Electricity Supply Acts 1927 to 2004 ("the ESB Regulations"), the Board is required to prepare financial statements as are required by companies established under the Companies Act 2014.

ESB is also required to furnish its annual report, which incorporates the financial statements, to the Minister for Communications, Climate Action and Environment in accordance with corporate governance guidelines and to meet its obligations under Section 32 of the Electricity (Supply) Act 1927 (as amended), to make to the Minister a report of its proceedings during the preceding year.

The Board has elected to prepare ESB's financial statements in accordance with IFRS as adopted by the European Union and as applied in accordance with the applicable provisions of the Companies Act 2014 and ESB Regulations.

The Board members must not approve the financial statements unless they are satisfied that they give a true and fair view of the assets, liabilities and financial position of the Group and of ESB and of the Group's profit or loss for that year.

In preparing the financial statements the Board members are required to:

- Select suitable accounting policies and then apply them consistently;
- Make judgements and estimates that are reasonable and prudent;
- State that the financial statements comply with IFRS as adopted by the European Union, and as regards ESB, as applied in accordance with the Companies 2014; and
- Prepare the financial statements on the going concern basis unless it is inappropriate to presume that the Group and ESB will continue in business.

The Board members are responsible for keeping adequate accounting records which disclose with reasonable accuracy at any time the assets, liabilities, financial position and profit or loss of ESB, and which enable them to ensure that the financial statements of ESB and the Group are prepared in accordance with applicable IFRS as adopted by the European Union and as applied in accordance with applicable provisions of the Companies Act 2014 and ESB Regulations.

The Board Members are also responsible for safeguarding the assets of ESB and the Group, and hence for taking reasonable steps for the prevention and detection of fraud and other irregularities.

The Board members are responsible for the maintenance and integrity of the corporate and financial information included on the Group's and ESB's website www.esb.ie. Legislation in the Republic of Ireland governing the preparation and dissemination of financial statements may differ from legislation in other jurisdictions.

Each of the Board members, confirm that, to the best of each person's knowledge and belief:

- The Group financial statements, prepared in accordance with IFRS as adopted by the European Union and ESB's financial statements prepared in accordance with IFRS as adopted by the European Union as applied in accordance with the provisions of Companies Act 2014 and as applied by the ESB Regulations, give a true and fair view of the assets, liabilities, financial position of the Group and of ESB at 31 December 2018 and of the profit of the Group for the year then ended 31 December 2018;
- The Board members' report contained in the annual report includes a fair review of the development and performance of the business and the position of the Group and ESB, together with a description of the principal risks and uncertainties that they face; and
- The annual report and financial statements, taken as a whole, provides the information necessary to assess the Group's performance, business model and strategy and is fair, balanced and understandable and provides the information necessary for shareholders to assess ESB's position and performance, business model and strategy.

On behalf of the Board

Ellvena Graham OBE, Chairman

Pat O'Doherty, Chief Executive

INDEPENDENT AUDITORS' REPORT TO STOCKHOLDERS OF ELECTRICITY SUPPLY BOARD (ESB)

REPORT ON THE AUDIT OF THE FINANCIAL STATEMENTS

OPINION

In our opinion, ESB's Group consolidated financial statements and Parent financial statements (the "financial statements"):

- give a true and fair view of the Group's and the Parent's assets, liabilities and financial position as at 31 December 2018 and of the Group's profit and the Group's and the Parent's cash flows for the year then ended;
- have been properly prepared in accordance with International Financial Reporting Standards ("IFRSs") as adopted by the European Union and, as regards the Parent's financial statements, as applied in accordance with the provisions of the Companies Act 2014; and
- have been properly prepared in accordance with the requirements of the Companies Act 2014, as applied by the Electricity (Supply) Acts 1927 to 2004.

We have audited the financial statements, included within the Annual Report and Financial Statements (the "Annual Report"), which comprise:

- the Group and Parent Balance Sheets as at 31 December 2018;
- the Group Income Statement and Group Statement of Comprehensive Income for the year then ended;
- the Group and Parent Cash Flow Statements for the year then ended;
- the Group and Parent Statements of Changes in Equity for the year then ended; and
- the Notes to the financial statements, which include a description of the significant accounting policies.

BASIS FOR OPINION

We conducted our audit in accordance with International Standards on Auditing (Ireland) ("ISAs (Ireland)") and applicable law. Our responsibilities under ISAs (Ireland) are further described in the Auditors' responsibilities for the audit of the financial statements section of our report. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Independence

We remained independent of the Group in accordance with the ethical requirements that are relevant to our audit of the financial statements in Ireland, which includes IAASA's Ethical Standard and we have fulfilled our other ethical responsibilities in accordance with these requirements.

OUR AUDIT APPROACH

Materiality

- €11 million (2017: €13 million) - Group financial statements
  Based on c. 5% of profit before tax and exceptional items. We consider this to be an appropriate benchmark as the Group is profit orientated and the exceptional items are significant non-recurring items which are not reflective of the Group's trading activity.

- €11 million (2017: €13 million) - Parent financial statements
  Based on materiality applied to the Group financial statements and the level of trading activity in the Parent, we consider it appropriate to apply Group materiality of €11 million to the audit of the Parent financial statements.

Audit scope

We conducted our work across the four reportable segments and the head office function. Our audit work covered in excess of 90% of Group revenues, profit before taxation and exceptional items, total assets and total liabilities.

Key audit matters

- Carrying value of Long Lived Assets
- Valuation of financial instruments and hedge designation
- Completeness of pension obligations
- Revenue Recognition – unbilled Electric Ireland revenue

INDEPENDENT AUDITOR'S REPORT TO STOCKHOLDERS OF ELECTRICITY SUPPLY BOARD (ESB) (continued)

The scope of our audit

As part of designing our audit, we determined materiality and assessed the risks of material misstatement in the financial statements. In particular, we looked at where the Board members made subjective judgements, for example in respect of significant accounting estimates that involved making assumptions and considering future events that are inherently uncertain. As in all of our audits we also addressed the risk of management override of internal controls, including evaluating whether there was evidence of bias by the Board members that represented a risk of material misstatement due to fraud.

Key audit matters

Key audit matters are those matters that, in the auditors' professional judgement, were of most significance in the audit of the financial statements of the current period and include the most significant assessed risks of material misstatement (whether or not due to fraud) identified by the auditors, including those which had the greatest effect on: the overall audit strategy; the allocation of resources in the audit; and directing the efforts of the engagement team. These matters, and any comments we make on the results of our procedures thereon, were addressed in the context of our audit of the financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters. This is not a complete list of all risks identified by our audit.

Key audit matter	How our audit addressed the key audit matter
Carrying value of Long Lived Assets **Refer to page 100 (Report of the Audit and Risk Committee) note 1(vii), (ix) and (x) (Statement of Accounting Policies) and notes 5, 11 and 12 to the financial statements** The carrying value of ESB's property, plant and equipment and intangible assets is €11.2 billion, most of which are long-lived assets designed to deliver a return over 20+ years. The Group is required to assess at the end of each reporting period whether there is any indication that an asset may be impaired. If any such indication exists, the Group is required to perform impairment testing. We focused on this area and, in particular, on those long lived assets within the Group's thermal generation portfolio given the scale of the assets and the increased risk of impairment as at 31 December 2018. The increased risk reflects reduced energy margins in the UK and Ireland and the changes to the market associated with the commencement of the I-SEM which will impact on the market going forward. As set out in Note 5, the Group incurred an impairment charge of €122 million for certain of the Group's power generation assets. The Group's assessment of the carrying value of property plant and equipment and related intangible assets involves significant judgement in estimating the inputs to discounted cash flow models used to assess the recoverable amount of these assets. In respect of the Group's power generation portfolio, this includes assumptions in respect of future electricity and fuel costs, volumes, discount rates and capacity revenues in Ireland and the UK.	We considered the Group's assessment of whether there were any indications that an asset may be impaired, thereby requiring an impairment test to be performed. We focused our audit effort on those thermal generation assets where there was a risk of impairment and on those electricity generation assets where management had identified and recorded an impairment based on the impairment test performed. We evaluated management's assessment of those thermal generation assets which were potentially impaired by evaluating the critical assumptions in the future cash flow forecasts and considering the overall level of headroom and carrying value of the individual cash generating units. The key assumptions used in the cash flow models for thermal generation assets, include expected electricity prices, capacity income, future fuel costs, expected plant running (load factors), discount rates, inflation and plant closure dates. For thermal generation assets, we obtained an understanding of management's approach in determining the key assumptions in the impairment models, including comparing them to the latest Board approved budgets. Where there was independent source data we compared this to the inputs to the models and understood management's basis for the judgements made in the models. For inputs with no observable data we considered these and challenged management's assumption in the context of available internal data, including historical data and budget information. We considered the appropriateness of the discount rates used in the impairment models by assessing the assumptions used in the weighted average cost of capital against external benchmarks. We also performed sensitivity analysis to changes in key assumptions and we considered the likelihood of such changes arising. We considered the disclosures in the financial statements in relation to these matters. Based on our procedures we were satisfied that the impairment charge reflected in the financial statements is appropriate.

INDEPENDENT AUDITOR'S REPORT TO STOCKHOLDERS OF ELECTRICITY SUPPLY BOARD (ESB) (continued)

Key audit matter	How our audit addressed the key audit matter
Valuation of financial instruments and hedge designation **Refer to page 101 (Report of the Audit and Risk Committee), Notes 1 (iii) (a) (Statement of Accounting Policies) and notes 21 and 27 to the financial statements** The Group uses derivative financial instruments and non-derivative financial instruments to hedge its exposure to commodity price risk, foreign exchange risk and interest rate risk arising from operational, financing and investing activities. The majority of these derivative financial instruments are designated as cash flow hedges with the effective part of any gain or loss being recognised directly in other comprehensive income and subsequently transferred to the income statement at the same time as the hedged transaction. The valuation of the derivative financial instruments can require significant judgement. In particular as set out in Note 27, for Level 3 financial instrument valuations one or more significant data inputs are unobservable and, as such, not possible to verify with reference to independent third party sources. These inputs are estimated by ESB, introducing subjectivity to the valuation process. We focused on this area given the level of judgement in the accounting for and the valuation of the level 3 derivative financial instruments held and because a change in the hedge designation of derivative financial instruments or the inputs to valuations could have a material impact on the Group's income statement.	We evaluated the documentation in place for cash flow hedges and the Group's assessment of hedge effectiveness for compliance with IFRS 9. We tested the valuation of derivative financial instruments at year end. Our audit procedures included assessing the reasonableness of the inputs to the valuation models. The fair value of some specific forward fuel and electricity contracts includes inputs in respect of forward electricity prices which are unobservable. In respect of these Level 3 financial instrument valuations, we tested observable inputs used in the valuation models, such as prices for gas, coal and carbon, by comparing them to third party market data. For other assumptions in the valuation models for which there is no observable data, we challenged the key assumptions made by reference to alternative estimates by sources independent of ESB. To allow us to assess the reasonableness of the unobservable assumptions, ESB reconstructed the valuation model using alternative assumptions from external sources. We also assessed the reasonableness of the valuation of certain specific contracts by reference to key valuation drivers (i.e. year-end energy versus gas spark spreads) and valuation changes from the prior year. We considered the disclosures in respect of derivative financial instruments. We concluded that the assumptions and methodologies adopted by management to calculate the fair value of financial instruments were reasonable.
Completeness of pension obligations **Refer to page 100 (Report of the Audit and Risk Committee), Note 1 (xx) (Statement of Accounting Policies) and note 22 to the financial statements** As set out in Note 22 to the financial statements, the regulations governing the "ESB Defined Benefit Scheme" stipulate the benefits that are to be provided and the contributions to be paid by both ESB and the contributing members. ESB has determined that its legal and/or constructive obligations in respect of contributions payable by it to the ESB Defined Benefit Scheme Fund are limited to the amounts provided for in the Scheme Rules, namely, the normal ongoing contributions and the balance of the €591.0 million contribution which was committed by ESB under the 2010 Pensions agreement. As set out in Note 22, the Defined Benefit Pension Scheme is not a typical "balance of costs" scheme where the employer is liable to pay the balance of contributions required to fund benefits. We focused on this area as there has been a high level of complexity and judgement involved in the interpretation of the Scheme rules and the determination of the related accounting and adequacy of disclosures in the financial statements.	We updated our understanding of ESB's assessment of their obligations in respect of the ESB. Defined Benefit Scheme and considered the continued appropriateness of the accounting treatment in the context of IAS 19 Employee Benefits. We made enquiries of senior management and internal legal counsel and read the board minutes for the year to confirm that there had been no significant changes made to pension arrangements since 31 December 2017. We received a representation from the Board that ESB do not intend to make any further payments to the Scheme other than the balance of the €591 million contribution which was committed by ESB under the 2010 Pensions agreement, and fixed continuing ongoing contributions of scheme members' salaries. ESB has informed us that the Defined Benefit Pension Scheme is not a typical "balance of costs" scheme where the employer is liable to pay the balance of contributions required to fund benefits. The accounting treatment in the financial statements reflects this position.

INDEPENDENT AUDITOR'S REPORT TO STOCKHOLDERS OF ELECTRICITY SUPPLY BOARD (ESB) (continued)

Key audit matter	How our audit addressed the key audit matter
Revenue Recognition - unbilled Electric Ireland revenue **Note 1 (iii) (b) (Statement of Accounting Policies) and note 16 to the financial statements** Unbilled revenue is the revenue from energy supplied to the customer between the date of their last bill and the year end date, which requires estimation. The accuracy of unbilled revenue is subject to estimation uncertainty, covering estimated volumes consumed by customers up to the year end date. In determining the unbilled revenue accrual volumes are estimated by reference to electricity volume purchases and other assumptions and there is complexity and estimates involved in determining the unbilled revenue in Electric Ireland at year end. In Electric Ireland, given the size of the customer base, estimates are also used in determining the values attributable to these volumes. We focused on this area given there is complexity and estimates involved in determining the unbilled revenue at year end.	We assessed the IT general controls, system application configuration and the business process controls in relation to revenue estimation and billing systems. We evaluated the integrity of the model used by the Group in calculating unbilled revenue. We challenged the appropriateness of the estimates used in the model by reference to historical and current data and current pricing. Our work included reconciling certain relevant inputs to the model to the underlying source data. We also considered the outturn from retrospective reviews of previous estimates made in comparison to actual billing data and considered other information as part of our consideration of the Group's estimation techniques. We concluded that the assumptions and methodologies adopted by management to calculate the unbilled revenue at the year end were reasonable.

How we tailored the audit scope
The Group is structured across four key reportable segments and the head office function. We determined that there are five reporting components, four in the Republic of Ireland and one in Northern Ireland.

We tailored the scope of our audit to ensure that we performed enough work to be able to give an opinion on the financial statements as a whole, taking into account the structure of the Group, the accounting processes and controls, and the industry in which the Group operates.

Our audit work covered in excess of 90% of Group revenues, profit before taxation and exceptional items, total assets and total liabilities.

All of the required audit work in respect of the four reporting components in the Republic of Ireland was performed by the Group team.

Under instruction from the Group team, our network firm in Northern Ireland performed an audit of the NIE Networks segment. We determined the level of involvement we needed to have in their audit work to be able to conclude whether sufficient appropriate audit evidence had been obtained as a basis for our opinion on the Group financial statements as a whole. We had regular communications and discussions with our Northern Ireland team throughout the audit process. We received a detailed memorandum of examination on work performed and relevant findings in addition to an audit report which supplemented our understanding of the segment.

Materiality
The scope of our audit was influenced by our application of materiality. We set certain quantitative thresholds for materiality. These, together with qualitative considerations, helped us to determine the scope of our audit and the nature, timing and extent of our audit procedures on the individual financial statement line items and disclosures and in evaluating the effect of misstatements, both individually and in aggregate on the financial statements as a whole.

Based on our professional judgement, we determined materiality for the financial statements as a whole as follows:

	Group financial statements	Parent financial statements
Overall materiality	€11 million (2017: €13 million)	€11 million (2017: €13 million)
How we determined it	c. 5% of profit before tax and exceptional items.	c. 5% of Group profit before tax and exceptional items.
Rationale for benchmark applied	We consider that profit before tax and exceptional items is an appropriate benchmark as the Group is profit orientated and the exceptional items are significant non-recurring items which are not reflective of the Group's trading activity.	Based on materiality applied to the Group financial statements and the level of trading activity in the Parent, we considered it appropriate to apply Group materiality to the audit of the Parent financial statements, which is below the materiality level we would apply to the Parent on a standalone basis.

INDEPENDENT AUDITOR'S REPORT TO STOCKHOLDERS OF ELECTRICITY SUPPLY BOARD (ESB) (continued)

We agreed with the Audit and Risk Committee that we would report to them misstatements identified during our audit above €500,000 (2017: €500,000) in respect of the Group and Parent audit as well as misstatements below that amount that, in our view, warranted reporting for qualitative reasons.

Going concern
In accordance with ISAs (Ireland) we report as follows:

Reporting obligation	Outcome
We are required to report if we have anything material to add or draw attention to in respect of the Board members' statement in the financial statements about whether the Board members considered it appropriate to adopt the going concern basis of accounting in preparing the financial statements and the Board members' identification of any material uncertainties to the Group's or the Parent's ability to continue as a going concern over a period of at least twelve months from the date of approval of the financial statements.	We have nothing material to add or to draw attention to. However, because not all future events or conditions can be predicted, this statement is not a guarantee as to the Group's or the Parent's ability to continue as a going concern.

REPORTING ON OTHER INFORMATION

The other information comprises all of the information in the Annual Report other than the financial statements and our auditors' report thereon. The Board members are responsible for the other information. Our opinion on the financial statements does not cover the other information and, accordingly, we do not express an audit opinion or, except to the extent otherwise explicitly stated in this report any form of assurance thereon.

In connection with our audit of the financial statements, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the financial statements or our knowledge obtained in the audit, or otherwise appears to be materially misstated. If we identify an apparent material inconsistency or material misstatement, we are required to perform procedures to conclude whether there is a material misstatement of the financial statements or a material misstatement of the other information. If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report based on these responsibilities.

With respect to the Board Members' Report, we also considered whether the disclosures required by the Regulations of ESB have been included.

Based on the responsibilities described above and our work undertaken in the course of the audit, ISAs (Ireland) and the Companies Act 2014 (CA14), which is made applicable to the audit of the financial statements of ESB by the Regulations of ESB adopted pursuant to the Electricity Supply Acts 1927 to 2004, require us to also report certain opinions and matters as described below (required by ISAs (Ireland) unless otherwise stated).

Board Members' Report

- In our opinion, based on the work undertaken in the course of the audit, the information given in the Board Members' Report for the year ended 31 December 2018 is consistent with the financial statements and has been prepared in accordance with the applicable legal requirements. (CA14)
- Based on our knowledge and understanding of the Group and Parent and their environment obtained in the course of the audit, we did not identify any material misstatements in the Board Members' Report. (CA14)

Code of Practice for the Governance of State Bodies (the "Code")

Under the Code of Practice for the Governance of State Bodies (the "Code") we are required to report to you if the statement regarding the system of internal control included in the Board Governance Report on pages 90 to 97 does not reflect the Group's compliance with paragraph 1.9(iv) of the Code or if it is not consistent with the information of which we are aware from our audit work on the financial statements. We have nothing to report in respect of this responsibility.

The Board members' assessment of the prospects of the Group and of the principal risks that would threaten the solvency or liquidity of the Group

As a result of the Board members' voluntary reporting on how they have applied the UK Corporate Governance Code (the "UK Code"), under ISAs (Ireland) we are required to report to you if we have anything material to add or to draw attention to regarding:

- The Board members' confirmation on page 95 of the Annual Report that they have carried out a robust assessment of the principal risks facing the Group, including those that would threaten its business model, future performance, solvency or liquidity.
- The disclosures in the Annual Report that describe those risks and explain how they are being managed or mitigated.
- The Board members' explanation on pages 96 to 97 of the Annual Report as to how they have assessed the prospects of the Group, over what period they have done so and why they consider that period to be appropriate, and their statement as to whether they have a reasonable expectation that the Group will be able to continue in operation and meet its liabilities as they fall due over the period of their assessment, including any related disclosures drawing attention to any necessary qualifications or assumptions.

INDEPENDENT AUDITOR'S REPORT TO STOCKHOLDERS OF ELECTRICITY SUPPLY BOARD (ESB) (continued)

Other UK Code provisions

As a result of the Board members' voluntary reporting on how they have applied the UK Code, we are required to report to you if, in our opinion:

- The statement given by the Board members' on page 113 that they consider the Annual Report taken as a whole to be fair, balanced and understandable and provides the information necessary for the members to assess the Group's and Parent's position and performance, business model and strategy is materially inconsistent with our knowledge of the Group and Parent obtained in the course of performing our audit.
- The section of the Annual Report on page 99 describing the work of the Audit and Risk Committee does not appropriately address matters communicated by us to the Audit and Risk Committee.

We have nothing to report in respect of this responsibility.

RESPONSIBILITIES FOR THE FINANCIAL STATEMENTS AND THE AUDIT

Responsibilities of the Board members for the financial statements
As explained more fully in the Statement of Board Members' Responsibilities set out on page 113, the Board members are responsible for the preparation of the financial statements in accordance with the applicable framework and for being satisfied that they give a true and fair view.

The Board members are also responsible for such internal control as they determine is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, the Board members are responsible for assessing the Group's and the Parent's ability to continue as a going concern, disclosing as applicable, matters related to going concern and using the going concern basis of accounting unless the Board members either intend to liquidate the Group or the Parent or to cease operations, or have no realistic alternative but to do so.

Auditors' responsibilities for the audit of the financial statements
Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditors' report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with ISAs (Ireland) will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

A further description of our responsibilities for the audit of the financial statements is located on the IAASA website at:
https://www.iaasa.ie/getmedia/b2389013-1cf6-458b-9b8f-a98202dc9c3a/Description_of_auditors_responsibilities_for_audit.pdf
This description forms part of our auditors' report.

Use of this report
This report, including the opinions, has been prepared for and only for the Stockholders of ESB as a body in accordance with section 391 of the Companies Act 2014, made applicable to ESB by the Regulations adopted pursuant to the Electricity Supply Acts 1927 to 2004, and for no other purpose. We do not, in giving these opinions, accept or assume responsibility for any other purpose or to any other person to whom this report is shown or into whose hands it may come save where expressly agreed by our prior consent in writing.

INDEPENDENT AUDITOR'S REPORT TO STOCKHOLDERS OF ELECTRICITY SUPPLY BOARD (ESB) (continued)

OTHER REQUIRED REPORTING

Companies Act 2014 opinions on other matters

- We have obtained all the information and explanations which we consider necessary for the purposes of our audit.
- In our opinion the accounting records of the Parent were sufficient to permit the Parent financial statements to be readily and properly audited.
- The Parent Balance Sheet is in agreement with the accounting records.

Companies Act 2014 exception reporting

Board Members' remuneration and transactions

Under the Companies Act 2014 we are required to report to you if, in our opinion, the disclosures of board members' remuneration and transactions specified by sections 305 to 312 of that Act have not been made. We have no exceptions to report arising from this responsibility.

Mary Cleary

Mary Cleary
For and on behalf of PricewaterhouseCoopers
Chartered Accountants and Statutory Audit Firm
Dublin

1 March 2019

GROUP INCOME STATEMENT

For the year ended 31 December 2018

	Notes	2018 Excluding exceptional items € '000	2018 Exceptional items note 5 € '000	2018 Total € '000	2017 Excluding exceptional items € '000	2017 Exceptional items note 5 € '000	2017 Total € '000
Revenue	3	**3,431,820**	**-**	**3,431,820**	3,229,022	-	3,229,022
Other operating income (net)	6	**1,428**	**-**	**1,428**	32,560	-	32,560
Net impairment losses on financial assets	5/14/16	**(10,403)**	**(17,500)**	**(27,903)**	(8,259)	-	(8,259)
Operating costs	5/7	**(2,967,757)**	**(122,166)**	**(3,089,923)**	(2,763,760)	(275,579)	(3,039,339)
Operating profit		**455,088**	**(139,666)**	**315,422**	489,563	(275,579)	213,984
Net interest on borrowings	8	**(177,673)**	**-**	**(177,673)**	(188,102)	-	(188,102)
Financing charges	8	**(19,384)**	**-**	**(19,384)**	(29,206)	-	(29,206)
Fair value movement on financial instruments	8	**(29,746)**	**-**	**(29,746)**	(4,910)	-	(4,910)
Finance income	8	**3,678**	**-**	**3,678**	6,595	-	6,595
Net finance cost		**(223,125)**	**-**	**(223,125)**	(215,623)	-	(215,623)
Share of equity accounted investees loss, net of tax	14	**(14,023)**	**-**	**(14,023)**	(8,293)	-	(8,293)
Profit / (loss) before taxation		**217,940**	**(139,666)**	**78,274**	265,647	(275,579)	(9,932)
Income tax (expense) / credit	19	**(36,563)**	**18,526**	**(18,037)**	(56,673)	34,695	(21,978)
Profit / (loss) after taxation		**181,377**	**(121,140)**	**60,237**	208,974	(240,884)	(31,910)
Attributable to:							
Equity holders of the Parent		**183,284**	**(121,140)**	**62,144**	209,011	(240,884)	(31,873)
Non-controlling interest		**(1,907)**	-	**(1,907)**	(37)	-	(37)
Profit / (loss) for the financial year		**181,377**	**(121,140)**	**60,237**	208,974	(240,884)	(31,910)

Notes 1 to 34 form an integral part of these financial statements.

01 STRATEGY AND PERFORMANCE
02 CORPORATE GOVERNANCE
03 FINANCIAL STATEMENTS

GROUP STATEMENT OF COMPREHENSIVE INCOME

For the year ended 31 December 2018

	2018 € '000	2017 € '000
Profit / (loss) for the financial year	**60,237**	(31,910)
Items that will not be reclassified subsequently to profit or loss:		
NIE Networks pension scheme actuarial gains (Note 22(c))	**19,190**	9,347
Tax on items that will not be reclassified to profit or loss	**(3,249)**	(1,589)
	15,941	7,758
Items that are or may be reclassified subsequently to profit or loss:		
Effective hedge of a net investment in foreign subsidiary	**75**	413
Translation differences on consolidation of foreign subsidiaries	**(1,459)**	(3,735)
Fair value gains / (losses) on cash flow hedges	**38,622**	(39,262)
Fair value gains / (losses) on cash flow hedges in equity accounted investees	**2,161**	(22)
Transferred to income statement on cash flow hedges	**(89,196)**	(35,158)
Transferred to income statement on cash flow hedges in equity accounted investees	**3,130**	-
Tax on items that are or may be reclassified subsequently to profit or loss	**(4,672)**	4,978
Tax on items that are or may be reclassified subsequently to profit or loss for equity accounted investees	**(424)**	35
Tax on items transferred to income statement	**5,673**	3,930
	(46,090)	(68,821)
Other comprehensive expense for the financial year, net of tax	**(30,149)**	(61,063)
Total comprehensive income / (expense) for the financial year	**30,088**	(92,973)
Attributable to:		
Equity holders of the Parent	**31,995**	(92,936)
Non-controlling interest	**(1,907)**	(37)
Total comprehensive income / (expense) for the financial year	**30,088**	(92,973)

GROUP BALANCE SHEET

As at 31 December 2018

	Notes	2018 € '000	2017 € '000
ASSETS			
Non-current assets			
Property, plant and equipment	11	**10,755,177**	10,004,980
Intangible assets	12	**401,804**	275,652
Goodwill	13	**169,643**	171,039
Investments in equity accounted investees	14	**189,787**	68,334
Financial asset investments at fair value through profit or loss	14	**10,452**	22,165
Trade and other receivables	16	**47,183**	74,936
Derivative financial instruments	21	**68,582**	85,077
Deferred tax assets	19	**176,257**	178,660
Total non-current assets		**11,818,885**	10,880,843
Current assets			
Inventories	15	**133,986**	121,985
Derivative financial instruments	21	**156,534**	117,367
Current tax asset		**23,312**	9,185
Trade and other receivables	16	**942,291**	783,981
Cash and cash equivalents	17	**229,073**	380,405
Total current assets		**1,485,196**	1,412,923
Total assets		**13,304,081**	12,293,766
EQUITY			
Capital stock	18	**1,970,782**	1,975,182
Capital redemption reserve		**9,100**	4,700
Translation reserve		**(4,776)**	2,740
Cash flow hedging reserve		**20,684**	58,620
Other reserves		**(223,266)**	(242,604)
Retained earnings		**1,877,448**	1,917,619
Equity attributable to equity holders of the Parent		**3,649,972**	3,716,257
Non-controlling interest		**(5,913)**	(3,738)
Total equity		**3,644,059**	3,712,519
LIABILITIES			
Non-current liabilities			
Borrowings and other debt	20	**4,537,692**	4,369,705
Liability – ESB pension scheme	23	**99,426**	100,190
Liability – NIE Networks pension scheme	22	**110,807**	143,056
Employee related liabilities	23	**40,195**	46,107
Deferred income	25	**1,192,713**	460,975
Provisions	26	**336,295**	305,525
Deferred tax liabilities	19	**648,145**	677,853
Derivative financial instruments	21	**625,182**	637,825
Total non-current liabilities		**7,590,455**	6,741,236
Current liabilities			
Borrowings and other debt	20	**606,275**	388,073
Liability – ESB pension scheme	23	**295,811**	294,130
Employee related liabilities	23	**68,250**	65,881
Trade and other payables	24	**789,102**	797,822
Deferred income	25	**83,356**	49,142
Provisions	26	**118,471**	108,435
Derivative financial instruments	21	**108,302**	136,528
Total current liabilities		**2,069,567**	1,840,011
Total liabilities		**9,660,022**	8,581,247
Total equity and liabilities		**13,304,081**	12,293,766

Ellvena Graham OBE, Chairman

Pat O'Doherty, Chief Executive

Pat Fenlon, Executive Director, Group Finance and Commercial

PARENT BALANCE SHEET

As at 31 December 2018

	Notes	2018 € '000	2017 € '000
ASSETS			
Non-current assets			
Property, plant and equipment	11	**7,201,022**	6,826,015
Intangible assets	12	**326,810**	219,559
Investments in equity accounted investees	14	**106,500**	100,000
Investments in subsidiary undertakings	14	**61,782**	61,782
Derivative financial instruments	21	**16,304**	29,604
Deferred tax assets	19	**80,777**	74,574
Total non-current assets		**7,793,195**	7,311,534
Current assets			
Inventories	15	**71,582**	76,964
Derivative financial instruments	21	**107,719**	58,594
Current tax asset		**18,011**	9,362
Trade and other receivables	16	**3,398,573**	2,666,001
Cash and cash equivalents	17	**122,276**	208,499
Total current assets		**3,718,161**	3,019,420
Total assets		**11,511,356**	10,330,954
EQUITY			
Capital stock	18	**1,970,782**	1,975,182
Capital redemption reserve		**9,100**	4,700
Cash flow hedging and other reserves		**(25,178)**	(11,954)
Retained earnings		**1,451,497**	1,397,519
Equity attributable to equity holders of the Parent		**3,406,201**	3,365,447
LIABILITIES			
Non-current liabilities			
Borrowings and other debt	20	**959,345**	1,160,208
Liability – ESB pension scheme	23	**99,426**	100,190
Employee related liabilities	23	**39,383**	45,936
Deferred income	25	**804,932**	433,892
Provisions	26	**271,035**	267,787
Deferred tax liabilities	19	**434,454**	444,160
Derivative financial instruments	21	**29,993**	40,757
Total non-current liabilities		**2,638,568**	2,492,930
Current liabilities			
Borrowings and other debt	20	**390,276**	170,370
Liability – ESB pension scheme	23	**295,811**	294,130
Employee related liabilities	23	**58,165**	54,759
Trade and other payables	24	**4,502,058**	3,799,315
Deferred income	25	**53,099**	35,719
Provisions	26	**83,511**	79,394
Derivative financial instruments	21	**83,667**	38,890
Total current liabilities		**5,466,587**	4,472,577
Total liabilities		**8,105,155**	6,965,507
Total equity and liabilities		**11,511,356**	10,330,954

Parent profit after tax excluding exceptional items for the financial year ended 31 December 2018 amounted to €238.7 million (2017: profit of €302.5 million). Parent profit after tax including exceptional items for the financial year ended 31 December 2018 amounted to €151.4 million (2017: loss of €261.1 million).

Ellvena Graham OBE, Chairman

Pat O'Doherty, Chief Executive

Pat Fenlon, Executive Director, Group Finance and Commercial

GROUP STATEMENT OF CHANGES IN EQUITY

As at 31 December 2018

Reconciliation of changes in equity	Capital stock € '000	Translation reserve € '000	Capital redemption reserve € '000	Cash flow hedging reserve[1] € '000	Other reserves[2] € '000	Retained earnings € '000	Total € '000	Non-controlling interest € '000	**Total equity € '000**
Balance at 1 January 2017	1,979,882	6,062	-	124,119	(220,322)	2,037,459	3,927,200	(3,531)	3,923,669
Total comprehensive income / (expense) for the year									
Loss for the financial year	-	-	-	-	-	(31,873)	(31,873)	(37)	(31,910)
NIE Networks pension scheme actuarial gain	-	-	-	-	9,347	-	9,347	-	9,347
Reserves on acquisition of Synergen Power Ltd.	-	-	-	-	(33,258)	33,258	-	-	-
Foreign currency translation adjustments	-	(3,322)	-	-	-	-	(3,322)	-	(3,322)
Cash flow hedges:									
- Net fair value losses	-	-	-	(39,262)	-	-	(39,262)	-	(39,262)
- Transfers to income statement									
- Finance cost (interest)	-	-	-	7,844	-	-	7,844	-	7,844
- Finance cost (foreign translation movements)	-	-	-	68,854	-	-	68,854	-	68,854
- Other operating expenses	-	-	-	(111,856)	-	-	(111,856)	-	(111,856)
- Fair value losses for hedges in equity accounted investees		-	-	(22)	-	-	(22)	-	(22)
Tax on items taken directly to statement of comprehensive income (OCI)	-	-	-	4,978	(1,589)	-	3,389	-	3,389
Tax on items transferred to income statement	-	-	-	3,930	-	-	3,930	-	3,930
Tax on items taken directly to OCI for equity accounted investees	-	-	-	35	-	-	35	-	35
Total comprehensive income / (expense) for the year	-	(3,322)	-	(65,499)	(25,500)	1,385	(92,936)	(37)	(92,973)
Transactions with owners recognised directly in equity									
Dividends	-	-	-	-	-	(115,624)	(115,624)	(170)	(115,794)
Repurchase of own shares[3]	(4,700)	-	4,700	-	-	(5,601)	(5,601)	-	(5,601)
ESOP repurchase provision[3]	-	-	-	-	3,218	-	3,218	-	3,218
Balance at 31 December 2017	1,975,182	2,740	4,700	58,620	(242,604)	1,917,619	3,716,257	(3,738)	3,712,519
Balance at 1 January 2018	**1,975,182**	**2,740**	**4,700**	**58,620**	**(242,604)**	**1,917,619**	**3,716,257**	**(3,738)**	**3,712,519**
Change in accounting policy - IFRS 9 (see note 1(iii))	-	-	-	-	-	(62,780)	(62,780)	-	**(62,780)**
Restated total equity at the beginning of the year	**1,975,182**	**2,740**	**4,700**	**58,620**	**(242,604)**	**1,854,839**	**3,653,477**	**(3,738)**	**3,649,739**
Total comprehensive income / (expense) for the year									
Profit for the financial year	-	-	-	-	-	62,144	62,144	(1,907)	**60,237**
NIE Networks pension scheme actuarial gain	-	-	-	-	19,190	-	19,190	-	**19,190**
Foreign currency translation adjustments	-	(6,878)	-	5,494	-	-	(1,384)	-	**(1,384)**
Cash flow hedges:									
- Net fair value gains	-	-	-	38,622	-	-	38,622	-	**38,622**
- Transfers to income statement									
- Finance cost (interest)	-	(638)	-	28,996	(638)	-	27,720	-	**27,720**
- Finance cost (foreign translation movements)	-	-	-	(23,307)	-	-	(23,307)	-	**(23,307)**
- Other operating expenses	-	-	-	(93,609)	-	-	(93,609)	-	**(93,609)**
- Fair value gains for hedges in equity accounted investees		-	-	2,161	-	-	2,161	-	**2,161**
Transfers to income statement for equity accounted investees	-	-	-	3,130	-	-	3,130	-	**3,130**
Tax on items taken directly to OCI	-	-	-	(4,672)	(3,249)	-	(7,921)	-	**(7,921)**
Tax on items transferred to income statement	-	-	-	5,673	-	-	5,673	-	**5,673**
Tax on items taken directly to OCI for equity accounted investees	-	-	-	(424)	-	-	(424)	-	**(424)**
Total comprehensive income / (expense) for the year	-	**(7,516)**	-	**(37,936)**	**15,303**	**62,144**	**31,995**	**(1,907)**	**30,088**
Transactions with owners recognised directly in equity									
Dividends	-	-	-	-	-	(34,647)	(34,647)	(268)	**(34,915)**
Repurchase of own shares[3]	(4,400)	-	4,400	-	-	(4,888)	(4,888)	-	**(4,888)**
ESOP repurchase provision[3]	-	-	-	-	4,035	-	4,035	-	**4,035**
Balance at 31 December 2018	**1,970,782**	**(4,776)**	**9,100**	**20,684**	**(223,266)**	**1,877,448**	**3,649,972**	**(5,913)**	**3,644,059**

[1] Included within the cash flow hedge reserve at 31 December 2018 are amounts of €0.5 million relating to currency basis risk.

[2] Other reserves include (i) other reserves relating to the Northern Ireland Electricity Networks Limited (NIE Networks) pension scheme of (€205.0) million (2017: (€220.9) million), (ii) a non-distributable reserve of (€5.0) million which was created on the sale of the Group's share in Ocean Communications Limited in 2001; and (iii) an ESOP repurchase provision which relates to the amount that ESB has committed to date to purchase from the ESOP internal market (€11.8) million (2017: (€15.9 million). Refer to note 18 for further details on other reserves and note 31 for information on the ESOP repurchase.

[3] Refer to note 31 for information on the ESOP repurchase.

PARENT STATEMENT OF CHANGES IN EQUITY

As at 31 December 2018

Reconciliation of changes in equity	Capital stock € '000	Capital redemption reserve € '000	Cash flow hedging and other reserves € '000	Retained earnings € '000	**Total € '000**
Balance at 1 January 2017	1,979,882	-	28,959	1,774,267	3,783,108
Total comprehensive income / (expense) for the year					
Loss for the financial year	-	-	-	(261,124)	(261,124)
Cash flow hedges:					
- Net fair value losses	-	-	(56,180)	-	(56,180)
- Transfers to income statement					
- Finance cost (interest)	-	-	(1,881)	-	(1,881)
- Finance cost (foreign translation movements)	-	-	68,854	-	68,854
- Other operating expenses	-	-	(61,228)	-	(61,228)
Tax on items taken directly to statement of comprehensive income (OCI)	-	-	7,022	-	7,022
Tax on items transferred to income statement	-	-	(718)	-	(718)
Total comprehensive expense for the year	-	-	(44,131)	(261,124)	(305,255)
Transactions with owners recognised directly in equity					
Dividends	-	-	-	(115,624)	(115,624)
Repurchase of own shares[1]	(4,700)	4,700	-	-	-
ESOP repurchase provision[1]	-	-	3,218	-	3,218
Balance at 31 December 2017	1,975,182	4,700	(11,954)	1,397,519	3,365,447
Balance at 1 January 2018	**1,975,182**	**4,700**	**(11,954)**	**1,397,519**	**3,365,447**
Change in accounting policy - IFRS 9 (see note 1 (iii))	-	-	-	(62,780)	**(62,780)**
Restated total equity at the beginning of the year	**1,975,182**	**4,700**	**(11,954)**	**1,334,739**	**3,302,667**
Total comprehensive income / (expense) for the year					
Profit for the financial year	-	-	-	151,405	**151,405**
Cash flow hedges:					
- Net fair value losses	-	-	42,746	-	**42,746**
- Transfers to income statement					
- Finance cost (interest)	-	-	(3,518)	-	**(3,518)**
- Finance cost (foreign translation movements)	-	-	(23,307)	-	**(23,307)**
- Other operating expenses	-	-	(31,461)	-	**(31,461)**
Tax on items taken directly to statement of comprehensive income (OCI)	-	-	(5,343)	-	**(5,343)**
Tax on items transferred to income statement	-	-	3,624	-	**3,624**
Total comprehensive (expense) / income for the year	-	-	**(17,259)**	**151,405**	**134,146**
Transactions with owners recognised directly in equity					
Dividends	-	-	-	(34,647)	**(34,647)**
Repurchase of own shares[1]	(4,400)	4,400	-	-	**-**
ESOP repurchase provision[1]	-	-	4,035	-	**4,035**
Balance at 31 December 2018	**1,970,782**	**9,100**	**(25,178)**	**1,451,497**	**3,406,201**

[1] Refer to note 31 for information on the ESOP repurchase.

GROUP CASH FLOW STATEMENT

For the year ended 31 December 2018

	Notes	**2018 € '000**	2017 € '000
Cash flows from operating activities			
Profit / (loss) after taxation		**60,237**	(31,910)
Adjustments for:			
Depreciation and amortisation	7	**779,396**	815,690
Amortisation of supply contributions and other deferred income	25	**(111,226)**	(70,462)
Net emissions movements		**(48,506)**	37,101
Profit on disposal of non-current assets	6	**(8,616)**	(1,381)
Profit on disposal of subsidiaries and equity accounted investees	6	**-**	(21,998)
Profit on disposal of investments	6	**-**	(2,122)
Write-off of intangible assets	12	**-**	2,946
Net finance cost	8	**223,125**	215,623
Impact of fair value adjustments in operating costs		**18,899**	38,947
Losses from equity accounted investees	14	**14,023**	8,293
Income tax expense	19	**18,037**	21,978
Gain on Castlepook Power DAC becoming a 100% subsidiary undertaking		**(4,672)**	-
Dividend received	6	**-**	(3,026)
Impairment charge	5/7	**145,033**	279,356
Operating cash flows before changes in working capital and provisions		**1,085,730**	1,289,035
Charge in relation to provisions		**17,157**	9,192
Charge in relation to employee related liabilities		**81,311**	38,159
Utilisation of provisions		**(16,000)**	(9,739)
Payments in respect of employee related liabilities		**(113,598)**	(238,788)
Deferred income received		**106,362**	42,182
(Increase) / decrease in trade and other receivables		**(32,590)**	42,050
Increase in inventories		**(12,002)**	(19,234)
Decrease in trade and other payables		**(11,543)**	(14,634)
Cash generated from operations		**1,104,827**	1,138,223
Current tax paid		**(50,313)**	(17,786)
Financing costs paid		**(213,996)**	(203,813)
Net cash inflow from operating activities		**840,518**	916,624
Cash flows from investing activities			
Purchase of property, plant and equipment		**(804,725)**	(734,494)
Purchase of intangible assets		**(102,280)**	(54,020)
Proceeds from sale of non-current assets		**17,085**	3,056
Proceeds from sale of investments		**987**	4,390
Proceeds from sale of subsidiaries		**-**	23,189
Amounts advanced to equity accounted investees as shareholder loans		**(81,677)**	(52,250)
Amounts repaid by equity accounted investees		**9,724**	-
Dividends received from associate undertaking		**-**	3,776
Net cash outflow on acquisition of Castlepook Power DAC		**(11,759)**	-
Purchase of financial assets and equity accounted investees		**(128,989)**	(2,565)
Interest received		**3,678**	682
Net cash outflow from investing activities		**(1,097,956)**	(808,236)
Dividends paid	18	**(34,915)**	(115,794)
Repayments of bonds and term debt facilities		**(823,195)**	(461,496)
Proceeds from the issue of bonds		**894,455**	509,511
Repurchase of ESOP shares		**(4,888)**	(5,601)
Proceeds on the drawdown of revolving credit facility and other borrowings		**170,433**	-
Payments on inflation linked interest rate swaps		**(95,614)**	(16,783)
Net cash inflow / (outflow) from financing activities		**106,276**	(90,163)
Net (decrease) / increase in cash and cash equivalents		**(151,162)**	18,225
Cash and cash equivalents at 1 January	17	**380,405**	363,624
Effect of exchange rate fluctuations on cash held		**(170)**	(1,444)
Cash and cash equivalents at 31 December	17	**229,073**	380,405

PARENT CASH FLOW STATEMENT

For the year ended 31 December 2018

	Notes	2018 € '000	2017 € '000
Cash flows from operating activities			
Profit / (loss) after taxation		**151,405**	(261,124)
Adjustments for:			
Depreciation and amortisation		**509,991**	556,311
Amortisation of supply contributions and other deferred income	25	**(49,347)**	(35,002)
Net emissions movements		**(40,901)**	27,051
Profit on disposal of non-current assets		**(601)**	(562)
Net finance cost		**62,815**	97,091
Impact of fair value movement on financial instruments in operating costs		**11,694**	6,763
Dividend received from subsidiary undertakings		**(9,060)**	(9,380)
Income tax expense		**29,568**	3,811
Provision for amounts due from related undertakings		**34,377**	330,871
Impairment charge		**87,276**	236,572
Operating cash flows before changes in working capital and provisions		**787,217**	952,402
Charge in relation to provisions		**5,142**	8,678
Charge in relation to employee related liabilities	23	**49,764**	16,292
Utilisation of provisions		**(15,028)**	(9,148)
Payments in respect of employee related liabilities	23	**(66,069)**	(203,407)
Deferred income received		**12,455**	69
(Increase) / decrease in trade and other receivables		**(266,051)**	89,690
Decrease / (increase) in inventories		**5,382**	(13,045)
Decrease in trade and other payables		**176,088**	33,934
Cash generated from operations		**688,900**	875,465
Current tax paid		**(44,244)**	(22,276)
Interest paid		**(117,674)**	(127,873)
Net cash inflow from operating activities		**526,982**	725,316
Cash flows from investing activities			
Purchase of property, plant and equipment		**(524,527)**	(458,402)
Purchase of intangible assets		**(90,781)**	(48,866)
Proceeds from the sale of non-current assets		**4,740**	918
Amounts advanced to equity accounted investees as shareholder loans		**(45,000)**	(48,000)
Amounts advanced to subsidary undertakings		**(469,284)**	-
Interest received		**44,389**	41,271
Dividends received from subsidiary undertakings		**9,060**	9,380
Net cash outflow from investing activities		**(1,071,403)**	(503,699)
Cash flows from financing activities			
Dividends paid	18	**(34,647)**	(115,624)
Repayments of term debt facilities		**(177,155)**	(133,485)
Proceeds from borrowings		**100,000**	-
Proceeds on the drawdown of revolving credit facility		**70,000**	-
Proceeds from loans from subsidaries		**500,000**	-
Net cash inflow / (outflow) from financing activities		**458,198**	(249,109)
Net decrease in cash and cash equivalents		**(86,223)**	(27,492)
Cash and cash equivalents at 1 January	17	**208,499**	235,991
Cash and cash equivalents at 31 December	17	**122,276**	208,499

NOTES TO THE FINANCIAL STATEMENTS

1. STATEMENT OF ACCOUNTING POLICIES

(I) BASIS OF PREPARATION

Electricity Supply Board "ESB" is a statutory corporation established under the Electricity (Supply) Act, 1927 and is domiciled in Ireland. The consolidated financial statements of ESB as at and for the year ended 31 December 2018 comprise the Parent and its subsidiaries (together referred to as "ESB" or "the Group") and the Group's interests in associates and jointly controlled entities.

The Parent and consolidated financial statements are prepared under IFRS (International Financial Reporting Standards) as adopted by the EU (EU IFRS) as applied in accordance with the Companies Act 2014. The Companies Act 2014 provide a Parent entity that presents its individual financial statements together with its consolidated financial statements with an exemption from publishing the Parent income statement and statement of comprehensive income which forms part of the Parent financial statements prepared and approved in accordance with the Act. The financial statements of the Parent and Group have been prepared in accordance with the EU IFRS standards and IFRIC (International Financial Reporting Interpretations Committee) interpretations issued and effective for accounting periods ending on or before 31 December 2018. The Parent and consolidated financial statements have been prepared on the historical cost basis except for derivative financial instruments and certain financial asset investments which are measured at fair value.

These financial statements are prepared in euro, and except where otherwise stated, all financial information presented has been rounded to the nearest thousand. The preparation of financial statements in conformity with EU IFRS requires management to make judgements, estimates and assumptions that affect the application of policies and reported amounts of assets and liabilities, income and expenses. These estimates and associated assumptions are based on historical experience and various other factors that are believed to be reasonable under the circumstances.

The estimates and underlying assumptions are reviewed on an ongoing basis. Judgements made by management in the application of EU IFRS that have a significant effect on the financial statements and estimates with a significant risk of causing material adjustment in the next year are discussed in note 30 to the financial statements.

The policies set out below have been consistently applied to all years presented in these consolidated financial statements and have been applied consistently by all Group entities – with the exception of adoption of new standards as set at note 1 (iii).

The Group has considerable financial resources and the Board believes that the Group is well placed to manage its risks successfully. After making appropriate enquiries the Board is satisfied that ESB has adequate resources to continue in operational existence for at least twelve months from the date of approval of the financial statements. The financial statements are prepared on the going concern basis of accounting. Further details of the Group's liquidity position are provided in note 20 of the financial statements.

(II) BASIS OF CONSOLIDATION

The Group's financial statements consolidate the financial statements of the Parent and of all subsidiary undertakings together with the Group's share of the results and net assets of associates and joint ventures made up to 31 December 2018. The results of subsidiary undertakings acquired or disposed of in the year are included in the Group income statement from the date of acquisition or up to the date of disposal. ESB Parent has availed of the exemption in section 304(2) of the Companies Act 2014 not to present its individual income statement, statement of comprehensive income and related notes that form part of the approved Parent financial statements.

Accounting for business combinations

Business combinations are accounted for using the acquisition method as at the acquisition date, which is the date on which control is transferred to the Group.

Acquisitions on or after 1 January 2010

The Group account for business combinations under IFRS 3 Business Combinations, the Group measures goodwill at the acquisition date as:

· the fair value of the consideration transferred; plus

· the recognised amount of any non-controlling interests in the acquiree; plus if the business combination is achieved in stages, the fair value of the existing equity interest in the acquiree; less

· the net recognised amount (fair value) of the identifiable assets acquired and liabilities assumed.

When the excess is negative, a bargain purchase gain is recognised immediately in profit or loss.

Costs relating to the acquisition (other than those associated with the issue of debt or equity securities) that the Group incur in connection with a business combination are expensed as incurred.

Acquisitions between 1 January 2004 and 1 January 2010

For acquisitions between 1 January 2004 and 1 January 2010, goodwill represents the excess of the cost of the acquisition over the Group's interest in the recognised amount (fair value) of the identifiable assets, liabilities and contingent liabilities of the acquiree. When the goodwill excess was negative, a bargain purchase gain was recognised immediately in profit or loss. Transaction costs, other than those associated with the issue of debt or equity securities that the Group incurred in connection with business combinations were capitalised as part of the cost of the acquisition.

NOTES TO THE FINANCIAL STATEMENTS

1. STATEMENT OF ACCOUNTING POLICIES (continued)

(II) BASIS OF CONSOLIDATION (continued)

Acquisitions prior to 1 January 2004 (date of transition to IFRS)

As part of its transition to IFRS, the Group elected to restate only those business combinations that occurred on or after 1 January 2003 in accordance with policy elections made by the Group at the time. In respect of acquisitions prior to 1 January 2003, goodwill represents the amount recognised under the Group's previous accounting framework, Irish / UK GAAP.

IFRS 10 — Consolidated Financial Statements

The IFRS 10 control model focuses on whether the Group has power over an investee, exposure or rights to variable returns from its involvement with the investee and ability to use its power to affect those returns. In particular, IFRS 10 requires the Group to consolidate investees that it controls on the basis of de facto control.

In accordance with IFRS 10, the Group's assessment of control is performed on a continuous basis and the Group reassesses whether it controls an investee if facts and circumstances indicate that there are changes to one or more of the elements of the control model.

Subsidiaries

Subsidiaries are entities controlled by ESB (control exists when ESB is exposed to, or has rights to, variable returns from its involvement with the entity and has the ability to affect those returns through its power over the entity). The financial statements of the subsidiaries are included in the consolidated financial statements from the date that control commences until the date that control ceases. In the Parent financial statements, investments in subsidiaries are carried at cost less any impairment charges.

IFRS 11 - Joint arrangements

Under IFRS 11, the Group classifies its interests in joint arrangements as either joint operations or joint ventures depending on the Group's rights to the assets and obligations for the liabilities of the arrangements. When making this assessment, the Group considers the structure and legal form of the arrangements, the contractual terms of the arrangement agreed by the parties and when relevant, other facts and circumstances.

Joint operations

Joint operations are those undertakings in which ESB is deemed to have joint control of the arrangement and has rights to the assets and obligations for the liabilities of the arrangement. Accordingly, the Company's share of assets, liabilities, revenues, expenses and other comprehensive income are recognised in the respective categories within the consolidated accounts.

Joint ventures

Joint venture undertakings (joint ventures) are those undertakings over which ESB exercises contractual control jointly with another party, whereby the Group has rights to net assets of the arrangement rather than rights to its assets and obligations for its liabilities.

Joint ventures are accounted for using the equity method of accounting. Under the equity method, the Group's share of the profits or losses after tax of joint ventures is included in the consolidated income statement after interest and financing charges. The Group's share of items of other comprehensive income is shown in the statement of comprehensive income.

The Group's interests in the net assets are included as investments in joint ventures on the face of the consolidated balance sheet at an amount representing the Group's share of the fair values of the net assets at acquisition plus goodwill, acquisition costs, the Group's share of post acquisition retained income and expenses less any impairment change. Net liabilities are only recognised to the extent that ESB has incurred legal or constructive obligations or made payments on behalf of joint ventures.

The amounts included in the consolidated financial statements in respect of post acquisition results of joint ventures are taken from their latest financial information made up to the Group's balance sheet date.

In the Parent financial statements, investments in joint ventures are carried at cost less any impairment charges.

The Group assesses if a change in the facts and circumstances requires reassessment of whether joint control still exists. The Group has evaluated its involvement in joint arrangements and has confirmed that these investments meet the criteria of joint ventures which continue to be accounted for using the equity method.

Associates

Entities other than joint arrangements and subsidiaries and over whose operating and financial policies the Group is in a position to exercise significant influence but not control or joint control, are accounted for as associates using the equity method and are included in the consolidated financial statements from the date on which significant influence is deemed to arise until the date on which such influence ceases to exist.

NOTES TO THE FINANCIAL STATEMENTS

1. STATEMENT OF ACCOUNTING POLICIES (continued)

(II) BASIS OF CONSOLIDATION (continued)

In the Parent financial statements, investments in associates are carried at cost less any impairment charges.

Transactions eliminated on consolidation

Intra-group balances and transactions, and any unrealised income and expenses arising from intra-group transactions, are eliminated in preparing the consolidated financial statements. Unrealised gains arising from transactions with equity accounted investees are eliminated against the investment to the extent of the Group's interest in the investee. Unrealised losses are eliminated in the same way as unrealised gains, but only to the extent that there is no evidence of impairment.

(III) NEW STANDARDS AND INTERPRETATIONS

A number of new or amended standards became applicable for the current reporting period. The Group changed its accounting policies as a result of adopting the following standards:
(a) IFRS 9 Financial Instruments; and
(b) IFRS 15 Revenue from Contracts with Customers

The impact of adoption of these standards and the new accounting policies following the adoption of these standards are disclosed in the note below along with the 2017 year end policies.

(a) IFRS 9 Financial Instruments

IFRS 9 replaces the provisions of IAS 39 that relate to the recognition, classification and measurement of financial assets and financial liabilities, derecognition of financial instruments, impairment of financial assets and hedge accounting.

Impact on the consolidated financial statements on the adoption of IFRS 9

The following tables summarise the impact, net of tax, of transition to IFRS 9 on the opening balance of Group and Parent's assets, liabilities and equity.

GROUP Balance sheet extract	Original carrying amount 31 December 2017 €'000	IFRS 9 transition impact €'000	New carrying amount 1 January 2018 €'000
Non-current asset			
Deferred tax asset	178,660	7,200	185,860
Current assets			
Tax asset	9,185	1,800	10,985
Equity			
Retained earnings	1,917,619	(62,780)	1,854,839
Non-current liabilities			
External Borrowings*	4,369,705	65,900	4,435,605
Current liabilities			
External Borrowings*	388,073	5,880	393,953

*** External Borrowings**

The Group refinanced bonds worth €500.0 million and €600.0 million in 2015 and 2016 respectively and these transactions are subject to retrospective adjustment. The Group has calculated a reduction to the opening reserves of €62.8 million, an increase of €7.2 million to deferred tax assets, an increase of €1.8 million to current tax assets and an increase to external borrowings on 1 January 2018 of €71.8 million which has been adjusted as at 1 January 2018.

NOTES TO THE FINANCIAL STATEMENTS

1. STATEMENT OF ACCOUNTING POLICIES (continued)

(III) NEW STANDARDS AND INTERPRETATIONS (continued)

(a) IFRS 9 Financial Instruments (continued)

PARENT Balance sheet extract	Original carrying amount 31 December 2017 €'000	IFRS 9 transition impact €'000	New carrying amount 1 January 2018 €'000
Current assets			
Trade and other receivables			
- Amounts due from subsidiary undertakings	2,284,311	9,000	2,293,311
Equity			
Retained earnings	1,397,519	(62,780)	1,334,739
Current liabilities			
Trade and other payables			
- Amounts owed to subsidiary undertakings	3,369,107	71,780	3,440,887

Classification and measurement

IFRS 9 largely retains the existing requirements in IAS 39 for the classification and measurement of financial liabilities other than as described in this note. The impact of IFRS 9 on the classification and measurement of financial assets is set out below.

The following accounting policies apply to the measurement of financial assets in the ESB Group's consolidated financial statements:

Financial assets at fair value through profit or loss (FVTPL) — These assets are subsequently measured at fair value. Net gains and losses, including any interest or dividend income, are recognised in profit or loss.

Financial assets at fair value through other comprehensive income (FVOCI) — These assets are subsequently measured at fair value. Net gains and losses are recognised in other comprehensive income.

Financial assets at amortised cost — These assets are subsequently measured at amortised cost using the effective interest method. The amortised cost is reduced by impairment losses. Interest income, foreign exchange gains and losses and impairment is recognised in profit or loss. Any gain or loss on derecognition is recognised in profit or loss.

The following table explains the original measurement categories under IAS 39 and the new measurement categories under IFRS 9 for each class of the Group and Parent's consolidated financial assets as at 1 January 2018. There is no impact on the Group or Parent's carrying value of the related assets or equity arising from classification and measurement under IFRS 9.

GROUP Financial assets	Note	Original classification under IAS 39	New classification under IFRS 9	Original carrying amount under IAS 39 31 December 2017 €'000	New carrying amount under IFRS 9 1 January 2018 €'000
Financial asset investments	14	Financial assets at FVTPL	Financial assets at FVTPL	22,165	22,165
Derivative financial instruments	21	Cash flow hedges	Financial assets at FVOCI	202,444	202,444
Trade and other receivables	16	Amortised cost	Amortised cost	819,549	819,549
Cash and cash equivalents	17	Amortised cost	Amortised cost	380,405	380,405
Total financial assets				**1,424,563**	**1,424,563**

NOTES TO THE FINANCIAL STATEMENTS

1. STATEMENT OF ACCOUNTING POLICIES (continued)

(III) NEW STANDARDS AND INTERPRETATIONS (continued)

(a) IFRS 9 Financial Instruments (continued)

PARENT Financial assets	Note	Original classification under IAS 39	New classification under IFRS 9	Original carrying amount under IAS 39 31 December 2017 €'000	New carrying amount under IFRS 9 1 January 2018 €'000
Derivative financial instruments	21	Cash flow hedges	Financial assets at FVOCI	88,198	88,198
Trade and other receivables	16	Amortised cost	Amortised cost	354,537	354,537
Amounts due from subsidiary undertakings	16	Amortised cost	Amortised cost	2,284,311	2,284,311
Cash and cash equivalents	17	Amortised cost	Amortised cost	208,499	208,499
Total financial assets				**2,935,545**	**2,935,545**

Impairment of financial assets

IFRS 9 replaces the incurred loss model in IAS 39 with an expected credit loss (ECL) model. The new impairment model applies to all the Group's financial assets measured at amortised cost but does not apply to investments in equity instruments. Under IFRS 9, credit losses are recognised earlier than under IAS 39.

The Group has a number of different types of trade and other receivables that are subject to IFRS 9's new expected credit loss model:
- Retail electricity and gas receivables (billed and unbilled)
- Integrated single electricity market (I-SEM) pool receivables
- Use of System receivables
- Other receivables and other non-electricity receivables
- Amounts due from equity accounted investees

While cash and cash equivalents are also subject to the impairment requirements of IFRS 9, there is no impairment loss identified.

The Group applies the IFRS 9 simplified approach to measuring expected credit losses which uses a lifetime expected loss allowance for all trade and other receivables with the exception of shareholder loans advanced to equity accounted investees which are measured using the general approach. The loss allowances for financial assets are based on assumptions about risk of default and expected loss rates. The Group uses judgement in making these assumptions and selecting the inputs to the expected credit loss calculations, based on the Group's past history, existing market conditions and forward looking estimates at the end of each reporting period.

The Parent applies the IFRS 9 simplified approach to measuring expected credit losses which uses a lifetime expected loss allowance for all trade and other receivables with the exception of shareholder loans advanced to equity accounted investees and amounts due from subsidiary undertakings which are measured using the general approach.

Retail electricity and gas receivables

Retail electricity and gas receivables billed and unbilled have been grouped together on days past due and the appropriate expected loss model has been applied.

The loss allowance at 31 December 2018 in relation to retail electricity and gas receivables is an estimate based on the historical experience of debts written off and based on an evaluation of the impact of economic conditions. Given historic loss rates and the significant portion of retail receivables that are within agreed terms, applying the expected credit loss model has not had a material impact on retail receivables. Loss allowances are also made in respect of specific balances where there is evidence of a dispute or an inability to settle.

I-SEM pool receivables

I-SEM pool receivables are subject to strict credit risk procedures due to the regulated markets they operate in. Security is provided by customers and strict payment arrangements are in place and credit risk is considered to be very low. Consequently they are all grouped as not past due receivables at period end and there is no material expected credit loss applied to these receivables.

NOTES TO THE FINANCIAL STATEMENTS

1. STATEMENT OF ACCOUNTING POLICIES (continued)

(III) NEW STANDARDS AND INTERPRETATIONS (continued)

(a) IFRS 9 Financial Instruments (continued)

Use of System receivables
Use of System receivables are subject to strict credit risk procedures due to the regulated markets they are involved in. Security is provided by suppliers and strict payment arrangements are in place. Credit risk is considered to be very low on these balances as they are settled before they fall past due. These receivables are generally settled within 10 - 36 days of invoice issue date and they are all grouped as not past due receivables at period end. Based on the fact that there are no historical losses experienced and an evaluation of the amounts recovered since the period end, there is no expected credit loss applied to these receivables. See note 16 in these consolidated financial statements for further detail on these receivables.

Other electricity receivables and non-electricity receivables
Other electricity receivables include amounts in relation to ancillary services and electricity trading in the UK market which is not included in the I-SEM. Trade receivables (non-electricity) relate to balances due in respect of the Group's non-electricity trading and other operations. It includes amounts due in respect of the Group's telecommunications, consultancy, facility management and other ancillary operations. Applying the expected credit loss model has not had a material impact on other electricity receivables and non-electricity receivables.

Amounts due from equity accounted investees
Amounts due from equity accounted investees include shareholder loans, interest on these loans and trade receivable and payable balances. The Group uses its judgement in making assumptions and selecting the inputs to the impairment calculation, based on the Group's market conditions as well as forward looking estimates at the end of the reporting period.

Amounts due from subsidiary companies (Parent)
Amounts due from subsidiary companies include shareholder loans, interest on these loans and trade receivable and payable balances. Impairment is assessed using the expected credit loss model. In determining the impairment loss, amounts dues from subsidiaries are classified as amounts repayable on demand, low credit risk receivables and amounts for which there has been a substantial increase in credit risk since initial recognition. In determining an expected credit loss, regard is given to historic performance of the relevant loan as well as forward looking information for the relevant subsidiary including detailed discounted cash flow forecasts, where appropriate.

Hedge accounting
The Group has elected to adopt the new general hedge accounting model in IFRS 9. This requires the Group to ensure that hedge accounting relationships are aligned with its risk management objectives and strategy and to apply a more qualitative and forward-looking approach to assessing hedge effectiveness.

ESB funds its operations using borrowings and uses deposit instruments to invest surplus funds. ESB also uses interest rate and foreign currency instruments to manage interest rate and currency risks that arise in the normal course of operations from US dollar and sterling denominated borrowings, from its foreign currency subsidiaries and from the use of foreign currency suppliers. Hedge accounting pursuant to IFRS 9 is also used for hedges of foreign currency liabilities and interest rate risks from current and non-current liabilities. Under IFRS 9, ESB's current hedge relationships will continue to qualify as hedges and there has been no significant impact on the accounting for its hedging relationships on transition from IAS 39.

In addition, the Group enters into certain commodity hedging transactions to fix fuel costs and to link electricity revenues more closely to fuel inputs, where possible. All of these arrangements are designated into hedge relationships and in the majority of cases meet the specific hedging accounting criteria of IFRS 9. Where the IFRS 9 hedge criteria are met in respect of cross currency swaps, interest rate swaps, foreign exchange contracts, forward fuel price contracts and forward electricity price contracts, these instruments are designated as cash flow hedges of highly probable forecast interest, revenue or other operating cost cash flows. Gains and losses on any derivative not specifically designated into hedge relationships are recognised in profit or loss, within finance income and expense or other operating costs, as appropriate.

The effective portion of changes in the fair value of derivatives that are designated and qualify as cash flow hedges is recognised in the cash flow hedge reserve within other comprehensive income. The gain or loss relating to the ineffective portion is recognised immediately in profit or loss, within finance income and expenses or other operating costs as appropriate.

When a hedging instrument expires, or is sold or terminated, or when a hedge no longer meets the criteria for hedge accounting, any cumulative deferred gain or loss and deferred costs of hedging in equity at that time are immediately reclassified to profit or loss.

NOTES TO THE FINANCIAL STATEMENTS

1. STATEMENT OF ACCOUNTING POLICIES (continued)

(III) NEW STANDARDS AND INTERPRETATIONS (continued)

(a) IFRS 9 Financial Instruments (continued)

IFRS 9 Financial Instruments: Accounting policies applied to Financial Instruments from 1 January 2018
The following accounting policies have been reviewed and amended accordingly to ensure that the ESB Group accounting policies comply with the new IFRS 9: Financial Instruments accounting standard from 1 January 2018.

(i) Non-derivative financial assets and liabilities

Trade and other receivables
Trade and other receivables are initially recognised at fair value, which is usually the original invoiced amount and subsequently carried at amortised cost using the effective interest method less allowance made for impairment.

The Group applies the IFRS 9 simplified approach to measuring expected credit losses which uses a lifetime expected loss allowance for all trade and other receivables except on the shareholder loans advanced to equity accounted investees which are measured using the general approach. The loss allowances for financial assets are based on assumptions about risk of default and expected loss rates. The Group uses judgement in making these assumptions and selecting the inputs to the expected credit loss calculations, based on the Group's past history, existing market conditions and forward looking estimates at the end of each reporting period.

Loans and balances with equity accounted investees
Loans and balances with equity accounted investees are non-derivative financial assets or liabilities which are not quoted in an active market. They are included in current assets or current liabilities on the balance sheet, except for those with maturities greater than twelve months after the balance sheet date, which are included in non-current assets or non-current liabilities and are initially recorded at fair value and thereafter at amortised cost using the effective interest method less loss allowance made for impairment.

Impairment
From 1 January 2018, the Group assesses on a forward looking basis the expected credit losses associated with its debt instruments carried at amortised cost. The impairment methodology applied depends on whether there has been a significant increase in credit risk.
For loans and balances with Group companies, the Parent applies the general approach permitted by IFRS 9, which requires 12 month expected credit losses to be recognised on initial recognition of these receivables. If a significant increase in credit risk occurs, this requires expected lifetime credit losses to be recognised on these receivables.

Cash and cash equivalents
Cash and cash equivalents include cash in hand, deposits repayable on demand and other short-term highly liquid investments with original maturities of three months or less. Cash and cash equivalents for the purpose of cash flow include bank overdrafts payable on demand. Bank overdrafts are shown within borrowings in current liabilities in the balance sheet.

Trade and other payables
Trade and other payables are initially recorded at fair value, which is usually the original invoiced amount, and subsequently carried at amortised cost using the effective interest rate method.

Loans and balances with Group companies (Parent)
Loans and balances with Group Companies are non-derivative financial assets or liabilities which are not quoted in an active market. They are included in current assets or current liabilities on the balance sheet, except for those with maturities greater than twelve months after the balance sheet date, which are included in non-current assets or non-current liabilities. Loans and balances are included within trade and other receivables or trade and other payables in the Parent balance sheet and are initially recorded at fair value and thereafter at amortised cost.

NOTES TO THE FINANCIAL STATEMENTS

1. STATEMENT OF ACCOUNTING POLICIES (continued)

(III) NEW STANDARDS AND INTERPRETATIONS (continued)

(a) IFRS 9 Financial Instruments (continued)

Borrowings
Under IAS 39 Financial Instruments: Recognition and Measurement, at the date of modification, the difference between the original and modified cash flows was amortised over the remaining term of the modified liability by re-calculating the effective interest rate. Under IFRS 9 for any future liability modification transactions a gain or loss will be required to be recognised at the date of modification. IFRS 9 made it compulsory to apply the standard retrospectively on previous liability management transactions on 1 January 2018 with no requirement to restate prior period balances.

(i) Interest bearing borrowings
Interest bearing borrowings are recognised initially at fair value less attributable transaction costs. Subsequent to initial recognition these borrowings are stated at amortised cost using the effective interest rate method. If a financial liability measured at amortised cost is modified without this resulting in derecognition, a gain or loss is recognised in profit or loss. The gain or loss is calculated as the difference between the original contractual cash flows and the modified cash flows discounted at the original effective interest rate.

(ii) Derivative financial instruments and other hedging instruments
The Group uses derivative financial instruments to hedge its exposure to commodity price, foreign exchange and interest rate risk arising from operational, financing and investing activities. The principal derivatives used include interest rate swaps, inflation-linked interest rate swaps, currency swaps and forward foreign currency contracts. Commodity contracts are also used to hedge the Group's exposures to the purchase of fuel and sale of electricity.

Within its regular course of business, the Group routinely enters into sale and purchase contracts for commodities, including gas and electricity. Where the contract was entered into and continues to be held for the purposes of receipt or delivery of the commodities in accordance with the Group's expected sale, purchase or usage requirements, the contracts are designated as own use contracts and are accounted for as executory contracts. These contracts are therefore not within the scope of IFRS 9 Financial Instruments.

Commodity contracts which are not designated as own use contracts are accounted for as trading derivatives and are recognised in the balance sheet at fair value. The changes in fair value when a hedge accounting relationship exists will be recognised in accordance with IFRS 9 as cash flow hedges or fair value hedges.

Financial derivative instruments are used by the Group to hedge interest rate and currency exposures. All such derivatives are recognised at fair value and are re-measured to fair value at the balance sheet date. With the exception of the inflation linked interest rate swaps the majority of other derivative financial instruments are designated as being held for hedging purposes.

The designation of the hedge relationship is established at the inception of the contract. The treatment of gains and losses on subsequent re-measurement is dependent on the classification of the hedge and whether the hedge relationship is designated as either a fair value or cash flow hedge.

All fair value movements on derivatives that are not part of hedging relationships are recorded through the income statement.

Cash flow hedges
Where a derivative financial instrument is designated as a hedge of the variability in cash flows of a recognised liability, a firm commitment or a highly probable forecast transaction, the effective part of any gain or loss on the derivative financial instrument is recognised directly in other comprehensive income. When the firm commitment or forecasted transaction results in the recognition of a non-financial asset or liability, the cumulative gain or loss is removed from other comprehensive income and included in the initial measurement of that asset or liability. Otherwise the cumulative gain or loss is removed from other comprehensive income and recognised in the income statement at the same time as the hedged transaction. The gain or loss relating to the ineffective portion is recognised in the income statement immediately.

When a hedging instrument or hedge relationship is terminated but the hedged transaction is still expected to occur, the cumulative gain or loss at that point remains in other comprehensive income and is recognised in accordance with the above policy when the transaction occurs. If the hedged transaction is no longer probable, the cumulative unrealised gain or loss recognised in other comprehensive income is recognised in the income statement immediately.

Hedge of net investment in foreign entity
Where a foreign currency liability hedges a net investment in a foreign operation, foreign exchange differences arising on translation of the liability are recognised directly in other comprehensive income, and taken to the translation reserve, with any ineffective portion recognised in the income statement immediately.

NOTES TO THE FINANCIAL STATEMENTS

1. STATEMENT OF ACCOUNTING POLICIES (continued)

(III) NEW STANDARDS AND INTERPRETATIONS (continued)

(a) IFRS 9 Financial Instruments (continued)

(iii) Insurance contracts
During the normal course of business, Parent guarantees and bonds are provided to subsidiary companies of the Parent and the Group also provides guarantees to equity accounted investees. Where claims are probable, the expected credit loss model is applied.

Accounting policies applied to Financial Instruments pre 1 January 2018 (IAS 39)

(i) Non-derivative financial assets and liabilities

Trade and other receivables
Trade and other receivables are initially recognised at fair value, which is usually the original invoiced amount and subsequently carried at amortised cost using the effective interest method less provision made for impairment.

Specific provisions are made where there is objective evidence of impairment, for example where there is an inability to pay. An additional provision is made on a portfolio basis to cover additional incurred losses based on an analysis of previous loss experience updated for current market conditions.

Cash and cash equivalents
Cash and cash equivalents include cash in hand, deposits repayable on demand and other short-term highly liquid investments with original maturities of three months or less, less bank overdrafts payable on demand. Bank overdrafts are shown within borrowings in current liabilities in the balance sheet.

Trade and other payables
Trade and other payables are initially recorded at fair value, which is usually the original invoiced amount, and subsequently carried at amortised cost using the effective interest rate method.

Loans and balances with Group companies
Loans and balances with Group companies are non-derivative financial assets or liabilities which are not quoted in an active market. They are included in current assets or current liabilities on the balance sheet, except for those with maturities greater than twelve months after the balance sheet date, which are included in non-current assets or non-current liabilities. Loans and balances are included within trade and other receivables or trade and other payables in the Parent balance sheet and are initially recorded at fair value and thereafter at amortised cost.

Financial assets or liabilities at fair value through profit or loss
Financial instruments classified as assets or liabilities at fair value through the income statement are financial instruments either held for trading or designated at fair value through profit or loss at inception.

On initial recognition, these assets are recognised at fair value, with transaction costs being recognised in profit or loss, and are subsequently measured at fair value. Gains and losses on these financial assets or liabilities are recognised in profit or loss as they arise.

Instruments held for trading are those that are acquired principally for the purpose of sale in the near term, are part of a portfolio of investments which are managed together and where short term profit taking occurs.

(ii) Derivative financial instruments and other hedging instruments
The Group uses derivative financial instruments and non-derivative financial instruments to hedge its exposure to commodity price, foreign exchange and interest rate risk arising from operational, financing and investing activities. The principal derivatives used include interest rate swaps, inflation-linked interest rate swaps, currency swaps, forward foreign currency contracts and indexed swap contracts relating to the purchase of fuel.

Within its regular course of business, the Group routinely enters into sale and purchase contracts for commodities, including gas and electricity. Where the contract was entered into and continues to be held for the purposes of receipt or delivery of the commodities in accordance with the Group's expected sale, purchase or usage requirements, the contracts are designated as own use contracts and are accounted for as executory contracts. These contracts are therefore not within the scope of IAS 39 Financial Instruments: Recognition and Measurement.

NOTES TO THE FINANCIAL STATEMENTS

1. STATEMENT OF ACCOUNTING POLICIES (continued)

(III) NEW STANDARDS AND INTERPRETATIONS (continued)

(a) IFRS 9 Financial Instruments (continued)

Accounting policies applied to Financial Instruments pre 1 January 2018 (IAS 39) (continued)

Commodity contracts which are not designated as own use contracts are accounted for as trading derivatives and are recognised in the balance sheet at fair value. Where a hedge accounting relationship is designated and is proven to be effective, the changes in fair value will be recognised in accordance with IAS 39 as cash flow hedges or fair value hedges.

Financial derivative instruments are used by the Group to hedge interest rate and currency exposures. All such derivatives are recognised at fair value and are re-measured to fair value at the balance sheet date. The majority of these derivative financial instruments are designated as being held for hedging purposes. The designation of the hedge relationship is established at the inception of the contract and procedures are applied to ensure the derivative is highly effective in achieving its objective and that the effectiveness of the hedge can be reliably measured. The treatment of gains and losses on subsequent re-measurement is dependent on the classification of the hedge and whether the hedge relationship is designated as either a 'fair value' or 'cash flow' hedge.

Derivatives that are not part of effective hedging relationships are treated as if held for trading, with all fair value movements being recorded through the income statement.

Cash flow hedges
Where a derivative financial instrument is designated as a hedge of the variability in cash flows of a recognised liability, a firm commitment or a highly probable forecast transaction, the effective part of any gain or loss on the derivative financial instrument is recognised directly in other comprehensive income. When the firm commitment or forecasted transaction results in the recognition of a non-financial asset or liability, the cumulative gain or loss is removed from other comprehensive income and included in the initial measurement of that asset or liability. Otherwise the cumulative gain or loss is removed from other comprehensive income and recognised in the income statement at the same time as the hedged transaction. The ineffective part of any gain or loss is recognised in the income statement immediately.

When a hedging instrument or hedge relationship is terminated but the hedged transaction is still expected to occur, the cumulative gain or loss at that point remains in other comprehensive income and is recognised in accordance with the above policy when the transaction occurs. If the hedged transaction is no longer probable, the cumulative unrealised gain or loss recognised in other comprehensive income is recognised in the income statement immediately.

Hedge of net investment in foreign entity
Where a foreign currency liability hedges a net investment in a foreign operation, foreign exchange differences arising on translation of the liability are recognised directly in other comprehensive income, and taken to the translation reserve, with any ineffective portion recognised in the income statement immediately.

(iii) Interest bearing borrowings
Interest bearing borrowings are recognised initially at fair value less attributable transaction costs. Subsequent to initial recognition these borrowings are stated at amortised cost using the effective interest rate method.

(iv) Insurance contracts
During the normal course of business, Parent guarantees and bonds are provided to subsidiary companies of the Parent. These guarantees and bonds are classified under IFRS 4 as insurance contracts. Where it is expected that no claims will be made on these contracts, no provision is made in the Parent financial statements. Where claims are probable, the provisions policy (xv) is applied.

NOTES TO THE FINANCIAL STATEMENTS

1. STATEMENT OF ACCOUNTING POLICIES (continued)

(III) NEW STANDARDS AND INTERPRETATIONS (continued)

(b) IFRS 15: Revenue from Contracts with Customers

IFRS 15 establishes a comprehensive framework for determining whether, how much and when revenue is recognised. It replaced IAS 18 Revenue, IAS 11 Construction Contracts, IFRIC 18 Transfer of Assets from Customers, IFRIC 13 Customer Loyalty Programmes and related interpretations.

Under IFRS 15, revenue is recognised when a customer obtains control of the goods or services. Determining the timing of the transfer of control – at a point in time or over time – requires judgement.

Impact on the consolidated financial statements on the adoption of IFRS 15
In determining the impact of the transition to IFRS 15, consideration has been given to the following:
- Identification of contracts with customers (including assessment of whether contracts are combined in certain instances)
- Frequency of any contract modifications and the associated accounting implications
- Identification of performance obligations (specifically considering whether such are distinct, or combined into a single performance obligation)
- How the transaction price is allocated to performance obligations
- Methods used to measure any variable consideration
- Existence of warranties
- Any other significant judgements

The Group has adopted IFRS 15 using the cumulative effect method, with the effect of initially applying this standard at the date of application (i.e. 1 January 2018). The Group has opted to apply the practical expedient available on transition under the cumulative approach whereby IFRS 15 is only applied to contracts that are not completed as at the date of initial application (that is, the Group have ignored the effects of applying the revenue standard to contracts that were completed prior to adoption date). Accordingly, the information presented for 2017 has not been restated – it is presented, as previously recorded, under IAS 18, IAS 11, IFRIC 18, IFRIC 13 and related interpretations.

The application of IFRS 15 has no material impact on revenue recognised in the Group's income statement and statement of comprehensive income for year ended 31 December 2018. However the accounting treatment of supply contributions has resulted in reclassification of amounts in the income statement and balance sheet. This is further described below. There was no material impact on the Group's cash flow statement for the year ended 31 December 2018.

Accounting for supply contributions
There is a reclassification impact at 1 January 2018 on the Group's supply contributions due to the withdrawal of IFRIC 18 Transfer of Assets from Customers. Under IFRIC 18 non-repayable supply contributions received after 1 July 2009 (the effective date of the interpretation) were included in property, plant and equipment in line with the associated capitalised costs. IFRS 15 has resulted in a reclassification of the capital contributions not yet depreciated at 1 January 2018 in ESB Networks and NIE Networks business units to deferred income and then subsequently released to the income statement on a basis consistent with the depreciation policy of the relevant asset. It should be noted that the accounting for supply contributions area remains under active consideration within the industry and the accounting profession more broadly, and that the accounting treatment ultimately adopted by the Group in this area could therefore be impacted by the outcome of these ongoing discussions.

NOTES TO THE FINANCIAL STATEMENTS

1. STATEMENT OF ACCOUNTING POLICIES (continued)

(III) NEW STANDARDS AND INTERPRETATIONS (continued)

(b) IFRS 15: Revenue from Contracts with Customers (continued)

The Group had €791.4 million of gross supply contributions included within property plant and equipment at 1 January 2018 with a net book value of €733.3 million which has been reclassified as deferred income as at 1 January 2018.

GROUP Balance sheet extract	Original carrying amount 31 December 2017 €'000	IFRS 15 transition impact €'000	New carrying amount 1 January 2018 €'000
Non-current asset			
Property, plant and equipment	10,004,980	733,298	**10,738,278**
Non-current liabilities			
Deferred income	460,975	704,172	**1,165,147**
Current liabilities			
Deferred income	49,142	29,126	**78,268**

The Parent had €401.4. million of gross supply contributions included within property plant and equipment at 1 January 2018 with a net book value of €382.8 million which has been reclassified as deferred income as at 1 January 2018.

PARENT Balance sheet extract	Original carrying amount 31 December 2017 €'000	IFRS 15 transition impact €'000	New carrying amount 1 January 2018 €'000
Non-current asset			
Property, plant and equipment	6,826,015	382,836	**7,208,851**
Non-current liabilities			
Deferred income	433,892	368,261	**802,153**
Current liabilities			
Deferred income	35,719	14,575	**50,294**

IFRS 15: Revenue from Contracts with Customers - Accounting policies applied from 1 January 2018
The following accounting policies have been reviewed and amended accordingly to ensure that the ESB Group accounting policies comply with the new IFRS 15: Revenue from Contracts with Customers.

Revenue principally comprises the sales values derived from the following:

- Electric Ireland revenues consist of sales to electricity and gas customers.
- Generation and Trading (formerly Generation and Wholesale Markets) revenue derives mainly from electricity generation.
- ESB Networks and NIE Networks earn Use of System income in the Republic of Ireland and Northern Ireland respectively.
- Revenue derived from the provision of engineering, telecommunication and other services.

NOTES TO THE FINANCIAL STATEMENTS

1. STATEMENT OF ACCOUNTING POLICIES (continued)

(III) NEW STANDARDS AND INTERPRETATIONS (continued)

(b) IFRS 15: Revenue from Contracts with Customers (continued)

Electric Ireland - Revenue from sales to electricity and gas customers
Electric Ireland derives revenues primarily from sales to electricity and gas customers. This revenue is earned from both residential and business customers in the Republic of Ireland (ROI), Northern Ireland (NI) and Great Britain (GB). Revenue is recognised over time on consumption of gas and electricity. Electricity and gas revenue includes the value of units supplied to customers between the date of the last meter reading and the period end. This estimate is initially included in trade and other receivables in the balance sheet as retail electricity - unbilled, customers are billed monthly or bi-monthly depending on the type of account, and are subsequently recognised as retail electricity receivables – billed. Residential credit terms and debtor days in respect of retail electricity receivables are 14 days. Credit terms for business customers vary by contract.

Electric Ireland has a number of offerings such as sign-up bonuses, discounts and rewards available to customers which are all accounted for as variable consideration under IFRS 15.

Electric Ireland offer discounts and rewards that are enduring and are applied over time to our relevant customer bills.

On joining Electric Ireland sign-up bonuses are applied to customer accounts which are recognised over time in line with customer usage.

ESB Networks - Revenue from Use of System charges to customers
ESB Networks mainly recognises revenue from Use of System that comprises of Distribution Use of System (DUoS) revenue and Transmission Use of System (TUoS) revenue. ESB Networks operates in the Republic of Ireland and is a regulated business, earning its revenue from an allowed return on its Regulated Asset Base (RAB).

DUoS revenue is earned through charges to suppliers for the use of the ESB Networks distribution system. DUoS revenue is recognised in line with the use of the system by suppliers and any outstanding billed and unbilled usage for DUoS is included as a Use of System receivable on the balance sheet. DUoS revenue is invoiced on a bi-monthly basis. Revenue is also earned from operations & maintenance annual charges for generators connected to the Distribution system. These are based on a standard amount per km line or cable and are recognised over time as the performance obligation is satisfied.

TUoS revenue is earned by maintaining the transmission assets to facilitate the effective operation by EirGrid. For this fixed price contract TUoS revenue is recognised over time on a straight line basis and a Use of System receivable is recognised on the balance sheet.
ESB Networks receives non-repayable supply contributions income as a result of providing new connections to its existing network in respect of property, plant and equipment. These contributions are held in trade payables as progress payments until their performance obligation is satisfied, when the work on the connection has met the performance obligation they are transferred to deferred income and released to revenue in the income statement over the estimated useful economic lives of the related assets. The useful life of these assets is estimated at 25 and 30 years for distribution and transmission respectively.

ESB Networks also recognises revenue from a number of unregulated sources. Revenue is recognised from providing ancillary network services and other miscellaneous income. All unregulated income is recognised at a point in time with a corresponding receivable carried on the balance sheet for each item.

NIE Networks - Revenue from Use of System charges to customers
NIE Networks derives its revenue principally through charges for use of the distribution system (DUoS) levied on electricity suppliers and transmission service charges (TSC) (mainly for use of the transmission system) levied on System Operator for Northern Ireland (SONI).

DUoS revenue is recognised in line with the use of the system by suppliers and any outstanding billed and unbilled usage for DUoS is included within Use of System receivable at the balance sheet date. TSC revenue is earned by maintaining the transmission assets to facilitate the effective operation by SONI. For this fixed price contract TSC revenue is recognised over time on a straight line basis and a Use of System receivable is recognised on the balance sheet.

NIE Networks receives non-repayable supply contributions income as a result of providing new connections to its existing network in respect of property, plant and equipment. These contributions are held in trade payables as progress payments until their performance obligation is satisfied, when the work on the connection has met the performance obligation they are transferred to deferred income and released to revenue in the income statement over the estimated useful economic lives of the related assets.

NOTES TO THE FINANCIAL STATEMENTS

1. STATEMENT OF ACCOUNTING POLICIES (continued)

(III) NEW STANDARDS AND INTERPRETATIONS (continued)

(b) IFRS 15: Revenue from Contracts with Customers (continued)

Generation & Trading - Revenue from Power Generation

Republic of Ireland
Single Electricity Market (SEM)
The Group operates power stations and wind farms and revenue earned derives mainly from the generation of electricity from such assets. Until 30 September 2018 the Single Electricity Market (SEM) was the single wholesale market (pool) for electricity in the Republic of Ireland (ROI) and Northern Ireland (NI). It was a mandatory gross pool, so all generators were required to sell and suppliers were required to buy power through the pool. The pool set the spot price for electricity, known as the System Marginal Price (SMP) every half hour.

Generators also received separate payments for the provision of stable generation capacity through the Capacity Remuneration Mechanism (CRM). Price volatility in the pool was managed by generators and suppliers who entered into fixed financial contracts (contracts for differences). Refer to policy on hedge accounting.

Revenue in respect of the SEM pool was recognised on consumption of electricity. A SEM pool receivable was recognised on the balance sheet and generally settled monthly.

Integrated-Single Electricity Market (I-SEM)
The I-SEM is a new wholesale electricity market arrangement for Ireland and Northern Ireland that went live on 1 October 2018. The SEM market is now replaced by multiple markets or auctions, each spanning different trading time frames, with separate (although related) clearing and settlement mechanisms.

There are two ex-ante markets for physical energy: the Day-Ahead Market and the Intraday Market. In addition, energy balancing services are offered into the Balancing Market by generators (energy producers) and suppliers (energy consumers). Capacity is a commitment by a generator or interconnector owner to be available to deliver energy into the grid, if called on to do so. Capacity providers who are successful in the Capacity Market receive a regular capacity payment, which assists with funding generation capacity. Revenue from the sale of electricity in the I-SEM markets are recognised over time on consumption of electricity and an I-SEM receivable is recognised on the balance sheet and settled daily for the ex-ante market and weekly for the ex-post market.

Capacity income is received through the 'Capacity Remuneration Mechanism' (CRM) where a capacity payment is made to a participant in respect of a Generator Unit in each Capacity Period on the basis of the Unit's Eligible Availability, which is based on the Unit's Availability Profile. Revenue is recognised over time, recognised as an I-SEM receivable on the balance sheet and settled within one month.
Ancillary income is received through 'Delivering a Secure Sustainable Electricity System' (DS3) programme for provision of frequency response services to the grid. Ancillary income is recognised over time. Ancillary income is recognised as a SEM/I-SEM receivable on the balance sheet and settled within one month.

Great Britain
British Electricity Trading and Transmission Arrangements is the wholesale electricity market operating in Great Britain (GB). Unlike the I-SEM, trading can take place between generators and suppliers either bilaterally or through exchanges. Both physical and financial contracts can be struck to manage price volatility, for timescales ranging from several years ahead to on-the-day trading markets. The British Government operates a capacity remuneration scheme and under the scheme, generators are awarded capacity contracts (based on the outcome of an auction) that enable them to receive payments for the provision of generation capacity while also receiving penalties for non-delivery during scarcity events. Revenue in respect of capacity payments is recognised over time.

On 15 November 2018, the General Court of the European Union annulled the European Commission's decision to not raise objections to state aid approval for the GB capacity market arrangements. The decision means the UK government cannot issue capacity market payments to energy firms or hold auctions, including the upcoming auctions scheduled to run in January and February 2019, to secure additional power capacity for the winter of 2019/2020 and 2022/23. No capacity revenue has been recognised since the ruling in relation to the GB capacity mechanism. Revenue from capacity income is recognised over time.

Revenue derived from GB is through the sale of power to individual UK counterparties and is recognised over time when performance obligations are satisfied. Revenue relating to the GB market is recognised as other electricity receivables on the balance sheet and settled daily or monthly depending on the terms of the individual contract.

NOTES TO THE FINANCIAL STATEMENTS

1. STATEMENT OF ACCOUNTING POLICIES (continued)

(III) NEW STANDARDS AND INTERPRETATIONS (continued)

(b) IFRS 15: Revenue from Contracts with Customers (continued)

Other Segments - Other revenue
Revenue comprises income derived from the provision of electrical, mechanical, civil, environmental, telecommunications, engineering and consultancy services and represents the fair value of services and works delivered to customers.

Services are deemed to have been delivered to customers when, and to the extent that, the entity has met its performance obligations under its contracts. Revenue is recognised over time in accordance with the input method in the income statement in line with the contract terms in proportion to the stage of completion, based on total costs of the contract. Billed revenue is recognised as a trade receivable-non electricity and settled in 30 business days. Unbilled revenue is recognised in other receivables.

Accounting policies applied to Revenue pre 1 January 2018

Electricity and gas revenue
Sales comprise the fair value of the consideration received or receivable for the sale of goods and rendering of services in the ordinary course of the Group's activities. Sales are presented, net of value-added tax, rebates and discounts, and after eliminating sales within the Group. Electricity revenue is based on the consumption of electricity. Electricity revenue includes the value of units supplied to customers between the date of the last meter reading and the year end, this estimate is included in trade and other receivables in the balance sheet as unbilled consumption.
Revenue comprises the sales value derived from the following:
- Electric Ireland revenues consist of sales to electricity and gas customers.
- Generation and Trading revenue derives mainly from electricity generation.
- ESB Networks and NIE Networks earn Use of System income in the Republic of Ireland and Northern Ireland respectively.

Contract revenue
Contract revenue is recognised on a time apportionment basis by reference to the stage of completion of the contract at the balance sheet date.

Supply contributions
Non-repayable supply contributions and capital grants received up until 1 July 2009 were recorded as deferred income and were released to the income statement on a basis consistent with the depreciation policy of the relevant assets.

Following the implementation of IFRIC 18 Transfer of Assets from Customers, non-repayable supply contributions received after 1 July 2009 (the effective date of the interpretation) are capitalised to property, plant and equipment in line with the associated capitalised costs.

(IV) STANDARDS, INTERPRETATIONS AND AMENDMENTS TO PUBLISHED STANDARDS THAT ARE NOT YET EFFECTIVE
The Group has not applied certain standards, amendments and interpretations to existing standards that have been issued but are not yet effective. The most significant of which are as follows:

IFRS 16: Leases (effective date: ESB financial year beginning 1 January 2019)
This standard addresses the definition of a lease, recognition and measurement of leases and establishes principles for reporting useful information to users of financial statements about the leasing activities of both lessees and lessors. A key change arising from IFRS 16 is that most operating leases will be accounted for on the balance sheet for lessees. The standard replaces IAS 17 'Leases', and related interpretations.

The distinction between operating leases (off balance sheet) and finance leases (on balance sheet) is removed for lease accounting. The principal difference to lease accounting at present under IAS 17 is the requirement to bring almost all leases onto the balance sheet. Practical expedients and transition exemptions are available for lessees and the Group expects to avail of these as follows:
- Lessees have the option to 'grandfather' previous conclusions reached under IFRIC 4. Existing contracts do not have to be reassessed to determine if they contain leases.
- Leases with a remaining term of 12 months or less are exempt (a choice on a lease-by-lease basis).
- Low value assets are exempt (a choice on a lease-by-lease basis).

The Group expects to adopt IFRS 16 by applying the modified retrospective approach and to recognise a lease liability and corresponding right of use asset. The right of use asset is initially measured at cost and subsequently measured at cost less accumulated depreciation and impairment losses, adjusted for any re-measurement of the lease liability. The lease liability is initially measured at the present value of the lease payments that are not paid as of that date. Subsequently, the lease liability is adjusted for interest and lease payments, as well as the impact of lease modifications, amongst others. Under this approach, comparatives are not restated.

NOTES TO THE FINANCIAL STATEMENTS

1. STATEMENT OF ACCOUNTING POLICIES (continued)

(IV) STANDARDS, INTERPRETATIONS AND AMENDMENTS TO PUBLISHED STANDARDS THAT ARE NOT YET EFFECTIVE (continued)

(b) IFRS 16: Leases (effective date: ESB financial year beginning 1 January 2019) (continued)

The standard is expected to have a material impact on the Group with the recognition of lease liabilities and right of use assets. A review process has been performed to identify any existing contracts containing lease arrangements that would need to be recognised under IFRS 16.

There will be a higher income statement charge in the earlier years post-implementation which will unwind over time such that the overall impact of IFRS 16 will be neutral on the income statement over the life of a lease. See note 28 (a) for more details on operating lease obligations as at 31 December 2018 prior to adoption of IFRS 16.

(V) OTHER OPERATING INCOME

Other operating income comprises of income which accrues to the Group outside of the Group's normal trading activities.

(VI) FOREIGN CURRENCIES

These financial statements are presented in euro, which is the Parent's functional currency.

(a) Functional and presentation currency

Items included in the financial statements of each of the Group's entities are measured using the currency of the primary economic environment in which the entity operates ('the functional currency'). The consolidated financial statements are presented in euro which is ESB's functional and presentation currency.

(b) Transactions and balances

Foreign currency transactions are translated into the functional currency using the exchange rates at the dates of the transactions. Foreign exchange gains and losses resulting from the settlement of such transactions and from the translation of monetary assets and liabilities denominated in foreign currencies at year end exchange rates are generally recognised in profit or loss. They are deferred in equity if they relate to qualifying cash flow hedges and qualifying net investment hedges or are attributable to part of the net investment in a foreign operation.

Non-monetary items that are measured at fair value in a foreign currency are translated using the exchange rates at the date when the fair value was determined. Translation differences on assets and liabilities carried at fair value are reported as part of the fair value gain or loss. For example, translation differences on non-monetary assets and liabilities such as equities held at fair value through profit or loss are recognised in profit or loss as part of the fair value gain or loss.

(c) Group companies

The results and financial position of foreign operations (none of which have the currency of a hyperinflationary economy) that have a functional currency different from the presentation currency are translated into the presentation currency as follows:

- assets and liabilities for each balance sheet presented are translated at the closing rate at the date of that balance sheet
- income and expenses for each statement of profit or loss and statement of comprehensive income are translated at average exchange rates (unless this is not a reasonable approximation of the cumulative effect of the rates prevailing on the transaction dates, in which case income and expenses are translated at the dates of the transactions); and
- all resulting exchange differences are recognised in other comprehensive income.

On consolidation, exchange differences arising from the translation of any net investment in foreign entities, and of borrowings and other financial instruments designated as hedges of such investments, are recognised in other comprehensive income. When a foreign operation is sold or any borrowings forming part of the net investment are repaid, the associated exchange differences are reclassified to profit or loss, as part of the gain or loss on sale.

Goodwill arising on the acquisition of a foreign operation are treated as assets and liabilities of the foreign operation and translated at the closing rate.

(VII) PROPERTY, PLANT AND EQUIPMENT AND DEPRECIATION

Recognition and measurement

Property, plant and equipment is stated at cost less accumulated depreciation and provisions for impairment in value, except for land which is shown at cost less impairment. Property, plant and equipment includes capitalised employee, interest and other costs that are directly attributable to the asset and an appropriate portion of relevant overheads.

NOTES TO THE FINANCIAL STATEMENTS

1. STATEMENT OF ACCOUNTING POLICIES (continued)

(VII) PROPERTY, PLANT AND EQUIPMENT AND DEPRECIATION (continued)

Depreciation

The charge for depreciation is calculated to write down the cost of property, plant and equipment to its estimated residual value over its expected useful life using methods appropriate to the nature of the Group's business and to the character and extent of its property, plant and equipment. No depreciation is provided on freehold land or on assets in the course of construction. Depreciation on other items of property, plant and equipment is calculated using the straight-line method to allocate their depreciable amounts over their estimated useful lives as follows:

Generation plant and thermal station structures	20 years
Wind farm generating assets	20 / 25 years
Distribution plant and structures	25 / 30 years
Transmission plant and structures	30 years
General buildings and hydro stations	50 years

Subsequent expenditure

Subsequent expenditure on property, plant and equipment is included in the asset's carrying amount or recognised as a separate asset, as appropriate, only when it is probable that future economic benefits associated with the item will flow to the Group and the cost of the item can be measured reliably. All other repairs and maintenance costs are charged in the income statement during the financial period in which they are incurred.

Included in property, plant and equipment are strategic spares in relation to the Electricity Generation business. Capital stock in the Networks business is carried within assets under construction pending commissioning.

(viii) Leased assets

Finance leases are leases where the Group, as lessee, assumes substantially all the risks and rewards of ownership, while operating leases are those in which the lessor retains those risks and rewards of ownership.

Non-current assets acquired under finance leases are included in the balance sheet at their equivalent capital value and are depreciated over the shorter of the asset's useful life and the lease term if there is no reasonable certainty that the group will obtain ownership at the end of the lease term. The corresponding liabilities are recorded as a finance lease payable and the interest element of the finance lease payments is charged to the income statement on a constant periodic rate of interest. Operating lease rentals are charged to the income statement on a straight-line basis over the lease term.

(IX) INTANGIBLE ASSETS AND GOODWILL

(a) Goodwill

Goodwill that arises on the acquisition of subsidiaries is presented separately on the balance sheet.

Subsequent measurement

Goodwill is measured at cost less accumulated impairment losses. Goodwill is tested annually for impairment. An impairment loss is recognised if the carrying amount of the asset or cash-generating unit (CGU) exceeds its recoverable amount.
The recoverable amount of an asset or CGU is the greater of its value in use and its fair value less costs to sell. In assessing value in use, the estimated future cash flows are discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset or CGU.

Impairment losses in respect of goodwill are recognised in profit or loss, and are not reversed.

(b) Emission allowances and renewable obligation certificates (ROCs)

Emission allowances purchased by ESB are recorded as intangible assets at cost.

NOTES TO THE FINANCIAL STATEMENTS

1. STATEMENT OF ACCOUNTING POLICIES (continued)

(IX) INTANGIBLE ASSETS AND GOODWILL (continued)

(b) Emission allowances and renewable obligation certificates (ROCs) (continued)

As emissions arise, a charge is recorded in the income statement to reflect the amount required to settle the liability to the relevant authority. This provision includes the carrying value of the emission allowances held, as well as the current market value of any additional allowances required to settle the obligation. These allowances are returned to the relevant Authority in charge of the scheme within four months of the end of that calendar year, in order to cover the liability for actual emissions of CO_2 during that year.

ROCs are certificates issued to operators of accredited renewable generating stations in the UK for the eligible renewable electricity they generate. The Group purchases ROCs from certain of its joint ventures. Purchased ROCs are recognised initially at cost (purchase price) within intangible assets. The liability is measured at the cost of purchased allowances up to the level of purchased allowances held, and then at the market price of allowances ruling at the balance sheet date, with movements in the liability recognised in operating profit.

Emission allowances and ROCs held at cost as intangible assets are therefore not amortised as they are held for settlement of the related liabilites in the following year.

(c) Software costs and other intangible assets

Acquired computer software licenses and other intangible assets including grid connections and other acquired rights, are capitalised on the basis of the costs incurred to acquire and bring the specific asset into use. These assets are measured at cost less accumulated amortisation, which is estimated over their useful lives on a straight line basis, and accumulated impairment losses. Major asset classifications and their allotted life spans are:

Software	3/5 years
Other intangibles	Up to 20 years

Development costs that are directly associated with the production of identifiable and unique software products controlled by the Group and that will probably generate economic benefits exceeding costs beyond one year, are recognised as intangible assets when the following criteria are met:

- it is technically feasible to complete the software so that it will be available for use
- management intends to complete the software and use or sell it
- there is an ability to use or sell the software
- it can be demonstrated how the software will generate probable future economic benefits
- adequate technical, financial and other resources to complete the development and to use or sell the software is available
- the expenditure attributable to the software during its development can be reliably measured.

Direct costs include the costs of software development, employees and an appropriate portion of relevant overheads. These assets are measured at cost less accumulated amortisation, which is estimated over their estimated useful lives (three to five years) on a straight line basis, and accumulated impairment losses.

(d) Research and development

Research expenditure and development expenditure that does not meet the criteria above is recognised as an expense as incurred. Development costs previously recognised as an expense are not recognised as an asset in a subsequent period.

(X) IMPAIRMENT OF NON-CURRENT ASSETS OTHER THAN GOODWILL

Assets that have an indefinite useful life are not subject to amortisation and are tested annually for impairment. Assets that are subject to depreciation and amortisation are tested for impairment whenever events or changes in circumstance indicate that the carrying amount may not be recoverable. Assets not yet in use are tested annually for impairment. An impairment loss is recognised for the amount by which an asset's carrying amount exceeds its recoverable amount. The recoverable amount is the higher of an asset's fair value less costs to sell and its value in use. For the purposes of assessing impairment, assets are grouped at the lowest levels for which there are separately identifiable cash flows (cash-generating units).

For power generation assets, value in use is based on the estimated cash flows expected to be generated by the asset and is based on estimates of forecast power generation and forecast power, gas, carbon and capacity prices (where applicable) and the timing and extent of operating costs and capital expenditure. These cash flows are discounted to their present value using a pre-tax discount rate that reflects the current markets assessment of the time value of money and the risks specific to the asset.

NOTES TO THE FINANCIAL STATEMENTS

1. STATEMENT OF ACCOUNTING POLICIES (continued)

(XI) BORROWING COSTS

Borrowing costs attributable to the construction of major assets, which necessarily take substantial time to get ready for intended use, are added to the cost of those assets at the weighted average cost of borrowings, until such time as the assets are substantially ready for their intended use. The capitalisation rate applied equates to the average cost of ESB's outstanding debt and where applicable, a project specific rate is applied. All other borrowing costs are recognised in the income statement in the period in which they are incurred.

(XII) INVENTORIES

Inventories are carried at the lower of average cost and net realisable value. Cost comprises all purchase price and direct costs that have been incurred in bringing the inventories to their present location and condition. Net realisable value is based on normal selling price less further costs expected to be incurred prior to disposal.

Specific provision is made for damaged, deteriorated, obsolete and unusable items where appropriate.

Construction work in progress is stated at the lower of cost and net realisable value.

(XIII) CAPITAL STOCK

The units of capital stock are measured at the price at which they were initially issued to the Department of Finance, the Department of Communications, Climate Action and Environment and ESB ESOP Trustee Limited.

(XIV) INCOME TAX

Income tax on the profit or loss for the year comprises current and deferred tax. Income tax is recognised in the income statement, except to the extent that it relates to items recognised directly in other comprehensive income or equity.

(a) Current tax

Current tax is provided at current rates and is calculated on the basis of results for the year. The income tax expense in the income statement does not include taxation on the Group's share of profits of joint venture undertakings, as this is included within the separate line on the face of the income statement for share of equity accounted investee profit / (loss), net of tax.

(b) Deferred tax

Deferred tax is provided using the balance sheet liability method, providing for temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for taxation purposes.

Deferred tax assets are recognised only to the extent that the Board consider that it is more likely than not that there will be suitable taxable profits from which the future reversal of the underlying temporary differences can be deducted.

Deferred tax is measured at the tax rates that are expected to apply in the periods in which temporary differences reverse, based on tax rates and laws enacted or substantively enacted at the balance sheet date.

(XV) PROVISIONS

A provision is recognised if, as a result of a past event, the Group has a present legal or constructive obligation that can be estimated reliably, and it is probable that an outflow of economic benefits will be required to settle the obligation. Provisions are determined by discounting the expected future cash flows at a pre-tax rate that reflects current market assessments of the time value of money and the risks specific to the liability. The unwinding of the discount is recognised as a finance cost.

Provision for asset retirement obligations

The provision for retirement and decommissioning of mainly generating stations, windfarms and ESB Networks creosote treated wood poles represents the present value of the current estimate of the costs of closure of the stations at the end of their useful lives.

The estimated costs of closing stations and other asset retirement obligations are recognised in full at the outset of the asset life, but discounted to present values using a risk free rate. The costs are capitalised in property, plant and equipment and are depreciated over the useful economic lives of the stations or other assets to which they relate unless the related asset has reached the end of its useful life. Subsequent changes in the liability in respect of assets that have reached the end of their useful life are recognised in the income statement as they occur. The costs are reviewed each

NOTES TO THE FINANCIAL STATEMENTS

1. STATEMENT OF ACCOUNTING POLICIES (continued)

(XV) PROVISIONS (continued)

Provision for asset retirement obligations (continued)

year and amended as appropriate. Amendments to the discounted estimated costs are capitalised into the relevant assets and depreciated over the remaining life of those assets to the extent that the assets are still in use. As the costs are capitalised and initially provided on a discounted basis, the provision is increased by a financing charge in each period, which is calculated based on the provision balance and discount rate applied at the last measurement date (updated annually) and is included in the income statement as a financing charge. In this way, the provision will equal the estimated closure costs at the end of the useful economic lives of stations or other assets. The actual expenditure is set against the provision as stations are closed or other obligations are met.

The provision for generating station closure costs and other asset retirement obligations is included within current or non-current provisions as appropriate on the balance sheet.

(XVI) OPERATING SEGMENTS – IFRS 8

ESB have voluntarily applied the disclosure requirements of IFRS 8 Operating Segments to the Group. IFRS 8 specifies how an entity should disclose information about its segments using a "management approach" under which segment information is presented on the same basis as that used for internal reporting. Financial information for segments whose operating activities are regularly reviewed by the Executive Team and the Board, collectively the Chief Operating Decision Maker (CODM), in order to make decisions about allocating resources and assessing performance has been presented in note 2 to the financial statements.

(XVII) COSTS

(a) Employee costs

Salaries, overtime, expenses, bonuses, social welfare contributions (PRSI), national insurance, paid annual leave and sick leave are accrued in the period in which the associated services are rendered by the employees of the Group.

(b) Energy costs

Energy costs comprise direct fuel (primarily coal and gas), purchased electricity, Use of System charges (other electricity costs) and net emissions costs. Fuel and purchased electricity costs are recognised as they are utilised. The Group has entered into certain long term power purchase agreements for fixed amounts. Amounts payable under the contracts that are in excess of or below market rates are recoverable by the Group or repayable to the market under the Public Service Obligation (PSO) levy.

(c) Operating and other maintenance costs

Operating and other maintenance costs relate primarily to overhaul and project costs, contractor costs and establishment costs. These costs are recognised in the income statement as they are incurred.

(d) Finance income and finance costs

Finance income comprises interest income on bank deposits, which attract interest at prevailing deposit interest rates in addition to interest income on loans.

Finance costs comprise interest expense on borrowings, unwinding of the discount on provisions, pension financing charges, fair value gains and losses on financial instruments not qualifying for hedge accounting, losses on hedging instruments that are not recognised in operating costs and reclassifications of amounts previously recognised in other comprehensive income.

(XVIII) EXCEPTIONAL ITEMS

The Group has used the term "exceptional" to describe certain items which, in management's view, warrant separate disclosure by virtue of their size or incidence, or due to the fact that certain gains or losses are determined to be non-recurring in nature. Exceptional items may include restructuring, significant impairments, profit or loss on asset disposals, material changes in estimates or once off costs where separate identification is important to gain an understanding of the financial statements. Further details of the Group's exceptional items are provided in note 5 of the financial statements.

(XIX) EMPLOYEE RELATED LIABILITIES

(a) Restructuring liabilities

Voluntary termination benefits are payable under various collective agreements between the Board of ESB and Union Staff when an employee accepts voluntary redundancy in exchange for these benefits. The Group recognises termination benefits when it is demonstrably committed,

NOTES TO THE FINANCIAL STATEMENTS

1. STATEMENT OF ACCOUNTING POLICIES

(XIX) EMPLOYEE RELATED LIABILITIES (continued)

(a) Restructuring liabilities (continued)

without realistic possibility of withdrawal, to a formal detailed plan to either terminate employment before the normal retirement age, or to provide termination benefits as a result of an offer made to employees to encourage voluntary redundancy. Ordinary termination benefits not covered by the aforementioned agreement are recognised at the earlier of when the Group can no longer withdraw the offer of those benefits and when the Group begins to implement the restructuring plan. Benefits expected to be settled more than twelve months after the balance sheet date are discounted to present value. Future operating losses are not provided for.

(b) Other short term employee related liabilities

The costs of holiday leave and bonuses accrued are recognised when employees render the service or performance that increases their entitlement to future compensated absences or payments.

(XX) PENSION OBLIGATIONS

The Group companies operate various pension schemes in the Republic of Ireland and Northern Ireland, which are funded through payments to trustee administered funds.

Pension schemes in the Republic of Ireland

The Group operates two pension schemes, which are called the ESB Defined Benefit Pension Scheme and the ESB Defined Contribution Pension Scheme.

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

The regulations governing the Scheme stipulate the benefits that are to be provided and the contributions to be paid by both ESB and the contributing members. Benefits payable are determined by reference to a Career Average Revalued Earnings (CARE) pension model for benefits earned after 1 January 2012 (previously based on final salary). ESB has no legal obligation to increase contributions to maintain benefits in the event of a deficit and ESB's rate of contribution cannot be altered without the agreement of ESB and approval of the Minister for Communications, Climate Action and Environment. Should a deficit arise in the future, the Company is obliged under the Scheme regulations to consult with the Superannuation Committee, the Trustees and the Scheme Actuary to consider the necessity of submitting an amending Scheme for Ministerial approval.

Under the 2010 Pensions Agreement (approved by employees in July 2010 and formally ratified by the Board of ESB on 20 October 2010), ESB agreed to a once off cash injection into the Scheme, payable over a number of years, which had an agreed valuation for actuarial purposes as at 1 January 2010 of €591.0 million. The fixed contribution rates for the employer and for employees were not changed. Under the Agreement membership of the Scheme has been closed to new joiners.

The obligations to the Scheme reflected in ESB's financial statements have been determined in accordance with IAS 19 Employee Benefits. Given that the Scheme is not a typical "balance of costs" DB Scheme (where the employer is liable to pay the balance of contributions required to fund benefits), the obligations to be reflected in the financial statements require the exercise of judgement. Should a deficit arise in the future, the Company, as noted above, is obliged to consult with the parties to the Scheme. However, ESB has no obligation to increase contributions to maintain benefits in the event of a deficit and the Company does not intend that any further contributions, other than the normal on-going contributions and the balance of the Company's €591.0 million additional contribution (committed to as part of the 2010 Pensions Agreement), will be made. Therefore, ESB has concluded that the financial statements should reflect its obligations to the Scheme, which consist of:

(a) any remaining amounts to be paid in relation to the once-off contribution agreed pursuant to the 2010 Agreement (€591.0 million in 2010 money to be paid over a number of years);

(b) pre-existing commitments relating to past service (the present value of the agreed contributions that relates to service prior to October 2010); and

(c) Past Voluntary Severance (VS) Programmes – in 2010 the Company recognised a future commitment in respect of staff who have left the Company under past VS programmes. ESB will make pension contributions in respect of those staff and these are recognised at fair value. Ongoing contributions (up to 16.4%) are recognised in the income statement as incurred. Any unpaid amounts at year end are recognised as liabilities on the balance sheet.

NOTES TO THE FINANCIAL STATEMENTS

1. STATEMENT OF ACCOUNTING POLICIES (continued)

(XX) PENSION OBLIGATIONS (continued)

Pension schemes in the Republic of Ireland (continued)

The ESB Defined Contribution Pension Scheme is a defined contribution scheme and contributions to the Scheme are accounted for on a defined contribution basis with the employers' contribution charged to income in the period the contributions become payable.

Pension scheme in Northern Ireland

The Group's wholly owned subsidiary undertaking, Northern Ireland Electricity Networks Limited (NIE Networks), operates a defined benefit scheme in respect of all eligible employees. The defined benefit obligation of NIE Networks is calculated annually by independent actuaries using the projected unit credit method, and discounted at a rate selected with reference to the current rate of return of high quality corporate bonds of equivalent currency and term to the liabilities. Pension scheme assets are measured at fair value. Full actuarial valuations are obtained at least triennially and are updated annually thereafter. Actuarial gains and losses are recognised in full in the period in which they occur and are recognised in other comprehensive income.

The cost of providing benefits under the defined benefit scheme is charged to the income statement over the periods benefiting from employees' service. Past service costs including curtailment losses are recognised in the income statement in the period they occur. The interest income from pension scheme assets and the interest expense on pension scheme liabilities are included within net finance cost.

NOTES TO THE FINANCIAL STATEMENTS

2. SEGMENT REPORTING

The Group has applied IFRS 8 Operating Segments, and has made the appropriate disclosures in these financial statements.

During the year, ESB undertook an Organisational Effectiveness Review. Implementation of the new organisation commenced on 30 October 2018 but there will be a period of transition required in terms of people moves, processes and systems configurations to embed the new organisational structure. Internal financial reporting for the period from 1 November 2018 to 31 December 2018 continued under the previous organisational structure.

For management purposes, the Group is organised into four key reportable segments, being the Group's strategic divisions which are managed separately and in respect of which internal management information is supplied to Executive Management and to the Board being collectively the Chief Operating Decision Maker (CODM) of the Group. Three further corporate divisions provide support and other services to the principal operating divisions of the Group and are combined as Other Segments in the information below.

A description of the Group's key reportable segments is as follows:

(a) Electric Ireland is a leading supplier of electricity and gas to domestic customers on the island of Ireland and during 2017 entered the Great Britain (GB) domestic market through the establishment of ESB Energy. Electric Ireland also has a substantial market share in the non-domestic sector in both the Republic of Ireland (ROI) and Northern Ireland (NI). Revenues are primarily derived from sales to electricity and gas customers.

(b) ESB Networks is principally concerned with the ownership and operation of the electricity distribution network and the ownership of the electricity transmission network in ROI. ESB Networks is a regulated business earning an allowed return on its Regulated Asset Base (RAB) through Use of System charges payable by electricity generators and suppliers. It is ring-fenced by regulation from the Group's generation and supply business.

(c) ESB Generation and Trading (formerly ESB Generation and Wholesale Markets) comprises the generation and international investment business across the Group. Within this business segment, the Group operates power stations and wind farms in ROI, NI and GB.

(d) NIE Networks is principally concerned with the ownership and operation of the electricity distribution network and the ownership of the electricity transmission network in NI. NIE Networks is a regulated business earning an allowed return on its Regulated Asset Base (RAB) and derives its revenue principally from charges for the use of the distribution systems levied on electricity suppliers and from charges on transmission services collected by the System Operator for Northern Ireland (SONI).

(e) Other Segments include the results of internal service providers, which supply the main business units of the Group with support services. These segments are governed by regulation, and service level agreements are designed to ensure that transactions between operating segments are on an arm's length basis similar to transactions with third parties. This segment also includes most finance costs in the Group, as the majority of Treasury activity is conducted centrally. Finance costs incurred centrally are not recharged to other operating segments.

The CODM monitors the operating results of the segments separately in order to allocate resources between segments and to assess performance. Segment performance is predominantly evaluated based on operating profit. Assets and liabilities are not reported by segment to the CODM.

Revenue by product

Reportable segments are split by type of product revenue earned. Electric Ireland revenues consist of sales to electricity and gas customers. Generation and Trading revenue derives mainly from electricity generation. ESB Networks and NIE Networks earn Use of System income in the ROI and NI respectively. Revenue included within Other Segments relates primarily to engineering services.

NOTES TO THE FINANCIAL STATEMENTS

2. SEGMENT REPORTING (continued)

(a) Income statement

(i) Segment revenue - 2018

	Electric Ireland € '000	ESB Networks[1] € '000	Generation and Trading € '000	NIE Networks[1] € '000	Other Segments € '000	Consolidation and eliminations € '000	**Total € '000**
External revenues	1,826,087	751,368	517,347	272,959	64,059	-	**3,431,820**
Inter-segment revenue	8,843	386,921	973,767	29,441	246,188	(1,645,160)	**-**
Revenue	1,834,930	1,138,289	1,491,114	302,400	310,247	(1,645,160)	**3,431,820**

All inter-segment revenues are eliminated upon consolidation and are reflected in the eliminations column above.

(ii) Segment operating costs - 2018

	Electric Ireland € '000	ESB Networks € '000	Generation and Trading € '000	NIE Networks € '000	Other Segments € '000	Consolidation and eliminations € '000	**Total € '000**
Depreciation and amortisation	(8,442)	(412,386)	(192,159)	(143,100)	(23,309)	-	**(779,396)**
Other operating costs	(1,763,400)	(371,636)	(1,269,662)	(97,365)	(326,091)	1,645,160	**(2,182,994)**
Net impairment losses on financial assets	(8,785)	(254)	(17,500)	(378)	(986)	-	**(27,903)**
Impairment charge (including exceptional items)	-	-	(124,379)	-	(3,154)	-	**(127,533)**

(iii) Operating result - 2018

	Electric Ireland € '000	ESB Networks € '000	Generation and Trading € '000	NIE Networks € '000	Other Segments € '000	Consolidation and eliminations € '000	**Total € '000**
Operating profit / (loss) - including exceptional items	54,303	354,584	(103,069)	61,557	(51,953)	-	**315,422**
Net finance cost	(39)	(2,256)	(51,270)	(44,757)	(124,803)	-	**(223,125)**
Share of equity accounted investees' loss	-	-	(610)	-	(13,413)	-	**(14,023)**
Profit / (loss) before taxation	54,264	352,328	(154,949)	16,800	(190,169)	-	**78,274**

(i) Segment revenue - 2017 (restated)

	Electric Ireland[2] € '000	ESB Networks[2] € '000	Generation and Trading[2] € '000	NIE Networks € '000	Other Segments € '000	Consolidation and eliminations € '000	Total € '000
External revenues	1,690,325	663,433	558,564	252,158	64,542	-	3,229,022
Inter-segment revenue	4,692	394,103	847,870	19,644	232,194	(1,498,503)	-
Revenue	1,695,017	1,057,536	1,406,434	271,802	296,736	(1,498,503)	3,229,022

All Inter-segment revenues are eliminated upon consolidation and are reflected in the eliminations column above.

(ii) Segment operating costs - 2017

	Electric Ireland € '000	ESB Networks € '000	Generation and Trading € '000	NIE Networks € '000	Other Segments € '000	Consolidation and eliminations € '000	Total € '000
Depreciation and amortisation	(5,718)	(386,167)	(257,035)	(137,682)	(29,088)	-	(815,690)
Other operating costs[3]	(1,621,270)	(392,474)	(1,032,838)	(99,527)	(304,946)	1,498,503	(1,952,552)
Impairment charge (including exceptional items)	-	-	(275,579)	-	(3,777)	-	(279,356)

(iii) Operating result - 2017

	Electric Ireland € '000	ESB Networks € '000	Generation and Trading € '000	NIE Networks € '000	Other Segments € '000	Consolidation and eliminations € '000	Total € '000
Operating profit / (loss) - including exceptional items	68,029	317,379	(155,177)	34,593	(50,840)	-	213,984
Net finance cost	(87)	(360)	(19,459)	(47,135)	(148,582)	-	(215,623)
Share of equity accounted investees' profit / (loss)	-	-	4,108	-	(12,401)	-	(8,293)
Profit / (loss) before taxation	67,942	317,019	(170,528)	(12,542)	(211,823)	-	(9,932)

[1] Included in 2018 external revenue in acordance with IFRS 15 are amortisation of supply contributions €49.3 million in ESB Networks and €14.9 million in NIE Networks.

[2] As part of IFRS 15 implementation it was noted that PSO (public service obligation) revenue had been inconsistently categorised at a segment level between internal and external revenue and costs, and these amounts have been restated to ensure consistency of presentation. There was no impact on total revenue or costs as this related only to internal amounts reclassified between segments.

[3] Other operating costs in 2017 include net impairment losses on financial assets.

NOTES TO THE FINANCIAL STATEMENTS

2. SEGMENT REPORTING (continued)

(b) Other disclosures

	2018 € '000	2017 € '000
Additions to non-current assets		
Electric Ireland	**14,115**	9,325
ESB Networks	**589,568**	501,043
Generation and Trading	**298,598**	128,179
NIE Networks	**171,338**	142,791
Other Segments	**91,182**	86,101
Total	**1,164,801**	867,439

Additions to non-current assets include investments in property, plant and equipment, intangible assets (excluding emission allowances), financial assets and equity accounted investees.

Due to the new accounting standard IFRS 15 becoming effective on 1 January 2018, supply contributions are now recorded as deferred income. They were included in additions to non-current assets up to 31 December 2017.

3. REVENUE FROM CONTRACTS WITH CUSTOMERS

IFRS 15 requires disclosure to reflect the nature, timing, amount and uncertainty of its revenue within its disclosure requirements. ESB has determined that the disaggregation using existing segments and the nature of revenues is appropriate for its circumstances.

2018	Electric Ireland € '000	ESB Networks € '000	Generation and Trading € '000	NIE Networks € '000	Other Segments € '000	Consolidation and eliminations € '000	**Total € '000**
External revenues							
Revenue from Power Generation	-	-	517,347	-	-	-	**517,347**
Revenue from Use of System charges to customers	-	702,071	-	257,968	-	-	**960,039**
Amortisation of supply contributions	-	49,297	-	14,991	-	-	**64,288**
Revenue from sales to electricity and gas customers	1,826,087	-	-	-	-	-	**1,826,087**
Other revenue	-	-	-	-	64,059	-	**64,059**
Revenue from contracts with customers	**1,826,087**	**751,368**	**517,347**	**272,959**	**64,059**	**-**	**3,431,820**
Inter-segment revenue	8,843	386,921	973,767	29,441	246,188	(1,645,160)	**-**
Total ESB Group revenue	**1,834,930**	**1,138,289**	**1,491,114**	**302,400**	**310,247**	**(1,645,160)**	**3,431,820**

2017	Electric Ireland € '000	ESB Networks € '000	Generation and Trading € '000	NIE Networks € '000	Other Segments € '000	Consolidation and eliminations € '000	Total € '000
External revenues							
Revenue from Power Generation	-	-	558,564	-	-	-	558,564
Revenue from Use of System charges to customers	-	663,433	-	252,158	-	-	915,591
Revenue from sales to electricity and gas customers	1,690,325	-	-	-	-	-	1,690,325
Other revenue	-	-	-	-	64,542	-	64,542
Revenue from contracts with customers	1,690,325	663,433	558,564	252,158	64,542	-	3,229,022
Inter-segment revenue	4,692	394,103	847,870	19,644	232,194	(1,498,503)	-
Total ESB Group revenue	1,695,017	1,057,536	1,406,434	271,802	296,736	(1,498,503)	3,229,022

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4. GEOGRAPHIC INFORMATION

(a) Non-current assets by geographic location

	2018 € '000	2017 € '000
Ireland	**8,019,326**	7,443,227
UK including Northern Ireland	**3,307,298**	3,008,444
Total	**11,326,624**	10,451,671

Non-current assets in the above table consist of property, plant and equipment, intangible assets and goodwill. Investments in equity accounted investees, financial asset investments, trade and other receivables, derivative financial instruments and deferred tax assets are excluded. Non-current assets by geographic location in 2017 included investments in equity accounted investees, financial asset investments and trade and other receivables.

(b) External revenue by geographic market

	2018 € '000	2017 € '000
Ireland	**2,566,379**	2,396,156
UK including Northern Ireland	**837,018**	806,817
Rest of world	**28,423**	26,049
Total	**3,431,820**	3,229,022

5. EXCEPTIONAL ITEMS

	2018 € '000	2017 € '000
Impairment charges	**139,666**	275,579

2018 Impairment charges

IAS 36 - Impairment of Assets stipulates that an impairment loss is the amount by which the carrying value of an asset exceeds its recoverable amount. Recoverable amount is the higher of its fair value less costs of disposal and its value in use. Value in use is calculated by taking the Net Present Value (NPV) of expected future cash flows from the asset discounted at an appropriate discount rate. Entities are required to conduct impairment tests where there is an indication of impairment of an asset. Lower forecast wholesale electricity margins in the new Integrated Single Electricity Market (I-SEM) is an indicator that has prompted impairment reviews on certain of the Group's generation assets at 31 December 2018.

Aghada Unit Two (435 MW) and Synergen (410 MW) are Combined Cycle Gas Turbines (CCGT's) based in Cork and Dublin respectively. Aghada reached its commercial operation date in May 2010 and Synergen commenced operation in August 2002. The impairment review undertaken has highlighted an impairment charge of €87.3 million (2017: €69.1 million) for Aghada Unit 2 and €33.4 million (2017: €30.0 million) for Synergen which are included in the Generation and Trading (formerly Generation and Wholesale Markets) segment. The impairments arose as a result of lower projected revenue due to lower forecasted wholesale electricity margins for gas fired plants in the I-SEM market driven by lower spark spreads and forecast lower running volumes for these plants. The real discount rate applied to the cash flows to determine the NPV was a pre-tax rate of 6.11% (2017: 6.82%).

The review of the I-SEM windfarm portfolio highlighted the requirement for an impairment charge of €1.4 million. The driver of the impairment charge is a reduction in market revenue due to a decrease in price at Hunters Hill windfarm based in Northern Ireland. The real discount rate applied to the cash flows of Hunters Hill windfarm to determine the NPV was a pre-tax rate of 4.02%.

All forecast cash inflows for each asset and generation plant are based on the forecasted running profiles for the plants, regulatory support, forward prices for electricity, gas and carbon. The cash outflows reflect the forecast operating and capital expenditure plans based on the Board approved five-year business plans, and thereafter, on long-term production and cash flow forecasts.

IFRS 9 Financial Instruments:

Tilbury is a 40MW biomass fuelled power plant that ESB jointly invested in along with UK Green Investment Bank and other partners. The plant is located approximately 30km east of London and uses sustainable, locally sourced, waste wood from the greater London area. An impairment review of the shareholder loan to the project was completed prompted by the existence of impairment indicators including the delay in achieving the commissioning operation date milestone and the impact of downward pressure on wholesale electricity margins in GB. The impairment assessment of the shareholder loan was based on the expected available cashflows on the amounts due from Tilbury and was discounted at 12.56% being the effective rate of interest on the loan in line with IFRS 9. An impairment charge of €17.5 million (2017: €nil) was subsequently recognised in relation to the shareholder loan.

NOTES TO THE FINANCIAL STATEMENTS

5. EXCEPTIONAL ITEMS (continued)

2017 Impairment charges

The following indicators prompted impairment reviews on the Group's generation assets at 31 December 2017:
- The impact of the introduction of the new Integrated Single Electricity Market (I-SEM) in 2018 on projected revenues, in particular capacity revenue for generation plants in the Republic of Ireland (ROI) and Northern Ireland (NI).
- Increases in coal prices relative to gas resulting in lower margins earned at Moneypoint power station.
- Lower wholesale electricity margins in ROI (spark spreads and system marginal price (SMP) impacting all operational gas fired plants in SEM).

Moneypoint is a 915 MW coal fired power plant located close to Kilrush in Co. Clare. It was commissioned between 1985 and 1987 and in 2008, a major environmental equipment upgrade was completed at the plant to ensure it complies with strict environmental requirements for flue gas desulphurisation and selective catalytic reduction. An impairment charge of €141.7 million was recorded in operating costs in 2017 (note 7) in respect of Moneypoint in the Generation and Trading (formerly Generation and Wholesale Markets) segment, reflecting projected reduction in capacity revenue based on the clearing price in the December 2017 I-SEM capacity auction and market forecasts for future auctions and market based forecasts for coal spreads in I-SEM at that time.

Aghada Unit Two (435 MW), Synergen (410 MW) and Poolbeg (463 MW) are Combined Cycle Power Plants (CCGT's) based in Cork and Dublin respectively. An impairment charge of €69.1 million was recognised for Aghada, €30.0 million for Synergen and €20.9 million for Poolbeg in 2017. The impairments arose as a result of projected reduction in capacity revenue earned by the generation plants following the introduction of the new I-SEM market in October 2018 and the impact of lower forecasted wholesale electricity margins in ROI. The real discount rate applied to the cash flows to determine the NPV was a pre-tax rate of 6.82%.

Marina power station is located in Cork City Docklands on the River Lee. The station has gone through several different running regimes since it opened and in 2009 the unit was converted to open cycle operation with an output of 85 MW. An impairment charge of €1.1 million was recognised in 2017 due to the plant being unsuccessful in the 2017 I-SEM capacity auction. The real discount rate applied to the cash flows to determine the NPV was a pre-tax rate of 6.82%.

An impairment review performed in relation to the Group's operational wind farm portfolio in ROI, NI and Great Britain (GB) resulted in an impairment charge of €12.8 million being recognised in 2017 in the Generation and Trading (formerly Generation and Wholesale Markets) segment. The real discount rate applied to the cash flows to determine the NPV was a pre-tax rate of 4.4% (ROI) and 3.8% (NI). The impairment charge arose as a result of a projected reduction in market based revenues at that time.

6. OTHER OPERATING INCOME / (EXPENSES)

	2018 € '000	2017 € '000
Profit on disposal of property, plant and equipment and intangible assets	**8,616**	1,381
Gain on Castlepook Power DAC becoming a 100% subsidiary undertaking[1]	**4,672**	-
Profit on disposal of investments (note 14)	**-**	2,122
Profit on disposal of subsidiaries[2]	**-**	21,998
Amortisation of supply contributions[3]	**-**	32,772
Dividends received	**-**	3,026
Fair value movements on assets held at fair value through profit and loss[4]	**(11,995)**	(33,884)
Other operating income	**135**	5,145
Total	**1,428**	32,560

[1] Refer to note 14 for further information relating to the purchase of Castlepook Power DAC.
[2] The profit on disposal of subsidiaries in 2017 related to the sale of windfarm subsidiaries.
[3] From 2018 supply contributions are accounted for within Revenue - see note 1 accounting polices and note 3.
[4] These fair value movements relate to adjustments to the value of investments in renewables enterprises held by ESB Novusmodus Limited Partnership, a subsidiary, as detailed in note 14.

NOTES TO THE FINANCIAL STATEMENTS

7. OPERATING COSTS (including net impairment losses on financial assets)

	2018 € '000	2017 € '000
Employee costs (note 9)	492,824	466,368
Energy costs[1]	1,140,766	956,332
Operations and maintenance[2]	549,404	521,593
Net impairment losses on financial assets (notes 14 / 16)[3]	27,903	8,259
Impairment charges[4]	127,533	279,356
Depreciation and amortisation (notes 11 / 12)	779,396	815,690
Total	**3,117,826**	3,047,598

[1] Included in energy costs is a charge of €10.7 million (2017: €15.3 million) relating to the fair valuing of fuel commodity swaps which have not been designated as accounting hedges.

[2] Included in operations and maintenance is a foreign exchange retranslation loss of €5.1 million (2017: €10.8 million loss) on sterling denominated intercompany positions and a gain of €7.7 million (2017: €nil) on settlement of foreign exchange swaps in relation to the re-financing of Carrington debt.

[3] Net impairment losses on financial assets include impairment losses incurred on trade and other receivables of €10.4 million (2017: €8.3 million) and exceptional impairment charges incurred on loans to equity accounted investees of €17.5 million (2017: €nil) - see further detail in notes 5 and 16.

[4] Impairment charges of €127.5 million (2017: €279.4 million) have been recognised in 2018, €122.2 million (2017: €275.6 million) of which have been disclosed as exceptional items in the income statement and which relate to the generation portfolio (see note 5) and the remaining €5.3 million (2017: €3.8 million) relates to other impairments (see notes 11, 12 and 14).

8. NET FINANCE COST AND OTHER FINANCING CHARGES

	2018 € '000	2017 € '000
Interest payable on borrowings	203,045	211,558
Less capitalised interest	(25,372)	(23,456)
Net interest on borrowings	**177,673**	188,102
Financing charges:		
- on NIE Networks pension scheme (note 22)	3,354	4,113
- on ESB pension scheme (note 23)	14,080	22,515
- on employee related liabilities (note 23)	(5)	511
- on asset retirement costs (note 26)	2,469	1,611
- on other provisions (note 26)	(514)	456
Total financing charges	**19,384**	29,206
Fair value (gains) / losses on financial instruments:		
- currency / interest rate swaps: cash flow hedges, transfer from OCI	28,996	7,844
- interest rate swaps and inflation-linked swaps not qualifying for hedge accounting	481	(2,985)
- foreign exchange contracts not qualifying for hedge accounting	269	51
Total fair value losses on financial instruments	**29,746**	4,910
Finance cost	**226,803**	222,218
Finance income	**(3,678)**	(6,595)
Net finance cost	**223,125**	215,623

The financing charges on provisions are calculated in accordance with the policy for discounting of future payment obligations as disclosed in the accounting polices - see note 1.

In addition to the amounts transferred from other comprehensive income relating to interest rate swaps and foreign exchange contracts disclosed above, a gain of €23.3 million (2017: loss of €68.9 million) has been transferred from the cash flow hedging reserve to net finance cost and other financing charges during the year. However, these amounts are substantially offset by movements in the translation of the underlying hedged foreign currency borrowings at the prevailing exchange rates.

Included in finance income is interest on borrowings receivable from Aldeburgh Offshore Wind Holdings Limited €1.6 million (2017: €nil), Oweninny Power DAC €0.4 million (2017: €nil) and Tilbury Green Power Holdings Limited €nil (2017: €5.9 million) - see note 14 for further details.

Negative fair value movements of €6.5 million arose on the inflation-linked swaps in 2018 (2017: positive fair value movements of €3.7 million) reflecting lower interest rates and a higher Retail Price Index (RPI) in the UK. These have been recognised within finance costs in the income statement, as hedge accounting is not available for these instruments.

NOTES TO THE FINANCIAL STATEMENTS

9. EMPLOYEES

GROUP

(a) Average number of employees in year by business activity, including temporary employees:	2018 Number	2017 Number
Electric Ireland	420	386
ESB Networks	3,440	3,347
Generation and Trading	1,009	1,005
NIE Networks	1,206	1,288
Other Segments	1,799	1,764
Total	**7,874**	7,790

(b) Employee costs in year	2018 €'000	2017 €'000
Current staff costs (excluding pension)		
Salaries	513,619	523,474
Overtime	44,668	41,627
Social welfare costs (PRSI and national insurance)	40,389	38,934
Other payroll benefits[1]	36,794	35,243
Payroll cost for employees	**635,470**	639,278
Pension and other employee benefit costs		
Exit costs - severance programmes[2]	13,677	2,009
Pensions charge - other schemes[3]	51,825	47,156
NIE Networks pension scheme charge[4]	7,793	9,203
Release of restructuring provision[5]	-	(21,115)
	708,765	676,531
Capitalised payroll	(215,941)	(210,163)
Total employee related costs charged to the income statement	**492,824**	466,368

[1] These benefits primarily include travel and subsistence allowances.

[2] Included in severance programme costs are pension curtailment costs in respect of NIE Networks of €4.7 million (2017: €2.0 million).

[3] The pension charge for other schemes include contributions to the ESB Defined Contribution Scheme, the ESB Defined Benefit Pension Scheme, the Options section of the NIE Networks Pension Scheme (NIE Networks Scheme) and the stakeholder pension scheme for Great Britain (GB) employees (FMUK Pension Scheme). See note 22 for further details.

[4] The NIE Networks pension scheme charge relates solely to the Focus section of the Northern Ireland Electricity Networks Scheme (the NIE Networks Scheme). See note 22 for further details.

[5] A review of the restructuring provision was completed during 2017 and €21.1 million was credited to the income statement (note 23) in respect of Parent.

NOTES TO THE FINANCIAL STATEMENTS

9. EMPLOYEES (continued)

PARENT

(a) Average number of employees in year by business activity, including temporary employees:

	2018 Number	2017 Number
Electric Ireland	**295**	310
ESB Networks	**3,429**	3,338
Generation and Trading	**638**	626
Other Segments	**969**	939
Total	**5,331**	5,213

(b) Employee costs in year

	2018 €'000	2017 €'000
Current staff costs (excluding pension)		
Salaries	**367,558**	372,293
Overtime	**37,326**	33,784
Social welfare costs (PRSI)	**27,334**	24,878
Other payroll benefits[1]	**25,187**	23,170
Payroll cost for employees	**457,405**	454,125
Pension and other employee benefit costs		
Exit costs	**5,272**	-
Pension charge[2]	**34,217**	33,468
Release of restructuring provision [3]	**-**	(21,115)
	496,894	466,478
Capitalised payroll	**(161,979)**	(153,655)
Total employee related costs charged to the income statement	**334,915**	312,823

[1] These benefits primarily include travel and subsistence allowances.

[2] The pension charge includes contributions to the ESB Defined Contribution Scheme and the ESB Defined Benefit Pension Scheme. See note 22 for further details.

[3] A review of the restructuring provision was completed during 2017 and €21.1 million was credited to the income statement (note 23).

NOTES TO THE FINANCIAL STATEMENTS

10. PROFIT FOR THE FINANCIAL YEAR

	2018 €'000	2017 €'000
The profit for the financial year is stated after charging / (crediting):		
Depreciation and amortisation	**779,396**	815,690
Impairment charge (notes 5/11/12/14)	**127,533**	279,356
Operating lease charges	**21,120**	21,719
Amortisation of supply contributions[1]	**(64,397)**	(32,772)
Profit on disposal of property, plant and equipment and intangible assets	**(8,616)**	(1,381)
Profit on disposal of investments	**-**	(2,122)
Profit on disposal of subsidiaries	**-**	(21,998)
Auditor's remuneration:		
- Audit of individual and Group financial statements[2]	**1,018**	638
- Other assurance services	**189**	118
- Tax advisory services (Parent and NIE Networks entities only)	**39**	112
- Other non-audit services[3]	**478**	1,714
ESB (Parent) Board members' remuneration:		
- Emoluments	**500**	484
- Pension contributions	**52**	48

The details of Board members remuneration do not include amounts paid to four Worker Board members as employees of ESB (as such pay is neither increased nor decreased because of their membership of the Board), but do include amounts paid to them by way of Board fees.

[1] Included within note 25 deferred income is amortisation of supply contributions €64.4 million (2017: €32.7 million) and other deferred income €46.8 million (2017: €37.7 million).

[2] €410,000 (2017: €410,000) related to the audit of Parent company. Additionally €68,500 is payable to PwC Belfast in respect of the 2018 audit of NIE Networks (2017: €67,000). The audit of individual and Group financial statements includes the audit of subsidiary companies.

[3] Included in other non-audit services for financial year ended 2018 is €0.4 million (2017: €1.6 million) in respect of permitted services under a contract awarded to PwC prior to their appointment as auditors.

NOTES TO THE FINANCIAL STATEMENTS

11. PROPERTY, PLANT & EQUIPMENT

GROUP	Land and buildings € '000	Plant and machinery € '000	Total assets in commission € '000	Assets under construction € '000	**Total € '000**
Cost					
Balance at 1 January 2017	1,281,679	17,457,867	18,739,546	1,094,544	**19,834,090**
Additions	711	392,361	393,072	414,400	**807,472**
Retirements / disposals	(94)	(68,112)	(68,206)	(1,420)	**(69,626)**
Transfers out of assets under construction	32,443	567,723	600,166	(600,166)	**-**
Transfers from / (to) intangible assets	-	(276)	(276)	(22,955)	**(23,231)**
Translation differences	(294)	(156,772)	(157,066)	(3,851)	**(160,917)**
Balance at 31 December 2017	1,314,445	18,192,791	19,507,236	880,552	**20,387,788**
Balance at 1 January 2018	1,314,445	18,192,791	19,507,236	880,552	**20,387,788**
IFRS 15 transfer to deferred income	-	687,818	687,818	103,897	**791,715**
Restated balance at 1 January 2018	1,314,445	18,880,609	20,195,054	984,449	**21,179,503**
Additions	6	461,265	461,271	453,176	**914,447**
Retirements / disposals	(38,080)	(131,685)	(169,765)	(6,620)	**(176,385)**
Transfers out of assets under construction	20,202	175,927	196,129	(196,129)	**-**
Transfers from / (to) intangible assets	(405)	(3,964)	(4,369)	1,320	**(3,049)**
Other transfers	(78,996)	78,996	-	-	**-**
Translation differences	(126)	(43,203)	(43,329)	11	**(43,318)**
Balance at 31 December 2018	1,217,046	19,417,945	20,634,991	1,236,207	**21,871,198**
Depreciation					
Balance at 1 January 2017	710,147	8,685,381	9,395,528	-	**9,395,528**
Charge for the year	34,594	741,234	775,828	-	**775,828**
Retirements / disposals	(87)	(6,254)	(6,341)	-	**(6,341)**
Transfers from / (to) intangible assets	-	(268)	(268)	-	**(268)**
Impairment	24,764	254,592	279,356	-	**279,356**
Translation differences	(67)	(61,228)	(61,295)	-	**(61,295)**
Balance at 31 December 2017	769,351	9,613,457	10,382,808	-	**10,382,808**
Balance at 1 January 2018	769,351	9,613,457	10,382,808	-	**10,382,808**
IFRS 15 transfer to deferred income	-	58,417	58,417	-	**58,417**
Restated balance at 1 January 2018	769,351	9,671,874	10,441,225	-	**10,441,225**
Charge for the year	26,525	708,793	735,318	-	**735,318**
Retirements / disposals	(37,319)	(125,564)	(162,883)	-	**(162,883)**
Impairment	-	122,166	122,166	-	**122,166**
Transfers to intangible assets	(3,319)	(293)	(3,612)	-	**(3,612)**
Other transfers	(41,921)	41,921	-	-	**-**
Translation differences	(23)	(16,170)	(16,193)	-	**(16,193)**
Balance at 31 December 2018	713,294	10,402,727	11,116,021	-	**11,116,021**
Net book value at 31 December 2018	**503,752**	**9,015,218**	**9,518,970**	**1,236,207**	**10,755,177**
Net book value at 31 December 2017	545,094	8,579,334	9,124,428	880,552	**10,004,980**
Net book value at 1 January 2017	571,532	8,772,486	9,344,018	1,094,544	**10,438,562**

NOTES TO THE FINANCIAL STATEMENTS

11. PROPERTY, PLANT & EQUIPMENT (continued)

During the year the Group capitalised interest of €25.4 million (2017: €23.5 million) in assets under construction, using an effective interest rate of 3.6% (2017: 4.0%).

The carrying value of non-depreciable assets (land) at 31 December 2018 is €89.9 million (2017: €91.9 million).

Property, plant and equipment with a net book value of €nil at 31 December 2018 is included above at a cost of €4,632.2 million (2017: €4,087.9 million).

Included in additions is €55.6 million regarding assets acquired in relation to the acquisition of Castlepook Power DAC. See note 14 (c) - Group acquisitions for further details.

Retirements / disposals in both 2018 and 2017 primarily relate to the retirement of assets that have been fully depreciated.

Included within additions in 2018 is the capitalisation of an increase in the asset retirement provision for Generation and Trading and ESB Networks for €19.9 million (2017: €90.7 million). See note 26 for further details.

Due to the new accounting standard IFRS 15 becoming effective on 1 January 2018, supply contributions are now accounted for as deferred income and released to the income statement on a basis consistent with the depreciation policy of the underlying asset. Included in the transfers to deferred income are €791.7 million of gross supply contributions and accumulated amortisation of €58.4 million at 1 January 2018 which have been reclassified to deferred income.

Impairment charge

An impairment review has been carried out on assets displaying indications of impairment by comparing the net present value of future cash flows to their net book value as at 31 December 2018 resulting in a charge of €122.2 million (2017: €279.4 million).

The impairment reviews completed on ESB's generation portfolio as part of the 2018 year end process concluded that a number of material impairments were required in 2018 to a total value of €122.2 million (2017: €275.6 million). Refer to note 5 for further details on these exceptional impairment items.

Other impairments of €nil (2017: €3.8 million) have also been recognised during the year in relation to property, plant and equipment assets.

NOTES TO THE FINANCIAL STATEMENTS

11. PROPERTY, PLANT & EQUIPMENT (continued)

PARENT	Land and buildings € '000	Plant and machinery € '000	Total assets in commission € '000	Assets under construction € '000	Total € '000
Cost					
Balance at 1 January 2017	1,244,632	12,805,695	14,050,327	956,394	**15,006,721**
Additions	57	254,455	254,512	274,490	**529,002**
Retirements / disposals	(94)	(6,578)	(6,672)	-	**(6,672)**
Transfers out of assets under construction	11,255	363,889	375,144	(375,144)	**-**
Transfers to intangible assets	-	(268)	(268)	(24,283)	**(24,551)**
Balance at 31 December 2017	1,255,850	13,417,193	14,673,043	831,457	**15,504,500**
Balance at 1 January 2018	1,255,850	13,417,193	14,673,043	831,457	**15,504,500**
IFRS 15 transfer to deferred income	-	297,547	297,547	103,897	**401,444**
Restated balance at 1 January 2018	1,255,850	13,714,740	14,970,590	935,354	**15,905,944**
Additions	-	235,793	235,793	325,330	**561,123**
Retirements / disposals	(36,977)	(129,229)	(166,206)	(4,959)	**(171,165)**
Transfers out of assets under construction	19,613	141,824	161,437	(161,437)	**-**
Transfers from / (to) intangible assets	-	(4,504)	(4,504)	1,351	**(3,153)**
Other transfers	(51,538)	51,538	-	-	**-**
Balance at 31 December 2018	1,186,948	14,010,162	15,197,110	1,095,639	**16,292,749**
Depreciation					
Balance at 1 January 2017	688,660	7,233,891	7,922,551	-	**7,922,551**
Charge for the year	29,392	496,553	525,945	-	**525,945**
Retirements / disposals	(87)	(6,228)	(6,315)	-	**(6,315)**
Transfers to intangible assets	-	(268)	(268)	-	**(268)**
Impairment	24,764	211,808	236,572	-	**236,572**
Balance at 31 December 2017	742,729	7,935,756	8,678,485	-	**8,678,485**
Balance at 1 January 2018	742,729	7,935,756	8,678,485	-	**8,678,485**
IFRS 15 transfer to deferred income	-	18,608	18,608	-	**18,608**
Restated balance at 1 January 2018	742,729	7,954,364	8,697,093	-	**8,697,093**
Charge for the year	24,979	448,046	473,025	-	**473,025**
Retirements / disposals	(36,975)	(125,017)	(161,992)		**(161,992)**
Transfers to intangible assets	(3,303)	(372)	(3,675)		**(3,675)**
Impairment	-	87,276	87,276	-	**87,276**
Other transfers	(34,443)	34,443	-	-	**-**
Balance at 31 December 2018	692,987	8,398,740	9,091,727	-	**9,091,727**
Net book value at 31 December 2018	**493,961**	**5,611,422**	**6,105,383**	**1,095,639**	**7,201,022**
Net book value at 31 December 2017	513,121	5,481,437	5,994,558	831,457	**6,826,015**
Net book value at 1 January 2017	555,972	5,571,804	6,127,776	956,394	**7,084,170**

During the year the Parent capitalised interest of €24.1 million (2017: €21.7 million) in assets under construction, using an effective interest rate of 4.5% (2017: 4.6%).

The carrying value of non-depreciable assets (land) at 31 December 2018 is €85.3 million (2017: €86.3 million).

Property, plant and equipment with a net book value of €nil at 31 December 2018 are included above at a cost of €3,678.9 million (2017: €3,199.4 million).

Retirements / disposals in both 2018 and 2017 primarily relate to the retirement of assets that have been fully depreciated.

Due to the new accounting standard IFRS 15 becoming effective on 1 January 2018, supply contributions are now accounted for as deferred income and released to the income statement on a basis consistent with the depreciation policy of the underlying assets. Included in the transfers to deferred income are €401.4 million of gross supply contributions and accumulated amortisation of €18.6 million at 1 January 2018 which has been reclassified to deferred income.

Impairment

An impairment review has been carried out on assets displaying indications of impairment by comparing the net present value of future cash flows to their net book value as at 31 December 2018 resulting in a charge of €87.3 million (2017: €236.6 million).

The impairment reviews completed on ESB's generation portfolio as part of the 2018 year end process concluded that a number of material impairments are required in 2018 to a total value of €87.3 (2017: €232.8 million). Refer to note 5 for further details on these exceptional impairment items.

Other impairments of €nil (2017: €3.8 million) were recognised during 2018 in relation to property, plant and equipment assets.

NOTES TO THE FINANCIAL STATEMENTS

12. INTANGIBLE ASSETS

GROUP	Software and other intangible assets € '000	Emission allowances & ROCs[1] € '000	Software under development € '000	Total € '000
Cost				
Balance at 1 January 2017	676,407	62,423	56,063	**794,893**
Software additions	1,068	-	56,334	**57,402**
Purchase of emission allowances	-	31,795	-	**31,795**
Software disposals	(2,946)	-	-	**(2,946)**
Settlement of allowances	-	(65,232)	-	**(65,232)**
Transfers out of software under development	14,031	-	(14,031)	**-**
Transfers from / (to) property, plant and equipment	24,898	-	(1,667)	**23,231**
Translation differences	(6,330)	-	(27)	**(6,357)**
Balance at 31 December 2017	707,128	28,986	96,672	**832,786**
Balance at 1 January 2018	707,128	28,986	96,672	**832,786**
Software additions	6,272	-	96,008	**102,280**
Acquisitions	11,598	-	-	**11,598**
Purchase of allowances	-	118,233	-	**118,233**
Settlement of allowances	-	(59,548)	-	**(59,548)**
Software retirements	(88,815)	-	-	**(88,815)**
Transfers out of software under development	80,863	-	(80,863)	**-**
Transfers from / (to) property, plant and equipment	5,634	-	(2,585)	**3,049**
Translation differences	(1,665)	(25)	14	**(1,676)**
Balance at 31 December 2018	721,015	87,646	109,246	**917,907**
Amortisation				
Balance at 1 January 2017	521,672	-	-	**521,672**
Charge for the year	39,862	-	-	**39,862**
Transfers from property, plant and equipment	268	-	-	**268**
Translation differences	(4,668)	-	-	**(4,668)**
Balance at 31 December 2017	557,134	-	-	**557,134**
Balance at 1 January 2018	557,134	-	-	**557,134**
Charge for the year	44,078	-	-	**44,078**
Retirements	(88,815)	-	-	**(88,815)**
Transfers from property, plant and equipment	3,612	-	-	**3,612**
Impairment	1,221	-	-	**1,221**
Translation differences	(1,127)	-	-	**(1,127)**
Balance at 31 December 2018	516,103	-	-	**516,103**
Net book value at 31 December 2018	**204,912**	**87,646**	**109,246**	**401,804**
Net book value at 31 December 2017	149,994	28,986	96,672	**275,652**
Net book value at 1 January 2017	154,735	62,423	56,063	**273,221**

[1]The carrying value of ROCs included in emission allowances and ROCs amount to €5.9 million (2017: €nil).

Emission allowances are not amortised as they are held for settlement in the following year.

Acquisitions relate to the purchase of Castlepook Power DAC. See note 14 (c) - Group acquisitions for further details.

Software assets include both internally developed and externally purchased assets with the majority being represented by internally developed assets.

Other intangibles include grid connections with a net book value of €10.8 million (2017: €16.4 million).

Amortisation of intangible assets is charged to the income statement as part of operating costs.

Impairment

An impairment review has been carried out on assets displaying indications of impairment by comparing the net present value of future cash flows to their net book value as at 31 December 2018 resulting in a charge of €1.2 million (2017: €nil) on software assets.

NOTES TO THE FINANCIAL STATEMENTS

12. INTANGIBLE ASSETS (continued)

PARENT	Software and other intangible assets € '000	Emission allowances € '000	Software under development € '000	Total € '000
Cost				
Balance at 1 January 2017	507,777	62,505	48,291	**618,573**
Software additions	80	-	52,167	**52,247**
Purchase of emission allowances	-	13,262	-	**13,262**
Settlement of emission allowances	-	(46,699)	-	**(46,699)**
Transfers out of software under development	13,029	-	(13,029)	**-**
Transfers from / (to) property, plant and equipment	24,606	-	(55)	**24,551**
Balance at 31 December 2017	545,492	29,068	87,374	**661,934**
Balance at 1 January 2018	545,492	29,068	87,374	**661,934**
Software additions	-	-	90,781	**90,781**
Purchase of emission allowances	-	89,275	-	**89,275**
Software retirements	(81,581)	-	-	**(81,581)**
Settlement of emission allowances	-	(36,551)	-	**(36,551)**
Transfers out of software under development	72,077	-	(72,077)	**-**
Transfers from / (to) property, plant and equipment	4,504	-	(1,351)	**3,153**
Other transfers	1,234	-	-	**1,234**
Balance at 31 December 2018	541,726	81,792	104,727	**728,245**
Amortisation				
Balance at 1 January 2017	411,741	-	-	**411,741**
Charge for the year	30,366	-	-	**30,366**
Transfers from property, plant and equipment	268	-	-	**268**
Balance at 31 December 2017	442,375	-	-	**442,375**
Balance at 1 January 2018	442,375	-	-	**442,375**
Charge for the year	36,966	-	-	**36,966**
Retirements	(81,581)	-	-	**(81,581)**
Transfers from property, plant and equipment	3,675	-	-	**3,675**
Balance at 31 December 2018	401,435	-	-	**401,435**
Net book value at 31 December 2018	**140,291**	**81,792**	**104,727**	**326,810**
Net book value at 31 December 2017	103,117	29,068	87,374	**219,559**
Net book value at 1 January 2017	96,036	62,505	48,291	**206,832**

Software assets include both internally developed and externally purchased assets with the majority being represented by internally developed assets.

Other intangible assets include grid connections with a net book value of €6.6 million (2017: €10.6 million).

Emission allowances are not amortised as they are held for settlement in the following year.

Amortisation of intangible assets is charged to the income statement as part of operating costs.

NOTES TO THE FINANCIAL STATEMENTS

13. GOODWILL

	€ '000
Balance at 1 January 2017	177,242
Translation differences	(6,203)
Balance at 31 December 2017	171,039
Balance at 1 January 2018	**171,039**
Translation differences	**(1,396)**
Balance at 31 December 2018	**169,643**

Goodwill was recognised on the acquisition of Northern Ireland Electricity Networks (NIE Networks) in December 2010. Goodwill is reviewed annually in December for impairment, by assessing the recoverable amount of the investment, based on its value in use.

The annual impairment test of goodwill was carried out in December 2018 in accordance with IAS 36. No reduction in the value of goodwill was deemed to be required.

The Group calculates the value in use using a 20-year discounted cash flow model and a terminal value based on the Regulated Asset Base (RAB), corresponding to the expected useful life of the underlying asset base. The future cash flows are adjusted for risks specific to the investment and are discounted using a post-tax discount rate of 5.6% (2017: 5.6%).

Key drivers of the discounted cash flow include inflation and regulatory assumptions. Inflation rates used were sourced from the UK Office of Budget Responsibility and Bloomberg and a long-term rate of 3.0% was applied. Assumptions in relation to regulatory return and capital expenditure are made by reference to previous regulatory decisions for NIE Networks. The discount rate used is also a key driver for valuation and the rate was determined by building up an appropriate Weighted Average Cost of Capital (WACC) for the NIE Networks business.

Key drivers also include expectations of future levels of capital spend and the allowed return on the RAB. Both are agreed with the Utility Regulator in Northern Ireland (NIAUR) as part of the Regulatory Price Reviews, the most recent of which, RP6, was published on 30 June 2017.

NOTES TO THE FINANCIAL STATEMENTS

14. FINANCIAL ASSET INVESTMENTS AT FAIR VALUE THROUGH PROFIT OR LOSS AND EQUITY ACCOUNTED INVESTEES

(a) GROUP	Equity accounted investees € '000	Financial assets at fair value through profit or loss € '000	Total € '000
Balance at 1 January 2017	80,990	56,502	**137,492**
Additions	-	2,565	**2,565**
Disposals	-	(2,268)	**(2,268)**
Transfer to other payables	(3,427)	-	**(3,427)**
Share of loss	(8,293)	-	**(8,293)**
Fair value movement on cash flow hedges	13	-	**13**
Fair value through profit or loss (note 6)	-	(33,884)	**(33,884)**
Dividends received	(750)	-	**(750)**
Translation differences	(199)	(750)	**(949)**
Balance at 31 December 2017	68,334	22,165	**90,499**
Balance at 1 January 2018	68,334	22,165	**90,499**
Additions	135,201	1,275	**136,476**
Share of loss	(14,023)	-	**(14,023)**
Fair value movement on cash flow hedges	1,734	-	**1,734**
Fair value movement through profit or loss (note 6)	3,130	(11,995)	**(8,865)**
Repayments	-	(987)	**(987)**
Impairments	(2,756)	-	**(2,756)**
Translation differences	(1,833)	(6)	**(1,839)**
Balance at 31 December 2018	**189,787**	**10,452**	**200,239**

Castlepook Power DAC became a 100% subsidiary undertaking in 2018 from the purchase of the remaining 50% of shares from the joint venture partner Coillte Teoranta. The carrying value of the Group's investment in Castlepook Power DAC at the date of full acquisition was €nil. The details of this acquisition are included in the disclosures in section (c) of this note.

Equity accounted investees

The fair value movement on cash flow hedges for equity accounted investees relates to derivatives held in Raheenleagh Power DAC and Tilbury Green Power Holdings Limited which have been designated as cash flow hedging relationships in these entities.

Translation differences for equity accounted investees relate to Tilbury Green Power Holdings Limited and Aldeburgh Offshore Wind Holdings Limited as the functional currency of these companies is sterling.

Interests in equity accounted investees

Name of the company	Country	Holding 31 December 2018 % of share capital owned	Holding 31 December 2017 % of share capital owned
SIRO Limited	Republic of Ireland	**50**	50
Raheenleagh Power DAC	Republic of Ireland	**50**	50
Castlepook Power DAC[1]	Republic of Ireland	**100**	50
Oweninny Power DAC	Republic of Ireland	**50**	50
Emerald Bridge Fibres DAC	Republic of Ireland	**50**	50
Kingspan ESB Limited	Great Britain	**50**	50
Tilbury Green Power Holdings Limited	Great Britain	**47**	47
Terra Solar Limited	Republic of Ireland	**25**	25
Aldeburgh Offshore Wind Holdings Limited	Great Britain	**50**	-

[1]Castlepook Power DAC became a wholly owned subsidiary on 20 December 2018, and was accounted for on a fully consolidated basis from that date.

SIRO Limited (SIRO)

SIRO is an unlisted joint arrangement in which the Group has joint control and a 50% ownership interest. SIRO was founded by the Group with Vodafone Ireland Limited acquiring a 50% stake in November 2014.

Vodafone's acquisition of shares in SIRO was pursuant to a Joint Venture Arrangement (JVA) concluded between both parties.

SIRO is structured as a separate vehicle, is jointly controlled by the Group and Vodafone Ireland Limited, and the Group has a residual interest in the net assets of the Company. Accordingly, the Group has classified its interest in SIRO as an equity accounted investee. ESB has committed to provide capital funding to SIRO of €93.0 million, of which €93.0 million has been advanced as a short-term shareholder loan to date. The Group's share of capital commitments at 31 December 2018 amounts to €47.1 million (2017: €35.4 million).

The Group has guaranteed 50% of the drawings on a €200.0 million loan facility of SIRO. €28.0 million (Group share: €14.0 million) has been drawn down as at 31 December 2018.

NOTES TO THE FINANCIAL STATEMENTS

14. FINANCIAL ASSET INVESTMENTS AT FAIR VALUE THROUGH PROFIT OR LOSS AND EQUITY ACCOUNTED INVESTEES (continued)

Raheenleagh Power DAC (Raheenleagh)

The Group is a 50% partner in Raheenleagh, a joint arrangement formed with Coillte Teoranta. The purpose of this joint arrangement is to construct and operate a 35 MW wind farm in Co. Wicklow. The amount invested in Raheenleagh to date amounts to €5.1 million of which €3.1 million was advanced as equity and €2.0 million as shareholder loans.

Raheenleagh is legally separated from the parties and the legal form and the contractual arrangement do not give the parties direct rights to the assets and liabilities of the vehicle. Accordingly, the Group has classified its interest in Raheenleagh as an equity accounted investee as both parties have a residual interest in the net assets of the arrangement.

The Group has entered into a 15 year arrangement with Raheenleagh to purchase physical power from the wind farm. Payments made under this contract are based upon actual production.

Raheenleagh reached commercial operation in 2016.

Tilbury Green Power Holdings Limited (Tilbury)

The Group is a 47% partner in Tilbury, a joint arrangement formed with Green Investment Bank (47%) and Scandinavian equipment suppliers BWSC and AET (6%). The purpose of this joint arrangement is to construct and operate a waste wood to energy plant in Great Britain.

The amount invested in Tilbury to date amounts to €35.7 million, €2.4 million was advanced as equity and €33.3 million (after impairment) as shareholder loans. Interest on borrowings receivable from Tilbury amount to €nil (2017: €13.8 million). Loans to Tilbury were impaired by €17.5 million at 31 December 2018 (2017: €nil) in relation to Tilbury outstanding loans and accrued interest.

Tilbury is legally separated from the parties and the legal form and the contractual arrangement do not give the parties direct rights to the assets and liabilities of the vehicle. Accordingly, the Group has classified its interest in Tilbury as an equity accounted investee as both parties have a residual interest in the net assets of the arrangement.

The Group has entered into a 15 year arrangement with Tilbury to purchase physical power and renewable obligation certificates from the plant. Payments made under this contract are contingent upon actual production.

Tilbury reached commercial operation in January 2019.

Terra Solar Limited

During the year ended 31 December 2016, the Group invested €2.5 million in Terra Solar Limited for a 25% equity shareholding in the company. Terra Solar Limited is a developer of ground mounted solar parks. This investment is classified as an associate and is accounted for using the equity method. ESB's investment in Terra Solar was impaired by €1.8 million at 31 December 2018 (2017: €nil).

Oweninny Power DAC (Oweninny)

The Group is a 50% partner in Oweninny, a joint arrangement formed with Bord na Móna. The purpose of this joint arrangement is to develop a 172 MW windfarm located in Bellacorrick, Co. Mayo. As at 31 December 2018 the amount invested in Oweninny as a shareholder loan amounts to €10.8 million. Interest on borrowings receivable to date from Oweninny amounts to €1.1 million (2017: €0.7 million). The Group's share of capital commitments at 31 December 2018 amounts to €38.6 million (2017: €16.0 million).

Investment in Oweninny was held at €nil at 31 December 2018 (2017: €nil).

Emerald Bridge Fibres DAC (EBFD)

The Group is a 50% partner in EBFD, a joint arrangement with ZAYO Group. The purpose of this joint arrangement is the development and provision of telecommunication infrastructure between Ireland and the United Kingdom in the form of a subsea fibre optic cable network. The amount invested in EBFD to date amounts to €6.0 million of which €2.3 million was advanced as equity and €3.7 million as shareholder loans. Loans and interest on borrowings receivable from EBFD were impaired by €5.5 million at 31 December 2018 (2017: €3.9 million).

Investment in EBFD was held at €nil at 31 December 2018 (2017: €nil).

Aldeburgh Offshore Wind Holdings Limited (AOWHL)

In March 2018 the Group acquired 50% of the issued share capital of AOWHL. The Group also acquired 50% of the loan notes issued by Aldeburgh Offshore Wind Investments Limited (AOWIL) a 100% owned subsidiary of AOWHL from Macquarie Corporate Holdings Pty Limited to become a 50% Joint Venture Partner with Sumitomo Corporation Europe Limited. The amount invested by ESB to date amounts to €154.0 million of which €126.8 million was advanced as equity and €27.2 million as shareholder loans (see note 29). The shareholder loans were repaid in full in January 2019.

AOWHL has a 25% stake in the Galloper Wind Farm project. The Galloper project is a 353 MW development located in the Outer Thames estuary, 30km off the coast of Suffolk, England. The 50% investment in AOWHL indirectly provides ESB with a 12.5% stake in the Galloper project.

AOWHL is legally separated from the parties and the legal form and the contractual arrangement do not give the parties direct rights to the assets and liabilities of the vehicle. Having assessed the investment in AOWHL/AOWIL ESB have concluded that they have joint control under IFRS 10 and IFRS 11. Accordingly, ESB's 50% investment in AOWHL/AOWIL is equity accounted in line with IAS 28.

Please refer to note 29 for further information regarding transactions with equity accounted investees for the year ended 31 December 2018 and 2017.

NOTES TO THE FINANCIAL STATEMENTS

14. FINANCIAL ASSET INVESTMENTS AT FAIR VALUE THROUGH PROFIT OR LOSS AND EQUITY ACCOUNTED INVESTEES (continued)

The Group's aggregate share of the non-current assets, current assets, non-current liabilities, current liabilities, income and expenses related to its interests in these joint ventures are as follows:

Summarised income statement	Aldeburgh Offshore Wind Holdings Limited[1]		SIRO Limited[2]		Tilbury Green Power Holdings Limited[3]		Other equity accounted investees[3&4]	
	2018 €'000	2017 €'000	**2018 €'000**	2017 €'000	**2018 €'000**	2017 €'000	**2018 €'000**	2017 €'000
Revenue	**-**		**7,986**	3,172	**-**	**-**	**9,526**	10,176
Total profit / (loss)	**7,650**	-	**(25,989)**	(27,861)	**(24,559)**	1,826	**(850)**	2,645
Group share of profit / (loss)	**3,825**	-	**(12,994)**	(13,931)	**(11,543)**	858	**529**	4,780
Group share of fair value movement on cash flow hedges	**(1,537)**	-	**-**	-	**-**	(593)	**-**	606
Other adjustments	**-**	-	**-**	-	**7,977**	-	**(280)**	-
Total comprehensive profit / (loss)	**2,288**	-	**(12,994)**	(13,931)	**(3,566)**	265	**249**	5,386

Summarised balance sheet	**2018 €'000**	2017 €'000	**2018 €'000**	2017 €'000	**2018 €'000**	2017 €'000	**2018 €'000**	2017 €'000
Cash	**3**	-	**27,733**	11,787	**14,912**	25,891	**10,783**	11,139
Current assets	**9,025**	-	**16,436**	7,937	**35,501**	5,569	**3,872**	6,303
Non-current assets	**116,635**	-	**312,541**	236,530	**197,407**	199,792	**134,177**	111,958
Current liabilities	**(12,953)**	-	**(255,827)**	(129,191)	**(22,251)**	(3,261)	**(7,593)**	(2,750)
Non-current liabilities	**(51,144)**	-	**(570)**	(760)	**(246,648)**	(226,192)	**(144,385)**	(118,759)
Net assets / (liabilities)	**61,566**	-	**100,313**	126,303	**(21,079)**	1,799	**(3,146)**	7,891

Reconciliation of the above amounts to the investment recognised in the consolidated balance sheet.

Group equity interest	**50%**	-	**50%**	50%	**47%**	47%		
Net assets / (liabilities)	**61,566**	-	**100,313**	126,303	**(21,079)**	1,799	**(3,146)**	7,891
Group share	**30,783**	-	**50,156**	63,151	**(9,907)**	845	**(2,875)**	3,153
Other adjustments	**98,907**	-	**6,046**	(454)	**9,907**	-	**6,770**	(1,639)
Carrying value of Group's equity interest	**129,690**	-	**56,202**	62,697	**-**	845	**3,895**	4,792

[1]Other adjustments in relation to Aldeburgh Offshore Wind Holdings Limited represent the difference between the carrying value of the Group's share of the net assets acquired and the investment amount.

[2]Other adjustments in relation to SIRO Limited represents an additional investment by the Group during 2018.

[3]Other adjustments in relation to Tilbury Green Power Holdings Limited and other equity accounted investees relate to losses exceeding initial investment. Where the group's share of losses of an associate or joint venture equals or exceeds its interest in the associate or joint venture, the Group discontinues recognising its share of further losses unless there is legal or constructive obligation to recognise further losses.

[4]Other equity accounted investees' includes ESB's 50% share in Emerald Bridge Fibres DAC, Kingspan ESB Limited, Raheenleagh Power DAC, Oweninny Power DAC and 25% share in Terra Solar Limited.

Interest in financial assets held at fair value through profit or loss

The Group owns a venture capital fund, ESB Novusmodus Limited Partnership, in which seed capital is invested into emerging technology entities. These investments are managed purely for an investment return and are consequently carried at fair value through the income statement. No financial assets held at fair value through profit or loss are controlled by ESB. The investments comprise of a number of clean energy and new technology companies. These investments have been fair valued at the year end and the movement is reflected in the income statement. The fair value movements in both 2018 and 2017 primarily relate to adjustments to the value of certain investments in the fund.

At 31 December 2018, the Group could be called upon by its partners in the VantagePoint fund to make a further €0.5 million (2017: €0.5 million) investment in the fund.

NOTES TO THE FINANCIAL STATEMENTS

14. FINANCIAL ASSET INVESTMENTS AT FAIR VALUE THROUGH PROFIT OR LOSS AND EQUITY ACCOUNTED INVESTEES (continued)

(b) PARENT

	Equity accounted investees[1] € '000	Subsidiary undertakings € '000
Balance at 1 January 2017	100,000	61,782
Balance at 31 December 2017	100,000	61,782
Balance at 1 January 2018	**100,000**	**61,782**
Additions	6,500	-
Balance at 31 December 2018	**106,500**	**61,782**

[1] The amounts included reflect the Group's investment in the share capital of equity accounted investees, other amounts due from equity accounted investees are included in trade and other receivables (see note 16).

(c) GROUP ACQUSITIONS

On 20 December 2018 the Group completed the acquisition of the remaining 50% shareholding in Castlepook Power DAC, an Irish based wind farm.

The acquisition was completed in order to acquire the wind farm following the decision by Coillte Teoranta to dispose of their 50% shareholding.

The details of the assets and liabilities recognised as a result of the acquisition are as follows:

	€ '000
Property, plant and equipment	**55,577**
Intangible assets	**11,598**
Cash and cash equivalents	**41**
Trade and other receiveables	**814**
Deferred tax liabilities	**(1,289)**
External borrowings	**(44,907)**
Financial instruments	**(1,510)**
Trade and other payables	**(2,758)**
Asset retirement provision	**(1,094)**
Net identifiable assets and liabilities	**16,472**
Fair value of the Group's previously held 50% interest in Castlepook Power DAC at the acquisition date	**4,672**
Cash consideration paid - equity	**4,672**
Cash consideration paid - repayment of Coillte Teoranta shareholder loan	**7,128**
Total deemed purchase consideration	**16,472**

The assets and liabilities acquired as set out above were reflected in the Group financial statements at their fair value on acquisition.

In order to account for the acquisition, the Group completed an exercise to fair value its interest in Castlepook Power DAC as at 20 December 2018. The acquisition gave rise to a €4.7 million gain, which is included within other operating income (see note 6).

Purchase consideration - cash outflow	**€ '000**
Outflow of cash to acquire subsidiary, net of cash acquired	
Cash consideration paid - equity	**(4,672)**
Cash consideration paid - repayment of Coillte Teoranta shareholder loan	**(7,128)**
Less balanced acquired:	
Cash and cash equivalents	**41**
Net outflow of cash - investing activities	**(11,759)**

NOTES TO THE FINANCIAL STATEMENTS

15. INVENTORIES

	GROUP 2018 € '000	2017 € '000	PARENT 2018 € '000	2017 € '000
Materials	**39,800**	50,319	**19,604**	25,016
Fuel	**59,505**	58,821	**51,978**	51,948
Construction work in progress	**34,681**	12,845	**-**	-
Total	**133,986**	121,985	**71,582**	76,964

Inventories consumed during the year ended 31 December 2018 totalled €95.7 million (2017: €145.6 million). Provision for impairments recognised during the period was €3.2 million (2017: €nil).

Construction work in progress includes property assets which are being constructed for resale and stated at the lower of cost and net realisable value.

16. TRADE AND OTHER RECEIVABLES

	GROUP 2018 € '000	2017 € '000	PARENT 2018 € '000	2017 € '000
Current receivables:				
Retail electricity receivables - billed	**58,631**	54,902	**45,346**	43,093
Retail electricity receivables - unbilled	**200,718**	187,600	**132,666**	139,777
Total retail electricity receivables	**259,349**	242,502	**178,012**	182,870
I-SEM / SEM pool related receivables	**14,773**	72,304	**10,326**	47,039
Use of System receivables (including unbilled)	**217,353**	252,158	**44,082**	40,528
Other electricity receivables	**13,541**	18,230	**935**	2,935
Total electricity receivables	**505,016**	585,194	**233,355**	273,372
Trade receivables - non-electricity	**111,822**	56,388	**78,461**	12,585
Amounts due from equity accounted investees	**141,422**	68,278	**96,447**	55,935
Other receivables	**94,386**	34,753	**15,487**	12,645
Amounts due from subsidiary undertakings	**-**	-	**2,937,368**	2,284,311
Prepayments	**89,645**	39,368	**37,455**	27,153
Total current receivables	**942,291**	783,981	**3,398,573**	2,666,001

	GROUP 2018 € '000	2017 € '000	PARENT 2018 € '000	2017 € '000
Non-current receivables:				
Trade receivables - non-electricity	**-**	196	**-**	-
Amounts due from equity accounted investees	**47,183**	74,740	**-**	-
Total non-current receivables	**47,183**	74,936	**-**	-
Total receivables	**989,474**	858,917	**3,398,573**	2,666,001

Wholesale and retail credit risk

Trade and other receivables can be divided into final retail electricity customers (billed and unbilled), I-SEM pool related receivables, Use of System receivables, other (non-electricity) receivables, equity accounted investees and amounts due from subsidiary undertakings.

Expected credit loss allowance

One of the key changes under IFRS 9 is the introduction of an expected credit loss (ECL) impairment model for the calculation of impairment loss allowances. Under this impairment model, it is assumed that all receivables carry a risk of default. This impairment model is used to calculate the probability of default at a range of possible outcomes, weighted by the probability of their occurrence. These ECLs are measured under the general approach or simplified approach.

The simplified approach is applied to ESB's trade and other receivables within the scope of IFRS 15. Under the simplified approach, an entity will recognise a loss based on the lifetime ECLs. It allows an entity to use a provision matrix for calculating the ECLs. This matrix considers the historical default rates over the expected life of the trade receivable and is adjusted for forward-looking estimates.

NOTES TO THE FINANCIAL STATEMENTS

16. TRADE AND OTHER RECEIVABLES (continued)

The general approach is applied to the Group's shareholder loans advanced to equity accounted investees. Under the general approach, an entity must determine whether the financial asset is in one of three stages in order to determine the amount of ECL to recognise;

Stage 1 is where credit risk has not increased significantly since initial recognition. For financial assets in stage 1, entities are required to recognise 12 month ECL and recognise interest income on a gross basis – this means that interest will be calculated on the gross carrying amount of the financial asset before adjusting for ECL.

Stage 2 is where credit risk has increased significantly since initial recognition. When a financial asset transfers to stage 2 entities are required to recognise lifetime ECL but interest income will continue to be recognised on a gross basis.

Stage 3 is where the financial asset is credit impaired. This is effectively the point at which there has been an incurred loss event. For financial assets in stage 3, entities will continue to recognise lifetime ECL but they will now recognise interest income on a net basis. This means that interest income will be calculated based on the gross carrying amount of the financial asset less ECL.

The general approach applies to all loans and receivables not eligible for application of the simplified approach, which for the Group are primarily loans to equity accounted investees. Assessment of the probability of default for these loans is included below. For further details of these loans see note 14.

The maximum credit exposure of the Group at 31 December 2018 and 2017 is set out on the following tables. Prepayments of €89.6 million (2017: €39.4 million) are excluded from the analysis as no credit exposure is perceived in relation to these. In the case of the Parent company balances stated in the following tables also exclude amounts due from subsidiary undertakings of €2,937.4 million (2017: €2,284.3 million).

Simplified approach - Expected Credit Losses

2018*	GROUP Gross amount receivable € '000	GROUP Loss allowance € '000	GROUP Net amount receivable € '000	PARENT Gross amount receivable € '000	PARENT Loss allowance € '000	PARENT Net amount receivable € '000
Not past due receivables	**534,410**	**(3,190)**	**531,220**	**212,918**	**(2,357)**	**210,561**
Past due < 30 days	**152,809**	**(2,992)**	**149,817**	**94,308**	**(2,809)**	**91,499**
Past due 30 - 120 days	**21,588**	**(5,394)**	**16,194**	**13,884**	**(4,637)**	**9,247**
Past due > 120 days	**28,172**	**(11,185)**	**16,987**	**23,403**	**(10,565)**	**12,838**
Past due by more than one year	**24,815**	**(17,043)**	**7,772**	**15,258**	**(12,100)**	**3,158**
Total	**761,794**	**(39,804)**	**721,990**	**359,771**	**(32,468)**	**327,303**

*Included in the above are amounts due from equity accounted investees of €10.7 million.

2017*	GROUP Gross amount receivable € '000	GROUP Loss allowance € '000	GROUP Net amount receivable € '000	PARENT Gross amount receivable € '000	PARENT Loss allowance € '000	PARENT Net amount receivable € '000
Not past due remaining receivables	751,994	(2,058)	749,936	310,176	(1,729)	308,447
Past due < 30 days	34,821	(3,339)	31,482	30,768	(3,339)	27,429
Past due 30 - 120 days	17,539	(5,272)	12,267	8,181	(3,684)	4,497
Past due > 120 days	24,725	(10,711)	14,014	21,772	(10,711)	11,061
Past due by more than one year	29,364	(17,514)	11,850	15,650	(12,547)	3,103
Total	858,443	(38,894)	819,549	386,547	(32,010)	354,537

*Amounts due from equity accounted investees measured under the general approach are included in 2017 balances above.

NOTES TO THE FINANCIAL STATEMENTS

16. TRADE AND OTHER RECEIVABLES (continued)

General approach- Expected Credit Losses

31 December 2018	GROUP Gross amount receivable € '000	GROUP Loss allowance € '000	GROUP Net amount receivable € '000	PARENT Gross amount receivable € '000	PARENT Loss allowance € '000	PARENT Net amount receivable € '000
Stage 1 - 12 Month ECL (not credit impaired)	144,569	-	144,569	96,447	-	96,447
Stage 2 - Lifetime ECL (not credit impaired)	-	-	-	-	-	-
Stage 3 - Lifetime ECL (not credit impaired)	33,270	-	33,270	-	-	-
Total	**177,839**	**-**	**177,839**	**96,447**	**-**	**96,447**

Expected Credit Losses Reconciliation	GROUP 2018 € '000	GROUP 2017 € '000	PARENT 2018 € '000	PARENT 2017 € '000
Simplified approach	721,990	819,549	327,303	354,537
General approach[1]	177,839	-	96,447	-
Prepayments[2]	89,645	39,368	37,455	27,153
Amounts due from subsidary undertakings	-	-	2,937,368	2,284,311
Total	**989,474**	858,917	**3,398,573**	2,666,001

[1]IFRS 9 distinction for simplified and general approach not applicable in 2017.
[2]Prepayments are excluded from the analysis as no credit exposure is perceived in relation to this balance.

Amounts due from subsidiary undertakings

At 31 December 2018, the Parent company had balances receivable of €2,937.4 million (2017: €2,284.3 million) from its subsidiaries. These receivables mainly relate to management services and loans to subsidiaries as well as electricity charges including Use of System charges. Total provision in respect of amounts due from subsidiary undertakings at 31 December 2018 is €365.3 million (2017: €330.9 million).

The impairment loss recognised in the Parent company in respect of amounts due from subsidiary undertakings has been calculated using expected credit loss model as required by IFRS 9. In determining the impairment loss, amounts due from subsidiaries were classified as either amounts repayable on demand, low credit risk receivables or amounts for which there has been a substantial increase in credit risk since initial recognition. In determining the expected credit loss (including probability of default and loss given default), regard was given to the historic performance of the relevant loan as well as forward looking information for the relevant subsidiary including detailed discounted cash flow forecasts. For repayable on demand loans where the loan could not be repaid at the reporting date, expected credit losses were calculated by considering the likely recovery strategies of the Parent company, including consideration of 'repay over time' strategies. For loans with a substantial increase in credit risk, consideration was given to the future activities and cash flows of the subsidiary and life time expected credit losses were recognised accordingly where appropriate.

Movement in the expected credit loss of trade and other receivables

The loss allowances for financial assets are based on assumptions about risk of default and expected loss rates. The Group uses judgement in making these assumptions and selecting the inputs to the expected credit loss calculations, based on the Group's past history, existing market conditions as well as forward looking estimates at the end of each reporting period. The movement in the expected credit loss in respect of trade receivables during the year was as follows:

	GROUP 2018 € '000	GROUP 2017 € '000	PARENT 2018 € '000	PARENT 2017 € '000
Balance at 1 January	38,894	45,106	32,010	36,160
Impairment loss recognised (net)	10,403	8,259	9,838	10,179
Loss allowance utilised	(9,486)	(14,454)	(9,380)	(14,329)
Translation differences	(7)	(17)	-	-
Balance at 31 December	**39,804**	38,894	**32,468**	32,010

NOTES TO THE FINANCIAL STATEMENTS

16. TRADE AND OTHER RECEIVABLES (continued)

Amounts due from equity accounted investees

Amounts due from equity accounted investees include shareholder loans, interest on these loans and trade receivable balances. Trade receivable balances from equity accounted investees are assessed for probability of default using the simplified approach under IFRS 9. All other balances due from equity accounted investees are assessed for probability of default using the general approach. In applying the general approach, the Group has used judgement in making assumptions and selecting the inputs to the expected credit loss calculation based on market conditions as well as forward looking estimates at the end of the reporting period. The Group has no purchased credit impaired loans.

Following the assessment of the carrying value of all ESB's shareholder loans advanced to equity accounted investees, it was determined that there was an increase in the credit risk of loans to two equity accounted investees since initial recognition; Tilbury Green Power Holdings Limited (TGPHL) and Emerald Bridge Fibres DAC (EBFD). The assessment on the amounts due from TGPHL and EBFD was based on the expected available cash flows, and discounted cash flows at the effective rate of interest on these shareholder loans, in line with the requirements of IFRS 9. As a result these loans are accounted for as stage 3 (credit impaired) assets and expected credit losses of €17.5 million (2017: €nil) in relation to TGPHL, and €1.6 million (2017: €4.1 million) in relation to EBFD are recognised in the income statement in the current year.

The remaining shareholder loans to equity accounted investees are assessed as stage 1 (not credit impaired) financial assets. The 12 month expected credit loss approach has been applied to the stage 1 loans consisting of analysis on both historical and forward looking qualitative and quantitative information to determine the credit risk. These loans are deemed to be of low credit risk given no indications of an increase in credit risk since initial recognition. As a result no expected credit loss has been recognised in relation to these loans. The total amount of undiscounted expected credit losses at initial recognition on financial assets that were initially purchased or originated credit-impaired during the year ended 31 December 2018 is €nil (2017: €nil).

Retail electricity receivables

Retail electricity receivables which includes electricity and gas customers relate to both residential and business customers. The credit risk on electricity accounts is managed through the ongoing monitoring of debtor days, putting in place appropriate collateral and a collection policy based on the credit worthiness, size and duration of debt. The concentration of risk in Electric Ireland is in relation to retail electricity accounts that have closed in arrears. In addition, given the continuing increase in competition, certain customers may switch suppliers before they have settled their outstanding balances. These accounts are managed within the Group's debt collection policy by a combination of internal debt follow-up, the use of debt collection agencies and legal action where necessary including the obtaining of publication of judgements.

Providing for future expected losses in relation to retail electricity receivables, including both billed and unbilled, is based on analysis of recent debt performance and an evaluation of the impact of economic conditions and particular industry issues. An additional provision may be made on a portfolio basis to cover additional anticipated losses. Collateral is held in the form of security deposits on new customer accounts not on direct debit arrangements.

Controls around electricity receivables are focused on the full recovery of amounts invoiced. Electricity receivables to the value of €39.8 million (2017: €38.8 million) were provided for at year end. The single largest customer amount written off during the year was €48,000 (2017: €36,000) relating to a customer that went into liquidation. Retail electricity receivables arise largely in the Republic of Ireland (ROI), with 10% (2017: 5%) relating to Northern Ireland (NI) revenue and 1% (2017: 0%) relating to Great Britain (GB) revenue.

Unbilled electricity receivables represent estimates of consumption not yet invoiced. Credit risk in relation to unbilled electricity is managed in line with billed electricity receivables as discussed above.

Integrated Single Electricity Market (I-SEM) receivables

Credit risk in relation to the I-SEM related receivables is managed by the Energy Trading and Risk functions (ET&R) within those business units engaged in electricity trading through the I-SEM. Each of these functions is ring-fenced from each other and segregation of responsibilities between the back office, middle office and front office functions is maintained in each case. The Trading back office function is responsible for invoicing customers and maintaining all accounts receivable. Payment terms for all trading balances relating to each of the I-SEM revenue streams are governed by the I-SEM settlement calendar.

Use of System receivables

Use of System income in ROI comprises of Distribution Use of System (DUoS) income, Transmission Use of System (TUoS) income and operation and maintenance (O&M) charges for generators connected to the distribution system. The credit terms for DUoS are 10 business days and there are currently 44 suppliers. TUoS is collected by EirGrid, and the Transmission Asset Owner (TAO) allowed revenue is invoiced to EirGrid over 12 monthly instalments with each invoice due 36 business days after month end. Invoices were issued in respect of 190 generators during 2018 for O&M charges, credit terms for O&M charges are 30 days. With the exception of public bodies, payments in relation to new connections or alterations are paid for in advance of the work being carried out. The credit terms for these invoices are 30 business days. Included in amounts due from subsidiary undertakings in Parent are amounts billed and collected through ESB Networks DAC, a subsidiary of the Parent in respect of Use of System receivables €222.9 million (2017: €65.2 million).

The credit risk in relation to DUoS is managed by the invocation of section 7 of the DUoS Framework Agreement approved by CRU on 1 August 2002. This section provides for the provision of security by each supplier. Before a supplier can register as a customer they must sign up to the DUoS agreement. All suppliers must provide security in accordance with section 7.2. The DUoS credit risk is also managed through the timely collection procedures in place which are in line with what is outlined in section 6 of the DUoS Framework Agreement and the monitoring of debtor days to keep these to a minimum. In the event of a supplier defaulting in line with section 7 of the DUoS Framework Agreement there is security cover in place for all suppliers.

NOTES TO THE FINANCIAL STATEMENTS

16. TRADE AND OTHER RECEIVABLES (continued)

Use of System receivables (continued)

TUoS credit risk is managed through the timely collection procedures in place and the monitoring of debtor days to keep these to a minimum. Procedures for the payment by EirGrid of TUoS income due to ESB Networks DAC as TAO are governed by the Infrastructure Agreement between EirGrid and ESB. This is not a normal bilateral contract freely entered into by the will of the parties, but an arrangement required by legislation and many of whose terms are specified in that legislation. Accordingly, the credit risk in relation to TUoS receivables is considered to be low. The amount due in respect of TUoS income at 31 December 2018 was €44.1 million (2017: €40.5 million), which is the largest Use of System receivable balance in ROI.

In respect of the Networks business in NI, revenue is derived principally from charges for use of the distribution system, PSO charges levied on electricity suppliers and charges for transmission services levied on System Operator for Northern Ireland (SONI). Credit risk in respect of Use of System receivables from electricity suppliers is mitigated by security received in the form of cash deposits, letters of credit or Parent company guarantees. With the exception of public bodies, payments in relation to new connections or alterations are paid for in advance of the work being carried out. Normal credit terms and debtor days in respect of trade receivables from electricity suppliers are less than 30 days. The largest Use of System electricity receivable in NI at 31 December 2018 is €9.4 million (2017: €9.6 million).

Other electricity receivables

Other electricity receivables include amounts in relation to ancillary services and amounts in relation to electricity trading in the UK market which is not included in the I-SEM.

Trade receivables - non-electricity and other receivables

Trade receivables - non-electricity relate to balances due in respect of the Group's non-electricity trading and other operations. It includes amounts due in respect of the Group's telecommunications, consultancy, facility management and other ancillary operations. Credit risk with regard to these balances is not considered to be significant. The largest unsecured single balance included within this category at 31 December 2018 is an amount of €3.1 million (2017: €3.4 million) due from an external company. Included within these categories are collateral amounts pledged by the Group in relation to derivative trading positions of €115.6 million (2017: €12.9 million). As these are collateral balances, credit risk is deemed to be €nil.

17. CASH AND CASH EQUIVALENTS

	GROUP		PARENT	
	2018 € '000	2017 € '000	**2018 € '000**	2017 € '000
Cash at bank and in hand	**229,073**	380,405	**122,276**	208,499

18. CHANGES IN EQUITY

(i) Capital stock

There are 1,970,781,852 units of capital stock in issue at a par value of €1.00 each (2017: 1,975,181,852 units)

	2018 € '000	2017 € '000
Comprised as:		
Stock issued from converted reserves	**1,880,888**	1,880,888
Stock issued for subsciption by ESOT	**89,894**	94,294
Total	**1,970,782**	1,975,182

In accordance with the Electricity (Supply) (Amendment) Act 2001, on 30 December 2001, the equity of ESB was converted to capital stock which was issued to the Department of Finance. At the same time, ESB ESOP Trustee Limited, established to act as Trustee for an ESB employee shareholding scheme, subscribed for 5% of the stock. The principal rights attaching to each unit of capital stock include the rights to exercise a vote at annual meetings, entitlements to dividends from profits when declared and the rights to proportionate participation in a surplus on winding up.

The Energy (Miscellaneous Provisions) Act 2006 amended Section 2 of the 2001 Act to provide that 10% of issued capital stock in ESB now stands vested in the Minister for Communications, Climate Action and Environment, with the Minister for Finance retaining 85% of ESB's capital stock and the ESOP retaining 5% of the stock at that date.

The Ministers and Secretaries Amendment Act 2011, which came into force on 6 July 2011, establishes the office of the Minister for Public Expenditure and Reform. The 2011 Act has the effect of transferring ownership of the stock previously held by the Minister for Finance in ESB to the Minister for Public Expenditure and Reform as and from 6 July 2011.

NOTES TO THE FINANCIAL STATEMENTS

18. CHANGES IN EQUITY (continued)

(ii) Capital redemption reserve

In May 2015, the ESB Board approved an ESOP market liquidity proposal. The objective of the proposal is to improve liquidity in the Employee Share Ownership Plan (ESOP) market whereby the ESOP Trustee is committing to spend €25.0 million of funds to acquire capital stock in the ESOP internal market. ESB will match the expenditure committed by the ESOP Trustee up to €25.0 million from 2014.

During 2018, ESB continued to repurchase ESOP capital stock and consequently the capital redemption reserve increased due to the purchase and cancellation of own share capital €4.4 million (2017: €4.7 million) for a consideration of €4.9 million (2017: €5.6 million) and represents the nominal amount of the share capital cancelled (note 31).

(iii) Cash flow hedging and other reserves – Group and Parent

The hedging reserve primarily represents the fair value of derivatives which are part of effective cash flow hedging relationships at year end. As the derivatives are held for hedging purposes as defined by IFRS 9, their fair value movements are retained in OCI instead of being charged to the income statement during the year and will be charged to income in the same period as the corresponding transaction.

(iv) Other reserves

Group other reserves include the following:

- Non-distributable reserves of (€5.0) million which was created on the sale of the Group's share in Ocean Communications Limited in 2001; and
- Actuarial movements on the NIE Networks defined benefit scheme, net of the related deferred tax adjustments, totalling (€205.0) million (2017: (€220.9) million).
- ESOP repurchase provision of (€11.8) million (2017: (€15.9) million) which relates to the amount that ESB has committed to date to repurchase from the ESOP internal market.

Parent other reserves include the following:

ESOP repurchase provision of (€11.8) million (2017: (€15.9) million) which relates to the amount that ESB has committed to date to repurchase from the ESOP internal market.

(v) Non-controlling interest - Group

Non-controlling interests at 31 December 2018 relate to the minority shareholdings in Crockahenny Wind Farm DAC, Mountain Lodge Power DAC, Airvolution Energy Limited and wind farms associated with Coriolis Energy.

Dividends

GROUP	**2018 € '000**	2017 € '000
Dividends of capital stock:		
Total dividend paid 1.75 (2017: 5.85) cents per capital stock unit	**34,647**	115,624
Dividend to non-controlling interest	**268**	170
Total	**34,915**	115,794

PARENT	**2018 € '000**	2017 € '000
Dividends of capital stock:		
Total dividend paid 1.75 (2017: 5.85) cents per capital stock unit	**34,647**	115,624
Total	**34,647**	115,624

Total dividends paid during 2018 amounted to €34.6 million and include a final dividend of €4.6 million (0.23 cents per unit of stock) in respect of 2017 and an interim dividend, declared and paid, of €30.0 million (1.52 cents per unit of stock).

The Board is now recommending that a final dividend of 0.25 cent per unit of capital stock, or €5.0 million in aggregate, in accordance with the dividend policy of 40% of profit after tax agreed with the government.

NOTES TO THE FINANCIAL STATEMENTS

19. TAXATION

(a) Income tax expense	**2018 € '000**	2017 € '000
Current tax expense		
Current tax	**33,991**	25,777
Prior year under / (over) provision	**2,556**	(2,571)
Value of tax losses surrendered by equity accounted investees	**2,593**	2,568
	39,140	25,774
Deferred tax expense		
Origination and reversal of temporary differences	**(14,780)**	(9,634)
Prior year (over) / under provision	**(6,323)**	5,838
	(21,103)	(3,796)
Total	**18,037**	21,978

Reconciliation of effective tax rate	**2018 € '000**	2017 € '000
Profit / (loss) before tax	**78,275**	(9,932)
Plus: after tax share of equity accounted investees	**14,023**	8,293
Profit / (loss) before tax before tax (excluding equity accounted investees loss)	**92,298**	(1,639)
Taxed at 12.5%	**11,537**	(205)
Expenses not deductible	**9,522**	18,702
Income not taxable[1]	**-**	(3,212)
Higher tax on chargeable gains	**645**	271
Income taxed at higher rate of corporation tax	**300**	129
Higher tax rates on overseas (losses) / profits	**(199)**	3,026
Prior year (over) / under provisions	**(3,768)**	3,267
Income tax expense	**18,037**	21,978

[1] This relates to disposals of shares in wind farm companies in the UK that qualified for substantial shareholding relief.

NOTES TO THE FINANCIAL STATEMENTS

19. TAXATION (continued)

(b) Deferred tax assets and liabilities

GROUP	**2018 € '000**	2017 € '000
Deferred tax assets		
Property, plant and equipment and intangible assets	**4,510**	2,176
Liability – NIE Networks pension scheme	**18,866**	24,330
Liability – ESB pension scheme	**49,405**	49,290
Borrowings	**7,205**	-
Provisions	**2,506**	1,985
Tax losses forward	**9,680**	6,191
Derivative financial instruments	**84,085**	94,688
Total deferred tax assets	**176,257**	178,660
Deferred tax liabilities		
Property, plant and equipment and intangible assets	**623,414**	645,987
Financial assets at fair value through profit or loss	**-**	-
Provisions	**7,212**	6,703
Derivative financial instruments	**16,339**	23,983
Capital gains tax	**1,180**	1,180
Total deferred tax liabilities	**648,145**	677,853
Net deferred tax liability	**(471,888)**	(499,193)

The movement in temporary differences for the Group were as follows:

2018	Original balance 31 December 2017 € '000	IFRS 9 transition impact € '000	Restated balance 1 January € '000	Recognised in Income € '000	Recognised in OCI € '000	Translation differences € '000	Acquisition of Castlepook Power DAC € '000	**Balance at 31 December € '000**
ASSETS								
Property, plant and equipment and intangible assets	2,176	-	2,176	2,334	-	-	-	**4,510**
Liability – NIE Networks pension scheme	24,330	-	24,330	(2,215)	(3,249)	-	-	**18,866**
Liability – ESB pension scheme	49,290	-	49,290	115	-	-	-	**49,405**
Borrowings	-	9,000	9,000	(1,795)	-	-	-	**7,205**
Provisions	1,985	-	1,985	521	-	-	-	**2,506**
Tax losses forward	6,191	-	6,191	3,489	-	-	-	**9,680**
Derivative financial instruments	94,688	-	94,688	(4,071)	(6,683)	151	-	**84,085**
Total deferred tax assets	178,660	9,000	187,660	(1,622)	(9,932)	151	-	**176,257**
LIABILITIES								
Property, plant and equipment and intangible assets	645,987	-	645,987	(23,550)	-	(312)	1,289	**623,414**
Provisions	6,703	-	6,703	509	-	-	-	**7,212**
Derivative financial instruments	23,983	-	23,983	316	(7,684)	(276)	-	**16,339**
Capital gains tax	1,180	-	1,180	-	-	-	-	**1,180**
Total deferred tax liabilities	677,853	-	677,853	(22,725)	(7,684)	(588)	1,289	**648,145**
Net deferred tax (liability) / asset	**(499,193)**	**9,000**	**(490,193)**	**21,103**	**(2,248)**	**739**	**(1,289)**	**(471,888)**

NOTES TO THE FINANCIAL STATEMENTS

19. TAXATION (continued)

(b) Deferred tax assets and liabilities (continued)

GROUP (continued)

2017	Balance at 1 January € '000	Recognised in income € '000	Recognised in OCI € '000	Translation differences € '000	**Balance at 31 December € '000**
ASSETS					
Property, plant and equipment and intangible assets	1,703	473	-	-	**2,176**
Liability – NIE Networks pension scheme	28,904	(2,985)	(1,589)	-	**24,330**
Liability – ESB pension scheme	65,601	(16,311)	-	-	**49,290**
Provisions	3,136	(1,151)	-	-	**1,985**
Tax losses forward	9,415	(3,224)	-	-	**6,191**
Derivative financial instruments	91,982	(212)	5,553	(2,635)	**94,688**
Total deferred tax assets	200,741	(23,410)	3,964	(2,635)	**178,660**
LIABILITIES					
Property, plant and equipment and intangible assets	680,132	(36,698)	-	2,553	**645,987**
Provisions	796	5,907	-	-	**6,703**
Derivative financial instruments	27,334	3,586	(3,355)	(3,582)	**23,983**
Capital gains tax	1,180	-	-	-	**1,180**
Total deferred tax liabilities	709,442	(27,205)	(3,355)	(1,029)	**677,853**
Net deferred tax (liability) / asset	(508,701)	3,795	7,319	(1,606)	**(499,193)**

There is no expiry date to when tax losses in the Group can be utilised.

Deferred tax has not been provided for in relation to unremitted reserves of the Group's overseas subsidiaries for two reasons; either there is no commitment for these reserves to be distributed in the foreseeable future or it has been established that no tax would arise on the remittance. Deferred tax has not been provided for in relation to unremitted reserves of the Group's overseas joint ventures as the Group has the ability to control the repatriation of these reserves to the Republic of Ireland. Cumulative unremitted reserves of overseas subsidiaries and joint ventures totalled €648.5 million (2017: €538.0 million) as at 31 December 2018.

PARENT	**2018 € '000**	2017 € '000
Deferred tax assets		
Liability - ESB pension scheme	**49,405**	49,291
Borrowings	**7,205**	-
Provisions	**17,988**	17,870
Derivative financial instruments	**6,179**	7,413
Total deferred tax assets	**80,777**	74,574
Deferred tax liabilities		
Property, plant and equipment	**429,056**	439,247
Derivative financial instruments	**4,218**	3,733
Capital gains tax	**1,180**	1,180
Total deferred tax liabilities	**434,454**	444,160
Net deferred tax liability	**(353,677)**	(369,586)

NOTES TO THE FINANCIAL STATEMENTS

19. TAXATION (continued)

(b) Deferred tax assets and liabilities (continued)

PARENT (continued)

The movement in temporary differences for the Parent were as follows:

2018	Original balance 31 December 2017 € '000	IFRS 9 transition impact € '000	Balance at 1 January € '000	Recognised in income € '000	Recognised in OCI € '000	**Balance 31 December € '000**
ASSETS						
Liability – ESB pension scheme	49,291	-	49,291	114	-	**49,405**
Borrowings	-	9,000	9,000	(1,795)	-	**7,205**
Provisions	17,870	-	17,870	118	-	**17,988**
Derivative financial instruments	7,413	-	7,413	-	(1,234)	**6,179**
Total deferred tax assets	74,574	9,000	83,574	(1,563)	(1,234)	**80,777**
LIABILITIES						
Property, plant and equipment	439,247	-	439,247	(10,191)	-	**429,056**
Derivative financial instruments	3,733	-	3,733	-	485	**4,218**
Capital gains tax	1,180	-	1,180	-	-	**1,180**
Total deferred tax liabilities	444,160	-	444,160	(10,191)	485	**434,454**
Net deferred tax (liability) / asset	**(369,586)**	**9,000**	**(360,586)**	**8,628**	**(1,719)**	**(353,677)**

2017	Balance at 1 January € '000	Recognised in income € '000	Recognised in OCI € '000	Balance 31 December € '000
ASSETS				
Liability – ESB pension scheme	65,602	(16,311)	-	49,291
Provisions	2,358	15,512	-	17,870
Derivative financial instruments	-	-	7,413	7,413
Total deferred tax assets	67,960	(799)	7,413	74,574
LIABILITIES				
Property, plant and equipment	464,569	(25,322)	-	439,247
Derivative financial instruments	2,624	-	1,109	3,733
Capital gains tax	1,180	-	-	1,180
Total deferred tax liabilities	468,373	(25,322)	1,109	444,160
Net deferred tax (liability) / asset	(400,413)	24,523	6,304	(369,586)

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NOTES TO THE FINANCIAL STATEMENTS

20. BORROWINGS AND OTHER DEBT

GROUP	Recourse borrowings € '000	Non-recourse borrowings € '000	2018 Total € '000	2017 Total € '000
Current borrowings				
- Repayable by instalments	84,126	1,789	**85,915**	96,759
- Repayable other than by instalments	520,360	-	**520,360**	291,314
Total current borrowings	604,486	1,789	**606,275**	388,073
Non-current borrowings				
- Repayable by instalments				
Between one and two years	84,014	1,823	**85,837**	119,636
Between two and five years	215,145	4,871	**220,016**	442,256
After five years	354,268	52,072	**406,340**	500,984
	653,427	58,766	**712,193**	1,062,876
- Repayable other than by instalments				
Between one and two years	307,425	-	**307,425**	432,485
Between two and five years	305,343	-	**305,343**	349,259
After five years	2,377,701	835,030	**3,212,731**	2,525,085
	2,990,469	835,030	**3,825,499**	3,306,829
Total non-current borrowings	3,643,896	893,796	**4,537,692**	4,369,705
Total borrowings outstanding	4,248,382	895,585	**5,143,967**	4,757,778

See section (b) for details of applicable interest rates.

Current borrowings by facility	Ref	2018 € '000	2017 € '000
ESB Eurobonds	1	**214,210**	-
Non-recourse long-term project finance debt	2	**1,789**	18,094
Non-recourse NIE Networks Eurobonds	3	**-**	199,609
Long-term bank borrowings	4	**152,925**	78,665
Private placement borrowings	5	**237,351**	91,705
		606,275	388,073

Non-current borrowings by facility	Ref	2018 € '000	2017 € '000
ESB Eurobonds	1	**2,684,567**	2,334,037
Non-recourse long-term project finance debt	2	**58,766**	426,582
Non-recourse NIE Networks Eurobonds	3	**835,030**	448,842
Long-term bank borrowings	4	**653,427**	636,294
Private placement borrowings	5	**305,902**	523,950
		4,537,692	4,369,705

With the exception of borrowings relating to non-recourse project finance debt, which is secured against specific assets, none of the borrowings are secured against the Group assets.

ESB was rated A- from Standard & Poor's (outlook stable) and A3 (equivalent to BBB+) from Moody's (outlook stable).

1. ESB Eurobonds
The table below provides details of ESB Eurobonds included in borrowings at 31 December 2018:

Issuer	Value	Issue Date	Tenor	Coupon
ESB Finance DAC	Stg£275.0 million	March 2010	10 years	6.500%
ESB Finance DAC	Euro €215.2 million	November 2012	7 years	4.375%
ESB Finance DAC	Euro €300.0 million	November 2013	10 years	3.494%
ESB Finance DAC	Euro €500.0 million	June 2015	12 years	2.125%
ESB Finance DAC	Euro €600.0 million	June 2016	15 years	1.875%
ESB Finance DAC	Euro €500.0 million	January 2017	12 years	1.750%
ESB Finance DAC	Euro €500.0 million	November 2018	15 years	2.125%

NOTES TO THE FINANCIAL STATEMENTS

20. BORROWINGS AND OTHER DEBT (continued)

2. Non-recourse long-term project finance debt
In November 2018, Carrington Power Limited (CPL) was re-financed and all outstanding debt was repaid (2017: €446.0 million). Castlepook Power DAC became a 100% subsidiary in December 2018 and at 31 December 2018 has outstanding debt of €44.9 million. The remainder of this debt is in relation to a wind farm in Great Britain (GB).

3. Non-recourse NIE Networks Eurobonds
As part of the acquisition of NIE Networks, a Eurobond of Stg£175.0 million was also acquired at fair value at the acquisition date. This facility had a 6.875% fixed coupon rate and it was repaid in September 2018.

In June 2011, NIE Networks Limited issued a Stg£400.0 million 15 year sterling bond with a fixed coupon rate of 6.375%.

In September 2018, NIE Networks Limited issued a Stg£350.0 million 7 year sterling bond with a fixed coupon rate of 2.5%.

4. Long-term bank borrowings
Long-term bank borrowings include €267.0 million (2017: €35.2 million) of floating rate debt borrowed on a bilateral basis, while the remainder is fixed interest debt.

A €1.44 billion revolving credit facility with a syndicate of 14 banks to draw down bank finance as required up to February 2022 is available to the Group. €70.0 million is drawn down as at 31 December 2018 (2017: €nil).

A €200.0 million facility with the European Investment Bank (EIB) was agreed in 2013 and 2014 to support renewable connections to the electricity network in the southwest of Ireland, dependent on the completion of certain specified capital expenditure. At 31 December 2018, the full €200.0 million of this facility had been drawn down (2017: €100.0 million).

5. Private placement borrowings
The first private placement senior unsecured notes were issued to a range of institutional investors, in December 2003. These fixed rate notes were issued in US dollars and sterling and at 31 December 2018 comprise US$273.5 million, maturing on dates between 2018 and 2023, and Stg£10.0 million maturing in 2023. US$96.5 million and Stg£10.0 million of this debt was repaid in December 2018 as scheduled.

The second private placement senior unsecured notes were issued in June 2009. These notes were issued in US dollars, sterling and euro and at 31 December 2018 comprise US$226.0 million maturing in 2019, €40.0 million maturing in 2019 and Stg£50.0 million maturing in 2021.

The private placement debt and certain other facilities have conditions which require ESB to maintain certain interest cover and asset covenants. At 31 December 2018 ESB is fully in compliance with all the covenant requirements associated with the private placement debt and other facilities.

Hedge of net investment in foreign operations
Included in borrowings above are sterling denominated bank loans, which have been designated as a hedge of the Group's investment in a sterling denominated subsidiary in the United Kingdom, as outlined below:

Sterling denominated loans designated as a hedge of Group's investment in subsidiary	2018 €'000	2017 €'000
Value at 1 January	**32,254**	44,563
Repayments in year	**-**	(10,872)
Gain on translation to euro	**(264)**	(1,437)
Value at 31 December	**31,990**	32,254
Loss on translation of intragroup euro loan to subsidiary (taken to OCI)	**(189)**	(1,024)

NOTES TO THE FINANCIAL STATEMENTS

20. BORROWINGS AND OTHER DEBT (continued)

RECOURSE BORROWINGS

PARENT	2018 Total € '000	2017 Total € '000
Current borrowings		
- Repayable by instalments	**84,126**	78,665
- Repayable other than by instalments	**306,150**	91,705
Total current borrowings	**390,276**	170,370
Non-current borrowings		
- Repayable by instalments		
Between one and two years	**85,215**	76,019
Between two and five years	**216,347**	204,588
After five years	**354,268**	355,687
	655,830	636,294
- Repayable other than by instalments		
Between one and two years	**-**	228,370
Between two and five years	**303,515**	56,337
After five years	**-**	239,207
	303,515	523,914
Total non-current borrowings	**959,345**	1,160,208
Total borrowings outstanding	**1,349,621**	1,330,578

(a) Funding and liquidity management

The principal liquidity risks faced by the Group relate to cash flow requirements arising from day-to-day operations, maturing debt obligations and the funding of capital investment programmes. The Group's treasury function manages this risk through a combination of liquid investments, cash and cash equivalents and undrawn committed bank facilities. The Group negotiates facilities with relationship banks and raises funds in debt capital markets to pre-fund, or pre-hedge, any funding requirements arising from maturing debt, capital expenditure and general business requirements.

At 31 December 2018 the Group had €1.6 billion available in cash or cash equivalents and committed bank facilities, ensuring liquidity demands can be met as required. The committed bank facilities comprise a syndicated loan facility with a large number of well-rated financial institutions.

The Group's debt management strategy targets a debt portfolio profile with a diverse mix of counterparties, funding sources and maturities. Structured non-recourse and limited recourse financing is used where appropriate, taking into account both funding costs and risk mitigation. All borrowing facilities are in compliance with the Electricity Acts and relevant regulatory requirements.

The maturity profile of the carrying amount of the Group's borrowings, and the expiry of material undrawn committed bank borrowing facilities are as follows:

	Drawn Debt - Group		Drawn Debt - Parent		Undrawn Facility - Group and Parent	
Maturing	**2018 € '000**	2017 € '000	**2018 € '000**	2017 € '000	**2018 € '000**	2017 € '000
In one year or less	**606,275**	388,073	**390,276**	170,370	**-**	83,000
Between one and two years	**393,262**	552,121	**85,215**	304,389	**-**	-
Between two and five years	**525,359**	791,515	**519,862**	260,914	**1,370,000**	1,440,000
In more than five years	**3,619,071**	3,026,069	**354,268**	594,905	**-**	-
	5,143,967	4,757,778	**1,349,621**	1,330,578	**1,370,000**	1,523,000

NOTES TO THE FINANCIAL STATEMENTS

20. BORROWINGS AND OTHER DEBT (continued)

(a) Funding and liquidity management (continued)

The following table sets out the contractual maturities of Group borrowings, including the associated interest payments. Borrowings with a carrying value of €3,794.4 million (2017: €3,427.2 million) are included in the Group balances below.

	Carrying amount € '000	Contractual cash outflows - net € '000	Within 1 year € '000	1 - 2 years € '000	2 - 5 years € '000	More than 5 years € '000
31 December 2018						
Recourse borrowings	4,248,382	5,091,010	735,392	501,221	763,995	3,090,402
Non-recourse borrowings	895,585	1,198,023	41,214	40,435	120,274	996,100
Total borrowings	**5,143,967**	**6,289,033**	**776,606**	**541,656**	**884,269**	**4,086,502**
31 December 2017						
Recourse borrowings	3,664,651	4,521,673	301,975	633,290	798,694	2,787,714
Non-recourse borrowings	1,093,127	1,457,536	279,576	87,741	362,354	727,865
Total borrowings	4,757,778	5,979,209	581,551	721,031	1,161,048	3,515,579

(b) Interest rate risk management

The Group's interest rate policy was updated in 2017 and the target is to have a significant majority of its debt at fixed (or inflation linked) interest rate to maturity, with a minimum of 50% fixed (or inflation linked) at all times. This is achieved either by borrowing directly at fixed interest rates or via interest rate swaps. At 31 December 2018, 94.8% of the Group's debt was fixed to maturity or inflation linked (2017: 99.3%). The fair value of interest rate swaps is disclosed in note 21.

In respect of interest bearing financial liabilities, the following table indicates their effective interest rates at the balance sheet date taking into account the effect of interest rate swaps and cross currency swaps:

	Effective interest rate %	Total € '000	Within 1 year € '000	1 - 2 years € '000	2 - 5 years € '000	More than 5 years € '000
Private placement borrowings (fixed interest rate)	**6.12**	**543,253**	237,351	-	305,902	-
Non-recourse borrowings (fixed interest rate)	**4.33**	**895,585**	1,823	1,823	4,871	887,068
Other long-term borrowings (fixed and variable interest rate)	**2.96**	**3,705,129**	367,135	390,879	215,145	2,731,970

Included within other long-term borrowings in this analysis are floating rate liabilities of €267 million (2017: €35.2 million).

The effective interest rate on the private placement borrowings has been fixed through the use of cross currency swaps and interest rate swaps. In addition, the effective rate of certain non-recourse sterling borrowings of Stg£11.7 million has been fixed using interest rate swaps. In the absence of these interest rate swaps, the floating rate on the underlying sterling and euro borrowings at 31 December 2018 would be approximately 1.6%, in line with prevailing interest rates in those monetary areas on borrowings of a similar duration.

NOTES TO THE FINANCIAL STATEMENTS

20. BORROWINGS AND OTHER DEBT (continued)

(b) Interest rate risk management (continued)

In managing interest rate risk, the Group aims to reduce the impact of short-term fluctuations on the Group's earnings. Over the longer term, however, permanent changes in interest rates will have an impact on consolidated earnings. It is estimated that a general increase of 50 basis points in interest rates (and corresponding real interest rates) at 31 December would have increased profit before taxation and reduced equity by the amounts shown below. This analysis assumes that all other variables, in particular foreign currency rates, remain constant, including the assumption that there is no change in inflation rates.

	31 December 2018		31 December 2017	
	50 bp increase gain / (loss) € '000	**50 bp decrease gain / (loss) € '000**	50 bp increase gain / (loss) € '000	50 bp decrease gain / (loss) € '000
Profit before taxation				
Interest payable	**(778)**	**213**	(1,031)	845
Fair value movements on financial instruments	**57,394**	**(61,386)**	64,415	(69,087)
Other comprehensive income				
Fair value gains / (losses)	**1,353**	**(1,353)**	10,498	(10,498)

The following assumptions were made in respect of the sensitivity analysis above:

- the balance sheet sensitivity to interest rates relates only to derivative financial instruments, as debt and other deposits are carried at amortised cost and so their carrying value does not change as interest rates move;

- the sensitivity of accrued interest to movements in interest rates is calculated on net floating rate exposures on debt, deposits and derivative instruments;

- derivatives designated as cash flow hedges against movements in interest rates are assumed to be fully effective, recorded fully within equity with no impact on the income statement;

- changes in the carrying value of derivative financial instruments not in hedging relationships affect the income statement only; and

- the floating leg of any swap or any floating rate debt is treated as not having any interest rate already set, therefore a change in interest rates affects a full 12 month period for the accrued interest portion of the sensitivity calculations.

NOTES TO THE FINANCIAL STATEMENTS

20. BORROWINGS AND OTHER DEBT (continued)

(c) Reconciliation of external borrowings

GROUP

2018 Debt Facilities	Balance at 1 January € '000	Cash flows € '000	Acquisition of subsidiary € '000	Effects of foreign exchange € '000	Other € '000	**Balance at 31 December € '000**
ESB Eurobonds	2,334,037	499,993	-	(2,529)	67,276	**2,898,777**
Non-recourse long-term project finance debt	444,676	(445,171)	44,907	(132)	16,275	**60,555**
Non-recourse NIE Networks Eurobonds	648,451	194,025	-	(3,661)	(3,785)	**835,030**
Long-term bank borrowings	714,959	86,421	-	(1,371)	6,343	**806,352**
Private placement borrowings	615,655	(93,575)	-	19,200	1,973	**543,253**
Total	**4,757,778**	**241,693**	**44,907**	**11,507**	**88,082**	**5,143,967**

2017 Debt Facilities	Balance at 1 January € '000	Cash flows € '000	Disposal/ Acquisition of subsidiary € '000	Effects of foreign exchange € '000	Other € '000	Balance at 31 December € '000
ESB Eurobonds	2,144,722	191,253	-	(11,233)	9,295	2,334,037
Non-recourse long-term project finance debt	488,566	(28,013)	-	(18,895)	3,018	444,676
Non-recourse NIE Networks Eurobonds	677,718	-	-	(23,488)	(5,779)	648,451
Long-term bank borrowings	815,007	(93,682)	-	(7,658)	1,292	714,959
Private placement borrowings	727,717	(39,803)	-	(72,389)	130	615,655
Non-recourse short-term project finance debt (Airvolution)	33,713	18,260	(54,270)	(1,979)	4,276	-
Total	4,887,443	48,015	(54,270)	(135,642)	12,232	4,757,778

PARENT

2018 Debt Facilities	Balance at 1 January € '000	Cash flows € '000	Effects of foreign exchange € '000	Other € '000	**Balance at 31 December € '000**
Long-term bank borrowings	714,923	86,420	(1,371)	6,396	**806,368**
Private placement borrowings	615,655	(93,575)	19,200	1,973	**543,253**
Total	**1,330,578**	**(7,155)**	**17,829**	**8,369**	**1,349,621**

2017 Debt Facilities	Balance at 1 January € '000	Cash flows € '000	Effects of foreign exchange € '000	Other € '000	Balance at 31 December € '000
Long-term bank borrowings	814,508	(93,682)	(7,658)	1,755	714,923
Private placement borrowings	727,717	(39,803)	(72,389)	130	615,655
Total	1,542,225	(133,485)	(80,047)	1,885	1,330,578

NOTES TO THE FINANCIAL STATEMENTS

21. DERIVATIVE FINANCIAL INSTRUMENTS

(a) Fair value by class of derivative financial instrument

Derivative financial instruments are carried at fair value. The fair value of a financial instrument is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. The method used to calculate the fair value of the Group's financial instruments is discounted cash flow analysis, using a zero coupon discount rate and reflecting counterparty credit risk. This method enables the Group to discount the cash flows at a rate equal to the prevailing market rate of interest taking into account maturity and credit margin.

The fair values of financial instruments, grouped by class of instrument, are as follows:

			2018		
GROUP	Non-current assets € '000	Current assets € '000	Non-current liabilities € '000	Current liabilities € '000	**Total € '000**
Interest rate swaps	5,079	-	(3,691)	(94)	**1,294**
Inflation linked interest rate swaps	-	-	(544,340)	(13,935)	**(558,275)**
Currency swaps	4,098	35,461	(21,276)	-	**18,283**
Foreign exchange contracts	914	2,300	(285)	(2,119)	**810**
Forward fuel price contracts	10,541	82,852	(55,433)	(91,345)	**(53,385)**
Forward electricity price contracts	47,950	35,921	(157)	(809)	**82,905**
	68,582	**156,534**	**(625,182)**	**(108,302)**	**(508,368)**

			2017		
	Non-current assets € '000	Current assets € '000	Non-current liabilities € '000	Current liabilities € '000	Total € '000
Interest rate swaps	10,296	-	(31,699)	(8,021)	(29,424)
Inflation linked interest rate swaps	-	-	(563,571)	(89,605)	(653,176)
Currency swaps	24,066	10	(37,508)	(5,749)	(19,181)
Foreign exchange contracts	8,472	5,799	(180)	(2,030)	12,061
Forward fuel price contracts	2,860	57,608	(4,867)	(31,123)	24,478
Forward electricity price contracts	39,383	53,950	-	-	93,333
	85,077	117,367	(637,825)	(136,528)	(571,909)

			2018		
PARENT	Non-current assets € '000	Current assets € '000	Non-current liabilities € '000	Current liabilities € '000	**Total € '000**
Interest rate swaps	894	-	(115)	(94)	**685**
Currency swaps	4,098	35,461	(21,276)	-	**18,283**
Foreign exchange contracts	914	2,300	(812)	(1,875)	**527**
Forward fuel price contracts	10,398	69,958	(7,790)	(81,698)	**(9,132)**
	16,304	**107,719**	**(29.993)**	**(83,667)**	**10,363**

			2017		
	Non-current assets € '000	Current assets € '000	Non-current liabilities € '000	Current liabilities € '000	Total € '000
Interest rate swaps	1,857	-	-	-	1,857
Currency swaps	24,066	10	(37,508)	(5,749)	(19,181)
Foreign exchange contracts	1,018	4,401	(180)	(2,018)	3,221
Forward fuel price contracts	2,663	54,183	(3,069)	(31,123)	22,654
	29,604	58,594	(40,757)	(38,890)	8,551

NOTES TO THE FINANCIAL STATEMENTS

21. DERIVATIVE FINANCIAL INSTRUMENTS (continued)

(a) Fair value by class of derivative financial instrument (continued)

With the exception of certain interest rate swaps and inflation-linked interest rate swaps, the majority of the derivative balances shown in the tables above are designated as cash flow hedges of interest rate, currency or commodity risk arising from highly probable forecast interest, revenue, or other operating cost cash flows.

When interpreting the positive and negative fair values of derivative financial instruments, it should be noted that they are matched with underlying transactions with offsetting risks.

(i) Interest rate swaps

The Group has executed interest rate swaps of Stg£470.7 million (2017: Stg£780.7 million) in connection with a certain portion of its borrowings, including project finance debt secured by West Durham Wind Farm Limited, fixed rate borrowings held by the Parent and ESB Finance DAC and debt held in other wind farms assets within the Group. These have all been classified as cash flow hedges.

For interest rate swaps, the fair value takes into account the fixed, floating and market rates prevailing at the balance sheet date. As interest rate swaps are marked to market at 31 December 2018, their carrying value is equal to their fair value.

Total movements (inclusive of receipts, payments and fair value movements) of €30.7 million loss (2017: gain of €4.3 million) were recognised during the year in relation to interest rate swaps, of which a loss of €30.7 million was recognised directly in finance costs in the income statement, €nil recognised in other comprehensive income (OCI) (2017: gains of €3.0 million recognised in finance costs and losses of €7.3 million recognised in OCI). During the year, following the repayment of the project finance debt of Carrington Power Limited, interest rate swaps relating to that project were settled in cash and the impact recognised in the income statement. The total impact of the refinancing of debt on the income statement was a cost of €25.5 million recognised in finance costs.

(ii) Inflation linked interest rate swaps

Inflation linked interest rate swaps with a fair value liability on acquisition of €272.5 million were acquired in December 2010 as part of the purchase of the NIE Networks business. The inflation linked interest rate swaps did not qualify for hedge accounting under IAS 39 on acquisition of the NIE Networks business and upon transition to IFRS 9 no adjustment to this treatment was required. The fair value of the inflation linked interest rate swaps is affected by relative movements in interest rates and in market expectations of future retail price index (RPI) movements in the United Kingdom (UK).

Arising from movements in forward interest rates, UK RPI forward prices, foreign currency exchange rates and payments during the year, fair value reduced by €94.9 million on these swaps in the year ended 31 December 2018 (2017: fair value decrease of €45.3 million). The movement reflects negative mark to market movements in the underlying swaps of €6.5 million (2017: Positive movement €3.7 million), reflected in finance costs in the income statement (note 8) and payments of €95.6 million (of which includes €80.0 million accretion payment) (2017: €16.8 million) arising under the swaps during the year. In addition, positive translation movements of €5.8 million (2017: €41.6 million) during the year on translation of the swaps from sterling to euro are reflected in the OCI.

(iii) Currency swaps

The fair value of currency swaps is affected by movements in foreign exchange and interest rates. ESB's currency swaps are primarily classified as cash flow hedges and relate mainly to the cross currency swaps entered into in connection with the private placement debt, which is described in note 20. These cross currency swaps were entered into in order to swap US dollar and sterling interest and principal repayments on the underlying debt to euro, thereby hedging the risk on these payments over the periods to maturity from 2010 to 2023.

Ineffectiveness under the meaning of IFRS 9 arose on the currency swaps during the year resulting in the recognition of a charge of €0.1 million (2017: charge €0.1 million) within finance costs in the income statement. Separately included in the income statement for the year 31 December 2018 is a gain of €23.3 million (2017: loss of €68.9 million) arising on cross currency swaps which is substantially offset by movements in the translation of the underlying hedged foreign currency borrowings at the prevailing exchange rates (see note 8).

In addition to foreign exchange contracts entered into in relation to the Group's borrowings, the Group has entered into foreign exchange contracts in relation to energy costs, fuel purchase requirements (which are in US dollar and sterling) and in relation to power station projects (including Carrington Power Limited). These contracts have maturities extending until 2024. Total positive fair value movements of €11.2 million (2017: positive movements of €11.2 million) were recognised during the year in relation to such foreign exchange contracts, of which a positive fair value movement of €0.3 million (2017: positive movements of €3.1 million) was recognised through OCI and a positive fair value movement of €10.9 million (2017: positive movement of €8.1 million) was recognised in the income statement. During the year, following the repayment of the project finance debt of Carrington Power Limited, foreign currency contracts relating to that project were settled in cash and the impact recognised in the income statement. The total impact of the refinancing of debt on the income statement was a gain of €7.7 million recognised in operating costs.

Fair value hierarchy

Further information on the methods of valuing financial instruments is included in note 27.

NOTES TO THE FINANCIAL STATEMENTS

21. DERIVATIVE FINANCIAL INSTRUMENTS (continued)

(b) Funding and liquidity management - maturity of derivative financial instruments

The following table sets out the contractual maturities of derivative financial instruments, including the associated undiscounted net cash flows attributable to them. These derivative financial instruments are expected to impact profit or loss over a time period similar to the cash outflows. Net derivative financial instrument liabilities of €518.7 million (2017: €580.5 million) are included in the Group balances below, but do not comprise part of the Parent's assets and liabilities as they are not held directly by the Parent. See note 27 (b) for further analysis of Group and Parent financial assets and liabilities.

31 December 2018	Carrying amount € '000	Contractual cash outflows / (inflows) - net € '000	Within 1 year € '000	1 - 2 years € '000	2 - 5 years € '000	More than 5 years € '000
Interest rate swaps	5,079	6,125	1,669	4,218	155	83
Currency swaps	39,559	41,834	31,696	(3,675)	(1,572)	15,385
Foreign exchange contracts	3,214	8,815	7,691	492	212	420
Forward fuel price contracts	93,393	93,815	83,228	6,766	3,821	-
Forward electricity price contracts	83,871	83,682	35,880	24,084	23,718	-
Total assets	**225,116**	**234,271**	**160,164**	**31,885**	**26,334**	**15,888**
Interest rate swaps	(3,785)	(3,817)	(1,262)	(1,013)	(762)	(780)
Inflation linked interest rate swaps	(558,275)	(627,824)	(14,013)	(13,704)	(180,058)	(420,049)
Currency swaps	(21,276)	(23,853)	312	(119)	(546)	(23,500)
Foreign exchange contracts	(2,404)	(2,610)	(2,325)	(283)	(2)	-
Forward fuel price contracts	(146,778)	(147,082)	(92,320)	(30,580)	(24,182)	-
Forward electricity price contracts	(966)	(964)	(808)	(156)	-	
Total liabilities	**(733,484)**	**(806,150)**	**(110,416)**	**(45,855)**	**(205,550)**	**(444,329)**
Net derivative assets / (liabilities)	**(508,368)**	**(571,879)**	**49,748**	**(13,970)**	**(179,216)**	**(428,441)**
31 December 2017						
Interest rate swaps	10,296	10,437	3,254	2,289	4,894	-
Currency swaps	24,076	25,188	2,378	22,810	-	-
Foreign exchange contracts	14,271	17,389	7,846	1,945	7,598	-
Forward fuel price contracts	60,468	60,960	58,054	2,639	267	-
Forward electricity price contracts	93,333	93,086	53,783	38,638	665	-
Total assets	202,444	207,060	125,315	68,321	13,424	-
Interest rate swaps	(39,720)	(42,858)	(9,122)	(7,427)	(15,119)	(11,190)
Inflation linked interest rate swaps	(653,176)	(718,130)	(90,071)	(15,157)	(44,322)	(568,580)
Currency swaps	(43,257)	(47,037)	(5,976)	(659)	(4,156)	(36,246)
Foreign exchange contracts	(2,210)	(4,529)	(4,325)	(204)	-	-
Forward fuel price contracts	(35,990)	(36,524)	(31,607)	(4,663)	(254)	-
Total liabilities	(774,353)	(849,078)	(141,101)	(28,110)	(63,851)	(616,016)
Net derivative assets / (liabilities)	(571,909)	(642,018)	(15,786)	40,211	(50,427)	(616,016)

NOTES TO THE FINANCIAL STATEMENTS

21. DERIVATIVE FINANCIAL INSTRUMENTS (continued)

(c) Hedging Reserves

The Group's hedging reserves relate to the following hedging instruments:

	Cash flow hedging reserve[1]				
	Interest rate swaps €'000	Foregin exchange contracts €'000	Forward fuel price contracts €'000	Forward electricity price contracts €'000	**Total €'000**
Net fair value movements	36,033	3,693	(31,277)	32,334	**40,783**
Transfers to the income statement on continuing hedges at 31 December 2018	(20,046)	1,312	(44,578)	(42,532)	**(105,844)**
Transfers to the income statement on discontinued hedges	28,874	(7,820)	-	-	**21,054**
Deferred tax movements	(10,977)	765	9,482	1,308	**578**
	33,884	**(2,050)**	**(66,373)**	**(8,890)**	**(43,429)**

[1]The table above excludes foreign currency translation adjustments of €5.5 million. The cash flow hedge reserve includes an amount of €0.5 million relating to the cost of hedging.

Hedge ineffectiveness
Hedge effectiveness is determined at the inception of the hedge relationship and through periodic prospective effectiveness assessments to ensure that an economic relationship exists between the hedged item and the hedging instrument.

Foreign exchange contracts
For hedges of foreign currency purchases, the Group enters into hedge relationships where the critical terms of the hedging instrument match exactly with the terms of the hedged item. The Group therefore performs a qualitative assessment of effectiveness. If changes in circumstances affect the terms of the hedged item such that the critical terms no longer match exactly with the critical terms of the hedging instrument, the Group uses the hypothetical derivative method to determine ineffectiveness.

In hedges of foreign currency purchases, ineffectiveness may arise if the timing of the forecast transaction changes from what was originally estimated, or if there are changes in credit risk.

Forward fuel and electricity contracts
For hedges of forward fuel and forward electricity contracts, the Group enters into hedge relationships where the critical terms of the hedging instrument match exactly with the terms of the hedged item. Ineffectiveness may arise if the timing or quantity of the forecast transaction changes from what was originally estimated, or if there are changes in credit risk. Hedge ineffectiveness for forward fuel and electricity contracts is measured using the hypothetical derivative method.

Interest rate swaps
The Group enters into interest rate swaps that have similar critical terms as the hedged item, such as reference rate, payment dates, maturities and notional amount. The hedged item is identified as a proportion of the outstanding amount up to the notional amount of the swaps. Hedge ineffectiveness for interest rate swaps is measured using the same principals as for hedges of foreign exchange contracts. It may occur primarily due to differences in critical terms between the interest rate swaps and the loans.

NOTES TO THE FINANCIAL STATEMENTS

21. DERIVATIVE FINANCIAL INSTRUMENTS (continued)

(d) Effects of hedge accounting on the financial position and performance

The effects of the hedging instruments on the Group's financial position and performance are as follows:

	Cross currency interest rate swaps € '000	Interest rate swaps € '000	Foreign exchange contracts - USD € '000	Foreign exchange contracts - EUR[1] € '000	Forward fuel price contracts - Coal € '000	Forward fuel price contracts - Gas (Level 2) € '000	Forward fuel price contracts - Gas (Level 3)[3] € '000	Forward electricity price contracts (Level 3)[3] € '000
Carrying amount - asset / (liability) as at 31 December 2018	(18,060)	2,960	3,708	581	(1,842)	153	(44,220)	82,905
Notional amount	399,500	51,007	112,362	86,400	1,305	990	4,152	4,152
Notional unit	USD	EUR	USD	EUR	Tn	Therms	Mwh	Mwh
Maturity date - earliest	June-19	Jul-31	Jan-19	Mar-19	Mar-19	Mar-19	Jan-19	Jan-19
Maturity date - latest	Dec-23	Jul-31	Feb-20	Jan-24	Dec-21	Mar-19	Sep-22	Sep-22
Hedge ratio[2]	1:1	1:1	1:1	1:1	1:1	1:1	1:1	1:1
Change in fair value of outstanding hedging instruments since 1 January	7,516	(72)	6,487	581	(29,411)	(687)	(46,133)	(10,263)
Change in value of hedged item used to determine hedge effectiveness	(7,516)	72	(6,487)	(453)	29,411	687	46,133)	9,927
Weighted average hedged rate / price	6.34 / 1.31	1.53	1.22	0.94	87.27	0.45	-	-
Unit of rate/price	Interest rate %/FX rate	%	$/€	€/£	€/Tn	€/Therm	-	-

[1] EUR exposures for UK operations

[2] The hedge ratio is the quantity of hedging instrument per quantity of hedged item. The appropriate hedge ratio is determined based on specific factors such as volumes of commodities required, contracted foreign exchange and interest rate exposures.

[3] Weighted average hedged rate/price is not applicable to the Level 3 contracts above. Level 3 hedge instruments link electricity more closely to fuel inputs.

NOTES TO THE FINANCIAL STATEMENTS

22. PENSION LIABILITIES

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

(a) Parent and Group - Republic of Ireland

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

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

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

History

Historically the contributions of both ESB and members have been fixed by the Scheme regulations for long periods. On a number of occasions since the early 1980s, a deficit in the Scheme has been reported by the Scheme Actuary. On each occasion ESB has, in accordance with its obligations under the Scheme rules, consulted with the Committee, the Trustees and the Actuary. Following discussions with the unions, deficits were resolved by increasing contributions by both the Company and pension Scheme members.

The 2010 Pensions Agreement followed a 31 December 2008 actuarial deficit of €1,957.0 million. It was recognised that it was not feasible to address such a deficit through increased contributions. Negotiations between the Company and ESB Group of Unions (employee representatives) concluded with the landmark 2010 Pensions Agreement (approved by employees in July 2010 and formally ratified by the Board of ESB on 20 October 2010). The main features of the Agreement included the introduction of a Career Average Revalued Earnings (CARE) pension model for benefits earned after 1 January 2012, pension and pay freezes, the cessation of the historic link between salary and pension increases, and the application of a solvency test in relation to any future pension increases. The fixed contribution rates for the employer and for Scheme members were not changed. Under the Agreement ESB agreed to a once off cash injection into the Scheme, payable over a number of years, which had an agreed valuation for actuarial purposes as at 1 January 2010 of €591.0 million. Under the Agreement membership of the Scheme has been closed to new joiners. The changes brought about by the 2010 Pensions Agreement were subsequently approved by the Minister.

The Scheme assets were broadly in balance with its liabilities at the end of 2017. It would have a deficit in a wind-up situation (Minimum Funding Standard) but a funding plan has been approved by the Pensions Authority to resolve this deficit by 2018. According to the last Minimum Funding Standard review at the end of 2017 this plan was on track and there are no plans to wind up the Scheme. The company does not intend that any further contributions, other than the normal on-going contributions (up to 16.4% of pensionable salary, in addition to employee contributions of up to 8.5%) and the balance of the Company's €591.0 million additional contribution (committed to as part of the 2010 Agreement), will be made. Should a deficit arise in the future, the obligation on the Company, as set out in the Scheme regulations, to consult with the parties to the Scheme remains unchanged.

Definitions

There are three different methods of assessing the financial status of the Scheme:

- Ongoing Actuarial Valuation.
- Minimum Funding Standard, under the Pensions Act.
- Accounting, as set out in International Accounting Standard 19, Employee Benefits.

Each of these methods assesses the Scheme from specific perspectives using assumptions and projections which may differ.

Ongoing Actuarial Valuation

This valuation method assumes that both the Scheme and the Company continue in existence for the foreseeable future - it is not a wind-up valuation. The Scheme actuary confirmed in 2018 that the Scheme is in balance on an on-going actuarial basis, i.e. that based on the assumptions made, the Scheme is projected to be able to meet its obligations as they fall due.

Wind-Up / Minimum Funding Standard Valuation

The Pensions Act requires the Trustees of the Scheme to also assess whether it could meet a certain prescribed standard, known as the Minimum Funding Standard. This assesses whether if the Scheme were wound up on a specified theoretical valuation date, it could secure the benefits on that date. It should be noted that ESB does not envisage the winding up of the Scheme.

The Scheme actuary reported at the end of 2011 that the scheme did not satisfy the Minimum Funding Standard requirements. To address this, the Scheme Trustees, with the agreement of ESB, submitted a funding plan to the Pensions Authority, which was approved in October 2012.
With the 2012 funding plan having now expired, the parties to the Scheme are due to carry out a full review of the Minimum Funding Standard, including applicable risk reserve requirements, with a view to submitting a new funding plan, if required, to the Pensions Authority.

NOTES TO THE FINANCIAL STATEMENTS

22. PENSION LIABILITIES (continued)

(a) Parent and Group - Republic of Ireland (continued)

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

Accounting

IAS 19 (revised) Employee Benefits is the relevant accounting standard to determine the way post-employment benefits should be reflected in ESB's financial statements.

The financial statements reflect the following obligations to the Scheme:

- Ongoing contributions - these are recognised in the income statement as incurred. Any unpaid amounts at year end are recognised as liabilities on the balance sheet.
- Obligations of €395.2 million to the Scheme are also included on the balance sheet, made up of;

  - 2010 Pension Agreement Injection – the Company committed to making an exceptional cash injection of €591.0 million (PV in 2010 money based on a rate of 6.25%) over an agreed period of time into the Scheme. Amounts yet to be paid to the Scheme under this part of the Pension Agreement are effectively subject to an annual financing charge and this is expensed in the income statement. €583.7 million has been paid into the Scheme to date.

  - Past service contributions – the on-going rate of contribution by ESB includes a contribution towards past service accrued in 2010. The present value of future contributions in respect of that past service are recognised on the balance sheet.

  - Past Voluntary Severance (VS) Programmes – in 2010 the Company recognised a future fixed commitment in respect of staff who had left the Company under previous VS programs. ESB will make pension contributions in respect of those staff and the fair value of those future contributions are also recognised on the balance sheet.

(ii) ESB Defined Contribution Pension Scheme

ESB also operates an approved defined contribution Scheme called ESB Defined Contribution Pension Scheme for employees of ESB subsidiary companies (other than NIE Networks) and, from 1 November 2010, new staff of the Parent. Contributions are paid by the members and the employer at fixed rates. The benefits secured at retirement reflect each employee's accumulated fund and the cost of purchasing benefits at that time. Death benefits are insured on a Group basis and may be paid in the form of a lump sum and/or survivor's pension. The assets of the Scheme are held in a separate Trustee administered fund. The pension charge for the year represents the defined employer contribution and amounted to €12.5 million (2017: €10.7 million).

(b) FM United Kingdom Stakeholder Scheme

In addition, ESB operates a stakeholder pension scheme in the UK for all its GB employees. Contributions are paid by the members and the employer at fixed rates. The benefits secured at retirement reflect each employee's accumulated fund and the cost of purchasing benefits at that time. Death benefits are insured on a Group basis and may be paid in the form of a lump sum and/or survivor's pension. The assets of this Scheme are held in individual stakeholder accounts managed by Legal & General. The pension charge for the year represents the defined employer contribution and amounted to €0.8 million (2017: €0.7 million).

(c) Northern Ireland Electricity Networks (NIE Networks) Pension Scheme

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

UK legislation requires that pension schemes are funded prudently. The last funding valuation of the Focus section of the scheme was carried out by a qualified actuary as at 31 March 2017 and showed a deficit of €154.7 million. The Company is paying deficit contributions of €19.4 million per annum (increasing in line with inflation) from 1 April 2015. The Company also pays contributions of 40.3% of pensionable salaries in respect of current accrual, with active members paying a further 6% of pensionable salaries.

Profile of the Scheme

The net liability includes benefits for current employees, former employees and current pensioners. Broadly, about 20% of the liabilities are attributable to current employees, 5% to former employees and 75% to current pensioners. The Scheme duration is an indication of the weighted average time until benefit payments are made. For the NIE Networks Scheme, the duration is around 14 years (2017: 13 years) based on the last funding valuation.

Financial assumptions

The valuation of the Focus section of the NIE Networks Scheme by independent actuaries for the purpose of IAS 19 disclosures is based on the following assumptions:

	% at 31 December 2018	% at 31 December 2017
Rate of interest applied to discount liabilities[1]	**2.80**	2.50
Price inflation (CPI in the United Kingdom)	**2.10**	2.10
Rate of increase of pensionable salaries	**3.20**	3.20
Rate of increase of pensions in payment	**2.10**	2.10

[1]The discount rate used in the calculation of the pension liability at 31 December 2018 was 2.8% (2017: 2.5%). This was determined by reference to market yields as at that date on high quality corporate bonds. The currency and term of the corporate bonds was consistent with the currency and estimated term of the post-employment benefit obligations.

NOTES TO THE FINANCIAL STATEMENTS

22. PENSION LIABILITIES (continued)

(c) Northern Ireland Electricity Networks (NIE Networks) Pension Scheme (continued)

Mortality assumptions

The assumptions relating to life expectancy at retirement for members are set out below. These assumptions are based on standard actuarial mortality tables and include an allowance for future improvements in life expectancy.

	At 31 December 2018		At 31 December 2017	
	Males Years	**Females Years**	Males Years	Females Years
Current pensioners at aged 60	**26.2**	**28.6**	27.4	29.9
Future pensioners currently aged 40 (life expectancy age 60)	**27.8**	**30.2**	29.3	31.9

Pension assets and liabilities

The assets and liabilities in the Focus section of the NIE Networks Scheme are:

	At 31 December 2018 €'000	At 31 December 2017 €'000
Equities – quoted	**256,671**	312,546
Bonds – quoted	**259,801**	255,064
Multi-asset credit investments	**422,568**	245,032
Diversified growth – quoted	**233,419**	463,127
Cash	**7,057**	10,596
Fair value of plan assets	**1,179,516**	1,286,365
Present value of funded obligations	**(1,290,323)**	(1,429,421)
Net deficit	**(110,807)**	(143,056)

	At 31 December 2018 €'000	At 31 December 2017 €'000
Change in benefit obligation		
Benefit obligation at the beginning of the year	**1,429,421**	1,463,969
Movement during the year:		
Current service cost	**7,793**	9,203
Interest cost	**34,658**	37,577
Plan members' contributions	**362**	435
Actuarial (gain) / loss - impact of financial assumption changes	**(50,123)**	37,552
Actuarial gain - impact of demographic assumption changes	**(51,689)**	-
Actuarial loss - experience loss	**17,864**	6,350
Benefits paid	**(94,343)**	(76,231)
Curtailment cost	**4,678**	2,009
GMP Equalisation	**1,954**	-
Translation difference on benefit obligation in the year	**(10,252)**	(51,443)
Benefit obligation at the end of the year	**1,290,323**	1,429,421
Change in plan assets		
Fair value of plan assets at the beginning of the year	**1,286,365**	1,293,426
Movement during the year:		
Interest on plan assets	**31,304**	33,464
Actual returns on assets less interest	**(64,758)**	53,249
Employer contributions	**30,018**	27,641
Plan members' contributions	**362**	435
Benefits paid	**(94,343)**	(76,231)
Translation difference on assets in the year	**(9,432)**	(45,619)
Fair value of plan assets at the end of the year	**1,179,516**	1,286,365
Actual return on plan assets for the year	**(33,454)**	86,713

The curtailment loss arising in 2018 and 2017 reflects the past service costs associated with the employees who left the company by voluntary exits restructuring programme.

Guaranteed Minimum Pension (GMP) Equalisation arising in 2018 (2017: €nil) reflect changes to member benefits arising from a clarification of the law in respect of Guaranteed Minimum Pension Equalisation for men and women.

The Group expects to make contributions of approximately €28.4 million to Focus in 2019.

NOTES TO THE FINANCIAL STATEMENTS

22. PENSION LIABILITIES (continued)

(c) Northern Ireland Electricity Networks (NIE Networks) Pension Scheme (continued)

Analysis of the amounts recognised in the employee costs as part of the employee benefit charge were as follows:	**2018 €'000**	2017 €'000
Current service cost	**(7,793)**	(9,203)
Curtailment cost	**(4,678)**	(2,009)
GMP Equalisation	**(1,954)**	-
Total defined benefit charge in year	**(14,425)**	(11,212)

Analysis of the amounts recognised in the finance costs, as net pension scheme interest:	**2018 €'000**	2017 €'000
Interest on pension scheme assets	**31,304**	33,464
Interest on pension scheme liabilities	**(34,658)**	(37,577)
Net pension scheme charge	**(3,354)**	(4,113)

Analysis of the amounts recognised in the statement of comprehensive income (excluding translation)	**2018 €'000**	2017 €'000
Actual returns on assets less interest	**(64,758)**	53,249
Actuarial gain / (loss) on liabilities	**83,948**	(43,902)
Net actuarial gain	**19,190**	9,347

Sensitivity analysis

Reasonably possible changes at the reporting date to one of the relevant actuarial assumptions, holding other assumptions constant, would have affected the defined benefit obligation by the amounts shown below.

	Impact on scheme liabilities (increase) / decrease	
Pension liability	**2018 € m**	2017 € m
Discount rate (0.1% increase)	**15.7**	19.0
Inflation rate (0.1% increase)	**(14.6)**	(14.3)
Future mortality (1 year increase)	**(44.9)**	(49.0)

Although the analysis does not take account of the full distribution of cash flows expected under the plan, it does provide an approximation of the sensitivity of the assumptions shown.

NOTES TO THE FINANCIAL STATEMENTS

23. LIABILITY - ESB PENSION SCHEME AND EMPLOYEE RELATED LIABILITIES

		Employee related liabilities		
GROUP	**Liability - ESB pension scheme € '000**	Restructuring liabilities € '000	Other € '000	**Total € '000**
Balance at 1 January 2017	**524,812**	95,647	47,054	**142,701**
Movements during the year:				
(Release) / charge to the income statement	**-**	(19,107)	46,054	**26,947**
Utilised during the year	**(153,007)**	(15,828)	(42,312)	**(58,140)**
Financing charge	**22,515**	511	-	**511**
Translation differences	**-**	(10)	(21)	**(31)**
Balance at 31 December 2017	**394,320**	61,213	50,775	**111,988**
Balance at 1 January 2018	**394,320**	61,213	50,775	**111,988**
Movements during the year:				
Charge to the income statement	**-**	13,677	53,209	**66,886**
Utilised during the year	**(13,163)**	(21,048)	(49,369)	**(70,417)**
Financing charge	**14,080**	(5)	-	**(5)**
Translation differences	**-**	3	(10)	**(7)**
Balance at 31 December 2018	**395,237**	53,840	54,605	**108,445**
Analysed as follows:				
Non-current liabilities	**99,426**	40,195	-	**40,195**
Current liabilities	**295,811**	13,645	54,605	**68,250**
Total	**395,237**	**53,840**	**54,605**	**108,445**

		Employee related liabilities		
PARENT	**Liability - ESB pension scheme € '000**	Restructuring liabilities € '000	Other € '000	**Total € '000**
Balance at 1 January 2017	**524,812**	95,448	38,844	**134,292**
Movements during the year:				
(Release) /charge to the income statement	**-**	(21,115)	37,407	**16,292**
Utilised during the year	**(153,007)**	(14,795)	(35,605)	**(50,400)**
Financing charge	**22,515**	511	-	**511**
Balance at 31 December 2017	**394,320**	60,049	40,646	**100,695**
Balance at 1 January 2018	**394,320**	60,049	40,646	**100,695**
Movements during the year:				
Charge to the income statement	**-**	5,272	44,492	**49,764**
Utilised during the year	**(13,163)**	(12,303)	(40,603)	**(52,906)**
Financing charge	**14,080**	(5)	-	**(5)**
Balance at 31 December 2018	**395,237**	53,013	44,535	**97,548**
Analysed as follows:				
Non-current liabilities	**99,426**	39,383	-	**39,383**
Current liabilities	**295,811**	13,630	44,535	**58,165**
Total	**395,237**	**53,013**	**44,535**	**97,548**

NOTES TO THE FINANCIAL STATEMENTS

23. LIABILITY - ESB PENSION SCHEME AND EMPLOYEE RELATED LIABILITIES (continued)

Liability - ESB pension scheme
See note 22 (a) part (i).

Restructuring liabilities
This provision represents the estimated cost of providing post employment payments to former employees, other than those amounts covered by the pension scheme. It includes liabilities for continuing payments to employees who left under past voluntary severance initiatives, which are expected to be materially discharged by 2027. Expected future cash flows are discounted to present value using long-term interest rates based on a zero-coupon discount curve at the reporting date plus an appropriate credit spread.

Other
In accordance with the requirements of IAS 19 Employee Benefits, provision has been made for employee remuneration liabilities, including accrued holiday leave and performance related payments.

24. TRADE AND OTHER PAYABLES

	GROUP		PARENT	
	2018 € '000	2017 € '000	2018 € '000	2017 € '000
Current payables:				
Trade payables	309,179	316,260	200,048	185,966
Capital creditors	66,424	68,235	48,441	43,675
Progress payments on work in progress	89,620	78,722	71,018	41,695
Other payables	56,917	49,988	37,787	30,662
Payroll taxes	13,651	14,059	12,805	13,049
Pay related social insurance	5,303	5,222	4,458	4,329
Value added tax	42,730	42,747	13,393	17,147
Accruals	126,436	142,909	28,687	53,773
Amounts owed to subsidiary undertakings	-	-	4,044,769	3,369,107
Accrued interest on borrowings	78,842	79,680	40,652	39,912
Total	789,102	797,822	4,502,058	3,799,315

NOTES TO THE FINANCIAL STATEMENTS

25. DEFERRED INCOME

GROUP	Supply contributions and others €'000
Balance at 1 January 2017	536,552
Receivable	44,912
Released to the income statement	(70,462)
Translation differences	(885)
Balance at 31 December 2017	510,117
Balance at 1 January 2018	510,117
IFRS 15 transfer from property, plant and equipment	733,298
Restated balance at 1 January 2018	1,243,415
Receivable	148,838
Released to the income statement	(111,226)
Translation differences	(4,958)
Balance at 31 December 2018	1,276,069
Analysed as follows:	
Non-current liabilities	1,192,713
Current liabilities	83,356
Total	1,276,069

PARENT	Supply contributions and others € '000
Balance at 1 January 2017	501,664
Receivable	2,949
Released to the income statement	(35,002)
Balance at 31 December 2017	469,611
Balance at 1 January 2018	469,611
IFRS 15 transfer from property, plant and equipment	382,836
Restated balance at 1 January 2018	852,447
Receivable	54,931
Released to income statement	(49,347)
Balance at 31 December 2018	858,031
Analysed as follows:	
Non-current liabilities	804,932
Current liabilities	53,099
Total	858,031

Non-repayable supply contributions and capital grants received prior to July 2009 were recorded as deferred income and released to the income statement on a basis consistent with the depreciation policy of the relevant assets.

As set out in note 1 all supply contributions (including contributions from July 2009 to 31 December 2017) are now recorded as deferred income and released to the income statement on a basis consistent with the depreciation policy of the related assets. Included in the Group balances above are supply contributions with a net book value of €733.3 million which were transferred from property, plant and equipment on 1 January 2018, due to this change in accounting treatment.

Included in the above Group closing balance are supply contributions €1,229.9 million (2017: €466.8 million) and deferred income €46.2 million (2017: €43.3 million).

NOTES TO THE FINANCIAL STATEMENTS

26. PROVISIONS

GROUP	Asset retirement provision € '000	Emissions provision € '000	Other € '000	**Total € '000**
Balance at 1 January 2017	180,301	65,403	76,271	**321,975**
Charged / (credited) to the income statement				
- Emission allowances	-	68,896	-	**68,896**
- Legal and other	-	-	18,247	**18,247**
- Asset retirement	(9,055)	-	-	**(9,055)**
Asset retirement provision capitalised in the year	90,721	-	-	**90,721**
ESOP provision charged to equity (note 31)	-	-	2,384	**2,384**
Utilised in the year	(2,604)	(65,232)	(12,735)	**(80,571)**
Financing charge	1,611	-	456	**2,067**
Translation differences	(242)	(138)	(324)	**(704)**
Balance at 31 December 2017	260,732	68,929	84,299	**413,960**
Balance at 1 January 2018	260,732	68,929	84,299	**413,960**
Charged / (credited) to the income statement				
- Emission allowances	-	69,727	-	**69,727**
- Legal and other	-	-	14,955	**14,955**
- Asset retirement	2,202	-	-	**2,202**
Legal and other capitalised in the year	-	-	11,809	**11,809**
Asset retirement provision capitalised in the year	19,870	-	-	**19,870**
ESOP provision charged to equity (note 31)	-	-	853	**853**
Utilised in the year	(1,850)	(59,548)	(19,038)	**(80,436)**
Financing charge	2,469	-	(514)	**1,955**
Translation differences	(225)	208	(112)	**(129)**
Balance at 31 December 2018	283,198	79,316	92,252	**454,766**
Analysed as follows:				
Non-current liabilities	269,757	-	66,538	**336,295**
Current liabilities	13,441	79,316	25,714	**118,471**
Total	**283,198**	**79,316**	**92,252**	**454,766**

PARENT	Asset retirement provision € '000	Emissions provision € '000	Other € '000	**Total € '000**
Balance at 1 January 2017	171,414	47,468	69,892	**288,774**
Charged / (credited) to the income statement				
- Emission allowances	-	40,314	-	**40,314**
- Legal and other	-	-	17,733	**17,733**
- Asset retirement	(9,055)	-	-	**(9,055)**
Asset retirement provision capitalised in the year	66,615	-	-	**66,615**
ESOP provision charged to equity (note 31)	-	-	2,384	**2,384**
Utilised in the year	(2,604)	(46,699)	(12,145)	**(61,448)**
Financing charge	1,408	-	456	**1,864**
Balance at 31 December 2017	227,778	41,083	78,320	**347,181**
Balance at 1 January 2018	227,778	41,083	78,320	**347,181**
Charged / (credited) to the income statement				
- Emission allowances	-	48,374	-	**48,374**
- Legal and other	-	-	3,139	**3,139**
- Asset retirement	2,003	-	-	**2,003**
Legal and other capitalised in the year	-	-	11,809	**11,809**
Asset retirement provision capitalised in the year	(4,043)	-	-	**(4,043)**
ESOP provision charged to equity (note 31)	-	-	853	**853**
Utilised in the year	(1,850)	(36,551)	(18,066)	**(56,467)**
Financing charge	2,211	-	(514)	**1,697**
Balance at 31 December 2018	226,099	52,906	75,541	**354,546**
Analysed as follows:				
Non-current liabilities	212,658	-	58,377	**271,035**
Current liabilities	13,441	52,906	17,164	**83,511**
Total	**226,099**	**52,906**	**75,541**	**354,546**

NOTES TO THE FINANCIAL STATEMENTS

26. PROVISIONS (continued)

Asset retirement provision
The Group provision at 31 December 2018 of €283.2 million (2017: €260.7 million) for asset retirement represents the present value of the current estimate of the costs arising from certain obligations in relation to the retirement and decommission of mainly generating stations, windfarms and ESB Networks creosote treated wood poles at the end of their useful economic lives.

The expected closure dates of generating stations are up to 2040. As the costs are provided on a discounted basis, a financing charge is included in the income statement and credited to the provision each year. The asset retirement provision is re-examined annually and the liability re-calculated in accordance with the most recent expected estimate.

Due to changes in estimates during the year ended 31 December 2018 the asset retirement provision increased by €22.1 million (2017: €90.7 million increase). The estimated value of future retirement costs at the balance sheet date includes physical dismantling, site remediation and associated costs.

There are a number of uncertainties that affect the calculation of the provision for asset retirement obligations, including the impact of regulation, the accuracy of the site surveys, unexpected contaminants, the impact of alternative technologies and changes in the discount rate. The Group has made its best estimate of the financial effect of these uncertainties in the calculation of the provision, but future material changes in any of the assumptions could materially impact on the calculation of the provision. Expected future cash flows are discounted to present value using long-term interest rates based on a zero-coupon discount curve at the reporting date plus an appropriate credit spread.

Emissions provision
In accordance with the provisions of the European CO_2 emissions trading scheme, a provision is recognised to cover the liability for actual emissions during the year. Allowances purchased during the year are returned to the relevant Authority in charge of the scheme within four months from the end of that calendar year, in line with the actual emissions of CO_2 during the year. The provision represents the obligation to return emission allowances equal to the actual emissions. This obligation is measured at the carrying amount of the capitalised CO_2 emission allowances, in addition to the market value of any additional allowances required to settle the year end liability.

Other provisions
Other provisions represent estimates of liabilities to third parties, in respect of claims notified or provided for at year end. The year end provision includes an estimate for liabilities incurred but not yet reported.

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27. FINANCIAL RISK MANAGEMENT AND FAIR VALUE

(a) Overview of financial risk management

Risk environment

The main financial risks faced by the Group relate to foreign exchange (particularly movements in the value of the euro relative to sterling and the US dollar) and commodity (electricity and fuel) price movements. Liquidity risk, and exposure to interest rate volatility, are key long-term financial risks also, but have been substantially addressed in the short run. 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 as appropriate. During 2017 the Board reviewed and approved the Group's interest rate and funding policy. The Board last reviewed and approved the Group's interest rate and foreign exchange policy in 2017. A further update will take place in 2019. Group Treasury is responsible for the day-to-day treasury activities of the Group. The Finance and Investment Committee is regularly updated on key treasury matters, risk and associated mitigants.

Commodity price risk is managed by the front and middle office functions of the relevant business units: ESB Trading (within Generation and Trading (formerly Generation and Wholesale Markets)) and Electric Ireland. This is done in the context of an overall Group risk management framework. These activities are reviewed regularly by Group Internal Audit and it is the responsibility of the Trading Risk Management Committees (overseen by the Group Trading Committee (GTC)) to ensure that internal audit findings and recommendations are adequately addressed. The Group Trading Risk Management function ensures that the Group's market, credit and operational risks (including new and emerging risks arising from I-SEM) are managed in a way designed to protect the Group from loss, while respecting the ring-fencing obligations in place between the business units.

Contracts entered into in order to hedge exposures arising from the production and sale of electricity may be divided into forward fuel price contracts, forward electricity price contracts and foreign exchange contracts. Financial instruments are derecognised on settlement or sale.

Risk reporting structure

Through the Chief Executive, the Board has delegated to the GTC the broader responsibility of managing ESB's trading risk in a manner consistent with the Group's risk tolerances and business strategies. The GTC has established risk limits to manage and limit trading risk exposure at Group and business unit level. These limits are documented for each of the ESB businesses engaged in wholesale trading activities. Furthermore the Group Trading Risk Management Policy is applicable to each of these businesses.

In both Generation and Trading (formerly Generation and Wholesale Markets) and Electric Ireland, separate Trading Risk Management Committees meet on a monthly basis (or more frequently as required), and serve as the primary overseer of trading risk at individual ring-fenced entity level. These committees include the head of the Front Office function, the Trading Risk (Middle Office) Manager, a representative from Group Trading Risk Management, and the business unit Financial Controller. The Trading Risk Management Committees are responsible for formulating trading risk strategy in accordance with the Group Trading Risk Management Policy and ensuring compliance with same, trading risk limit management and for ensuring that an effective control framework is in place. The Trading Risk Management Committees report to the GTC.

The Middle Office function in each business unit maintains a separate reporting line to the Group Trading Risk Management function, which is responsible for ensuring that the Group's net exposure to movements in commodity or other price movements is adequately managed in accordance with Group Trading Risk Management Policy.

Hedge accounting

ESB funds its operations using borrowings and uses deposit instruments to invest surplus funds. ESB also uses interest rate and foreign currency instruments to manage interest rate and currency risks that arise in the normal course of operations from US dollar and sterling denominated borrowings, from its foreign currency subsidiaries and from the use of foreign currency suppliers. Hedge accounting pursuant to IFRS 9 is used both for hedges of foreign currency liabilities and interest rate risks from current and non-current liabilities.

In addition, the Group enters into certain commodity hedging transactions to fix fuel costs and to link electricity revenues more closely to fuel inputs, where possible. All of these arrangements are designated into hedge relationships and in the majority of cases meet the specific hedging accounting criteria of IFRS 9. Where the IFRS 9 hedge criteria are met in respect of cross currency swaps, interest rate swaps, foreign exchange contracts, forward fuel price contracts and forward electricity price contracts, these instruments are designated as cash flow hedges of highly probable forecast interest, revenue or other operating cost cash flows. Any derivatives held which are not specifically designated into hedge relationships from an accounting perspective are nevertheless regarded as valid economic hedges. Within its regular course of business, the Group routinely enters into sale and purchase contracts for commodities, including gas and electricity. Where the contract was entered into and continues to be held for the purposes of receipt or delivery of the commodities in accordance with the Group's expected sale, purchase or usage requirements, the contracts are designated as own use contracts and are accounted for as executory contracts. These contracts are therefore not within the scope of IFRS 9 - Financial Instruments.

NOTES TO THE FINANCIAL STATEMENTS

27. FINANCIAL RISK MANAGEMENT AND FAIR VALUE (continued)

(b) Overview of financial assets and liabilities

Financial assets and liabilities, excluding employee related liabilities, at 31 December 2018 and at 31 December 2017 can be analysed as follows:

	Financial assets at fair value through profit or loss		Assets / liabilities held at amortised cost		Derivative financial instruments with hedging relationships		Derivative financial instruments with no hedging relationships		Total	
	2018	2017	**2018**	2017	**2018**	2017	**2018**	2017	**2018**	2017
GROUP	**€ '000**	€ '000	**€ '000**	€ '000	**€ '000**	€ '000	**€ '000**	€ '000	**€ '000**	€ '000
ASSETS										
Non-current assets										
Trade and other receivables	**-**	-	**47,183**	74,936	**-**	-	**-**	-	**47,183**	74,936
Financial asset investments	**10,452**	22,165	**-**	-	**-**	-	**-**	-	**10,452**	22,165
Derivative financial instruments	**-**	-	**-**	-	**48,814**	71,820	**19,768**	13,257	**68,582**	85,077
Total non-current financial assets	**10,452**	22,165	**47,183**	74,936	**48,814**	71,820	**19,768**	13,257	**126,217**	182,178
Current assets										
Trade and other receivables*	**-**	-	**852,646**	744,613	**-**	-	**-**	-	**852,646**	744,613
Cash and cash equivalents	**-**	-	**229,073**	380,405	**-**	-	**-**	-	**229,073**	380,405
Derivative financial instruments	**-**	-	**-**	-	**90,934**	86,481	**65,600**	30,886	**156,534**	117,367
Total current financial assets	**-**	-	**1,081,719**	1,125,018	**90,934**	86,481	**65,600**	30,886	**1,238,253**	1,242,385
Total financial assets	**10,452**	22,165	**1,128,902**	1,199,954	**139,748**	158,301	**85,368**	44,143	**1,364,470**	1,424,563
LIABILITIES										
Non-current liabilities										
Borrowings and other debt	**-**	-	**4,537,692**	4,369,705	**-**	-	**-**	-	**4,537,692**	4,369,705
Derivative financial instruments	**-**	-	**-**	-	**70,594**	61,501	**554,588**	576,324	**625,182**	637,825
Total non-current financial liabilities	**-**	-	**4,537,692**	4,369,705	**70,594**	61,501	**554,588**	576,324	**5,162,874**	5,007,530
Current liabilities										
Borrowings and other debt	**-**	-	**606,275**	388,073	**-**	-	**-**	-	**606,275**	388,073
Trade and other payables**	**-**	-	**727,418**	735,794	**-**	-	**-**	-	**727,418**	735,794
Derivative financial instruments	**-**	-	**-**	-	**13,604**	14,596	**94,698**	121,932	**108,302**	136,528
Total current financial liabilities	**-**	-	**1,333,693**	1,123,867	**13,604**	14,596	**94,698**	121,932	**1,441,995**	1,260,395
Total financial liabilities	**-**	-	**5,871,385**	5,493,572	**84,198**	76,097	**649,286**	698,256	**6,604,869**	6,267,925

* Prepayments have been excluded as they are not classified as a financial asset.
** VAT and employment taxes have been excluded as these are statutory liabilites.

The Group's provisions and employee related liabilities are not analysed in the table above, or in the further analysis on the following page. This includes the liability for pension obligation of €395.2 million at 31 December 2018 (2017: €394.3 million). See notes 22 and 23 in relation to this and employee related liabilities.

NOTES TO THE FINANCIAL STATEMENTS

27. FINANCIAL RISK MANAGEMENT AND FAIR VALUE (continued)

(b) Overview of financial assets and liabilities (continued)

PARENT	Financial assets at fair value through profit or loss 2018 € '000	2017 € '000	Assets / liabilities held at amortised cost 2018 € '000	2017 € '000	Derivative financial instruments with hedging relationships 2018 € '000	2017 € '000	Derivative financial instruments with no hedging relationships 2018 € '000	2017 € '000	Total 2018 € '000	2017 € '000
ASSETS										
Non-current assets										
Derivative financial instruments	-	-	-	-	**721**	24,787	**15,583**	4,817	**16,304**	29,604
Total non-current financial assets	-	-	-	-	**721**	24,787	**15,583**	4,817	**16,304**	29,604
Current assets										
Trade and other receivables*	-	-	**3,361,118**	2,638,848	-	-	-	-	**3,361,118**	2,638,848
Cash and cash equivalents	-	-	**122,276**	208,499	-	-	-	-	**122,276**	208,499
Derivative financial instruments	-	-	-	-	**42,119**	27,724	**65,600**	30,870	**107,719**	58,594
Total current financial assets	-	-	**3,483,394**	2,847,347	**42,119**	27,724	**65,600**	30,870	**3,591,113**	2,905,941
Total financial assets	-	-	**3,483,394**	2,847,347	**42,840**	52,511	**81,183**	35,687	**3,607,417**	2,935,545
LIABILITIES										
Non-current liabilities										
Borrowings and other debt	-	-	**959,345**	1,160,208	-	-	-	-	**959,345**	1,160,208
Derivative financial instruments	-	-	-	-	**23,322**	37,758	**6,671**	2,999	**29,993**	40,757
Total non-current financial liabilities	-	-	**959,345**	1,160,208	**23,322**	37,758	**6,671**	2,999	**989,338**	1,200,965
Current liabilities										
Borrowings and other debt	-	-	**390,276**	170,370	-	-	-	-	**390,276**	170,370
Trade and other payables**	-	-	**4,471,402**	3,764,790	-	-	-	-	**4,471,402**	3,764,790
Derivative financial instruments	-	-	-	-	**2,904**	8,439	**80,763**	30,451	**83,667**	38,890
Total current financial liabilities	-	-	**4,861,678**	3,935,160	**2,904**	8,439	**80,763**	30,451	**4,945,345**	3,974,050
Total financial liabilities	-	-	**5,821,023**	5,095,368	**26,226**	46,197	**87,434**	33,450	**5,934,683**	5,175,015

* Prepayments have been excluded as they are not classified as a financial asset.
** VAT and employment taxes have been excluded as these are statutory liabilites.

The Parent's employee related liabilities are not analysed in the table above, or in the further analysis on the following page.
This includes the liability for pension obligation of €395.2 million at 31 December 2018 (2017: €394.3 million). See notes 22 and 23 in relation to this and employee related liabilities.

NOTES TO THE FINANCIAL STATEMENTS

27. FINANCIAL RISK MANAGEMENT AND FAIR VALUE (continued)

(c) Funding and liquidity management

The following table sets out the contractual maturities of financial liabilities (and assets of a similar nature), including the interest payments associated with borrowings and the undiscounted net cash flows attributable to derivative financial instruments. Borrowings with a carrying value of €3,794.3 million (2017: €3,427.2 million) and net derivative financial instrument liabilities of €518.7 million (2017: €580.5 million) are included in the Group balances below, but do not comprise part of the Parent's assets and liabilities as they are not held directly by the Parent. See notes 20, 21 and 24 for further analysis of Group and Parent financial assets and liabilities.

GROUP	Carrying amount € '000	Contractual cash outflows / inflows - net € '000	Within 1 year € '000	1-2 years € '000	2-5 years € '000	More than 5 years € '000
31 December 2018						
Borrowings	5,143,967	6,289,033	776,606	541,656	884,269	4,086,502
Trade and other payables (excluding tax balances and accrued interest on borrowings)	648,576	648,576	648,576	-	-	-
Derivative financial instruments	733,484	806,150	110,416	45,855	205,550	444,329
Total liabilities	**6,526,027**	**7,743,759**	**1,535,598**	**587,511**	**1,089,819**	**4,530,831**
Derivative financial instruments	225,116	234,271	160,164	31,885	26,334	15,888
Total assets	**225,116**	**234,271**	**160,164**	**31,885**	**26,334**	**15,888**
Net liabilities	**6,300,911**	**7,509,488**	**1,375,434**	**555,626**	**1,063,485**	**4,514,943**
31 December 2017						
Borrowings	4,757,778	5,987,029	584,064	723,597	1,162,412	3,516,956
Trade and other payables (excluding tax balances and accrued interest on borrowings)	656,114	656,114	656,114	-	-	-
Derivative financial instruments	774,353	849,078	141,101	28,110	63,851	616,016
Total liabilities	6,188,245	7,492,221	1,381,279	751,707	1,226,263	4,132,972
Derivative financial instruments	202,444	207,060	125,315	68,321	13,424	-
Total assets	202,444	207,060	125,315	68,321	13,424	-
Net liabilities	5,985,801	7,285,161	1,255,964	683,386	1,212,839	4,132,972

PARENT	Carrying amount € '000	Contractual cash outflows / inflows - net € '000	Within 1 year € '000	1-2 years € '000	2-5 years € '000	More than 5 years € '000
31 December 2018						
Borrowings	1,349,621	1,558,539	439,045	122,056	608,797	388,641
Trade and other payables (excluding tax balances and accrued interest on borrowings)	4,430,750	4,430,750	4,430,750	-	-	-
Derivative financial instruments	113,660	116,418	84,701	7,073	1,145	23,500
Total liabilities	**5,894,031**	**6,105,707**	**4,954,496**	**129,129**	**609,942**	**412,141**
Derivative financial instruments	124,024	132,104	109,970	3,630	2,616	15,888
Total assets	**124,024**	**132,104**	**109,970**	**3,630**	**2,616**	**15,888**
Net liabilities	**5,770,007**	**5,973,603**	**4,844,526**	**125,499**	**607,326**	**396,253**
31 December 2017						
Borrowings	1,330,578	1,581,981	233,651	349,804	346,128	652,398
Trade and other payables (excluding tax balances and accrued interest on borrowings)	3,724,878	3,724,878	3,724,878	-	-	-
Derivative financial instruments	79,647	86,286	41,905	3,725	4,410	36,246
Total liabilities	5,135,103	5,393,145	4,000,434	353,529	350,538	688,644
Derivative financial instruments	88,198	92,895	64,144	27,609	1,142	-
Total assets	88,198	92,895	64,144	27,609	1,142	-
Net liabilities	5,046,905	5,300,250	3,936,290	325,920	349,396	688,644

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NOTES TO THE FINANCIAL STATEMENTS

27. FINANCIAL RISK MANAGEMENT AND FAIR VALUE (continued)

(d) Master netting or similar agreements

The Group enters into derivative transactions under International Swaps and Derivatives Association (ISDA) master netting agreements. The ISDA agreements do not meet the criteria for offsetting in the consolidated balance sheet. This is because the Group does not have any current legally enforceable right to offset recognised amounts, because the right to offset is enforceable only on the occurrence of future events such as a default on the bank loans or other credit events.

The following table sets out the carrying amounts of recognised financial instruments that are subject to the above agreements.

GROUP	Gross amount of financial instruments in the statement of financial position € '000	Amounts not offset on the balance sheet € '000	Net amount € '000
31 December 2018			
Financial assets			
Interest rate swaps	5,079	(2,665)	2,414
Currency swaps	39,559	(10,901)	28,658
Foreign exchange contracts	3,214	(2,270)	944
Forward fuel price contracts	93,393	(18,070)	75,323
Forward electricity price contracts	83,871	(57,119)	26,752
	225,116	**(91,025)**	**134,091**
Financial liabilities			
Interest rate swaps	(3,785)	1,436	(2,349)
Inflation linked interest rate swaps	(558,275)	-	(558,275)
Currency swaps	(21,276)	13,356	(7,920)
Foreign exchange contracts	(2,404)	2,283	(121)
Forward fuel price contracts	(146,778)	72,984	(73,794)
Forward electricity price contracts	(966)	966	-
	(733,484)	**91,025**	**(642,459)**
31 December 2017			
Financial assets			
Interest rate swaps	10,296	(5,662)	4,634
Currency swaps	24,076	(7,555)	16,521
Foreign exchange contracts	14,271	(13,815)	456
Forward fuel price contracts	60,468	(24,016)	36,452
Forward electricity price contracts	93,333	(572)	92,761
	202,444	(51,620)	150,824
Financial liabilities			
Interest rate swaps	(39,720)	9,428	(30,292)
Inflation linked interest rate swaps	(653,176)	-	(653,176)
Currency swaps	(43,257)	19,415	(23,842)
Foreign exchange contracts	(2,210)	2,074	(136)
Forward fuel price contracts	(35,990)	20,703	(15,287)
	(774,353)	51,620	(722,733)

NOTES TO THE FINANCIAL STATEMENTS

27. FINANCIAL RISK MANAGEMENT AND FAIR VALUE (continued)

(d) Master netting or similar agreements (continued)

PARENT	Gross amount of financial instruments in the statement of financial position € '000	Amounts not offset on the balance sheet € '000	Net amount € '000
31 December 2018			
Financial assets			
Interest rate swaps	894	-	894
Currency swaps	39,559	(7,233)	32,326
Foreign exchange contracts	3,214	(1,125)	2,089
Forward fuel price contracts	80,357	(77,601)	2,756
	124,024	**(85,959)**	**38,065**
Financial liabilities			
Interest rate swaps	(209)	-	(209)
Currency swaps	(21,276)	7,766	(13,510)
Foreign exchange contracts	(2,687)	1,621	(1,066)
Forward fuel price contracts	(89,488)	76,572	(12,916)
	(113,660)	**85,959**	**(27,701)**
31 December 2017			
Financial assets			
Interest rate swaps	1,857	(1,033)	824
Currency swaps	24,076	(7,555)	16,521
Foreign exchange contracts	5,419	(4,977)	442
Forward fuel price contracts	56,846	(24,947)	31,899
	88,198	(38,512)	49,686
Financial liabilities			
Currency swaps	(43,257)	15,225	(28,032)
Foreign exchange contracts	(2,198)	1,528	(670)
Forward fuel price contracts	(34,192)	21,759	(12,433)
	(79,647)	38,512	(41,135)

NOTES TO THE FINANCIAL STATEMENTS

27. FINANCIAL RISK MANAGEMENT AND FAIR VALUE (continued)

(e) Credit risk

Credit risk arises from cash and cash equivalents, derivative financial instruments and deposits with banks and financial institutions, as well as credit exposures to wholesale and retail customers, including amounts due from equity accounted investees, outstanding receivables and committed transactions. In Parent credit risk also arises in respect of amounts due from subsidiary undertakings.

	2018		2017	
	GROUP	**PARENT**	GROUP	PARENT
Financial assets	**€ '000**	**€ '000**	€ '000	€ '000
Trade and other receivables*	**899,829**	**3,398,573**	819,549	2,638,848
Cash and cash equivalents	**229,073**	**122,276**	380,405	208,499
Derivative financial instruments	**225,116**	**124,024**	202,444	88,198
	1,354,018	**3,644,873**	1,402,398	2,935,545

*Prepayments have been excluded as they are not classified as a financial asset.

Trade and other receivables

Wholesale and credit risk arising from trade and other receivables has been disclosed in note 16. Trade and other receivables in Parent include amounts due from subsidiary undertakings.

Treasury related credit risk (relating to cash and derivative instruments)

The Group is exposed to credit risk from the counterparties with whom it holds its bank accounts and transacts with in the financial markets. The Group's policy is to limit its exposure to each financial institution based on accepted credit ratings of not less than BBB- or equivalent.

Trading in derivatives is performed to mitigate financial risks and is executed in compliance with the Specification and Requirements of the Minister for Finance issued under the aegis of the Financial Transactions of Certain Companies and Other Bodies Act 1992, most recently in December 2017. The Specification and Requirements outline the type of derivatives which ESB can transact and the associated requirements which ESB must satisfy regarding each derivative counterparty. Dealing activities are controlled by putting in place robust dealing mandates with counterparties. The Group does not hold or trade derivative instruments for speculative purposes. Exposures, related limits and compliance with the Minister's Specification and Requirements are subject to ongoing review and monitoring. The Group has not experienced any losses due to failure of such counterparties to deliver on their obligations.

Commodity credit risk (relating to derivatives)

The Group also has credit risk associated with commodity positions. These arise from derivative financial instruments that are entered into to hedge energy and fuel price risks and are managed in accordance with the Minister's Specification and Requirements (Financial Transactions of Certain Companies and Other Bodies Act 1992). The Group establishes counterparty credit risk limits to restrict uncollateralised exposure. Net exposures, collateral requirements and compliance are monitored on an ongoing basis. Collateral, in the form of bonds and guarantees, is required by ESB business units from various parties, specifically in the form of Letters of Credit from certain power Contract for Differences (CfD) counterparties. Total collateral held at year end 31 December 2018 was €35.2 million (2017: €47.7 million). The Group is cognisant of any changes in the creditworthiness of counterparties, and all appropriate steps are taken to further secure the Group's position, both by negotiating adequate protections in advance in the underpinning contractual master agreements and active management of any exposures, particularly where indications exists of a deterioration in the financial standing of counterparties.

NOTES TO THE FINANCIAL STATEMENTS

27. FINANCIAL RISK MANAGEMENT AND FAIR VALUE (continued)

(f) Foreign currency risk management

Foreign currency exposures arise mainly through the purchase of fuel and power, station overhaul costs, other purchases denominated in foreign currencies, borrowings in foreign currencies (including the private placement as described in note 20) and investments outside the Eurozone.

Foreign currency forward purchase contracts and cross currency swaps are used to reduce volatility arising from foreign currency exposures. The foreign currency forward purchase contracts in place at 31 December 2018 relate to forecast cash flows expected to occur up to 2028.

At year end, ESB's total debt portfolio amounted to €5.1 billion (2017: €4.8 billion), of which the Parent held €1.3 billion (2017: €1.3 billion). The underlying debt, before and after swaps, was denominated in the following currencies:

	Before swaps		After swaps	
GROUP	**2018 (%)**	2017 (%)	**2018 (%)**	2017 (%)
Currency				
Euro	**65**	55	**65**	64
US dollar	**8**	10	**-**	-
Sterling	**27**	35	**35**	36
Total	**100**	100	**100**	100

	Before swaps		After swaps	
PARENT	**2018 (%)**	2017 (%)	**2018 (%)**	2017 (%)
Currency				
Euro	**51**	42	**51**	76
US dollar	**32**	37	**-**	-
Sterling	**17**	21	**49**	24
Total	**100**	100	**100**	100

As shown above, the majority of the debt portfolio is either denominated in or swapped into euro for both principal and interest, thereby reducing the foreign currency risk exposure in the Group. In managing its foreign operations, the Group is cognisant of borrowing in currencies that match the functional currency of the foreign operation. Therefore a proportion of debt is sterling-denominated primarily as a result of the NIE Networks acquisition and the operations of Carrington Power Limited.

A change of 10% in foreign currency exchange rates at 31 December 2018 would increase equity and profit before taxation by the amount set out below. This analysis assumes that all other variables remain constant and includes the impact of the value of commodity swaps in place.

	31 December 2018		31 December 2017	
GROUP	**Other comprehensive income gain / (loss) € '000**	**Profit before taxation gain / (loss) € '000**	Other comprehensive income gain / (loss) € '000	Profit before taxation gain / (loss) € '000
10% strengthening				
US dollar	**(8,076)**	**1,628**	(7,020)	1,550
Sterling	**151,794**	**(2,341)**	61,009	(3,643)
Swiss franc	**(162)**	**-**	(124)	-
Japanese yen	**(23)**	**-**	(95)	-
10% weakening				
US dollar	**9,841**	**(1,988)**	8,580	(1,895)
Sterling	**(185,526)**	**2,958**	(72,690)	2,575
Swiss franc	**198**	**-**	152	-
Japanese yen	**29**	**-**	117	-

The following assumptions were made in respect of the sensitivity analysis above:
- changes in the carrying value of derivative financial instruments not in hedging relationships affect the income statement only;
- changes in the carrying value of derivative financial instruments that are cash flow hedges impact other comprehensive income only;
- changes in the carrying value of derivative financial instruments designated as net investment hedges arising from movements in the euro to sterling exchange rate are recorded directly in equity, with no ineffectiveness assumed.

NOTES TO THE FINANCIAL STATEMENTS

27. FINANCIAL RISK MANAGEMENT AND FAIR VALUE (continued)

(g) Commodity price risk management

The volatility of the fuel prices required for the Group's electricity generation activities has been significant in recent years and the resulting exposures to fuel price movements are managed by the Group on a selective hedging basis. The Group has entered into forward commodity price contracts in relation to the purchase of gas and coal required for electricity generation activities, refer to note 21 for further details. Forward fuel price contracts are valued based on physical volumes contracted and outstanding, and on the forward prices of products of a similar nature, at the balance sheet date, discounted where necessary based on an appropriate forward interest curve. Within its regular course of business, the Group routinely enters into sale and purchase contracts for commodities, including gas and electricity. Where the contract was entered into and continues to be held for the purposes of receipt or delivery of the commodities in accordance with the Group's expected sale, purchase or usage requirements, the contracts are designated as own use contracts and are accounted for as executory contracts.

A general increase of 10% in the price of gas and coal at 31 December 2018 would impact equity and profit before taxation by the amount set out below. This analysis assumes that all other variables, in particular foreign exchange rates remain constant and includes the impact of the value of commodity swaps in place. A 10% reduction would have an equal and opposite effect, on the basis that all other variables remain constant.

	31 December 2018		31 December 2017	
GROUP	**Other comprehensive income gain € '000**	**Profit before taxation gain € '000**	Other comprehensive income gain € '000	Profit before taxation gain € '000
Gain due to 10% increase in gas and coal prices	**25,886**	**1,439**	24,722	1,025

	31 December 2018		31 December 2017	
PARENT	**Other comprehensive income gain € '000**	**Profit before taxation gain € '000**	Other comprehensive income gain € '000	Profit before taxation gain € '000
Gain due to 10% increase in gas and coal prices	**9,679**	**1,439**	10,557	1,025

A general increase of 10% in the Wholesale Electricity price of the I-SEM at 31 December 2018 would impact other comprehensive income and profit before taxation by the amounts set out below. This analysis assumes that all other variables, in particular foreign exchange rates remain constant and includes the impact on the value of commodity swaps in place. A 10% reduction would have an equal and opposite effect, on the basis that all other variables remained constant.

	31 December 2018		31 December 2017	
GROUP	**Other comprehensive income (loss) € '000**	**Profit before taxation gain / (loss) € '000**	Other comprehensive income (loss) € '000	Profit before taxation gain / (loss) € '000
Loss due to 10% increase in the Wholesale Electricity Price	**(19,080)**	**-**	(12,625)	-

	31 December 2018		31 December 2017	
PARENT	**Other comprehensive income gain / (loss) € '000**	**Profit before taxation gain / (loss) € '000**	Other comprehensive income gain / (loss) € '000	Profit before taxation gain / (loss) € '000
Gain / (loss) due to 10% increase in the Wholesale Electricity Price	**-**	**-**	-	-

The sensitivity analysis provided above for the Group and Parent has been calculated as at 31 December 2018 using the following base commodity prices and foreign currency rates:

	2018	2017
Gas (Stg. p/therm)	**58.06**	48.03
Wholesale Electricity Prices (€/MWh)	**64.51**	48.77
Coal (US$/tonne)	**85.90**	90.50
Foreign currency rate (US$ = €1)	**1.15**	1.20
Foreign currency rate (Stg£ = €1)	**0.8945**	0.8872

NOTES TO THE FINANCIAL STATEMENTS

27. FINANCIAL RISK MANAGEMENT AND FAIR VALUE (continued)

(h) Fair value

The fair values of financial assets and liabilities carried at amortised cost together with the carrying amounts shown in the balance sheet are as follows:

	GROUP		**PARENT**	
	Carrying value 2018 € '000	**Fair value 2018 € '000**	**Carrying value 2018 € '000**	**Fair value 2018 € '000**
31 December 2018				
Long-term debt	4,537,692	5,364,685	959,345	988,386
Short-term borrowings	606,275	626,337	390,276	398,564
Total borrowings	**5,143,967**	**5,991,022**	**1,349,621**	**1,386,950**
Current trade and other payables	727,418	727,418	4,471,402	4,471,402
Non-current trade and other receivables	(47,183)	(47,183)	-	-
Current trade and other receivables	(852,646)	(852,646)	(3,361,118)	(3,361,118)
Cash and cash equivalents	(229,073)	(229,073)	(122,276)	(122,276)
Net liabilities	**4,742,483**	**5,589,538**	**2,337,629**	**2,374,958**

	GROUP		PARENT	
	Carrying value 2017 € '000	Fair value 2017 € '000	Carrying value 2017 € '000	Fair value 2017 € '000
31 December 2017				
Long-term debt	4,369,705	5,615,889	1,160,208	1,217,120
Short-term borrowings	388,073	400,078	170,370	179,402
Total borrowings	4,757,778	6,015,967	1,330,578	1,396,522
Current trade and other payables	735,794	735,794	3,764,790	3,764,790
Non-current trade and other receivables	(74,936)	(79,374)	-	-
Current trade and other receivables	(744,613)	(744,613)	(2,638,848)	(2,638,848)
Cash and cash equivalents	(380,405)	(380,405)	(208,499)	(208,499)
Net liabilities	4,293,618	5,547,369	2,248,021	2,313,965

Current trade and other receivables and trade and other payables are all due within one year, and have been provided for where impaired, their carrying value is considered to be materially in line with their fair value.

The fair value of non-current trade and other receivables is calculated based on the present value of future cash flows, discounted at the market rate interest rate or where applicable a specific interest rate has been applied.

ESB and NIE Networks Eurobonds are regarded Level 1 fair values. The fair value of Eurobonds is derived from observation of the most recent traded values for these bonds in liquid markets at the balance sheet date. Other borrowings and debt are Level 2 fair values. The primary valuation technique used for borrowings and other debt classified as Level 2 fair values is discounting of the future associated cash flows using the zero coupon discount curve of the relevant currency.

Fair value - discount rates

The interest rates used to discount future estimated cash flows, where applicable, are based on the applicable EURIBOR or LIBOR yield curve at the reporting date plus an appropriate constant credit spread, and were as follows:

	2018 %	2017 %
Other loans and borrowings	**1.6**	1.7
Derivative financial instruments	**1.1**	0.5

NOTES TO THE FINANCIAL STATEMENTS

27. FINANCIAL RISK MANAGEMENT AND FAIR VALUE (continued)

(i) Fair value hierarchy

The table below analyses financial assets and liabilities carried at fair value, by valuation method. The different levels relevant to financial assets and liabilities held by the Group have been defined as follows:

- Level 2: inputs, other than unadjusted quoted prices in active markets for identical assets and liabilities, that are observable for the asset or liability, either directly (i.e. as prices) or indirectly (i.e. derived from prices);
- Level 3: inputs for the asset or liability that are not based on observable market data (unobservable inputs).

GROUP	Level 2 € '000	Level 3 € '000	**Total € '000**
31 December 2018			
ASSETS			
Derivative financial instruments			
- Interest rate swaps	5,079	-	**5,079**
- Currency swaps	39,559	-	**39,559**
- Foreign exchange contracts	3,214	-	**3,214**
- Forward fuel price contracts	80,357	13,036	**93,393**
- Forward electricity price contracts	-	83,871	**83,871**
Financial assets at fair value through profit or loss	-	10,452	**10,452**
	128,209	**107,359**	**235,568**
LIABILITIES			
Derivative financial instruments			
- Interest rate swaps	(3,785)	-	**(3,785)**
- Currency swaps	(21,276)	-	**(21,276)**
- Foreign exchange contracts	(2,404)	-	**(2,404)**
- Forward fuel price contracts	(89,488)	(57,290)	**(146,778)**
- Forward electricity price contracts	-	(966)	**(966)**
- Inflation-linked interest rate swaps	(558,275)	-	**(558,275)**
	(675,228)	**(58,256)**	**(733,484)**
Net (liability) / asset	**(547,019)**	**49,103**	**(497,916)**

	Level 2 € '000	Level 3 € '000	Total € '000
31 December 2017			
ASSETS			
Derivative financial instruments			
- Interest rate swaps	10,296	-	10,296
- Currency swaps	24,076	-	24,076
- Foreign exchange contracts	14,271	-	14,271
- Forward fuel price contracts	56,847	3,621	60,468
- Forward electricity price contracts	15	93,318	93,333
Financial assets at fair value through profit or loss	-	22,165	22,165
	105,505	119,104	224,609
LIABILITIES			
Derivative financial instruments			
- Interest rate swaps	(39,720)	-	(39,720)
- Currency swaps	(43,257)	-	(43,257)
- Foreign exchange contracts	(2,210)	-	(2,210)
- Forward fuel price contracts	(34,192)	(1,798)	(35,990)
- Inflation-linked interest rate swaps	(653,176)	-	(653,176)
	(772,555)	(1,798)	(774,353)
Net (liability) / asset	(667,050)	117,306	(549,744)

When interpreting the positive and negative fair values of derivative financial instruments, it should be noted that they are matched with underlying offsetting risks. The fair value of derivative financial instruments is determined by discounting the difference between the contractual forward price and the current forward price for the residual maturity of the contract using a risk-free interest rate.

NOTES TO THE FINANCIAL STATEMENTS

27. FINANCIAL RISK MANAGEMENT AND FAIR VALUE (continued)

(i) Fair value hierarchy (continued)

PARENT	Level 2 € '000	Level 3 € '000	**Total € '000**
31 December 2018			
ASSETS			
Derivative financial instruments			
- Interest rate swaps	894	-	**894**
- Currency swaps	39,559	-	**39,559**
- Foreign exchange contracts	3,214	-	**3,214**
- Forward fuel price contracts	80,357	-	**80,357**
	124,024	**-**	**124,024**
LIABILITIES			
Derivative financial instruments			
- Interest rate swaps	(209)	-	**(209)**
- Currency swaps	(21,276)	-	**(21,276)**
- Foreign exchange contracts	(2,687)	-	**(2,687)**
- Forward fuel price contracts	(89,488)	-	**(89,488)**
	(113,660)	-	**(113,660)**
Net asset	**10,364**	-	**10,364**

	Level 2 € '000	Level 3 € '000	Total € '000
31 December 2017			
ASSETS			
Derivative financial instruments			
- Interest rate swaps	1,857	-	1,857
- Currency swaps	24,076	-	24,076
- Foreign exchange contracts	5,419	-	5,419
- Forward fuel price contracts	56,846	-	56,846
	88,198	-	88,198
LIABILITIES			
Derivative financial instruments			
- Currency swaps	(43,257)	-	(43,257)
- Foreign exchange contracts	(2,198)	-	(2,198)
- Forward fuel price contracts	(34,192)	-	(34,192)
	(79,647)	-	(79,647)
Net asset	8,551	-	8,551

NOTES TO THE FINANCIAL STATEMENTS

27. FINANCIAL RISK MANAGEMENT AND FAIR VALUE (continued)

(i) Fair value hierarchy (continued)

Measurement of fair values - valuation techniques and significant unobservable inputs

The following table shows the valuation technique used in measuring Level 2 and Level 3 fair values, as well as the significant unobservable inputs used.

Type	Valuation techniques	Significant unobservable inputs	Inter relationship between significant unobservable inputs and fair value measurement
Currency swaps, foreign exchange contracts and interest rate swaps	Level 2 - Present valuation of future contracted foreign exchange cash flows using constructed zero-coupon discount curve. The zero-coupon curve is based on using the interest yield curve of the relevant currency.		
Forward fuel and electricity price contracts	Level 2 - The fair value of forward fuel contracts is determined by reference to gas, coal and carbon prices with the resulting value discounted to present values. Level 3 - The fair value of some specific forward fuel and electricity contracts are determined by reference to forward electricity prices which are unobservable.	Forward electricity prices	The estimated fair value would increase / (decrease) if Wholesale Electricity Price was higher / (lower). Generally a change in gas prices is accompanied by a directionally similar change in Wholesale Electricity Price.
Inflation-linked interest rate swaps	Level 2 - Independent valuations are used and validated using the present valuation of expected cash flows using constructed zero-coupon discount curve. The zero-coupon curve is based on using the interest rate yield curve of the relevant currency. Future cash flows are estimated using expected RPI benchmark levels as well as expected LIBOR rate sets.		
Financial assets at fair value through profit or loss	Financial assets at fair value through profit or loss are carried at fair value. Where applicable, valuations are based on the most recent independent information available at year end, taking into account any other known and relevant factors. Unquoted investments are valued by deriving an enterprise value using one of the following methodologies: ▪ the price of a recent investment; ▪ revenue multiple; ▪ cost, less any required provision; ▪ realised value. As this requires the use of model based valuation techniques, with a number of unobservable inputs, all financial assets at fair value through profit or loss have been categorised as Level 3 investments in the current year.	Forecast annual revenue growth rate. Forecast gross margin	Novusmodus typically assess the value of investments based on its expectations of the proceeds which could be realised in a disposal. This value will usually be driven by a number of inputs including the ability of the investee to grow its revenue and associated margins leading to higher EBITDA thus higher values.

NOTES TO THE FINANCIAL STATEMENTS

27. FINANCIAL RISK MANAGEMENT AND FAIR VALUE (continued)

(i) Fair value hierarchy (continued)

The following table shows a reconciliation from opening balances at 1 January 2017 to the year ended 31 December 2018 for fair value measurements in Level 3 of the fair value hierarchy:

GROUP	Financial assets at fair value through profit or loss € '000	Forward electricity price contracts € '000	Forward fuel price contracts € '000	**Total € '000**
Balance at 1 January 2017	55,932	140,253	24,394	**220,579**
Additions	2,565	-	-	**2,565**
Disposals	(2,268)	-	-	**(2,268)**
Total gains / (losses):				
- in profit or loss	(33,884)	-	-	**(33,884)**
- in OCI	-	47,496	(29,429)	**18,067**
Settlements	-	(94,431)	6,858	**(87,573)**
Translation movements	(180)	-	-	**(180)**
Balance 31 December 2017 - net	22,165	93,318	1,823	**117,306**
Balance 1 January 2018	22,165	93,318	1,823	**117,306**
Additions	1,275	58,085	(57,288)	**2,072**
Total gains / (losses):				
- in profit or loss	(11,995)	-	-	**(11,995)**
- in OCI	-	(28,147)	36,612	**8,465**
Settlements	(987)	(40,350)	(25,367)	**(66,704)**
Translation movements	167	-	-	**167**
Balance 31 December 2018 - net	**10,625**	**82,906**	**(44,220)**	**49,311**

Financial assets at fair value through profit or loss are carried at fair value. Where applicable, valuations are based on the most recent independent information available at year end, taking into account any other known and relevant factors.

Unquoted investments are valued by deriving an enterprise value using one of the following methodologies:
- the price of a recent investment;
- revenue multiple;
- cost, less any required provision;
- realised value.

As this requires the use of model based valuation techniques, with a number of unobservable inputs, all financial assets at fair value through profit or loss have been categorised as Level 3 investments in the current year.

Forward fuel price contracts and forward electricity price contracts included at Level 3 in the fair value hierarchy relate to long-term contracts whose valuations are based on a number of forward price assumptions, with some unobservable inputs, including assumed forward electricity, carbon and gas inputs for longer term periods.

Sensitivity analysis - Level 3 fair values

For the fair values of forward fuel and electricity price contracts, reasonably possible changes at the reporting date to one of the significant unobservable inputs, holding other inputs constant, would have the following effects.

	31 December 2018		31 December 2017	
GROUP	**Other comprehensive income gain / (loss) € '000**	**Profit before taxation gain / (loss) € '000**	Other comprehensive income gain / (loss) € '000	Profit before taxation gain / (loss) € '000
Gain due to 10% increase in gas prices	**16,207**	**-**	14,165	-
Loss / (gain) due to 10% increase in the Wholesale Electricity Prices	**(19,080)**	**-**	(12,625)	-

NOTES TO THE FINANCIAL STATEMENTS

28. COMMITMENTS AND CONTINGENCIES

(a) Operating lease obligations

Total commitments under non-cancellable operating leases are due as follows:	**2018 € '000**	2017 € '000
Within one year	**15,626**	17,172
Between two and five years	**41,719**	55,075
After five years	**111,100**	149,475
Total payable	**168,445**	221,722

Operating leases payable by the Group generally relate to the rental of land and buildings. These lease costs are based on open market value at the date of inception and are generally subject to rent reviews, on average, every five years. There are no significant or unusual restrictions imposed on the Group by the terms of the operating leases.

(b) Capital commitments

	2018 € '000	2017 € '000
Contracted for	**358,086**	342,432

Share of equity accounted investees commitments	**2018 € '000**	2017 € '000
Contracted for	**85,693**	61,130

(c) Fuel contract commitments

There are a number of long-term gas supply arrangements in place for different periods up to 2019. These arrangements provide for pricing changes in line with changes in inbuilt energy market indicators. Where appropriate, embedded derivatives have been separated and valued in accordance with IFRS 9.

(d) Other disclosures

Following on from flooding in Cork in November 2009, Aviva as University College Cork's (UCC) insurer pursued a legal action against ESB in the High Court seeking recovery of €19 million for property damage. The High Court judgement found ESB liable for the damage caused by the flood but discounted the award to UCC by 40% to reflect UCC's contributory negligence.

ESB appealed the decision to the Court of Appeal. On 20 March 2018 the Court of Appeal delivered its judgement which held that ESB is not liable for any damage caused to UCC's property by the flood.

In October 2018 the Supreme Court granted UCC leave to appeal the judgement of the Court of Appeal. It is anticipated that the Supreme Court Appeal will be heard during H1 2019. The issue of the legal costs of the High Court and Court of Appeal cases is stayed pending the outcome of the Supreme Court appeal.

In addition to the UCC claim ESB has, since the judgement of the High Court in the UCC case, been served with 387 sets of proceedings relating to the flooding in Cork in November 2009. Details of amounts claimed in relation to these proceedings have not yet been received and therefore it is not possible to make a reliable estimate of their cost (should the Supreme Court not uphold the decision of the Court of Appeal) at this time. However, ESB does not anticipate that the total amount of damages awarded, if any, and related costs for all of the actions, including the Aviva / UCC action, would exceed its applicable insurance cover.

On the basis of the internal and external legal advice received, ESB believes that it is more probable than not that the judgement of the Court of Appeal will be upheld and accordingly, no provision has been made for such claims in the financial statements.

Other than as disclosed above, a number of other lawsuits, claims and dispute with third parties have arisen in the normal course of business. While any litigation or dispute has an element of uncertainty, the Board members believe that there were no contingent liabilities which would have a material adverse effect on the Group's financial position.

NOTES TO THE FINANCIAL STATEMENTS

29. RELATED PARTY TRANSACTIONS

Semi-state bodies

In common with many other entities, ESB deals in the normal course of business with other Government sponsored bodies such as Ervia, Bord na Móna and Coillte Teoranta. Long-term agreements are negotiated between ESB and Bord na Móna in relation to the purchase of peat for the Midland stations.

Banks owned by the Irish state

In the normal course of business ESB transacts with certain Irish banks which have become wholly or partially controlled by the Irish Government. All of ESB's transactions with such banks are on normal commercial terms. ESB had no material concentration of borrowings with any such banks during the year or at 31 December 2018. A portion of the cash and cash equivalents as disclosed in note 17 was on deposit with such banks.

Board members' interests

Other than agreed allocations under ESOP, Board members had no beneficial interest in ESB or its subsidiaries at any time during the year.

ESOP

During the year ended 31 December 2018, ESB paid fees of €0.1 million (2017: €0.1 million) on behalf of ESOP. Please refer to note 31 for details of ESOP repurchase.

Subsidiary undertakings

During the year ended 31 December 2018, ESB Parent purchased engineering, consulting and other services, including rental services of €99.8 million (2017: €302.3 million) from its subsidiaries.

During the year, ESB Parent had sales of €170.6 million (2017: €195.0 million) to subsidiaries. These sales mainly relate to management services, as well as electricity charges including Use of System Charges and sales of electricity.

During the year, ESB Parent received interest of €43.5 million (2017: €41.1 million) from subsidiaries and paid interest of €55.6 million (2017: €71.8 million) to subsidiaries on inter-company loans.

At 31 December 2018, ESB Parent had amounts payable of €4,044.8 million (2017: €3,369.1 million) to its subsidiaries. These payables mainly relate to amounts held on deposit for subsidiaries and other amounts due to subsidiaries, borrowings raised by ESB Finance DAC and loaned to ESB Parent and amounts due in respect of engineering and consulting services.

At 31 December 2018, ESB Parent had balances receivable of €2,937.4 million (2017: €2,284.3 million) from its subsidiaries. These receivables mainly relate to management services and loans to subsidiaries as well as electricity charges including Use of System Charges. The total impairment provision in respect of amounts owed by subsidiary undertakings at 31 December 2018 was €365.3 million (2017: €330.9 million).

Equity accounted investees

	Sale of goods / services[1]		**Purchase of goods / services[2]**		**Amounts owed (to) / from as at 31 December[3]**		**Equity advanced during the year**	
GROUP	**2018 € '000**	2017 € '000	**2018 € '000**	2017 € '000	**2018 € '000**	2017 € '000	**2018 € '000**	2017 € '000
Raheenleagh DAC	**317**	343	**7,489**	9,773	**1,968**	3,769	**-**	-
Oweninny DAC	**2,052**	1,927	**-**	-	**13,947**	12,051	**-**	-
Castlepook DAC[4]	**75**	1,681	**-**	-	**-**	7,229	**-**	-
Emerald Bridge Fibres DAC	**123**	5	**-**	-	**-**	1,433	**1,350**	-
Tilbury Green Power Holdings Ltd	**3,287**	1,458	**18,539**	721	**33,868**	51,094	**-**	-
Kingspan ESB DAC	**27**	108	**-**	474	**321**	300	**-**	-
SIRO Ltd[5]	**8,255**	9,499	**-**	3,400	**107,326**	67,142	**6,500**	-
Terra Solar Ltd	**-**	-	**-**	-	**-**	-	**-**	-
Aldenburgh Offset Wind Holdings LTD	**-**	-	**-**	-	**28,553**	-	**126,551**	-
Total	**14,136**	15,021	**26,028**	14,368	**185,983**	143,018	**134,401**	-

[1] ESB provided electricity sales, management and other professional services during the year to equity accounted investees as set out in the above table.

[2] ESB has purchased power and services in relation to telecoms and maintenance during the year from equity accounted investees as set out in the above table

[3] Amounts owed (to) / from equity accounted investees include shareholders loans (shown net of any impairments), interest on these loans and trade receivable and payable balances of €2.6 million (2017: €nil). Interest receivable on borrowings relates to Tilbury Green Power Holdings Ltd €nil (2017: €13.8 million), Emerald Bridge Fibres DAC €nil (2017: €1.8 million), Oweninny DAC €1.1 million (2017: €0.7 million) and Aldeburgh Offshore Wind Holdings Ltd €1.6 million (2017: €nil). For further details on the impairment charges in relation to Tilbury Green Power Holdings Ltd and Emerald Bridge Fibres DAC see note 14.

[4] On 20 December 2018, Castlepook Power DAC became a 100% subsidiary of ESB Group, with the group acquiring the remaining 50% equity share in the company. Consequently, at 31 December 2018, Castlepook Power DAC is no longer included as an equity accounted investee. Prior to the full acquisition of Castlepook Power DAC, ESB provided services to the value of €0.1 million (2017: €nil) to the company.

[5] ESB has committed to provide capital funding to SIRO Ltd of €93.0 million, of which €93.0 million has been advanced as a short-term shareholder loan as disclosed above. ESB has guaranteed a 50% share of a €200.0 million loan facility held by SIRO of which €28.0 million was drawn down as at 31 December 2018.

Terms and conditions

Sales to and purchases from equity accounted investees and associates are conducted in the ordinary course of business. The outstanding balances included in receivables and payables as at the balance sheet date in respect of transactions with equity accounted investees and associates are unsecured and settlement arises in cash. No guarantees have been either requested or provided in relation to related party receivables and payables.

NOTES TO THE FINANCIAL STATEMENTS

29. RELATED PARTY TRANSACTIONS (continued)

Key management compensation	2018 € '000	2017 € '000
Salaries and other short-term employee benefits	3,209	2,838
Post-employment benefits	378	329
	3,587	3,167

The key management compensation amounts disclosed above represent compensation to those people having the authority and responsibility for planning, directing and controlling the activities of the Group. These include the remuneration of senior executives.

30. ESTIMATES AND JUDGEMENTS

The preparation of Parent and consolidated financial statements requires a significant number of judgemental assumptions and estimates to be made. These impact on the income and expenses contained within the income statement and the valuation of the assets and liabilities in the balance sheet. Such estimates and judgements are based on historical experience and other factors, including expectations of future events that are believed to be reasonable under the circumstances and are subject to continual re-evaluation.

It should be noted that the impact of variation in some assumptions and estimates can have a particularly material impact on the reported results. These include but are not limited to:

(a) The accounting for the ESB - pension liability requires the exercise of judgement. The Board is satisfied that the appropriate accounting treatment, determined in accordance with IAS 19 Employee Benefits, is to reflect its existing committed obligations, as set out in the notes to the financial statements (see note 22).

(b) The employees in NIE Networks are entitled to membership of the NIE Networks Scheme which has both defined benefit and defined contribution arrangements. The estimation of and accounting for retirement benefits obligation involves judgements made in conjunction with independent actuaries. This involves estimates about uncertain future events including the life expectancy of scheme members, future salary and pension increases and inflation as well as discount rates. The assumptions used by the Group and a sensitivity analysis of a change in these assumptions are described in note 22.

(c) The value in use, in accordance with IAS 36 Impairment of Assets, of long lived assets and associated goodwill, as described in note 13 and as described below:

For power generation assets, value in use is based on the estimated cash flows expected to be generated by the asset and is based on an external review of forecast power generation and forecast power, gas, carbon and capacity prices (where applicable) and the timing and extent of operating costs and capital expenditure. These cash flows are discounted to their present value using a pre-tax discount rate that reflects the current market assessments of the time value of money and the risks specific to the asset. The estimation of forecasted revenues and the timing of expenditure requires judgement and is dependent on the economic factors associated with these assets.

(d) As described in note 27 section (h), the valuation of certain financial instruments is based on a number of judgmental factors and assumptions which of necessity are not based on observable inputs. These have been classified as level 3 financial instruments, under the meaning of IFRS 13 Fair Value Measurement.

(e) Future costs required to settle current provisions and employee related liabilities, such as the power station closure costs and voluntary severance obligations. These liabilities are disclosed in notes 22, 23 and 26.

(f) The measurement of a number of assets, liabilities, income and costs at year end which require a high degree of estimation and judgement, including, the calculation of unbilled electricity income and trade and other receivables, the valuation of fuel stocks, the cost of fuel consumed, the useful lives of property, plant and equipment and also accruals for goods received or work carried out for which supplier invoices have not yet been received. These items are estimated in accordance with the accounting policies of the Group and current International Financial Reporting Standards.

(g) ESB provide services to around 1.4 million individuals and businesses, mainly on credit terms. It is known that certain debts due to ESB will not be paid through the default of a small number of customers. Estimates, based on historical experience are used in determining the level of debts that is believed will not be collected. These estimates include such factors as the current state of the Irish economy and particular industry issues (see note 16).

(h) Other disclosures, please refer to note 28 for further details of estimates and judgements regarding ongoing legal claims.

NOTES TO THE FINANCIAL STATEMENTS

31. ESB ESOP TRUSTEE LIMITED

ESB ESOP Trustee Limited was incorporated by ESB during 2001, with a €1 investment, as Trustee to the ESB Employee Ownership Trust (ESOT) and the ESB Approved Profit Sharing Scheme (APSS). Under the terms of the creation of ESB ESOP Trustee Limited, ESB has no ability or rights to exert control over the assets or management of the Company. The Trustee Company is chaired by an independent professional Trustee with four directors representing ESB employees and two directors representing ESB. As such, severe restrictions which substantially hinder the exercise of the rights of ESB over the assets and management of the company exist. In accordance with IFRS 10 Consolidated Financial Statements, the financial statements for ESB ESOP Trustee Limited are not consolidated with the results of the ESB Group.

During the year ended 31 December 2015, ESB entered into an agreement to support the acquisition of capital stock in future ESOP internal markets. As part of the agreement ESB committed to match the acquisitions made by the ESOP Trustees up to a value of €25.0 million. An ESOP provision of €0.9 million (2017: €2.4 million) was recognised in the 2018 financial statements in relation to the capital stock repurchase by the ESOP Trustee. During 2018, ESB continued the repurchase of the ESOP capital stock and consequently a capital redemption reserve of €4.4 million (2017: €4.7 million) arose from the purchase and cancellation of the 4.4 million ESOP share capital (2017: 4.7 million) for a consideration of €4.9 million (2017: €5.6 million) and represents the nominal amount of the share capital cancelled. The repurchase reduced the ESOP repurchase provision by €4.9 million and at 31 December 2018, the ESOP repurchase provision (see note 26) recognised in other reserves amounts to €11.8 million (2017: €15.9 million)

32. POST BALANCE SHEET EVENTS

Details of dividend declared since the year end are set out in note 17.

There are no other post balance sheet events that the directors believe require adjustment to or disclosure in the financial statements.

33. APPROVAL OF FINANCIAL STATEMENTS

The Board approved the financial statements on 1 March 2019.

NOTES TO THE FINANCIAL STATEMENTS

34. SUBSIDIARY, EQUITY ACCOUNTED INVESTEES AND ASSOCIATE UNDERTAKINGS

Company name	Registered office	Group share %	Nature of business
Subsidiary undertakings			
Direct subsidiary			
Electric Ireland Ltd. (UK)	4	100	Dormant
ESB Energy International Ltd.	2	100	Holding company
ESB Electric Ireland Ltd. (UK)	4	100	Dormant
ESB Finance DAC.	2	100	Finance
ESB Financial Enterprises Ltd.	2	100	Holding company
ESB International Investments Ltd.	2	100	Holding company
ESB International Ltd.	2	100	Holding company
ESB Networks DAC.	8	100	Power distribution
ESBNI Ltd.	5	100	Holding company
Indirect subsidiary			
Airstream Wind Energy Ltd.	2	100	Power generation
Airvolution Energy (Car Ban Wind Farm) Ltd.	7	100	Power generation
Airvolution Energy (Shotts 2) Ltd.	7	100	Power generation
Airvolution Energy (Tarvie) Ltd.	7	100	Power generation
Airvolution Energy Ltd. (UK)	7	100	Power generation
Blarghour Wind Farm Ltd.	9	8	Power generation
Cambrian Renewable Energy Ltd.	4	100	Power generation
Capital Pensions Management Ltd.	6	100	Pension scheme administration
Cappawhite Wind Ltd.	2	100	Power generation
Carrington Power Ltd.	4	100	Power generation
Castlepook Power DAC.	2	100	Power generation
Chirmorie Wind Farm Ltd.	9	8	Power generation
Coolkeeragh ESB Ltd.	5	100	Power generation
Corby Power Ltd.	3	100	Power generation
Corvoderry Wind Farm Ltd.	2	100	Power generation
Crockagarran Windfarm Ltd.	5	100	Power generation
Crockahenny Wind Farm DAC.	2	75	Power generation
Crockdun Windfarm (NI) Ltd.	5	100	Power generation
Curryfree Wind Farm Ltd.	5	100	Power generation
Dell Wind Farm Ltd.	9	8	Power generation
Devon Wind Power Ltd.	4	100	Power generation
EC02 Cambrian Ltd.	4	100	Holding company
ESB 1927 Ltd.	2	100	Property management
ESB Asset Development (UK) Ltd.	4	100	Business development
ESB Commercial Properties Ltd.	2	100	Property management
ESB Energy Ltd.	4	100	Supply company
ESB Electric Ireland Ltd.	2	100	Dormant
ESB Group (UK) Ltd.	4	100	Engineering and consultancy
ESB Independent Energy (NI) Ltd.	2	100	Electricity and gas sales
ESB Independent Energy Ltd.	2	100	Electricity and gas sales
ESB Independent Generation Trading Ltd.	2	100	Electricity and gas trading
ESB Innovation UK Ltd.	4	100	Provision of energy and electromobility services
ESB Innovation ROI Ltd.	2	100	Provision of energy and electromobility services

NOTES TO THE FINANCIAL STATEMENTS

34. SUBSIDIARY, EQUITY ACCOUNTED INVESTEES AND ASSOCIATE UNDERTAKINGS (continued)

Company name	Registered office	Group share %	Nature of business
Indirect subsidiary (continued)			
ESB International (Malaysia) Sdn. Bhd	18	100	Engineering and consultancy
ESB Kelvin 1 Ltd.	4	100	Dormant
ESB Kelvin 2 Ltd.	4	100	Dormant
ESB Novus Modus GP Ltd.	2	100	Clean technology investment
ESB Power Generation Holding Company Ltd.	2	100	Holding company
ESB Services BV (Holland).	12	100	Operations and maintenance services
ESB Solar (IRE) Ltd.	2	100	Business and management consultancy activities
ESB Solar (NI) Ltd.	5	100	Business and management consultancy activities
ESB Telecoms Ltd.	2	100	Telecommunications
ESB Trading Ltd.	2	100	Management and operation services
ESB Wind Development Ltd.	2	100	Business development
ESBI Carbon Solutions Ltd.	2	100	Carbon emission reduction
ESBI Computing Ltd.	2	100	Computer services
ESBI Consultants Ltd.	1	100	Consultancy
ESBI Contracting Ltd.	2	100	Business development
ESBI Engineering and Facility Management (Botswana) (Proprietary) Ltd.	11	100	Engineering and consultancy
ESBI Engineering and Facility Management Ltd.	1	100	Engineering
ESBII UK Ltd.	4	100	Holding company
ESBI Luxembourg S.A.	30	100	Electricity generating assets investment
Facility Management UK Ltd.	4	100	Facility management
Garvagh Glebe Power Ltd.	2	100	Power generation
Garvary Wind Farm Ltd.	9	8	Power generation
Geothermal International Ltd.	10	91	Power generation
Geothermal International Hrvatska (Croatia) d.o.o.	29	10	Power generation
Geothermal International Italia SRL.	27	20	Power generation
Geothermal International Polska Sp Zoo (Spolka Z Organiczona Odpowiedzialnoscia).	28	89	Power generation
GI Holdings North America Inc.	25	100	Holding company
Glendye Wind Farm Ltd.	9	8	Power generation
Gort Windfarms Ltd.	2	100	Power generation
Greengate Energy Recovery Ltd.	4	100	Power generation
Greystone Knowe Wind Farm Ltd.	9	8	Power generation
Hibernian Wind Power Ltd.	2	100	Power generation
Hunter's Hill Wind Farm Ltd.	5	100	Power generation
Kerry Wind Power Ltd.	2	100	Power generation
Kirkan Wind Farm Ltd.	9	8	Power generation
Kirk Hill Wind Farm Ltd.	9	8	Power generation
Knottingley Power Ltd.	4	100	Power generation
Mount Eagle Wind Farm Ltd.	2	100	Power generation
Mountainlodge Power DAC.	2	85.9	Power generation
NIE Finance PLC.	6	100	Finance
NIE Ltd.	6	100	Dormant
NIE Networks Services Ltd.	6	100	Non-trading
Northern Ireland Electricity Ltd.	6	100	Dormant

NOTES TO THE FINANCIAL STATEMENTS

34. SUBSIDIARY, EQUITY ACCOUNTED INVESTEES AND ASSOCIATE UNDERTAKINGS (continued)

Company name	Registered office	Group share %	Nature of business
Indirect subsidiary (continued)			
Northern Ireland Electricity Networks Ltd.	6	100	Power transmission and distribution
Orliven Ltd.	2	100	Power generation
Planet 9 Energy Ltd.	4	100	Supply company
REG Greenburn Ltd.	31	10	Power generation
REG Knockodhar Ltd.	31	10	Power generation
Sillahertane Energy Project Two Ltd.	2	100	Power generation
Synergen Power Ltd.	14	100	Power generation
Tullynahaw Power Ltd.	2	100	Power generation
Utility Operation & Maintenance Services Ltd.	14	100	Operations and maintenance services
Waterfern Ltd.	2	100	Power generation
West Durham Wind Farm (Holdings) 2 Ltd.	4	100	Holding company
West Durham Wind Farm (Holdings) Ltd.	4	100	Holding company
West Durham Wind Farm Ltd.	4	100	Power generation
Woodhouse Wind Farm Ltd.	2	100	Power generation
Equity accounted investees			
Aldeburgh Offshore Wind Holdings Ltd.	32	50	Holding company
Aldeburgh Offshore Wind Investments Ltd.	32	50	Holding company
Emerald Bridge Fibres DAC.	2	50	Telecommunications
Galloper Wind Farm Holding Company Ltd.	33	12.5	Power generation
Galloper Wind Farm Ltd.	33	12.5	Power generation
Kingspan ESB DAC.	2	50	Business and management consultancy activities
Oweninny Power DAC.	2	50	Power generation
Oweninny Power Holdings DAC.	2	50	Holding company
Oweninny Power 2 DAC.	2	50	Power generation
Raheenleagh Power DAC.	2	50	Power generation
SIRO Ltd.	2	50	Fibre to the building
Tilbury Green Power Holdings Ltd.	4	47	Holding company
Tilbury Green Power Ltd.	4	47	Power generation
Associate undertakings			
Terra Solar Ltd.	26	25	Power generation
Investments			
Cylon Controls Ltd.	19	36.2	Clean technology investment
Endeco Technologies Ltd.	20	23	Clean technology investment
Heliex Power Ltd.	21	34.3	Clean technology investment
Nualight Ltd.	22	41	Clean technology investment
Pesaka Technologies.	17	30	Power generation
Rousch Pakistan Power.	13	7	Power generation
TenKsolar Inc.	24	4	Clean technology investment
UNES Operation and Maintenance Inc.	16	50	Operation and maintenance services
VantagePoint Cleantech Partners II, L.P.	23	4.5	Clean technology investment
Other			
ESB ESOP Trustee Ltd.	15	100	Staff shareholding scheme

NOTES TO THE FINANCIAL STATEMENTS

34. SUBSIDIARY, EQUITY ACCOUNTED INVESTEES AND ASSOCIATE UNDERTAKINGS (continued)

ESB's principal place of business is Two Gateway, East Wall Road, Dublin 3, D03 A995

Notes:

1 ESB International, One, Dublin Airport Central, Dublin Airport, Cloghran, Co. Dublin, K67 XF72
2 Two Gateway, East Wall Road, Dublin 3, D03 A995
3 Mitchell Road, Phoenix Parkway, Corby, Northamptonshire, MN17 1Q7
4 Tricor Services Europe LLP, 4th Floor, 50 Mark Lane, London, EC3R 7QR
5 2 Electra Road, Maydown, Derry, BT47 6 UL
6 120 Malone Road, Belfast, BT9 5HT
7 Palladium House, 1-4 Argyll Street, London, W1F 7TA
8 Clanwilliam House, Clanwilliam Court, Dublin 2, D02 CV61
9 22-24 King Street, Maidenhead, SL6IEF
10 Shellingwood House, Westwood Way, Westwood Business Park, Coventry, CV48J2
11 Deloitte House, First Floor, Plot, 64518, Fairgrounds Office Park, Gaborne, Botswana
12 22nd Floor, Menara, EON Bank, Lala Raja Laut, 50350, Kuala Lumpur, Malaysia
13 94-W, 3rd Floor, AAMIR Plaza, Jinnah Avenue, Blue Area, Islambad, Pakistan
14 ESB Dublin Bay, Pigeon House Road, Ringsend, Dublin 4, D04 Y5N2
15 43 Merrion Square, Dublin 2, D02 R997
16 Nispetiye Cad Akmerkez E3 Blok K, 13Etiler/Beskiktas, Turkey
17 Level 1, Menara Yavasan, Tun Razak, Zoo, Jalan Bukit Bintang, 55100 Kuala Lumpur, Malaysia
18 10th Floor, Wisma Havela, Thakardos, No 1 Jalan Raja Laut, 50350 Kuala Lumpur, Malaysia
19 Clonshaugh Business and Technology Park, Clonshaugh, Dublin 17, D17 A662
20 3015, Lake Drive, Citywest Business Park, Dublin 24, D24 DKP4
21 Kelvin Building Bramah Avenue, East Kilbride, Glasgow, G75 0RD
22 Cork Business and Technology Park, Model Farm Road, Cork, T12 PW29
23 C/O Codan Trust Company (Cayman) Limited, Cricket Square, Hutchins Drive, P.O. Box 2681, Grand Cayman, KY1-1111, Cayman Islands
24 9231 Penn Avenue South, Minneapolis, Minnesota, 55431
25 134 N LaSalle St, Suite 510, Chicago, IL 60602
26 57 Hollybank Avenue Lower, Ranelagh, Dublin 6, D06 V8N4
27 Trezzano Sul Naviglio - Viale C. Colombo, 8
28 Geothermal International Polska, Parkova 21 lok 7,00-759 Warszawa, Poland
29 ZagrebaCka 94, 42000 VaraZdin
30 6, Rue Eugene Ruppert, L-2453, Luxembourg
31 2nd Floor Edgeborough House, Edgeborough Road, Guildford, Surrey, GU1 2BJ
32 St. Swithin's Lane, 4th Floor, London, England, EC4N 8AD
33 Windmill Hill Business Park, Whitehall Way, Swindon SN5 6PB

Report of Board Members on Compliance with the Prompt Payment of Accounts Act, 1997 and European Communities (Late Payments in Commercial Transactions) Regulations, 2012 (S.I. No. 580 of 2012) as amended by European Communities (Late Payment in Commercial Transactions) (Amendment) Regulations 2016 (S.I. No. 281 of 2016)

Introduction
Payments terms during 2018 were governed by:

- The Prompt Payment of Accounts Act, 1997.
- European Communities (Late Payments in Commercial Transactions) Regulations, 2012 (S.I. No. 580 of 2012) as amended by European Communities (Late Payment in Commercial Transactions) (Amendment) Regulations 2016 (S.I. No. 281 of 2016) to combat late payments in commercial transactions. These Regulations apply to contracts for goods and services supplied to ESB.
- Construction Contracts Act 2013. This Act applies to construction contracts over €10,000.

Statement of payment practices
ESB is committed to paying all undisputed supplier invoices within their agreed terms of payment.

Procedures and controls in place
Appropriate internal financial controls have been implemented including clearly defined roles and responsibilities. These procedures provide assurance against material non-compliance with the legislation.

Prompt Payment Code of Conduct
In 2015 the Government launched the Prompt Payment Code of Conduct, which can be found at www.promptpayment.ie. ESB is a signatory to this Code and undertakes to pay suppliers on time; give clear guidance to suppliers on payment procedures; and encourage the adoption of the Code by suppliers within their own supply chains.

Construction Contracts Act 2013
This Act came into effect on 25 July 2016. ESB has reviewed its responsibilities under this Act and has communicated these responsibilities to relevant staff.

Details of late payment interest in respect of 2018
When ESB validates a late payment request from a supplier, it is ESB's policy to pay interest due on such late payments. No such payments were made in respect of late payments during the year 2018 (2017: €7,542).

Ellvena Graham OBE,
Chairman

Pat O'Doherty
Chief Executive

1 March 2019

GLOSSARY

1. British Electricity Trading and Transmission Arrangements (BETTA)
British Electricity Trading and Transmission Arrangements (BETTA) is the wholesale electricity market operating in Great Britain (GB).

2. Brexit
Brexit is the potential departure of the United Kingdom from the European Union.

3. Commission for Regulation of Utilities, Water and Energy
The Commission for Regulation of Utilities, Water and Energy (CRU) is the independent regulator of water and energy in the Republic of Ireland.

4. Contracts for Difference (CfDs)
A contract for difference (CfD) is a contract between two parties, a buyer and a seller, stipulating that the buyer will pay to the seller the difference between the current value of an asset and its value at contract time. If the difference is negative, the seller pays instead of the buyer.

5. Dark Spread
The difference between the price of a unit of electricity and the cost of the coal used to generate it.

6. EBITDA
Earnings before interest, taxation, depreciation, impairment, amortisation (including amortisation of supply contributions) and exceptional items.

7. Electricity Market Reform (EMR)
Electricity Market Reform (EMR) is a UK Government policy to incentivise investment in secure, low-carbon electricity, improve the security of Great Britain's electricity supply, and improve affordability for consumers.

8. Energy for Generations Fund
In November 2013, ESB launched the Energy for Generations Fund, a corporate responsibility investment which will see over €1 million per year disbursed across a range of community and issues-based initiatives.

9. Environmental Protection Agency (EPA)
The Environmental Protection Agency is an independent public body established under the Environmental Protection Agency Act, 1992. It is at the front line of environmental protection and policing.

10. Gigabit (Gb/s)
Gigabit (Gb/s) is a unit of data transfer rate equal to: 1,000 megabits per second

11. Gigawatt (GW)
Gigawatt, being the amount of power equal to 1 billion watts.

12. Gigawatt Hours (GWh)
Gigawatt hours, being the amount of energy equivalent to delivering 1 billion watts of power for a period of one hour.

13. Great Britain (GB)
England, Wales and Scotland.

14. Impairment
An impairment charge is determined when the carrying value (book value) of assets exceeds its recoverable amount.

15. Integrated Single Electricity Market (I-SEM)
This European Target Model is a development flowing from the Third Energy Package and is an umbrella term for a detailed list of new common EU guidelines, procedures and codes to be put in place to enable a single EU-wide wholesale electricity market. The implementation of these common EU guidelines, procedures and codes across the EU will allow electricity and gas to be traded freely across the Union

16. Joint Venture (JV)
A company or other entity which is controlled jointly with other parties.

17. Liquefied Natural Gas (LNG)
Liquefied natural gas, a clear, colourless, non-toxic liquid that forms when natural gas is cooled to -162°C (-260°F).

18. Lost Time Injuries (LTIs)
A work related injury causing an absence for one or more working days, counting from the day after the injury, before the person returns to normal or restricted work.

19. Megawatt (MW)
Megawatt, being the amount of power equal to 1 million watts.

20. Megawatt Hours (MWh)
Megawatt hours, being the amount of energy equivalent to delivering 1 million watts of power for a period of one hour.

21. Novusmodus Fund
The Novusmodus Fund is a venture capital fund in which seed capital is invested into emerging technologies.

22. OHSAS 18001
OHSAS 18001 Occupational, Health and Safety Management Certification is an international standard which provides a framework to identify, control and decrease the risks associated with health and safety within companies.

23. Over the Counter Trading Platform
Financial instruments (specifically electricity price contracts) which enable participants in the SEM to reduce their risk (and therefore electricity price volatility for their customers) by trading these products directly (over the counter) with each other, rather than via an intermediary or through an exchange, in order to hedge their exposure to movements in the wholesale price of electricity.

24. Pay As You Go
Pay As You Go products allows users to control electricity usage and track usage from a monitor to enable them to know how much they are spending on electricity at all times.

25. Price Review 4 (PR4)
Regulatory periods are of 5 years' duration and the Price Control Review (PR4) covers the period 2016 to 2020 and sets out the total regulated allowed revenues over that period as determined by the Commission for Regulation of Utilities, Water and Energy (CRU).

26. Regulatory Period 5 (RP5)
Regulatory Period 5 (RP5), is a regulatory period of 5 years' duration for price control, covering the period 1 April 2012 to 31 March 2017, determined by the Utility Regulator in Northern Ireland.

27. Regulatory Period 6 (RP6)
Regulatory Period 6 (RP6), is a regulatory period for price control, covering the period 1 October 2017 to 31 March 2024, determined by the Utility Regulator in Northern Ireland.

28. Return on Capital Employed (ROCE)
The return on capital employed shows the overall return on capital provided by both debt and equity.

GLOSSARY

29. Single Electricity Market (SEM)
The Single Electricity Market is a wholesale pool-based electricity market operating north and south of the Irish Border.

30. Single Electricity Market Operator (SEMO)
The SEM is operated by SEMO, a joint venture between EirGrid and SONI, the transmission system operators in Ireland and Northern Ireland respectively.

31. SIRO
A joint venture with Vodafone, which will bring 1 gigabit per second (Gb/s) broadband to 500,000 customers in fifty towns across Ireland using the existing distribution network.

32. Smart Energy Services
Smart Energy Services is a complete energy management solution that brings all of the skills and experience of a global energy innovator to businesses.

33. Smart Grid
A transformed electricity transmission and distribution network or Grid that uses robust two-way communications, advanced sensors and distributed computers to improve the efficiency, reliability and safety of power delivery and use.

34. Smart Meter Programme
The smart meter programme is the next generation of energy meter. They will replace the traditional electricity and gas meters removing the need for a home visit to read the meter and will eliminate the need to use estimates whenever a meter cannot be read.

35. Safety Leadership Strategy
A framework that shows a clear and simple way of articulating the safety responsibilities, obligations and expectations that everyone in ESB has in order to maintain a safe environment.

36. Spark Spread
The difference between the price of a unit of electricity and the cost of the gas used to generate it.

37. Start-up costs
Start-up costs are costs a generator faces if it needs to be turned on after a period of inactivity.

38. Stay Safe, Stay Clear
The core objective of the campaign is to educate people to be mindful of electricity wires while they are outdoors and to always stay safe and stay clear of electricity wires.

39. Sustainable Energy Authority of Ireland (SEAI)
The Sustainable Energy Authority of Ireland was established as Ireland's national energy authority under the Sustainable Energy Act 2002.

40. System Operator for Northern Ireland (SONI)
The System Operator for Northern Ireland ensures the safe, secure and economic operation of the high voltage electricity grid in Northern Ireland and in co-operation with EirGrid colleagues is also responsible for running the all-island wholesale market for electricity.

41. System Marginal Price (SMP)
The wholesale price of electricity for each half hour period

42. United Kingdom (UK)
England, Wales, Scotland and Northern Ireland.

43. Utility Regulator (UR)
The independent non-ministerial government department set-up to ensure the effective regulation of the electricity, gas and water and sewerage industries in Northern Ireland.

44. Vertically Integrated Utility
The Vertically Integrated Utility (VIU) refers to presence within and ownership of, assets across all of the elements of the electricity value chain including the generation, trading, transmission, distribution and supply of power to customers.