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 customers to take more control of their energy use.

1925
Shannon Scheme Commenced

1927
ESB Established under the Electricity (Supply) Act

1946
Rural Electrification

1975
ESB International Established

1992
Entered the GB Generation Market

1998
First Wind Farm

2010
Acquired Northern Ireland Electricity Networks (NIE Networks) ecars Launched

2011
Electric Ireland Established

2015
SIRO launched

2017
Entered the GB Supply Market

90 years bringing light and energy to the people we serve
In 1927, ESB’s first managing director, Thomas McLaughlin, had the foresight to understand the far-reaching consequences of a national hydroelectric scheme for our fledgling nation. Thus, Ardnacrusha was born, which paved the way, in 1946, for the rural electrification of 400,000 rural homes in Ireland and the transformation of the country into a strong, vibrant economy.

Use of peat brought employment and investment to the Midlands in the 1950s and 1960s, while the development of Moneypoint station in 1987 – Ireland’s only coal-based power station – helped to reduce the nation’s growing dependency on oil as a source of electricity generation. As ESB embarks on its most ambitious programme to date – transitioning to a carbon-free energy supply by 2050 – we celebrate the courage and drive embodied by McLaughlin and all who supported his vision, as we strive to create a more sustainable Ireland for all.
I am delighted as Chairman to present the Annual Report and Financial Statements for ESB for 2017 – our 90th anniversary year.

ESB delivered a satisfactory performance in challenging market conditions, with operating profit and profit after tax (before exceptional items) of €440 million and €209 million respectively.

The Integrated Single Electricity Market (I-SEM) - a new wholesale electricity market for the Republic of Ireland (ROI) and Northern Ireland (NI) - will introduce a number of fundamental market changes, including an anticipated reduction in revenue for ESB. This reduction, in addition to other energy margin pressures, has resulted in an exceptional impairment charge for ESB’s generation asset base in 2017 – as more fully described in notes 4 and 10 to the financial statements.

DIVIDEND

In line with ESB’s dividend policy, the Board is recommending a final dividend of €4.6 million for 2017, which will bring the total amount of dividends for 2017 to €80 million and to over €1.4 billion over the last decade. Our dividend policy provides for a dividend target of 40% of adjusted profit after tax each year from 2017.

90TH ANNIVERSARY YEAR

Our 90th year was a good opportunity to look back with pride and forward with confidence. At a stakeholder event, in the National Gallery of Ireland to mark our anniversary, An Taoiseach, Leo Varadkar, TD said the success of ESB “reminds us of all that can be achieved when the State and public enterprise work together”. As we look to the future, that spirit of public service and social responsibility informs ESB’s 2030 Strategy. An agent of social and economic transformation since 1927, ESB today is committed to leading the transition to reliable, affordable, low-carbon energy for our customers and the communities we serve.

ESB STRATEGY AND OPERATIONAL PERFORMANCE

In 2017 we made good progress on our strategic objectives. Our networks businesses (ESB Networks and NI Networks) met their reliability targets. Their respective workforces responded magnificently to Storm Ophelia in October when they restored power to 442,000 customers with speed and dedication.

Electric Ireland became the first supplier in ROI to apply enduring long-term savings of up to 8.5% (now enjoyed by almost one million of our customers). In addition, in late 2017, when wholesale energy costs made a price rise unavoidable, most suppliers increased prices promptly. However, Electric Ireland, conscious of the cost pressures facing customers through the winter period, deferred the price rise until February 2018.

At the centre of our 2030 Strategy is meeting the enormous challenge of climate change. Our objective is to generate a minimum of 40% of our electricity from zero-carbon sources by 2030 and, through new technologies and plant renewal, to greatly reduce the carbon intensity of our remaining thermal generation portfolio.

CAPITAL INVESTMENT

A good financial performance and strong financial metrics are essential to support our ambitious capital investment programme to 2030. In 2017 we invested €867 million across all our businesses – mostly in regulated assets and electricity infrastructures for the benefit of all.

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.

BUSINESS ENVIRONMENT

In our generation and supply businesses we operate in the very competitive ROI/United Kingdom (UK) markets with a 42% generation market share and a 34% supply market share in the all-island market. ESB responds to this competition by putting customers first in all we do and by putting trust and transparency at the heart of our relationship with our customers.

We are carefully considering the implications for our business of the UK decision to leave the European Union, given the benefits of the all-island energy market and the importance of a regulatory environment in the UK that remains open and competitive.

UPHOLDING STANDARDS IN CORPORATE GOVERNANCE

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 Corporate Governance Code 2016 and the Irish Corporate Governance Annex.

The Board formally reviews the Group’s principal risks annually, as part of ongoing review of risk, to ensure that appropriate controls are in place and that risks are being proactively managed.

STRONG SAFETY PERFORMANCE

ESB’s strong safety performance in 2017 was underpinned by ongoing investment in safety processes, systems and capability and an emphasis on developing an incident and injury-free culture across the organisation. ESB responds to this competition by putting customers first in all we do and by putting trust and transparency at the heart of our relationship with our customers.

ESB VALUES

In our 90th year the Board, management and staff remain committed to those enduring values which have characterised ESB since 1927. We articulate those values today in terms of being courageous, caring, driven and trusted. I want to acknowledge the contribution of all our staff, who throughout 2017, have lived out those values in an impressive way.

CONCLUSION

In accordance with the provision of the Electricity (Supply) Acts 1927-2004, the Board presents the Annual Report and
WHAT WERE THE MAIN ACHIEVEMENTS AND ISSUES IN 2017?

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

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

ESB Networks and Northern Ireland Electricity Networks (NE Networks) put in an excellent performance in 2017 for their combined 3.1 million customers, most notably during Storm Ophelia in October when power was restored to 385,000 homes and businesses in the Republic of Ireland (ROI) and to 57,000 homes and businesses in Northern Ireland (NI). Both ESB Networks and NE Networks continued to develop, operate and maintain their networks while at the same time facilitate new connections in line with their Licence obligations. Renewable connections now total over 42GW in ROI and 48GW in NI. For NE Networks, a very significant development was the finalisation of the new regulatory price determination for the period October 2017 to March 2024.

In July 2017 Electric Ireland, ESB’s retail arm, automatically applied enduring long-term savings of up to 8.5% to nearly 1 million of its ROI customers. This automatic application enduring long-term savings of up to 8.5% to nearly 1 million of its ROI customers. In July 2017 Electric Ireland, ESB’s retail arm, automatically applied enduring long-term savings of up to 8.5% to nearly 1 million of its ROI customers.

In 2017 ESB also achieved a satisfactory financial performance given the challenging energy market conditions, with an EBITDA and Operating Profit of €1,276 million and €450 million respectively (pre-

exceptional items). During 2017 ESB invested €867 million and the dividend for 2017 amounted to €90 million, bringing total dividends paid over the past decade to over €1.4 billion.

WHAT FOR YOU ARE THE MAIN FEATURES OF ESB’S STRATEGY TO 2030 STILL CURRENTLY APPROVED BY THE BOARD?

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

DID ESB MAINTAIN ITS CORPORATE RESPONSIBILITY PROGRAMME IN 2017?

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

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

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

<table>
<thead>
<tr>
<th>BUSINESS SEGMENT</th>
<th>Generation and Wholesale Markets (G&amp;WM)</th>
<th>ESB Networks</th>
<th>Northern Ireland Electricity Networks (NIE Networks)</th>
<th>Electric Ireland</th>
<th>Other Segments</th>
</tr>
</thead>
<tbody>
<tr>
<td>REVENUE</td>
<td>€1,406M</td>
<td>€1,058M</td>
<td>€272M</td>
<td>€1,734M</td>
<td>€297M</td>
</tr>
<tr>
<td>OPERATING PROFIT*</td>
<td>€121M</td>
<td>€317M</td>
<td>€35M</td>
<td>€68M</td>
<td>(€51M)</td>
</tr>
<tr>
<td>CAPITAL EXPENDITURE</td>
<td>€128M</td>
<td>€501M</td>
<td>€143M</td>
<td>€9M</td>
<td>€86M</td>
</tr>
<tr>
<td>AVERAGE EMPLOYEE NUMBERS</td>
<td>1,005</td>
<td>3,347</td>
<td>1,288</td>
<td>386</td>
<td>1,764</td>
</tr>
</tbody>
</table>

SEE NOTE 2 (SEGMENT REPORTING) IN THE FINANCIAL STATEMENTS FOR FURTHER DETAIL

* = BEFORE EXCEPTIONAL ITEMS (SEE NOTE 4 IN THE FINANCIAL STATEMENTS FOR FURTHER DETAIL)
STRATEGY

STRATEGY REVIEW
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.

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

Strategy 2030 highlights the importance of being adaptable, responsible and opportunistic in an era of unprecedented uncertainty and of having 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. This has generated a deep well of support and has positioned ESB as a leader to action the transition to reliable, affordable, low-carbon energy. In doing so, ESB sees opportunities to serve its customers better and achieve sustainable growth.

ESB’S VALUES
ESB’s values of being courageous, caring, driven and trusted 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 behaviours and decisions, and underpinning the unique trust that customers and communities place in ESB.

STRATEGIC FRAMEWORK
The Strategic Framework for Strategy 2030 ensures that the strategic initiatives undertaken are consistent with ESB’s overarching purpose and values and are commercially driven, as outlined on page 20.

In implementing Strategy 2030, ESB will be guided by its Strategy Statement which articulates ESB’s geographic focus, business focus and ESB’s commitment 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 the 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 (which are 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 Strategy 2030 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 2030 framework, there are legally binding targets at national level to decrease carbon emissions for sectors such as transport, agriculture and buildings. The Republic of Ireland (ROI) and the UK also set targets for the proportion of electricity to be produced from renewable sources of 40% and 30% respectively.

Current EU policy is to reduce total GHG emissions by 80-95% by 2050. ROI is committed to the long-term, progressive decarbonisation of its energy system, 80% reduction by 2050 and 100% reduction by 2100. This is in addition to its 2015 target of carbon neutrality between agriculture and other land use 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 and their potential for new business growth arising from the transition to reliable and affordable, low-carbon energy.

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and emerging to mitigate emissions through increased electrification in the heat and transport sector.

ESB, with PwC, recently published a comprehensive report – “Ireland’s Low-Carbon Future – dimensions of a solution” which sets out a technically feasible and practical pathway for Ireland to meet its carbon reduction targets as part of ESB’s contribution to the national debate. The report is available to download from ESB’s website (www.esb.ie) and has informed ESB’s carbon reduction targets as part of ESB’s practical pathway for Ireland to meet its carbon reduction targets as part of ESB’s contribution to the national debate. The report is available to download from ESB’s website (www.esb.ie) and has informed Strategy 2030.

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. 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 are presenting 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. 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 service offerings including real-time responses. These changing preferences are all in addition to, not instead of, customers’ ongoing expectations of 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. These business models create an increasingly competitive landscape, creating both challenges and opportunities for traditional utilities. ESB anticipates 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 anticipates 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.

5. BREXIT

The UK has voted to leave the EU and this is scheduled to take place by 29 March 2019. Phase Two of the negotiations in early 2018 will include a specific strand in recognition of the unique situation of the island of Ireland. 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 to have 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 associated financial risks.

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

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

Subsequent to the Brexit vote the Regulatory Authorities in ROI and NI jointly reaffirmed their commitment to the Integrated Single Electricity Market (I-SEM) project, which maintains a single, harmonised, wholesale all island market. GB remains the closest and only electrically connected market to ROI and NI, so the ability to trade energy freely has an important value, not only for ESB but for these economies.

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

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.

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.

**Strategic Performance Indicators (SPIs)**

<table>
<thead>
<tr>
<th>INDICATOR</th>
<th>METRIC</th>
<th>2017</th>
<th>2030 TARGET</th>
</tr>
</thead>
<tbody>
<tr>
<td>Market Share</td>
<td>%</td>
<td>42% of Generation</td>
<td>&gt;50% of Generation</td>
</tr>
<tr>
<td>Carbon Intensity of the Electricity ESB Produced</td>
<td>gCO2/kWh</td>
<td>513 g CO2/kWh</td>
<td>≤200 g CO2/kWh</td>
</tr>
<tr>
<td>Scale of Low-Carbon Energy Connected to our Networks</td>
<td>MW of Renewables Connected</td>
<td>3.6 GW in ROI</td>
<td>5 GW in ROI</td>
</tr>
<tr>
<td>Strong Investment Grade Credit Rating</td>
<td>Rating Equivalents</td>
<td>BBB+ on a stand-alone basis</td>
<td></td>
</tr>
<tr>
<td>Return on Capital Employed</td>
<td>ROCE (%)</td>
<td>4.6%</td>
<td>ROCE &gt; WACC</td>
</tr>
<tr>
<td>Staff Engagement</td>
<td>Staff Survey Response Rate (%)</td>
<td>62%</td>
<td>75%</td>
</tr>
<tr>
<td>Safety Culture</td>
<td>Lost Time Incidents (LTIs)</td>
<td>29 employee LTIs</td>
<td>0 LTIs</td>
</tr>
</tbody>
</table>

See page 54 to 63 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 ‘Create a Brighter Future for the customers and communities we serve, by leading the transition to reliable, affordable, low-carbon energy.’

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

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

Intellectual Capital
- Promotion of innovation
- Corporate governance structure

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

Social and Relationship Capital
- Over 1.25 million customers
- Over 400,000 hours recorded on volunteering programmes

Natural Capital
- 739 MW of renewable generation

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

See page 54 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 56 and 58 for further detail

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

See page 60 for further detail

**Outputs**
Customers
- Customer satisfaction 96%
- 34% residential market share
- Average residential customer savings of 8.5%
- 42% generation market share
- Reconnected 442,000 customers after Storm Ophelia

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

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

**Underpinned by Our Values**
- WE'RE COURAGEOUS
- WE'RE TRUSTED
- WE'RE CARING
- WE'RE DRIVEN

**Driving the Delivery of our Objectives**
- PUT CUSTOMERS’ CURRENT AND FUTURE NEEDS AT THE CENTRE OF ALL OUR ACTIVITIES
- PRODUCE, CONNECT AND DELIVER CLEAN, SECURE AND AFFORDABLE ENERGY
- DEVELOP ENERGY SERVICES TO MEET EVOLVING MARKET NEEDS
- GROW THE BUSINESS WHILE MAINTAINING ESB’s FINANCIAL STRENGTH
- DELIVER A HIGH-PERFORMANCE CULTURE THAT SUPPORTS INNOVATION AND COLLABORATION
RISK REPORT

APPROACH TO RISK MANAGEMENT
The effective management of risk and opportunities supports the development of ESB’s strategy while protecting the interests of its stakeholders.

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 is a core focus of the Group.

HOW ESB MANAGE RISK

The Board has overall responsibility for risk management and internal control. The Board ensures that the Group’s risk exposure remains proportional to the pursuit of its strategic objectives and long-term shareholder value. It has adopted a Risk Management Policy and Governance Framework to support its oversight of risk throughout the Group.

The Board is supported in its oversight of ESB’s principal risks by its Board Committees in accordance with Committee’s 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 supporting the Board in ensuring that enterprise risks and opportunities are properly identified, assessed, reported and controlled on behalf of the Board and advises the Board in its consideration of the overall risk appetite, risk tolerance and risk strategy of the Group.

RISK MANAGEMENT FRAMEWORK

TOP DOWN

ROLE OF BOARD

Approves ESB Group Strategy

ROLE OF SENIOR MANAGEMENT

Formulate and implement strategy within risk appetite
Responsible for risk governance and controls

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 PROCESSES AND PROCEDURES

Includes:

- Risk and Emerging Risks
- Risk Control Heat Map
- Business Continuity Testing
- Processes to Identify, Monitor and Mitigate Risks that Exceed the Risk Appetite

PRINCIPAL BUSINESS UNIT RISKS

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

UNDEPPRINDED BY ESB VALUES

- Risk Appetite Range
- Actual Net Risk Assessment
- Further Planned Improvements

CASE STUDY - CYBER SECURITY STRATEGY

Information security is the responsibility of everyone in ESB. As a critical national infrastructure provider, cyber security is a key priority for ESB. The Group’s Risk and Governance Framework incorporates a number of process improvements, including identification of risk connectivity and interdependencies, new procedures to increase visibility of joint venture / subsidiary risk management processes and increased integration of IT cyber incident response arrangements into the overall risk governance framework.

Risk and governance approaches have been strengthened across the Group, Group Risk, Internal Audit and Group Finance functions most recently to review internal control and risk reporting. This ensures alignment between the functions, better information sharing and opportunities to identify areas for improvement.

RISK APPETITE

ESB’s risk appetite is a statement of the Board’s willingness to take risk or pursue opportunities to achieve its strategic objectives. It both informs strategy and is informed by strategy. It is a statement of intent, used to indicate future direction. The revised policy incorporates a number of process improvements, including identification of risk connectivity and interdependencies, new procedures to increase visibility of joint venture / subsidiary risk management processes and increased integration of IT cyber incident response arrangements into the overall risk governance framework.

Risk reporting was further developed in 2017. Quarterly risk updates to the Audit and Risk Committee incorporating key risk indicator dashboards were developed, while a new Quarterly Environmental Incidents and Information Requests Report is being provided to the Health, Safety and Environment Committee. Comprehensive reporting ensures clearer communication of any changes in risk profile and progress in mitigation actions.

With cyber security representing an increasing and evolving risk for ESB and the industry as a whole, the Board focused this year on understanding these risks and examined the measures being taken to address potential areas of vulnerability.

No. 1 Risk Management: Identification and understanding of the risks to key to the management of cyber security. A specialist IT Security Team works with the Business to identify threats.

No. 2 Protection: Once risks are identified, ESB focuses on protecting itself against both physical and digital risks.

No. 3 Detection: Security alerts are raised in response to suspicious activity.

No. 4 Action and Response: ESB has protocols in place to react to incidents quickly. Business Continuity Plans and Disaster Recovery Plans are tested with key personnel.

No. 5 Education: Protecting ESB businesses, colleagues and customers is a priority. Educating employees and customers about the critical risks, increases awareness and helps to prevent incidents and business interruption. ESB’s key message to colleagues is “Information Security is the responsibility of all our people.”

No. 6 Oversight: The Audit and Risk Committee and the Board receive updates as part of the Quarterly Risk Report on cyber risks. Specialist input from experts in the field is also provided.

CURRENT RISK APPETITE

<table>
<thead>
<tr>
<th>RISK LEVEL</th>
<th>UNABLE TO TAKE RISK</th>
<th>HIGHER WILLINGNESS TO TAKE RISK</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product Financial Management</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Presence of Scale Across Value Chain</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GDS of Scale (Republic of Ireland, Northern Ireland, Great Britain)</td>
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<tr>
<td>Engaged and Agile Organisation</td>
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<tr>
<td>Sustainable Innovation</td>
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<td>Value, Ethics and Compliance</td>
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<tr>
<td>Reputation</td>
<td></td>
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</tr>
<tr>
<td>Information Security</td>
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</tr>
<tr>
<td>Smart Reliable Networks</td>
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</tr>
</tbody>
</table>

Risk Appetite Range
- Actual Net Risk Assessment
- Further Planned Improvements
RISK CULTURE
The Board is ultimately responsible for setting the tone at the top of the organisation. It encourages an environment where people can feel comfortable in raising issues and where management treats concerns seriously and professionally. Decision making is supported by having clear authority levels in place and the completion of rigorous risk analysis. This approach ensures that risks and uncertainties are highlighted at an early stage so that prompt action can be taken to minimise any impact on stakeholders.

CASE STUDY - RISK MANAGEMENT IN ESB NETWORKS
In July, the Audit and Risk Committee visited the management and employees of ESB Networks Meter and Data Services. The Board members got first-hand experience and appreciation of the metering business and the control risk it plays in the operation of the Retail Electricity Market in the Republic of Ireland (REM). The importance of good governance, controls and proactive risk management was emphasised as a key cornerstone of the business. The Committee gained an understanding of the impact smart metering will have on operations in coming years.

The Committee were briefed on work done since December 2016 to successfully replace 27,000 potentially faulty digital meters nationwide and how risk management approaches helped to effectively mitigate the risk. This involved agreeing a risk mitigation plan appropriate to the scale of the risk and in line with ESB’s low reputational risk appetite.

PRINCIPAL RISKS
ESB’s principal risks and opportunities remained largely unchanged from 2016 to 2017, although with some movement on the relative ranking of risks and some changes to the risk drivers. The Board approved the principal risks and the detailed Group Risk Plan in January 2017 following consideration and recommendation by the Audit and Risk Committee. The principal risks were included in the Board’s risk appetite and mitigation discussions during the year. ESB’s principal risks and opportunities are set out on pages 28 to 37.

There may be other potential risks and opportunities that are not yet sufficiently clear to us or not yet known and the principal risks and opportunities will change if these assume greater importance. Some of the current principal risks and opportunities may be removed from the Group Level Risk Register as mitigating plans are implemented or if changes in the operating environment occur.

FINANCIAL RISKS
The main financial risks faced by the Group relate to liquidity, foreign exchange, interest rates, commodity (electricity and fuel) price movements and operational risk. Policies to protect the Group from these risks, and other risk areas, such as credit risk, are regularly reviewed, revised and approved by the Board (and the details are outlined in note 26 of the financial statements).

EMERGING RISKS
The risk management framework enables the Group to identify, analyse and manage emerging risks to help highlight 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. Disruptions to certain services and operations are potentially damaging to the economy, to society and to ESB’s business. Therefore, 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.

The following case study illustrates the approach to testing across the Group.

CASE STUDY - PANDEMIC PREPAREDNESS TEST
One of the ESB’s High Impact Low Probability (HILP) risks is the onset of a pandemic. The Group has a Pandemic Strategic Response Plan which details ESB’s priorities in the event of a pandemic, and the structures to support delivery of these priorities. During 2017, a test of this plan was completed with the assistance of external support. The exercise commenced with a review of critical processes and skills required to ensure delivery of business line priorities and ultimately culminated with a desktop scenario test involving the Executive Team as the Group Pandemic Response Team, supported by the Pandemic Response Support Team.

The aim of the session was to test ESB’s pandemic response to a health emergency from initial warning to a closeout eighteen months later. The exercise highlighted restrictions imposed by a unpredictable pandemic. The exercise was structured around a number of milestones along the timeline, where the pandemic status, and consequently priorities and responses, evolved.

The Executive Team debated key decisions, including what measures were appropriate to minimise exposure of staff / contractors, how resources should be allocated to maintain essential services, interdependence of key decisions and critical engagements with internal and external stakeholders.

A lessons learned review validated the arrangements in place and highlighted a number of additional aspects to be considered.

RISK AND CONTROL HEAT MAP

<table>
<thead>
<tr>
<th>FINANCIAL:</th>
<th>REGULATORY:</th>
</tr>
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<tbody>
<tr>
<td>A Financial Performance</td>
<td>F Regulatory Outcomes</td>
</tr>
<tr>
<td>B Energy Trading</td>
<td>G Brand / Reputation</td>
</tr>
<tr>
<td></td>
<td>H Co-Location of Electricity / Broadband Networks</td>
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</table>

<table>
<thead>
<tr>
<th>OPERATIONAL:</th>
<th>STRATEGIC:</th>
</tr>
</thead>
<tbody>
<tr>
<td>C Health, Safety and Environment</td>
<td>I Disruptive Market / Technology and Competitive Pressures</td>
</tr>
<tr>
<td>D IT Failure</td>
<td>J Technology Advances / Policy Imperatives</td>
</tr>
<tr>
<td>E Infrastructure Risk</td>
<td>K Generation / Supply Strategy</td>
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<tr>
<td></td>
<td>L Breach of Law or Regulation</td>
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<tr>
<td></td>
<td>M Organisational Capability</td>
</tr>
<tr>
<td></td>
<td>N Industrial Relations Environment</td>
</tr>
</tbody>
</table>

Risk Climate
- **INCREASE**
- **UNCHANGED**
- **DECREASE**
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 2017 and areas of focus for 2018.

### A FINANCIAL PERFORMANCE

**Potential Impact**

Failure to deliver operating performance would endanger the long-term viability of ESB. This is required to ensure that ESB can continue to have the ability to raise debt competitively, to invest and grow to achieve its strategic objectives and meet its credit ratings metrics and Shareholder targets.

**Mitigations**

To prevent the risk materialising:

- Carry out business planning target setting from the top down, focused on ESB’s Strategy to 2030 (Strategy 2030) delivery and protecting financial strength
- Use business and / or technology specific hurdle rates in business investment decisions
- Continue to seek cost efficiencies
- Innovation tasked with identifying new businesses / technologies to drive future growth opportunities
- Keep capital allocation under review across the Group
- Funding Strategy to ensure adequate funding to mitigate fundamental risks (e.g. United Kingdom (UK) investment funded with sterling debt and repaid from sterling earnings)

**Risk Climate**

If the risk materialises:

- Amend Strategy 2030 in order to protect financial strength
- Address regulatory challenges through direct engagement with regulatory authorities

**Developments in 2017**

- Finalisation of price review contract for Northern Ireland Electricity Networks (NIE Networks)
- Credit rating agencies affirmed ESB’s existing credit ratings and in one instance upgraded
- Volatility in energy prices resulting in lower margins in Generation and Wholesale Markets (G&W) in the Single Electricity Market (SEM) and Great Britain (GB) Market
- Significant changes in the energy sector driven by new technology and decarbonisation objectives
- Implications of the Integrated Single Electricity Market (I-SEM) for revenue streams remain under review

**2018 Areas of Focus**

- Significant focus on ensuring the financial capability to enable delivery of Strategy 2030
- Continued monitoring of returns available in energy markets in SEM and GB and mitigating as appropriate
- Significant focus on the delivery of I-SEM

### B ENERGY TRADING

**Potential Impact**

ESB is exposed to fluctuations in the physical volume and price of certain commodities including electricity, gas and CO2 emissions. A significant proportion of ESB’s profitability, including return on investment on electricity generation assets and the ability to price competitively in the retail market, depends on the successful management of these exposures. Sub-optimal management of the energy portfolio could lead to significant financial loss and a reduction in customer numbers.

**Mitigations**

To prevent the risk materialising:

- Market risk is managed through implementation of appropriate trading and risk management strategies and initiatives to increase access to energy markets
- Credit risk is managed by trading with sufficiently rated entities and ensuring acceptable forms of collateral are in place
- Operational risk is managed through continued operation of a trading governance framework

**Risk Climate**

If the risk materialises:

- Undertake investigation into any trading incident
- Carry out lessons learned reviews
- Amend risk appetite and the Trading and Risk Management Strategy in light of market developments

**Developments in 2017**

- Power prices in the SEM and the GB Market, and fuel prices paid by ESB in connection with its electricity generating activities, continue to experience the volatility seen in recent years
- The upcoming introduction of I-SEM in May 2018 constrained the ability to hedge during 2017
- The implications of evolving financial regulations were considered by ESB

**2018 Area of Focus**

- Continued focus on developing and embedding capabilities required for trading in I-SEM
- Focus on continued identification and assessment of opportunities to optimise trading revenues

### C HEALTH, SAFETY AND ENVIRONMENT

**Potential Impact**

By the nature of its operations the Group faces a number of significant safety and environmental risks. Unsafe working practices, equipment and inadequate training may lead to accidents or incidents involving employees, contractors, members of the public, plant and equipment. ESB’s activities, by their nature, impact on the environment.

**Mitigations**

To prevent the risk materialising:

- Regularly review and update risk assessments
- Maintain management system accreditation to OHSAS 18001 (for Health and Safety) and ISO 14001 (for Environment)
- Implement agreed health, safety and environment projects
- Plan and test for foreseeable emergencies
- Investigate serious incidents and close gaps to prevent repeat incidents
- Maintain, audit and inspect processes to monitor systems, controls, plant and equipment
- Drive and maintain mandatory training programmes
- Maintain and repair public electricity network
- Implement public safety awareness campaigns

**Risk Climate**

If the risk materialises:

- Ensure and make safe the incident location
- Treat individuals (if required)
- Communicate incident details to relevant stakeholders and the authorities
- Commence an incident investigation
- Implement preventive and corrective actions
- Track progress of actions to completion

**Developments in 2017**

- Improvements noted in the number of serious safety incidents
- Improvements also noted in performance indicators including on time closure of actions from serious investigations and good catches
- Public safety awareness of electricity improved and the dangers associated with electricity networks further minimised
- Implementation of ESB’s Safety Strategy remains a priority and is progressing as planned
- Group Flu Pandemic Plan updated and tested
- Continued incidents of third party interference and theft of electricity assets

**2018 Areas of Focus**

- Improving leading indicators of performance
- Deploy Safety Culture Transformation across ESB Networks, G&W and Innovation
- Commerce Group Health and Safety Compliance Audit Process
- Embed Personal Occupational Wellbeing Resource (POWR)
- Maintain OHSAS 18001 accreditation
- Drive completion of Business Unit Specific Safety Improvement Plans and Centers of Competency Action Plans - a cross business unit strategic group that addresses gaps in compliance
- EPA prosecution in relation to non-compliances at Moneypoint power station. As a result of this, a full review of all licence conditions and related business risks has been completed in every G&WWM location and improvement plans have been developed as necessary

**Environment**

- Maintain ISO 14001 accreditation
- Implementation of environmental improvement plans
D IT FAILURE

Potential Impact
ESB is reliant on a number of key IT systems to support ongoing operations and cash flow. In particular, the customer systems, the main energy trading support systems and real-time network management systems are critical. A loss of any of these systems could be caused by a malicious cyber-attack, software or hardware issues, including telecoms network, connectivity and power supply issues to data centres, or poor operational performance.

Risk Climate
If the risk materialises:
- Implement lock-down
- Activate plans to re-start business processes in an orderly fashion
- Activate communications plans for key stakeholders
- Respond to new threats through active industry participation and information sharing groups
- Implementation of a Data Breach Action Plan in the case of the loss of personal data

Oversight: Audit And Risk Committee
- Ongoing testing of business continuity arrangements for key systems, including site switches
- Continued rollout of security awareness training programme for employees, including monitoring of completion rates
- Completion of an external review of cyber security to ensure adherence with industry standard best practice

2017 Developments
- Reprioritisation of work programme to facilitate data centres
- A well-established application / connection offer process is in place
- Regular monitoring and tracking of new point load requirements, facilitated by ongoing engagements with the Industrial Development Authority (IDA) and customers
- Ongoing monitoring of new point load requirements, facilitated by ongoing engagements with the Northern Ireland Utility Regulator regarding de-harmonisation of the retail market

2018 Areas of Focus
- Ongoing monitoring and tracking of new point load requirements, facilitated by ongoing engagements with the Industrial Development Authority (IDA) and customers
- Specific focus on preparations for the Network Information Security Directive, the first piece of EU-wide legislation on cybersecurity
- Finalisation of GDPR preparations
- Continued focus on a trajectory to best practice cyber security arrangements

E INFRASTRUCTURE RISK

Potential Impact
A significant number of large demand data centre customers have sought an electrical connection in Dublin. The scale of this data centre load requirement is the equivalent of an expected 30-year load growth in the Dublin area being compressed into 3-5 years. This potentially results in a strain on delivery of resources and erodes the traditional reserve capacity available for normal organic growth.

Risk Climate
If the risk materialises:
- Consider temporary solutions to meet demand
- Consider stand-by projects for delivery - from design through permitting, constructing and finally commissioning

Oversight: ESB Board
- Specific projects underway to address current and anticipated capacity requirements, including 2 new 220 / 110kV stations (Inchicore and Ballyknocken) and replacement of a faulty 220kV transformer in Inchicore
- Additional resources appointed in the delivery organisation to ensure capability to deliver on requirements in Dublin

2017 Developments
- Reprioritisation of work programme to facilitate data centres
- Specific projects underway to address current and anticipated capacity requirements, including 2 new 220 / 110kV stations (Inchicore and Ballyknocken) and replacement of a faulty 220kV transformer in Inchicore
- Additional resources appointed in the delivery organisation to ensure capability to deliver on requirements in Dublin

2018 Areas of Focus
- Ongoing monitoring and tracking of new point load requirements, facilitated by ongoing engagements with the Industrial Development Authority (IDA) and customers
**G BRAND / REPUTATION**

**Potential Impact**

A materialisation of any of the principal risks could damage ESB’s reputation and brand, causing stakeholders to lose trust in ESB, which could undermine support for ESB’s strategy, challenge ESB’s ability to secure finance at acceptable rates, compromising ESB’s capability to deliver on capital investment programmes and result in a significant loss of customers.

**Mitigations**

To prevent the risk materialising:
- Proactively manage principal risks
- Ongoing engagement with stakeholders to facilitate open and clear communication
- Preparation and implementation of Stakeholder Management Plans
- Ongoing engagement between regulated businesses and regulatory authorities

**Risk Climate**

If the risk materialises:
- Activate Crisis and Stakeholder Management Plans, as appropriate
- Participate in lessons learned reviews

**Oversight: Marketing and Customer Committee**

**Developments in 2017**

- New visitor centre at Ardmacoona positively received by media and public
- Positive engagement with stakeholders around 50th anniversary celebrations
- Positive media and public responses in relation to ESB’s performance during Storm Ophelia
- Lack of public acceptance of infrastructure development continues to be evident
- Ongoing market concerns regarding energy price levels

**2018 Areas of Focus**

- Corporate brand campaign planned to prepare the way for investment programme and development of new services
- New sponsorship strategy to commence focusing on promoting science, technology, engineering, art and maths (STEAM) and innovation
- Continue to engage with relevant stakeholders in relation to all principal and emerging risks

**H CO-LOCATION OF ELECTRICITY / BROADBAND NETWORKS**

**Potential Impact**

The use of the electricity network to facilitate access for broadband roll-out presents significant safety, financial, technical, legal / regulatory challenges to the ESB Networks business.

**Mitigations**

To prevent the risk materialising:
- Ensure appropriate expertise is available to develop technical standards, access processes, commercial terms and price products
- Research into experiences in other jurisdictions, including technical trials
- Appropriate internal structures established to manage the process end-to-end
- Engagement with key stakeholders

**Risk Climate**

If the risk materialises:
- Engage with relevant stakeholders on specific aspect of risk that has materialised
- Defend any challenges brought by third parties, if appropriate

**Oversight: Finance and Investment Committee**

**Developments in 2017**

- ESB has established a position regarding third party access
- Ongoing focus on development of required processes and documentation, including practical trials

**2018 Area of Focus**

- Continued engagement with interested parties and relevant stakeholders and rollout of preferred solution for third party access

**STRATEGIC**

**I DISRUPTIVE MARKET / TECHNOLOGY AND COMPETITIVE PRESSURES**

**Potential Impact**

ESB must continually adapt to industry developments, technology innovations and changing customer needs. Instability / delay in identifying step changes in the industry sectors and reacting could adversely affect service levels to customers and reduce ESB’s market share.

**Mitigations**

To prevent the risk materialising:
- Deliver competitive price offerings and innovative products to the market to defend market share, build customer loyalty and differentiate customer propositions through brand and service
- Investment in capabilities and systems to enhance customer focus and service
- Implement a Digital Strategy
- Increased flexibility through outsource partners to adapt quickly to changing customer needs
- Expand full residential market as potential to broaden customer base
- Organic market entry strategy in GB
- Provide customers with greater visibility and control over their energy use through continued development of smart and connected home solutions
- Continued investment in brand / loyalty programmes to build and maintain loyalty

**Risk Climate**

If the risk materialises:
- Amend Strategy 2030 and formulate a decision on whether to enter new markets, acquire new businesses or consider any additional investment needs
- Renew focus on competitively priced products and strong customer service
- Respond to new product offering or price structure of competitors
- Restructure business to reduce costs and be viable on a smaller scale

**Oversight: Marketing and Customer Committee**

**Developments in 2017**

- ESB Networks Innovation Strategy launched including Dirty Edi Project
- Electric Ireland implemented second phase of the Stay Happy Campaign – automatically applying enduring long-term savings to all eligible residential customers
- Commitment to market that Electric Ireland will deliver the lowest average residential price across a rolling 3 year period
- ESB were an active participant in the Global Utility Accelerator Programme “Time Electrons” with seven other utilities worldwide supporting start-ups to develop commercial relationships with utilities, exposing them to new markets, local ecosystems and strategic partnerships
- ESB Energy launched, organic entry to GB residential market
- Planet 9 launched UK’s first cloud based energy supplier offering energy brokers and industrial and commercial clients direct online access to the UK wholesale energy market
- Deliver projects set out under the Networks Innovation Strategy
- Deliver improvements to Electric Ireland’s online portals, enhancing our self-service capabilities for customers across a range of functions and transactions
- Growth in GB Market through ESB Energy, Planet 9, Smart Energy Services (SES) and ecars

**Committee**

**Committee**

**Committee**
### J TECHNOLOGY ADVANCES / POLICY IMPERATIVES

<table>
<thead>
<tr>
<th>Potential Impact</th>
<th>Mitigations</th>
</tr>
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<tbody>
<tr>
<td>The Paris Agreement’s central aim is to strengthen the global response to the threat of climate change. Opportunities for electrification arise as fossil fuels for transport and heating become more expensive and concerns about the emission of greenhouse gases grow. Increased electrification of transport and heating could have profound implications for energy policy and the power sector.</td>
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<table>
<thead>
<tr>
<th>To prevent the risk materialising:</th>
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<tbody>
<tr>
<td>Implement Innovation Strategy Roadmaps</td>
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<tr>
<td>Development of a portfolio of new business opportunities, including external collaborations</td>
</tr>
<tr>
<td>Establishment of X_Site at Dogpatch Labs in Dublin (innovation hub) and new business concept evaluation processes</td>
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<tr>
<td>Successful establishment of new businesses e.g. SES</td>
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<tr>
<td>Investment decisions subject to rigorous approval based on defined criteria</td>
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<tr>
<td>Development of group-wide forums to ensure knowledge transfer from all innovation initiatives</td>
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<tr>
<td>Increased engagement with stakeholders on key initiatives to electrify transport and heat</td>
</tr>
</tbody>
</table>

### K GENERATION / SUPPLY STRATEGY

<table>
<thead>
<tr>
<th>Potential Impact</th>
<th>Mitigations</th>
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</thead>
<tbody>
<tr>
<td>Failure to deliver a generation and supply business of adequate scale, will result in an imbalance between regulated and unregulated businesses, limiting diversity in terms of business risk management and earnings potential.</td>
<td></td>
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<table>
<thead>
<tr>
<th>To prevent the risk materialising:</th>
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<tbody>
<tr>
<td>Robust governance and oversight arrangements established involving Board and Executive Team</td>
</tr>
<tr>
<td>Detailed annual review of external business environment, combined with ongoing monitoring of achievement of key milestones and strategic targets</td>
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<tr>
<td>Offsite Board days as part of challenge process</td>
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<tr>
<td>Corporate planning process aligned to strategy, ensuring appropriate allocation / prioritisation of Group capital through annual planning process</td>
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</table>

### L BREACH OF LAW OR REGULATION

<table>
<thead>
<tr>
<th>Potential Impact</th>
<th>Mitigations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Changes to the legal and compliance framework arising from the introduction of new or revised legislation, or due to evolving interpretation and legal precedent, can lead to additional or amended compliance obligations and reporting requirements. Any such changes may require amendments to policies, procedures and operating practices. Any breach of law or failure to maintain compliance could result in regulatory action, damage to reputation, financial costs (including fines) and adverse impact on operations.</td>
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<thead>
<tr>
<th>To prevent the risk materialising:</th>
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<tbody>
<tr>
<td>Ongoing monitoring of legal and compliance requirements</td>
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<tr>
<td>Appropriately skilled and experienced legal teams in place</td>
</tr>
<tr>
<td>Ongoing training e.g. competition law manual launched in 2017 and briefing to subsidiary company directors on statutory obligations under the Companies Act 2014 and Market Abuse Regulations</td>
</tr>
<tr>
<td>Regulatory Compliance Risk is managed through Group Regulatory Compliance Risk Management System and Group Regulatory Compliance Risk Portfolio Management System</td>
</tr>
<tr>
<td>Appropriate policies in place to raise awareness of legal obligations</td>
</tr>
</tbody>
</table>

### Risk Climate

<table>
<thead>
<tr>
<th>If the risk materialises:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reposition Innovation Strategy and Roadmaps based on experience, learning and changing innovation landscape</td>
</tr>
<tr>
<td>Re-assess Strategy 2030</td>
</tr>
<tr>
<td>Re-organise the businesses and divert and accelerate investment to alternative technologies or business models</td>
</tr>
<tr>
<td>Review individual investments, considering implementation of revised strategy including cost reduction programmes to maximise return</td>
</tr>
<tr>
<td>Review structures and arrangements for knowledge sharing</td>
</tr>
</tbody>
</table>

### Risk Climate

<table>
<thead>
<tr>
<th>If the risk materialises:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Complete a root cause analysis of the failure to achieve agreed strategy</td>
</tr>
<tr>
<td>Complete a full strategy review, including priorities and targets</td>
</tr>
<tr>
<td>Reallocate resources including consideration of divestment / closure options if required</td>
</tr>
</tbody>
</table>

### Development in 2017

<table>
<thead>
<tr>
<th>2018 Areas of Focus</th>
</tr>
</thead>
<tbody>
<tr>
<td>STRATEGY Risk Climate Oversight: ESB Board</td>
</tr>
<tr>
<td>Failure to deliver a generation and supply business of adequate scale, will result in an imbalance between regulated and unregulated businesses, limiting diversity in terms of business risk management and earnings potential.</td>
</tr>
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<tr>
<td>In developing Strategy 2030 detailed assessments were compiled on specific aspects of the strategy to further clarify strategic objectives and strategic actions</td>
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</thead>
<tbody>
<tr>
<td>Continued to monitor compliance with legislative and regulatory obligations</td>
</tr>
<tr>
<td>Ongoing training provided to ESB and ESB subsidiary company directors</td>
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### M ORGANISATIONAL CAPABILITY

#### Potential Impact

ESB’s employees play a major part in its continued success. Ensuring that recruitment / development opportunities reach as many potential candidates as possible has become increasingly important due to increased competition for skilled individuals, both within the energy sector and from other industries. If ESB cannot retain, attract and develop diverse talent and leadership, it will adversely affect the development plans for the business and the continuity of existing operations.

#### Mitigations

**To prevent the risk materialising:**
- Deliver the agreed HR Strategy
- Effective communication of ESB Employee Value Proposition to existing and prospective employees
- Graduate Development and Networks Apprenticeship Programmes to meet future skills needed
- Complete and implement the Strategic Resource Plan (SRP) for key skill sets
- Deliver on the Management Development Framework
- Implement succession planning
- Ensure adequate levels of cross training and knowledge transfer

**If the risk materialises:**
- Review options for short-term resourcing for critical capabilities or skillsets
- Review options for short-term redeployment of resources to key vacancies based on key skillsets from previous roles and, in parallel, fast track training of replacements for the critical roles within the businesses
- Review options for short-term resourcing
- Revisit the long-term HR strategy and update as necessary

#### Developments in 2017

- Successful Graduate Development, ESB Networks Apprenticeship and IT Recruitment Programmes completed
- Ongoing focus on strengthening of strategic resource planning processes and governance frameworks to ensure skills and competencies requirements are identified and sourced in a timely manner
- Additional leadership and communication skills programmes developed and rolled out to the management teams

#### 2018 Areas of Focus

- Continue to implement the 2017 - 2022 HR Strategy
- Continued refinement of strategic resource planning approaches
- Ongoing rollout of development programmes
- Review of organisational design over 2018 to deliver efficiency and effectiveness

### N INDUSTRIAL RELATIONS

#### ENVIRONMENT

#### Potential Impact

Inability to maintain a positive industrial relations climate could impact on growth in the business and the ability to execute Strategy 2030 within required timelines.

#### Mitigations

**To prevent the risk materialising:**
- Implement the payroll model
- Ongoing open engagement between management, employees and Group of Unions
- Communications initiatives for all employees to build awareness of ESB purpose and values
- Maintain the focus on improving overall cost competitiveness
- Review the HR strategy

**If the risk materialises:**
- Use internal resolution mechanisms and procedures to address specific issues
- Initiate crisis management and contingency planning arrangements
- If required, initiate external intervention using instruments of state e.g. Labour Court

**Developments in 2017**

- Continued staff engagement and communication efforts, focusing in 2017 on the 90 year history of ESB, the fundamental values and purpose of ESB, including the Brighter Future Vision for ESB going forward
- Continued implementation of agreed payroll models, including establishment of appropriate oversight bodies to facilitate rollout and open engagement

**2018 Areas of Focus**

- Focused staff engagement on ESB’s fundamental values, the purpose of ESB and on Strategy 2030
- Continued focus on the quarterly Executive Director Team / Group of Unions forum to openly share perspectives on significant business challenges
- Implement the agreement on Pay, Conditions and Integration (PC&I), including support for the Joint (Company / Union) Oversight Group
- Engage and conclude pay talks as set out in the PC&I agreement
**KEY PERFORMANCE INDICATORS (KPI’s)**

ESB employs financial and non-financial key performance indicators (KPIs), which alignly 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 54 to 63.

### FINANCIAL

<table>
<thead>
<tr>
<th>KPI</th>
<th>Definition</th>
<th>Strategic Relevance</th>
<th>Performance</th>
<th>Strategic Priority</th>
</tr>
</thead>
<tbody>
<tr>
<td>EBITDA $m</td>
<td>Earnings before interest, tax, depreciation, impairment, amortisation (including amortisation of supply contracts) and exceptional items.</td>
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</tr>
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<td>Net Debt $m</td>
<td>Borrowings and other net debt of cash and cash equivalents.</td>
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<tr>
<td>Capital Expenditure $m</td>
<td>Additions for property, plant and equipment, intangible assets and financial asset investments.</td>
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### OPERATIONAL

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<td>Plant Availability %</td>
<td>Percentage of the time in the year that generation plant was available to produce electricity, whether it was generated or not.</td>
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<td></td>
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<tr>
<td>MW Renewable Operational</td>
<td>Total MWs of renewable generation plant, where the assets have reached their commercial operation data.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Customer Minutes Lost (CMLs)*</td>
<td>The average duration of interruptions (planned and unplanned) for all customers during the year.</td>
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### KEY PERFORMANCE INDICATORS (KPI’s)

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</tbody>
</table>
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
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.

Paddy Hayes
Executive Director
Wholesale Markets (G&WM)

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

Pat Fenton
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.

Marguerite Sayers
Managing Director
ESB Networks DAC

Appointed: November 2014
Career Experience: 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 held roles in HR, Network Planning, Operations and Construction. Marguerite was also Manager of ESB Generation where she was responsible for ESB’s 5,500 MW generation portfolio in Ireland and the UK. She is currently a Vice President of Engineers Ireland and is a member of the National Paediatric Hospital Development Board.

Jim Dollard
Executive Director
Business Service Centre (BSC) and Electric Ireland

Appointed: July 2013
Career Experience: 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 both a primary 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 during 2017.

Pat Naughton
Executive Director
Group People and Sustainability

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.

Paul Mulvaney
Executive Director
Innovation

Appointed: October 2014
Career Experience: 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 Services, ESB Networks in 2012. Paul holds a primary degree in mechanical engineering and has completed the advanced management programme at the Institute de Estudios Superiores de la Empresa (Iese) Business School in the University of Navarra, Spain.

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. / Aefi Group plc and subsequently Company Secretary of Debiti Airfinance BV. From 1980 to 1988, he worked in the Department of Foreign Affairs and the Department of Finance. John holds a primary degree in Philosophy from Maynooth University and holds postgraduate qualifications in corporate governance from Npower University, Edinburgh and from University College Dublin. He became a Fellow of the Institute of Chartered Secretaries in 1997.

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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 Minister for Economy in NI and the Minister 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 (NIUR) 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.

2. ELECTRICITY MARKETS STRUCTURE AND OPERATING ENVIRONMENT 2017

SINGLE ELECTRICITY MARKET (SEM)

The SEM is the single wholesale market (pool) for electricity in ROI and NI. It is a mandatory, gross pool, so all generators are required to sell and suppliers are required to buy power through the pool. The pool sets the spot price for electricity, known as the System Marginal Price (SMP) every half hour. Generators also receive separate payments for the provision of stable generation capacity through the capacity payment mechanism. Price volatility in the pool is managed by generators and suppliers who enter into fixed financial contracts (contracts for differences).

BRITISH ELECTRICITY TRADING AND TRANSMISSION ARRANGEMENTS (BETTA)

BETTA is the wholesale electricity market operating in GB. Unlike the 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. 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. 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.

INTEGRATED SINGLE ELECTRICITY MARKET (I-SEM)

I-SEM is a new electricity market for ROI and NI which will replace SEM in May 2018. The drivers for I-SEM came from the requirement to implement the European Union (EU) Target Model, which is a set of harmonised arrangements for cross-border trading of wholesale energy and balancing services across Europe. It includes a new capacity remuneration mechanism that complies with latest EU state aid guidelines. ESB has established I-SEM programmes to ensure that the business is ready for the new market arrangements that are scheduled to go live on 25 May 2018.

The process of moving towards I-SEM has passed several important milestones in 2017, including the approval of the capacity mechanism under state aid guidelines from the European Commission. This cleared the way for the auction of I-SEM capacity contracts known as Reliability Options in December 2017. The process for remunerating capacity in I-SEM differs significantly from the existing SEM capacity scheme, where generators receive 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 the said contracts (if they are called to deliver capacity and are unable to do so). The first I-SEM capacity auction allowed generators to compete for Reliability Options for 1 year ahead (T-1), but subsequent auctions will feature timeframes of 4 years out (T-4) as well as an adjustment auction for the year ahead. The auction was held by the Transmission System Operator (TSO) in December 2017. 7,774 MW of the 9,014 MW capacity offered were awarded with latest EU state aid guidelines. ESB has established I-SEM programmes to ensure that the business is ready for the new market arrangements that are scheduled to go live on 25 May 2018.

ELECTRICITY NETWORKS

The electricity transmission system is a high-voltage network for the transmission of bulk electricity supplies. The distribution system network delivers electricity to individual customers via the 38KV / medium / low voltage networks. In ROI, ESB owns the transmission and distribution system network and operates the electricity distribution system network, while ErGrid operates the transmission system network. In NI, Northern Ireland Electricity Networks (NE Networks) own the electricity transmission and distribution system network and operates the electricity distribution system network while 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 relatively isolated compared to systems in mainland Europe and GB. 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 Dewsail in north Wales and Woodland, County Meath in ROI. Approximately 260 kilometres in length, the underground and undersea links can transport 530 MW.

The Myley 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 hard constraint of 80 MW on imports to exports (west to east flow). This constraint is being driven by technical issues on the Scottish side and is expected to stay in place until 1 December 2019. The availability of the Myley Interconnector was restricted to half capacity from 18 February 2017 to 1 October 2017 due to maintenance works.

In 2017, during the winter gas period there was a net import (from GB to SEM) flow, both interconnectors, but once the gas capacity charges fell off (in the summer gas period) the opposite trend occurred. ESB is an active participant in the interconnector market and was responsible for 24% of total imports and 2% of total exports during 2017. See figure 1 and 2 for further detail.

ELECTRICITY GENERATION

The SEM generation sector comprises approximately 15,391 MW of capacity connected to the system on an all-island basis, up from 13,446 MW in 2016. 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 has 3,320 MW of wind installed, which is key to the Irish Government’s target of 40% of electricity to be generated from renewable resources by 2020. Wind contributed 22% of generation in 2017, up from 19% in 2016, with a maximum wind output of 3,143 MW being recorded on 6 December 2017. ESB was responsible for 42% of generation in SEM in 2017, slightly down from 2016.

2017 saw 96% availability of baseload thermal generation in SEM, with gas and coal continuing to be the dominant fuels in the market.

ELECTRICITY 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.

In addition to ESB’s generation interests, ESB is active in all sectors of the gas market from residential to large commercial, with ESB being one of the biggest gas shippers in ROI. ESB is continuing to grow in the electricity and gas markets in GB and key developments in 2017 included the entry into the Irish electricity market and the examination, assessment and development of generation opportunities in Ireland.
GB. Supporting ESB’s GB operations, ESB Trading has a full trading capability up to real time with a 24-hour trading presence in the gas and electricity market.

2. OPERATING ENVIRONMENT
THE GLOBAL ENERGY MARKETS
GAS PRICES
Power sector demand growth in gas has played a major role in driving gas demand in Europe this year. The switch from coal to gas fired generation that began in 2016 gained momentum in 2017 resulting in higher coal prices. Average gas prices for 2017 have been on an upward trend, in contrast to price movements in 2015 and 2016. This pattern of increases has been driven by supply side issues in the UK. The monthly average gas price in January was 53.11 pence/therm, rising to a monthly average of 57.80 pence/therm in December. The annual average gas price for 2017 was 44.74 pence/therm, up from 34.59 pence/therm in 2016.

COAL PRICES
Although there was a decrease in coal prices at the end of Q1 and into Q2, prices began to rise by mid-year with the trend continuing through to year end. This upward movement has been driven by an increase in the demand for coal, particularly in China, coupled with closures by the Chinese authorities of some domestic mines which reduced supply. The annual average coal price for 2017 was £84.41/tonne, up from £69.97/tonne in 2016.

CARBON PRICES
The monthly average carbon price in January was €5.25/tonne and this steadily increased throughout the year, ending the year with a monthly average of €7.63/tonne in December. The annual average carbon price for 2017 was €5.84/tonne up from €5.38/tonne in 2016. Carbon price movements are linked to policy decisions and implementation at an EU level. The increase in carbon price in 2017 is linked to a provisional agreement in November between the European Parliament and European Council to revise the EU Emissions Trading Scheme post 2020. This revision is aimed at reducing greenhouse gas emissions by at least 2% by 2030.

SEM WHOLESALE ELECTRICITY PRICES
The SMP in SEM is made up of two components:
- the short-run marginal cost of production (SRMC) which is the cost of fuel; and
- the uplift element of SMP, which is the recovery of start-up and investment costs - these are fixed costs which do not vary with the level of output.

In 2017, 69% of generation was met by fossil fuels, predominately gas and coal. With CCCGT units being the most efficient units on the system, SMP has been very closely linked with the wholesale gas price. Year on year, the 2017 SMP has increased by 13.5% to an annual average value of €47.48/MWh, up from €41.83/MWh in 2016, driven primarily by increased gas prices. Prices in SEM were also influenced in 2017 by both the Moyle Interconnector operating at 50% capacity for 8 months and a maintenance outage at the Syngenta Plant.

The year started off with a monthly average SMP in January of €57.51/MWh. The monthly price closed out with a monthly average price of €56.88/MWh in December, compared to €54.47/MWh in December 2016.

Uplift (the element of the electricity price that covers start-up costs and fixed operating costs) has been on a downward trend since a regulatory change to the uplift calculation was introduced on 1 January 2015. In 2014, uplift on average was 29% of SMP, with steady decreases leading to a 2017 average figure of 19% of SMP level with 2016.

GB ELECTRICITY MARKET AND PRICES
2017 was Carrington Power Station’s first full year of commercial operation in the evolving British electricity market. Support for new offshore wind and solar generation came to an end during 2017. Deployment of these renewables in early 2017 to meet the subsidy gate closures included substantial levels of solar, which now exceed 12 GW of installed capacity. This additional solar generation has had a considerable effect on the overall system operation over the summer period, causing day time wholesale electricity market prices to be suppressed. The highest ever system solar peak generation was recorded on 26th May 2017 at 9.34 GW with prices falling accordingly across the early summer period before staging a recovery from late summer onwards and averaging €45.42/MWh for the year. The second round of the auction process for renewables contracts for difference (CfDs) was announced in September, with a total of 3.34 GW of renewable generation procured, including 3.2 GW of offshore wind due to be in phases starting in delivery years 2021/22 and 2022/23.

Coal generation volumes continue to drop, with lower volumes in 2017 compared to 2016. This is driven by increasing coal pricing and the UK’s Carbon Price Support mechanism which makes coal generation economics substantially less favourable compared to gas. On the 21st of April it was announced by National Grid that the UK had experienced its first full day without coal generation since 1892. The British Government has reaffirmed its commitment to the closure of coal stations, by signalling intent to keep the total price of carbon similar to levels presented in its Autumn Statement, and confirming the 2025 latest closure date for unabated coal generation.

3.6 GW of generation plant exited National Grid’s Final Strategic Balancing Reserve Scheme in October 2017, including ESB’s 350 MW Crosby CCCGT plant, which is now participating in the wholesale electricity market. This capacity, alongside 1.2 GW of new build peaking generation and demand side response, has led to greater system margin in the fourth quarter in 2017. Winter 2017 also saw the start of the first Capacity Market, in which both Carrington and Corby were successful participants. (The Capacity Market Auction is the competitive process to award Capacity Market Agreements to meet the target capacity for the relevant Delivery Year).
The results for 2017 - the 90th anniversary of the establishment of ESB - reflect a satisfactory performance across ESB Group in challenging market conditions. ESB continues to focus on delivering long term value and investing in critical long term electricity infrastructure to lead the transition to reliable, affordable, low-carbon energy for the benefit of our customers, shareholders and the wider Irish economy and this is enabled by maintaining a strong financial position.

How would you describe financial performance in 2017?

In 2017 we delivered a satisfactory performance resulting in another year of consistent underlying financial performance with Earnings before Interest, Tax, Depreciation, Impairment, Amortisation and Exceptional Items (EBITDA) of €1.3 billion, Operating Profit before exceptional items of €400 million, capital investment of €867 million and gearing of 52%. In 2017, ESB, Ireland’s leading energy utility, retained its stable business profile, consistently solid financial performance with diverse businesses across the energy value chain, with approximately two thirds of its earnings, assets and capital investment accounted for by regulated businesses including the requirement to deliver stretching targets under their respective regulatory contracts; increased and intense retail competition in both the Republic of Ireland (ROI) and the United Kingdom (UK); and increased uncertainty in our macro environment hinged by events such as Brexit and other global socio-political developments.

What role does finance have in delivering ESB’s Strategy to 2030?

One of the key strategic objectives is to ‘grow the business whilst maintaining ESB’s financial strength’. Finance plays a key role in supporting strategy delivery while protecting the financial strength and integrity of ESB. Working together with the business we do this by:

1. Ensuring there is a comprehensive performance management reporting system in place;
2. Implementing an effective system of internal controls;
3. Providing commercial support and challenge so as to optimise the allocation of capital across ESB’s portfolio of investment opportunities so as to enable strategy delivery;
4. Proactively managing key financial risks such as foreign currency and interest rate exposures, and
5. Ensuring ESB is in a strong position to access the funding markets. This is clearly demonstrated by ESB’s credit ratings of A- or equivalent (BBB+ standadnd) with Standard & Poor’s and Moody’s and ESB’s successful placement of a 12 year, €500m 1.75% fixed-rate bond during 2017.

What are the principal challenges and opportunities ESB Group faces in the next three years from a financial perspective?

ESB, like many other companies, is facing a number of strategic financial challenges. Over the next three years these include:

1. Increased volatility and downward pressure in generation energy margins in both I-SEM and Great Britain (GB);
2. Increased regulatory challenges of our networks businesses including the requirement to deliver stretching targets under their respective regulatory contracts;
3. Increased and intense retail competition in both the Republic of Ireland (ROI) and the United Kingdom (UK); and
4. Increased uncertainty in our macro environment hinged by events such as Brexit and other global socio-political developments.

However, these developments are also presenting opportunities for ESB, particularly in the delivery of smart reliable electricity networks that enable more connection of renewable generation and support the electrification of heat and transport, transitioning to a balanced low-carbon generation portfolio of scale in ROI and the UK and the development of services, where we can bring value-driven solutions to our customers and enable the transition to reliable, affordable low-carbon energy.

We carefully and continuously monitor all of these strategic financial opportunities and challenges and take prudent financial actions, including management of the significant capital programme, as appropriate, so as to enable the delivery of Strategy 2030 while maintaining ESB’s financial strength.

In Generation & Wholesale Markets (G&WM), the increase is driven by higher revenue in Generation and Wholesale Markets (G&WM), a successful first full year of operation of the Carrington B85 MV plant and continued growth in our renewable assets portfolio and strong availability across the generation portfolio, but with increased competition and downward pressures on energy margins;

• ESB Networks and NIE Networks continuing to deliver smart reliable networks with significant capital and network maintenance programmes in accordance with their regulatory contracts, as well as an excellent customer focused response to Storm Ophelia. A price review was agreed for NIE Networks in 2017 which provides regulatory and financial visibility out to 2024; and
• Electric Ireland continuing to innovate and create value for customers, including the application of enduring long-term savings to almost 1 million of its residential electricity and gas customers during the year.

HIGHLIGHTS

- EBITDA BEFORE EXCEPTIONAL ITEMS €1,276 MILLION
- OPERATING EXPENSES €3,262 MILLION
- REVENUE €4,900 MILLION
- CAPITAL EXPENDITURE €867 MILLION
- 2017 DIVIDENDS €60 MILLION
- RETURN ON CAPITAL EMPLOYED 5.6%
### Operating Costs

Overall operating costs before exceptional items at €2,772 million have increased by €122 million.

- Fuel and other energy costs have increased by €56 million on 2016 relating to higher gas costs due to a full year of running at Carrington CCGT offset by lower coal costs relating to lower running in Moneypoint.
- Depreciation is up by €55 million on 2016 due to an increase in asset retirement provisions in 2016 in G&WM and a full year of depreciation charge for Carrington CCGT.
- Employee costs are in line with 2016 with higher costs related to increased headcount and overtime in ESB Networks during Storm Ophelia being offset by lower capitalised payroll in ESB Networks and the release of a restructuring provision no longer required.
- Operating and maintenance costs have increased by €3 million due to higher operating costs in ESB Networks associated with Storm Ophelia and higher costs associated with new business activities in 2017.

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

### Exceptional Item

Following impairment reviews of the generation assets ESB recognised an exceptional impairment charge of €276 million in relation to Moneypoint (€142 million), Ashguhat Unit 2 (€89 million), Syngenta (€30 million), Postbag (€21 million), Marine (€1 million) power stations and €13 million across five wind farms. These impairment charges reflect the anticipated changes associated with I-SEM, which is due to go live in May 2018.

- Impairment (excluding exceptional item in 2017): €276 million.

The decrease in costs is driven by factors impacting on operating profit (excluding depreciation) as described above.

### Operating Profit

Operating profit before exceptional items has decreased by €107 million. The decrease is driven by the following:

- Higher depreciation of €55 million - see operating costs for further detail.
- Lower energy margin of €20 million due to lower margin in G&WM and Electric Ireland due to pressure on energy margins, partially offset by higher margin in ESB Networks due to regulated tariff increases.
- Lower other income of €30 million due to negative fair value movements on investments.
- Higher operating and maintenance costs of €9 million and higher employee costs of €3 million - see operating costs for further detail.

The movement in operating profit between 2016 and 2017 is set out in the reconciliation of operating profit in Figure 4.

### EBITDA

EBITDA excluding exceptional items for 2017 at €1,276 million is €48 million lower than 2016.

- Impairment (excluding exceptional item in 2017): €276 million.

The decrease in costs is driven by factors impacting on operating profit (excluding depreciation) as described above.

### Adjusted Profit Before Taxation

Adjusted profit before taxation for 2017 is €262 million (2016: €382 million). The variance relates to the lower energy margin, higher operating costs and higher depreciation as described above and higher interest costs, see figure 5.

### Total Finance Costs

Total finance costs for 2017 are €172 million lower than 2016.

- Interest and tax: (221) million in 2017 and (239) million in 2016.
- Capital expenditure and loans to equity accounted investees: (843) million in 2017 and (770) million in 2016.

### Capital Expenditure

Capital expenditure totalled €967 million in 2017. This is a decrease of €30 million on 2016 investment levels.

- Capital investment in the networks business continued in 2017 with €644 million (74%) of total capital investment invested in the networks infrastructure in ROI and Northern Ireland (NI). This expenditure is based on the capital expenditure programmes agreed with the respective regulators in ROI and NI included in the spend for 2017 is a €56 million capitalised asset retirement obligation relating to the retirement and destruction of network assets.

Capital investment of €95 million in other segments includes the progression of other strategic projects for the Group including the redevelopment of the Fitzwilliam Street Head Office and preparation for I-SEM.
The main financial risks faced by the Group are:

- Counterparty credit exposure
- Commodity price movements
- Interest rate movements on the Group’s existing and projected future debt portfolio
- Liquidity availability and maintenance of access to the debt markets
- Foreign exchange volatility
- Interest rate movements on the Group’s existing and projected future debt portfolio
- Commodity price movements
- Counterparty credit exposure
- Operational risk, including exposure to fraud and error

Treasury management

The Group’s main source of standby liquidity, currently extended out to January 2022. This strong liquidity position is the result of a strategic approach to the management of the Group’s debt maturity profile, which is designed to ensure that the Group’s debt portfolio has sufficient flexibility to fund its future operating and investing cash flows, while maintaining an appropriate level of gearing (net debt divided by the sum of net assets). The Group’s debt maturity profile is such that a significant portion of its debt is repayable in five years or more, greatly reducing any medium-term funding risk.

The Group’s funding and liquidity position reflects its underlying financial strength and strong credit ratings of A- by Standard & Poor’s and A3 by Moody’s. In the context of ESB’s ongoing IBRD performance - averaging approximately €1.3 billion per annum in recent years - and liquidity of €1.9 billion (between cash and undrawn committed facilities) at 31 December 2017, ESB believes that its debt maturity profile does not pose significant risks to the Group. The Group continues to proactively manage its borrowings repayment profile and maintains its ability to fund in the future through close ongoing engagement with its banks, debt investors and credit rating agencies.

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 business, Electric Ireland, provides a natural hedge in this regard.

In addition, through the use of derivative financial instruments, the Group is able to mitigate the risk of loss arising from changes in interest rates, currency, commodity prices or other factors similar in nature. IAS 39 cash flow hedge accounting is applied to the Group’s derivative financial instruments. When used, such instruments are designed to reduce the risk of loss from changes in interest rates, currency, commodity prices or other factors similar in nature.

Counterparty credit risk

Counterparty risk is the risk of loss arising from the failure of the other party to perform its obligations under a contract. ESB is exposed to counterparty risk from derivative financial instruments and forward purchase contracts. The Group’s counterparty credit risk is mitigated through the use of derivative financial instruments and forward purchase contracts. The Group’s counterparty credit risk is managed by establishing dealing mandates with a limited number of key counterparties. Counterparty credit limits are set by the GTC and 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 limits are reviewed on an ongoing basis.

Energy 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 business, Electric Ireland, provides a natural hedge in this regard.

COUNTERPARTY CREDIT RISK

The Group is exposed to counterparty risk from transactions with counterparties which hold its bank accounts and transact with in financial and commodity markets. The Group’s policy is to limit exposure to counterparties based on assessments of credit risk. Exposures and related limits are subject to ongoing review and monitoring in each business unit, and 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
Generations and Wholesale Markets (G&WM)

As part of the preparation for I-SEM, the G&WM operating model is under review in anticipation of significant potential changes. While G&WM will continue to earn a significant element of its energy margin in I-SEM from capacity payments and quasi-regulated supports for its renewable portfolio, capacity revenues will be lower. However, there will be opportunities, for higher revenues from the ancillary services required to support a robust electricity system with more intermittent renewable generation. The expectation is that total revenues for generation will be under pressure in the early years of the market. A review of the expected revenue of revenue reductions indicated a requirement for an impairment review of G&WM’s generation assets in I-SEM totaling €276 million. ESB has a diversified generation plant portfolio and a strong trading capability and is well positioned to respond to the I-SEM market changes.

The first capacity auction was held by the Transmission System Operator (TSO) in December 2017 for I-SEM capacity contracts for the period from May 2018 to September 2019. The auction clearing price was €14.84/MWh, 3,380 MWh or 91% of ESB’s plant were awarded contracts out of 3,860 MWh of capacity offered. Capacity contracts were not secured for ESB’s open-cycle gas unit at Marina and the conventional steam unit at Aghada. As a result, many years of excellent performance and service to electricity customers, over I-SEM starts in May, there will be no commercial basis for the continued operation of these units. ESB is very mindful of the personal impact of this for individuals and is committed to working through this together with those involved.

The G&WM business develops, operates and trades the output of ESB’s electricity generation assets. The portfolio consists of 5,822 MW of generation assets across the Single Electricity Market (SEM) and Great Britain (GB), with a further 173 MW under construction. With a strong focus on safety, G&WM delivers value by:

- 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
- Acting positively in communities close to construction projects and operating assets.

**Financial Performance**

G&WM’s operating profit before exceptional items at €121 million is down €110 million on 2016. This primarily reflects lower wholesale energy margins in both SEM and GB, with coal moving down the order, as well as a higher depreciation charge in 2017. In addition, plant availability, although solid, was lower than the excellent level delivered in the past two years, with a corresponding impact on volume and revenues.

ESB expects that the new Integrated Single Electricity Market (I-SEM), which will replace SEM in May 2018, coupled with downward pressure on energy margins, will result in very significant downward pressure on revenues. Those two issues triggered an impairment review of ESB’s generation assets, leading to a total impairment charge of €276 million in 2017, comprising a charge of €263 million for thermal assets and €13 million for renewable assets.

A major project is already underway to address business model and cost base changes required in response to the impact of the expected loss of revenues resulting from I-SEM.

**Operating Environment**

The operating environment for generation in both SEM and GB has been challenging. Increases in fuel prices led to reduced running and revenues from coal generation. While gas running picked up, spark spreads remained subdued throughout the year in both markets. In GB, 2017 saw the first full year of market running for ESB’s Carrington Plant, which had strong availability throughout the year.

**Progress on Strategic Objectives**

G&WM is responsible for generating a balanced portfolio of energy production across SEM and GB, producing secure and affordable energy and supporting the transition to a low-carbon future. G&WM has made significant progress on this objective during 2017:

- **Asset Delivery**
  - ESB’s renewable portfolio generation increased by 95 MW as four wind farms, at Moneypoint, Cappawhite, Crockdun, and Eglish, entered commercial operation;
  - ESB continues to make significant investments to increase renewable generation and reduce the overall carbon intensity of ESB’s generation and increase the renewable energy margin in I-SEM.

- **Asset Development Bisamis**
  - Completion of construction on the 40 MW renewable waste to energy plant at Castlepook.

- **Offshore Wind**
  - Construction started on the 114 MW wind farm at Grousemount in Kenya.
  - Final development work on the two offshore wind projects under development, with Bond na Mara, off Galway, expected to be in place early in 2018.

- **Financials**
  - Upgrading of all existing capacity and introduction of new contracts would lead to a total cost of €250 million, with a corresponding impact on revenue and volumes this year.

- **Investment in existing assets**
  - G&WM continued to make significant investments to the value of €55 million in the existing generation portfolio during 2017, with overhauls in Aghada, Lough Ree, Turlough Hill, and the completion of a fleet-wide refurbishment programme.

- **G&WM Customers**
  - G&WM continues to offer a variety of traded contracts to all supply companies in the SEM on a non-discriminatory basis via on-the-counter trading platforms.

- **Operational**
  - ESB continues to maintain its Excellence externally-audited OHSAS-certified safety assurance.

- **Strategic**
  - ESB’s performance in 2017 was directed at the maintenance of G&WM’s strategic focus on: Energy margin in I-SEM from capacity payments and quasi-regulated supports; and Cost base changes required in response to the impact of the expected loss of revenues resulting from I-SEM.

- **Connecting to Our Future**
  - ESB’s strategic focus on energy margin in I-SEM from capacity payments and quasi-regulated supports; and Cost base changes required in response to the impact of the expected loss of revenues resulting from I-SEM.

- **Sustainability**
  - G&WM operates its business with a focus on minimising environmental impact, aiming to significantly increase renewable generation and reduce the overall carbon intensity of generation. CO2 emissions from G&WM’s generation plants remain lower than 2005 (reference date) by approximately 50% and the carbon intensity dropped by nearly a quarter to 513 g/kWh in the same period.

- **G&WM continues to invest in its Fisheries Conservation Programmes, which deliver clear environmental benefits in terms of improving fish stocks and natural river habitats.”
ESB NETWORKS

All of the above connections required significant reinforcement and extensions to the electricity network, in addition to considerable maintenance, vegetation management and refurbishment programmes for the established network.

The Smart Metering Project Team proposed a revised phased approach for the delivery of the Smart Metering Project to the Commission for Regulation of Utilities (CRU) in Q1 2017 and subsequently received formal regulatory approval and funding approval of €304 million to complete phase one of the Project by 2020. This involves the safe installation of 250,000 meters by 2020 and the delivery of two Central Market System releases. All procurements to pursue the end-to-end solution are now in progress and the High Level Design phase of the Project is now complete.

On the 16th October 2017, Ireland fell the full force of 190 kph winds from Storm Ophelia. At its peak, 385,000 customers were without supply and the network was severely damaged. ESB Networks deployed 2,500 staff, 1,000 contractors and enlisted the assistance of the Defence Forces and 400 utility workers from Northern Ireland Electricity Networks (NIE Networks) and the United Kingdom (UK) / French companies to re-connect and restore power to all homes and businesses and make the network safe for future operations. The required close working co-operation with the National Emergency Coordination Group for Severe Weather, Government Departments, Met Eireann, the Defence Forces and national media.

ESB Networks would like to thank all of those agencies for the assistance of the Defence Forces and 400 utility workers from Northern Ireland Electricity Networks (NIE Networks) and the United Kingdom (UK) / French companies to re-connect and restore power to all homes and businesses and make the network safe for future operations.

PROGRESS ON STRATEGIC OBJECTIVES

Put in place robust strategies to meet future needs at the centre of all our activities

The focus of the 2017 investment in the transmission network was on continuing the reinforcement of the system to facilitate the connection of new renewable energy to the system. The required close working co-operation with the National Emergency Coordination Group for Severe Weather, Government Departments, Met Eireann, the Defence Forces and national media was essential in allowing ESB Networks to begin the process of restoring power to customers.

Develop energy services to meet evolving market needs

ESB Networks developed an Innovation Framework to help it deliver its vision of the future. The framework builds on its history of innovation while incorporating the drivers for change. The ESB Networks Innovation Strategy will continually evolve over time to reflect the rapidly changing energy landscape. Engagement with partners will be an ongoing feature of the strategy implementation.

Grow the business while maintaining ESB finance strength

ESB Networks will optimise its cost base by driving efficiency and create a customer and shareholder benefit. ESB Networks’ aim is to increase financial and resource flexibility to adjust to levels of expenditure allowed under future regulatory determinations.

FINANCIAL PERFORMANCE

ESB Networks operating profit for 2017 at €317 million in line with the capital contributions (net of capital contributions) at €601 million is up by €128 million on 2016. The increase is related to the inclusion of an asset retirement provision for the retirement and destruction of create sales (a non-cash accounting adjustment) and higher spend on both transmission and distribution assets. Gross capital expenditure (before capital contributions and asset retirement obligations) in 2017 was €504 million (€473 million).

OPERATING ENVIRONMENT

Electricity Networks is continually developing new channels to provide information to its customers and to make it easy for them to make contact or to receive the information that they require. The Customer Care Centre deals with 1.6 million contacts per year and achieves high customer service ratings of over 81% satisfaction across a range of performance indicators.

During 2017, two new online services were deployed – ‘Pay An Invoice’ and ‘Log A Fault’ which are available on the ESB Networks website.

In addition, enhanced customer information on restoration times has been introduced via the 1850 number and the website. Social media presence continues to be enhanced and this year ESB Networks created a Facebook account in addition to its Twitter and Instagram accounts.

When Storm Ophelia was forecast, ESB Networks activated its Crisis Management Plan. Customer communications is critical during large-scale outages and two additional call centres were set up to support the duration of the restoration effort, one of which was resourced by ESB volunteers. All of the media channels were used extensively to communicate and engage with customers during this extreme event. The three contact centres handled up to 52,000 contacts from customers each day and ESB Networks received 8 million page impressions across its social media channels. The Powercheck (available on App or website) received almost 1 million hits in the first 24 hours.

Despite these severe weather events, and a very extensive deployment of personnel, the network’s reliability is second to none. In 2017, ESB Networks continued to invest in new technology and smarter networks to improve the reliability of the service even further.

ESB Networks Innovation Strategy covers the investment in state of the art technology such as self-healing networks which will further reduce outage times for customers.

ESB Networks is constantly developing new ways of raising awareness on how to stay safe around electricity and currently runs safety awareness campaigns through TV, radio, social media and with schools and agricultural colleges.

One of the great successes last year was ESB Networks School’s Safety Programmes. There were over 4,000 safety presentations in 2017 and ESB employees visited over 200 primary schools to educate the children about electricity. There were also further visits by staff to schools to distribute safety information and to set up joint ventures with the Royal Sun Alliance (RSA).

PEOPLE

At 3347 ESB Networks’ employees are central to successfully implementing its business strategy and continue to display the highest levels of craftsmanship. During 2017, a number of ESB Networks employees were awarded industry-wide recognitions including the Electrical Installations Discipline in the World Skills Competition in Abu Dhabi and winning the Fleet Transport Association European Driver of the Year. In addition to ESB’s own Apprentice of the Year competition (Shane Conlon Perpetual Award).

Similar to other years, ESB Networks’ apprenticeship recruitment campaign was significantly over-subscribed. This year’s recruitment drive, attracted over 5,650 applicants for up to 60 places, which is a 70% increase on 2016 and also resulted in a four-fold increase in female applicants.

SUSTAINABILITY

ESB Networks is committed to facilitating the Irish Government in achieving its target of 40% of energy consumption coming from renewable sources by 2020. A total of 443 MW of renewables were connected in 2017, bringing total renewable MW connected to the grid to almost 4 GW. Plans are in place to connect a further 470 MW of renewable energy in 2018.

CONNECTING TO OUR FUTURE

ESB Networks’ Innovation Strategy will include investment in new technology and smarter networks to ensure ESB Networks protects the health and safety of employees, contractors and the public.

ESB Networks is committed to enabling the electrification of transport and heat. Since 2010 ESB Networks has worked to identify and assess innovative technologies and solutions to increase network capacity without huge cost or unduly disrupting customers. Cost-effective electrical designs have been produced that ensure new housing construction today has additional capacity for electric heat.

A Low Voltage Design Handbook is also being produced, to ensure consistent design approaches for existing low voltage networks to support the economic integration of customers’ low-carbon technology.

Dingle Strategy

As part of ESB Networks’ Innovation Strategy, a significant ‘smart electricity’ trial has been launched on the Dingle Peninsula that aims to define a view of the future. As part of this strategy, a significant ‘smart electricity’ trial has been launched on the Dingle Peninsula that aims to define a view of the future. A Low Voltage Design Handbook is also being produced, to ensure consistent design approaches for existing low voltage networks to support the economic integration of customers’ low-carbon technology.

The current safety strategy places Leadership, Competence, Compliance and Engagement at its core. Recent external independent audits reinforce that both safety standards and safety of employees, contractors and the public. A Low Voltage Design Handbook is also being produced, to ensure consistent design approaches for existing low voltage networks to support the economic integration of customers’ low-carbon technology.

OVERVIEW

The safety journey will continue to ensure ESB Networks protect the health and safety of employees, contractors and the public.

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OPERATING ENVIRONMENT
In 2017 NIE Networks delivered to RPS investment plan and outputs despite the challenging programme of work and a peak in demand for renewable connections to the network. Against this backdrop, last time incidents, customer complaints and customer minutes lost remained largely in line with the previous year.

PROGRESS ON STRATEGIC OBJECTIVES
NIE Networks has successfully delivered against its key strategic objective for RPS, being the completion of the programme of work under its 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 2017 to facilitate the connection of additional renewable generation and to replace customers’ meters, with the installation of 101,000 meters during 2017.

NIE NETWORKS’ CUSTOMERS
To meet customers’ expectations 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 62 (2016: 65). The average number of minutes lost due to faults in the distribution network was 57 (2016: 66). There were 2 complaints taken up by the Consumer Council for NI (CCNI) on behalf of customers during the year, an increase of 2 from the previous year. As outlined in its plans for RPS, NIE Networks is committed to a multichannel approach to communication and during 2017 it continued to see a significant level of engagement with its customers via social media most notably during Storm Ophelia.

PEOPLE
Ensuring the safety of employees, contractors and the general public continued to be at the centre 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 and NIE Networks had 1 lost time incident during the year (2016: 1), showing the commitment of employees to maintaining the highest standards of safety. In recognition of its strong safety focus, NIE Networks won two National Irish Safety awards during 2017.

NIE Networks won the 2017 UK Chartered Institute of Personnel and Development award for Employee Engagement Strategy in recognition of its efforts in engaging with its 1,288 employees. In addition, NIE Networks has also been accredited at gold level following assessment in 2017 against the Investors in People Six-Generation Standard.

In recognition of employee efforts, NIE Networks introduced a number of new employee awards during the year to include, a Think Customer award for excellence in customer service, an Innovation Ambassador and Innovation Champion awards, a Mentor award and a Health and Wellbeing Champion award.

SUSTAINABILITY
During the year, 267 MW of large-scale wind farms, 71 MW of small-scale renewable generation projects and 3 MW of micro-generation were connected to the network, together providing an additional 361 MW of renewable generation. By the end of the year, there was a total of 1,447 MW of renewable generation connected.

CONNECTING TO OUR FUTURE
NIE Networks’ preparations for a low-carbon future involve trialling technologies that can reduce costs to customers in the long term. Five main projects have been identified; 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 future 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.
ELECTRIC IRELAND

In 2017 Electric Ireland established its position in Northern Ireland (NI) capturing an 8% share (c.69,000 customers) of the residential market. ESB has entered the GB domestic market organically through the establishment of ESB Energy in 2017.

OVERVIEW

Electric Ireland is the retail arm of ESB, supplying electricity, gas and energy services to customers across the island of Ireland. With over 1.25 million customers and an electricity all-island market share of 34%, 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

Revenues in Electric Ireland in 2017 was €1.7 billion, a decrease of 9% compared to 2016 which was driven by reduced unit rates for residential electricity and gas customers in addition to a reduction in market share. Electric Ireland’s overall market share decreased from 35% to 32% in 2017 primarily as a result of customer losses in the industrial and commercial market sectors.

Electric Ireland reported an operating profit of €98 million, which represents an operating profit margin of 3.7% (excluding non-recoverable market accounting adjustments). This is a €4 million decrease on 2016’s financial performance.

In 2017 ESB has entered the GB domestic market organically through the establishment of ESB Energy ESB Energy competes in the domestic market throughout England, Scotland and Wales in both electricity and gas.

ELECTRIC IRELAND’S CUSTOMERS

The customer is 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. Electric Ireland won the CX Excellence Award for the Utilities sector in 2017’s Customer Experience Ireland Report. This report ranks all of the main brands in Ireland based on customers’ experience. Electric Ireland has moved up the overall rankings significantly this year, and now ranks at no. 73 in the Top 100, up from 95 last year, and is the top ranked Utility in the survey. In addition Which? Magazine ranked Electric Ireland as the top electricity supplier in NI in February 2017.

Maintaining this focus on customer empowerment and self-service, Electric Ireland further developed its digital service capability during 2017 across all stages of the customer journey with the introduction of:

- A new online store which facilitates an end-to-end journey for which all customers can browse product details and options, book installations and buy online;
- A significant upgrade to the digital residential portal which has added additional features to empower our customers and improve our self-service capability (90% of customer transactions can now be completed digitally);
- Business Online for SMBs has been upgraded and now offers market leading functionality to our business customers; and
- A webshop facility for residential service and sales is now available on the Electric Ireland website.

The business has progressed the development of its smart and connected home offering which will be ready to launch in Q3 2018.

During 2017 Electric Ireland further established its brand in the NI market with sponsorship of the Irish Football Association (IFA) women’s football.

In July Electric Ireland became the first Single Electricity Market (SEM) supplier to automatically apply enduring long-term savings to its residential customers in a market dominated by short-term value propositions. This innovative approach aims to deliver a leading and stable residential market share in the core market. In 2017 Electric Ireland also expanded Stay Happy to all customers who pay on time including those who do not pay direct debit.

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.

CONNECTING TO OUR FUTURE

Electric Ireland is rewarding customers who undertake measures to improve the energy efficiency of their homes through its Energy Efficiency Incentive Schemes, which gives customers additional discounts on their bills. Electric Ireland has 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 2017, Electric Ireland assisted 12,700 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.

PROGRESS ON STRATEGIC OBJECTIVES

Electric Ireland has taken significant steps in 2017 to deliver on its strategic objectives to put customers’ current and future needs at the centre of all its activities. The implementation of the second phase of the Stay Happy retention campaign was launched in June and implemented over the summer months. This strategy of rewarding loyalty is an innovative approach to delivering long-term value to residential customers in a market dominated by short-term value propositions. This innovative approach aims to deliver a leading and stable residential market share in the core market. In 2017 Electric Ireland also expanded Stay Happy to all customers who pay on time including those who do not pay direct debit.

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Paul Mulvaney, Executive Director Innovation

What were the key achievements for Innovation in 2017?

Innovation is focused on identifying and delivering new winning customer propositions in a changing energy landscape. A key focus for Innovation in 2017 was the development of the Smart Energy Services (SES) business.

SES has become a trusted energy partner for large energy users in the Republic of Ireland (ROI), Northern Ireland (NI) and Great Britain (GB), offering market-leading expertise in energy management together with the ability to support the selection and deployment of energy solutions. The key services offered by SES are Energy Management Services as well as delivery of customer solutions in lighting, energy efficiency, low-carbon heat, solar, storage and demand management.

2017 was also very significant for the ecars business, winning a place on the Transport for London framework and beginning the installation of rapid charging facilities at sites across London. ESB Telecoms and ESB International have also won a number of significant new long-term contracts for the provision of telecoms and utility management services, respectively.

The Technology Innovation Unit and External Collaboration Team have continued to develop new opportunities and relationships for ESB with the success of the Free Electrons programme (a global energy start-up accelerator) being particularly noteworthy.

New energy product offerings and services which are focused on customer requirements for greater engagement and transparency. A number of other opportunities are currently being investigated at the X_Site facility including Digital Analytics as a Service, Hot Water as a Service, a subsea cable repair service offering and Smart Stop, a collaboration with an Irish start-up to retrofit bus shelters using energy-efficient lighting panels.

During 2017, ESB Innovation embarked on a Global Utility Accelerator Programme, "Free Electrons," with seven other utilities worldwide. Through the Free Electrons Programme Innovation is accelerating the pace of change by supporting start-ups to develop commercial relationships with utilities, exposing them to new markets, local ecosystems and strategic partnerships.

SES will deliver a new digital electricity supply offering for large energy users in GB. Planet Energy gives energy brokers and industrial and commercial clients direct access to the GB wholesale energy market offering 100% cost-pass through of both energy and non-energy costs. Planet Energy is GB’s first cloud-based energy supplier for half-hourly metered customers with a unique business proposition.

Nouvasol will focus on realising value in its investment portfolio as well as supporting the development of new business opportunities for ESB. Ecars will work with some of the Novusol investments to accelerate innovation in the area of electric vehicles, with its primary focus on the public rapid-charging sector in large GB cities. The most advanced of these options is the Transport for London framework and ecars has already had considerable success acquiring sites and installing rapid chargers in Greater London under this arrangement. During 2017 the Irish (ROI) Solutions for Regulation of Utilities (CRU) issued a decision paper in relation to ecars which concluded that the ecar infrastructure in ROI could not be included as part of the regulatory asset base. The basis of this decision and the commercial implications are under review and ESB has decided to impair the carrying value of its investment in this infrastructure by €4 million.

PROGRESS ON STRATEGIC OBJECTIVES

SEB is a business that is changing energy customer behaviour to meet customers’ needs - aligning with similar efforts of other business units in ESB. ESB is also laser-focused on the awareness of the technology changes happening now in the energy industry and the changing demands from energy customers. The Technology Innovation Unit is a dedicated team working with other teams across ESB to deliver the solutions to those customers. The Technology Innovation Unit Transit is continuing to build long-term relationships to provide the essential energy services, utilising its national tower infrastructure integrated with a national fibre network. As a result of this engagement with customers, ESB Telecoms signed a number of important long-term contracts in 2017.

In 2017, the ESB Nouvasol Fund was heavily focused on the realisation of its portfolio opportunities with the disposal of the interest in SELC (Smart Efficient Light Control) and the realisation of the Anofilm investment among the most significant developments in the year. During 2017 a review was carried out of the expected proceeds from the fund and as a result, the carrying value of the fund was decreased by €34 million. This adjustment reflects the challenges and pace of change in this area.

OVERVIEW

Innovation continues to work with partners internally and externally to deliver new products and services to support ESB’s aim to lead the transition to reliable, affordable low-carbon energy. Innovation is continuing to invest in and deliver new business opportunities which will deliver benefits for customers and provide new growth opportunities for ESB such as the Planet E Energy business and the Smart Stop solution for bus shelters.

Innovation is promoting new thinking on energy solutions through the development of strategic roadmaps, workshops focused on decision and new product development as well as collaboration with start-ups and other companies. Innovation’s financial performance is included as part of Other Segments, see note 2 in the financial statements.

OPERATING ENVIRONMENT

The markets for the Innovation businesses remain competitive.

ESB International is a well-regarded international consultant to the global power sector and continues to adopt their customer offering to incorporate new technologies, winning multi-year contracts in both existing and new markets. The Irish fibre and towers wholesale market in which ESB Telecoms operates continues to see further competitive pressures with ongoing price pressure on its products and customer consolidation. ESB Telecoms is responding to this challenge by continuing to work with its customers to build long-term relationships to provide their essential network services, utilising its national tower infrastructure integrated with a national fibre network. As a result of this engagement with customers, ESB Telecoms signed a number of important long-term contracts in 2017.

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INNOVATION BUSINESS LINES

INTERNATIONAL

ESB International

- Offers a full range of engineering, operations and maintenance solutions, as well as consultancy services to the global energy market.

- Focuses on areas such as clean technology and renewable energy fund that invests in renewable energy and energy efficiency sectors.

TELECOMS

- Owns fibre-optic broadband network and a national network of independent mobile phone towers.

- SIRC, fibre-to-the-building, with Vodafone and Wind Technology Innovation Unit.

- Supports development of a range of telecommunications and business models to meet changing energy customer and market needs.

SMART ENERGY SERVICES

- Provides energy management services to large energy users in ROI, NI and GB.

- Operates the national charging infrastructure for electric vehicles and provides commercial services in the electromobility sector.

ECARS

- Continues to work with a range of stakeholders across the island of Ireland to encourage electric vehicles and the development of the electric vehicle charging network. The Transport for London framework and ecars has already had considerable success acquiring sites and installing rapid chargers in Greater London under this arrangement. During 2017 the Irish (ROI) Solutions for Regulation of Utilities (CRU) issued a decision paper in relation to ecars which concluded that the ecar infrastructure in ROI could not be included as part of the regulatory asset base. The basis of this decision and the commercial implications are under review and ESB has decided to impair the carrying value of its investment in this infrastructure by €4 million.

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INNOVATION'S CUSTOMERS

ESB Telecoms recognised the changing energy customer and market needs and the ongoing price pressure on its products and customer consolidation. ESB Telecoms is responding to this challenge by continuing to work with its customers to build long-term relationships to provide their essential network services, utilising its national tower infrastructure integrated with a national fibre network. As a result of this engagement with customers, ESB Telecoms signed a number of important long-term contracts in 2017.

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Over 120,000 premises were added to the National Broadband Plan (NBP) in 2017.

- SIRO (a Joint Venture with Vodafone) has continued its national Fibre-to-the-Building network roll-out with services now available to over 125,000 premises.

- X_Site, ESB’s Innovation hub located at Dogpatch Labs in Dublin provides the right environment and support for ESB teams and external start-ups to quickly incubate and develop ideas that have potential to become new businesses, such as

- Accelerate its unique product roll-out. SIRo will evaluate opportunities to participate in the National Broadband Plan (NBP).

- To continue collaboration with external partners.

- SIRo will accelerate its unique product roll-out across more areas of the country.

- ESB will deliver new products based on customer requirements – including in the last-gasping area of battery storage.

- SIRo will continue to investigate the options for commercialisation of the Irish national charge point infrastructure.

- Ecars will continue to build on its engagement with TII to expand its services in GB.

ESB International and ESB Telecoms will continue to support their external customers and seek to increase their revenues by developing new products for existing customers.

- ESB International has secured significant contracts with the Millennium Challenge Corporation (MCC) to assist with the infrastructure development in Liberia and Ghana while continuing to secure new contracts in existing markets.

- ESB Telecoms concluded a multi-year agreement with O2 Ireland.

- SES will continue to support its existing customers.

- SES continues to grow its customer base and product offering.

- A number of new initiatives are actively being investigated at the X_Site facility.

- Over 120,000 premises already passed.

- SIRo has withdrawn from the NBP process following an extensive review of the commercial business case.

- ESB will expand its product offering in both ROI and the UK.

- ESB will continue to be launched to support changing customer requirements.

- ESB will continue to grow its customer base in ROI, NI and GB.

- ESB will deliver new products and services focusing on customer requirements – including in the last-gasping area of battery storage.

- ESB will continue to grow its customer base in ROI, NI and GB.

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OVERVIEW

Pat Naughton
Executive Director, Group People and Sustainability

"2017, our 90th year, has been an important moment for ESB. It has given us the opportunity to reflect on everything we have stood for and believe as an organisation. Having a clear sense of purpose and a strong value set, which can guide our behaviours, our mindset and our actions.

2017 marked the 90th year since ESB’s foundation. We celebrated this milestone by reflecting on what this organisation has achieved over our 90 years and reminding ourselves what it means to be ESB. ESB employees have always taken great pride in our heritage. We understand the role ESB has played in the development of Ireland and the legacy that each generation of ESB employees works to achieve. We wish to thank all those employees, past and present, for their efforts and innovations over 90 years, have ensured energy that is affordable and reliable while becoming increasingly sustainable over time.

As we move forward in a radically changing energy industry, we believe it is important that we remain true to the values that have shaped ESB over 90 years and the strong sense of purpose that has always driven us forward. What we believe and stand for as an organisation has always been implicit in everything we do. Our unspoken values have driven our behaviours and defined the organisation we are today.

In 2017, we chose to make these values explicit, articulating them through a value set. Along with our purpose, we will use our values to help us navigate a different future, ensuring our behaviours as individuals and as an organisation remain true to our beliefs and see us continue to create a brighter energy future for our customers, communities and society.

In 2017, we brought our senior managers through the first phase of a new leadership development programme. The objective of this programme is to better enable our senior leaders to motivate and engage their people. We positioned this leadership behaviour programme around our values, to reinforce the principles of value-driven leader behaviour.

In 2018, we will focus on engaging our people on ESB’s future. Our senior managers will motivate and engage their people around our strategy to lead the transition to reliable, affordable, low-carbon energy by talking about what we have always stood for and believed, and where that strong sense of purpose now takes us. We understand how critical it is for our employees to feel part of ESB’s journey and to feel committed and engaged in our future. We also know how important it is for future generations of ESB employees to want to be part of an organisation that makes a real difference. We have a proud past and an exciting future, and by bringing both together we will engage this generation of ESB people to deliver a changed energy future.

Increasingly, we are focused on ensuring inclusive and respectful workplace places where our employees can thrive. We are committed to ensuring this through employee development and engagement initiatives, and through comprehensive Health and Wellbeing initiatives to support the physical and mental wellbeing of our people.

Our strategy is built around a vision for a post-carbon world. We are committed to the highest standards of environmental management and to proactively evolving our business to address the challenges of climate change. Our innovation activities are focused on the development of new, environmentally driven products and services and in promoting energy and resource efficiency across our operations.

In addition to focusing on LTIs, ESB categorises all incidents and near misses with a particular focus on high potential incidents that could lead to more serious outcomes. In 2017, 177 high potential incidents were recorded. Although this is a high number, the rate at which these incidents are occurring is lower compared to 2016 and 2015. 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.

SAFETY

PATRICK NAUGHTON
Executive Director, Group People and Sustainability

OVERVIEW

ESB’s strategy, management and employees are committed to protecting the health and safety of employees, customers, contractors and the people it serves; their safety is always considered first in all business activities 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 the Board, sets out the overall policy and general arrangements in ensuring the health, safety and wellbeing of all employees. Functional responsibility is shared with all senior management and, in turn, with each manager, supervisor, team leader and employees. 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 96.

SAFETY PERFORMANCE IN 2017

The number of lost time injuries (LTIs) in 2017 was 63 (29 employee and 34 contractors) compared to 72 in 2016 and 58 in 2015. While the majority of these injuries were of low severity, ESB continues to focus on reducing risks in the business that give rise to injuries and incidents. The two 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.

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ESB PEOPLE STRATEGY
The capabilities and commitment of ESB’s employees helps to set ESB apart. In 2017, the ESB People Strategy continued to provide the focus and direction for many human resource initiatives and actions. The strategy is designed to support the overall ESB Strategy to 2030 (Strategy 2030) objective of delivering a high performance culture that supports innovation and collaboration. To achieve this objective the following four areas are focused on:

- Developing people
- Employee health and wellbeing
- Diversity and inclusion
- Employee engagement

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

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

Employee and Manager Development
ESB is committed to the ongoing development of its employees and managers. Developing employee and managers capability is strategically important as ESB continues to meet the opportunities and challenges of operating in complex and different business environments. People are at the core of Strategy 2030, and ESB is committed to providing opportunities for rewarding careers linked to the delivery of Strategy 2030. ESB’s Performance and Development Process is focused on building capability and a high performance culture, and provides a platform for the identification and delivery of targeted learning and development solutions. As part of our Employee Value Proposition we have developed a Career Hub for use by all employees across ESB. The Hub supports employees in identifying the skills and competencies needed across a range of functions and ensures that their career development aligns with the current and future business needs of the organisation.

Key initiatives in 2017 included:
- Continual evolution and improvement of the Management Development Framework.
- The Future Leaders programme, which equips managers to be capable and inspiring leaders, was rolled out across ESB.
- A new pan ESB Career Framework has been developed, underpinned by a new digital Career Hub.
- The Human Resource Management for Line Managers Programme, fully accredited by the Chartered Institute of Personnel and Development (CIPD) for 15 years, continues to be a highly successful manager development initiative.
- Programmes to empower Managers to engage and motivate employees in Strategy 2030 and newly articulated Values were delivered.

ESB continues to support employees and managers with coaching, continual professional development (CPD), external accreditation and external programmes in business schools in Ireland and abroad.

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

EMPLOYEE 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 as employees face it their health and personal life challenges through an occupational health medical service, an Employee Assistance Programme (EAP), an independent counselling service and an Employee Assistance Programme (EAP) officers have provided support and information via their confidential service to more than 1,000 employees during the year.

Proactive Health Programme
ESB’s proactive programmes are focused on prevention and keeping employees well by providing opportunities for them to lead healthier and more active lives. While it is recognised that stress may be an integral part of everyday life, the availability of active workplace resilience programmes are crucial to supporting employees in being psychologically strong enough to deal with these challenges while minimising the impact on their wellbeing. Some of the programmes and initiatives available to ESB employees during the year were:
- Seminars and workshops on positive mental health for teams, eating for energy, back care and financial management.
- Cardio-vascular screening which was offered to all employees.
- An Elevation Programme for the provision of local proactive initiatives by ESB Health Champions.

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

Key initiatives in 2017 included:
- Proud winners of the Chartered Institute of Personnel and Development (CIPD) Excellence in Diversity Award for ESB’s inspiring and empowering Female Talent Programme.
- Continued roll out and growth of Managing Successful Parenting Transitions Programme which aims to support all working parents and their line managers.
- Continued roll out and growth of BeMe@ESB, ESB’s lesbian, gay, bisexual and transgender (LGBT+) Employees and Allies Employee Network.
- Continuing to exceed the 3% National Disability Authority (NDA) target of employment of employees with disabilities - 4%.
- Promoting science, technology, engineering, art and maths (STREAM) career options for young females in partnership with Engineers Ireland and supported through internal and external awareness raising programmes and events.
- Celebrating diversity of cultures in the workplace with employees from over 26 different countries.
- ESB’s Joint Equality Council, which represents all Business Units and Group of Unions, reconvened and continues to raise awareness to ensure our workplaces are inclusive, where equality of opportunity exists for all and where the diversity of our people drives innovation and creative problem solving to better serve ESB’s customers.

EMPLOYEE ENGAGEMENT
ESB views employee engagement as a strategic imperative to inspire and motivate employees to be and give their best at work. ESB’s Employee Engagement Strategy focuses on these key areas, strategic narrative, integrity, employee voice and engaging managers, and these key initiatives were delivered in 2017:
- Strategic narrative – a programme to engage and connect employees with Strategy 2030 started the roll out.
- Integrity – ESB’s newly articulated core organisational Values – of being caring, courageous, trusted and driven – were developed in consultation with employees, and are resonating strongly with people.
- Employee voice – This is extremely important in ESB, and through various channels, ESB employees have the opportunity to provide their opinions and engage in conversations. ESB’s new digital workplace, the Hub, together with a renewed internal social network, has created a safe space for employees to share stories of great projects, initiatives, social activities and opinions openly. The annual Employee Survey gives every employee an opportunity to have an individual and collective voice, which helps to create a dynamic workplace that is stimulating and engaging.
- Engage managers – ESB’s managers play a central role in engaging and motivating employees and strategic programmes are being created to equip and empower Managers to do this effectively.
SUSTAINABILITY

2017 brought the publication of a new ESB strategy to 2030 (Strategy 2030), centred around ESB’s purpose to create a brighter future for the customers and communities we serve by leading the transition to reliable, affordable, low-carbon energy. ESB prepares an annual sustainability report, available from the ESB website (www.esb.ie) in line with the Global Reporting Initiative (GRI) global sustainability reporting guidelines.

UNITED NATIONS SUSTAINABLE DEVELOPMENT GOAL (SDGs)

Adopted in September 2015, the SDGs comprise 17 goals and 169 associated indicators that address the world’s most pressing socio-economic and environmental challenges and offer an opportunity to put the world on a sustainable path. Business has an important role to play in achieving the SDGs and ESB’s activities contribute in some way to each of the 17 goals. Based on the nature of ESB’s business and strategic focus, ESB have identified a number of SDGs that most closely align with ESB’s priority areas and issues of long-standing commitment;

ESB is on a pathway to deliver a low carbon generation portfolio, whilst seeking to maintain energy affordability and security of supply for customers.

As well as facilitating renewable connections, ESB’s network businesses seek to design in resilience and adaptation measures into asset design and development. ESB continues to pursue efficiency improvements in operational energy, fuel and natural resource usage. The development and launch of ‘Ireland’s Low Carbon Future - Dimensions of an Answer’ Report.

ENERGY USAGE IN 2017

The (EU Energy Efficiency) Regulations 2014 (S.I. No. 428 of 2014) requires ESB to disclose its annual energy usage and outline the initiatives being undertaken to improve energy performance. ESB monitors and reports on energy consumption against its baseline (2005 for generation, 2006 - 2008 average for business operations) and is committed to continuing the drive towards improved energy performance, including delivering a minimum 33% improvement in energy efficiency from operations by end 2020.

Generation

Electricity generation accounts for over 90% of ESB’s use of energy. In 2017, ESB consumed 36,625 GWh of fossil fuel energy in generating electricity in the Republic of Ireland (ROI) and United Kingdom (UK). Carbon emissions from generation in 2017 totalled 0.8 million tonnes (provisional pending final sign off with external verified).

Business Operations

In relation to the remaining energy use, the amount of energy used by ESB in its buildings constitutes the most significant portion, followed by that used in its fleet and in private cars in carrying out ESB’s business. The bulk of the energy used is attributable to space heating. Internal use accounted for 121.5 GWh primary energy equivalent (Pee) in non-generation activities (baseline 167 GWh).

Against the baseline consumption, ESB has delivered a 25.4% improvement in its Pee consumption. This is in line with the Government objective for the public sector of a 33% improvement in energy efficiency by 2020.

During 2017, ESB Smart Energy Services (SES) took on the role of coordinating energy management activities across the ESB property portfolio. The deployment of sub metering, the establishment of an energy management hub and process to establish an LED retrofit framework and prioritise a retrofit programme for high consuming premises are central to the continued improvement in energy performance across the portfolio. To facilitate the redevelopment of the Lower Fishtown Street premises, some 1,700 employees were relocated from 2 locations to more energy efficient premises. This temporary relocation and ultimate return to the redeveloped Fishtown offices will have a significant bearing on future energy performance.
The table below provides the locations of projects across the island of Ireland that have received funding.

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<tr>
<th>LOCATION OF CHARITIES</th>
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**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 Electric Aid Ireland Fund in July 2005. In 2014 the Electric Aid 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 2017, over €3 million was disbursed across a range of community and issues-based initiatives. The table below provides the locations of projects across the island of Ireland that have received funding.

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**Suicide Prevention**

One of the key areas of work in the past decade has been in suicide prevention and support. To reflect this, ESB has given over €6.5 million towards suicide services over the past 12 years. 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.

Suicide prevention services are in place in every ESB region, and ESB has been working with EirGrid to increase awareness of the signs of suicide and the importance of seeking support. ESB is committed to providing employees with a meaningful volunteering opportunity.

In 2017 ESB committed its support to DIT's 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. In its pilot phases, the programme will recruit 48 young people aged 16-24 from communities in Dublin’s inner city. ESB’s support will provide local youth with essential skills and knowledge they need to begin a rewarding career through an apprenticeship.

**Employee Volunteering Support**

ESB recognises that funding is only part of the story and ESB needs 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. There has been a good response to this initiative, with donations being made to a wide range of charities including Alone, COPE Foundation, Scouting Ireland, Special Olympics Ireland and St Vincent de Paul (SVP). Over 40,000 volunteered hours were recorded by employees in 2017.

**WIND FARM COMMUNITY FUND**

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

**Employee Volunteering Support**

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**INTERNATIONAL CSR**

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</table>
**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.

**OVER €500 MILLION**

**TAXES**
Annual Payments across various headings

**OVER €500 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

**130 APPRENTICES AND GRADUATES RECRUITED IN 2017**

**RETURN TO THE SHAREHOLDER**
ESB targets an annual dividend of 40% of adjusted profits after tax

**€60 MILLION FOR 2017**

**DEBT INVESTORS**
Annual interest and repayments

**€650 MILLION**

**RESIDENTIAL CUSTOMER SATISFACTION**
Developing new and innovative products and services for customers aimed at improving customer experience and empowerment

**95%**

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

**€10 MILLION OVER THE LAST DECADE**

**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.

**OVER €500 MILLION**

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**RESIDENTIAL CUSTOMER SATISFACTION**
Developing new and innovative products and services for customers aimed at improving customer experience and empowerment

**95%**
Over the past 90 years, ranging from the electrification of Ireland to the roll out of broadband, ESB has helped to maintain energy security, equity and affordability within the energy system, delivered significant dividends for the nation and enabled citizens to prosper and thrive.

ESB’s passion to serve society, our ability to deliver on our promises and the values underpinning our work have helped to build a deep well of support for ESB and drive our unique reputation as a responsible, committed and trusted leader. They have also enabled ESB to remain relevant and financially strong in an increasingly competitive energy landscape.

Today, the biggest challenge facing not just Irish citizens but humanity in general is the threat of climate change. The effects of this are already evident with increasingly extreme weather patterns, rising sea levels and human displacement. For Ireland, climate change is already impacting on society through storms, flooding, water shortages and the disruption of plants, animals and fisheries.

ESB is uniquely positioned to take action and leadership in reducing Ireland’s carbon emissions and in doing so, we have an opportunity to serve our customers better and achieve sustainable growth.
THE BOARD IN 2017

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: Seven years and three months (Two years and five months as Chairman).
Career experience: Ellvena has over 30 years’ experience in banking, most recently as Executive Management level within Ulster Bank, where she was Head of Ulster Bank in Northern Ireland (14) and Managing Director of SME Banking across the island of Ireland. Ellvena has global experience within the wider Royal Bank of Scotland (RBS) Group, having managed large-scale operations in Europe, the Middle East and Africa. Fellow of the Institute of Banking.
External appointments: Chairman of the Economic Advisory Group (EAG) in NI, President of the Northern Ireland Chamber of Commerce and Industry and Chair of the new Belfast Waterfront and Ulster Hall Ltd. Board.

PAT O’DONOHERY
Chief Executive

Appointment to the Board: January 2013 as Board member and December 2011 as Chief Executive.
Tenure: Five years as Board member.
Career experience: Holds primary and master’s degrees in engineering from University College Dublin. 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: Trustees 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: Five 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. 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) and Ordnance Survey Ireland (OSI) and Dublin Institute of Technology (DIT) and currently serves on REPAK and the National Pandemic Hospital Development Board.

DAVE BYRNE
Worker Board Member

Appointment to the Board: January 2011 under the Worker Participation (State Enterprises) Act 1977.
Tenure: Seven years.
Career experience: Member of a team that is now part of ESB’s Business Service Centre organisation and previously worked in Customer Supply (now Electric Ireland).
External appointments: President of ESB Officers Association (ESBOA) until April 2010 and then appointed as the Group of Unions’ representative in Central Partnership.

ANDREW HASTINGS
Independent Board Member

Appointment to the Board: July 2015.
Tenure: Two years and six months.
Career experience: Business Consultant and Independent Non-Executive Director 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 NL. Previously he was CEO of BNP Paribas Ireland from 2007 to 2011.
External appointments: Director of Elavon Financial Services DAC, the Dublin-based subsidiary of US Bankcorp, Pepper Finance Corporation (Ireland) DAC and a Director of Carrick Laurel Consulting Limited. Partner with AP Partners and consultant to London-based Valuation Consulting LLP. Chairman of the Independent Non-Executive Director Forum at the Banking & Payments Federation Ireland.

SEAN KELLY
Worker Board Member

Appointment to the Board: January 2011 under the Worker Participation (State Enterprises) Act 1977.
Tenure: Seven 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 University College Dublin and a higher diploma in mediation and conflict resolution from Maymoun University. He holds certificates in health and safety from University College Dublin 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 Mediators’ Institute of Ireland.

PAUL LYNAM
Independent Board Member

Appointment to the Board: October 2016
Tenure: One year and three months.
Career experience: Holds a BSc in analytical science from DCU, a postgraduate diploma in business studies from UCD and an MBA from City University, Seattle, which he completed while working in Germany. He has a total of 25 years’ experience in business and is CEO of the WH Field Clinic in Waterford, an independent private hospital. Prior to this, he spent 5 years as CEO of Siemens Limited Ireland and was also CFO of Siemens Limited 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 Kapsa Packaging.
External appointments: Served as a Director of Siemens Limited Ireland between 2008 and 2015 and is currently Director of WH-Field Clinic associated companies.

TONY MERRIMAN
Worker Board Member

Appointment to the Board: January 2007 under the Worker Participation (State Enterprises) Act 1977.
Tenure: Eleven 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 ESOP Trustee Limited and Chairman of the National Worker Directors Group.

PETER O’SULLIVAN
Worker Board Member

Appointment to the Board: January 2015 under the Worker Participation (State Enterprises) Act 1977.
Tenure: Three years.
Career experience: Joined ESB as a network technician in 1990. 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.

ALF SMIDDY
Independent Board Member

Appointment to the Board: October 2016.
Tenure: One year 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, 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.

NOREEN O’KELLY
Independent Board Member

Appointment to the Board: April 2013.
Tenure: Four 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. 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.

ANNE BUTLER
Independent Board Member

Appointment to the Board: January 2007 under the Worker Participation (State Enterprises) Act 1977.
Tenure: Eleven 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 ESOP Trustee Limited and Chairman of the National Worker Directors Group.

PETER O’SULLIVAN
Worker Board Member

Appointment to the Board: January 2015 under the Worker Participation (State Enterprises) Act 1977.
Tenure: Three years.
Career experience: Joined ESB as a network technician in 1990. 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.

NOREEN WRIGHT
Senior Independent Board Member

Appointment to the Board: June 2011.
Tenure: Six years and six months.
Career experience: Called to the Bar of NI 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 Vocation Tribunal. Director of Canmore Ireland.

KEY TO COMMITTEE MEMBERSHIP

- AUDIT AND RISK COMMITTEE
- HEALTH SAFETY AND ENVIRONMENT COMMITTEE
- MARKETING AND CORPORATE COMMITTEE
- REMUNERATION AND MANAGEMENT DEVELOPMENT COMMITTEE
- FINANCE AND INVESTMENT COMMITTEE
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), we see our duties as including responsibility for the long-term success of the Group, providing leadership and direction for the business as a whole, and supporting and challenging management to get the best outcomes for ESB and its stakeholders.

Management has the knowledge and expertise for the operational requirements of the business. It is not the role of the Board to duplicate that. However, we do challenge and support management in the light of ESB’s values and strategic direction. In our view, the best decisions are made through the light of ESB’s values and strategic direction. We do challenge and support management in the light of ESB’s values and strategic direction.

The Board is satisfied that appropriate steps have been undertaken to ensure ESB’s Irish subsidiaries are compliant with the applicable requirements of the Companies Act 2014.

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 must serve ESB by adhering to the highest standards of integrity, loyalty, fairness and confidentiality and by meeting all legal and regulatory requirements. The Code of Ethics is reviewed annually by the Board and published on the ESB intranet. Group Internal Audit investigates any reported breaches and updates the Audit and Risk Committee.

A detailed description of our governance compliance framework is set out on pages 81 to 88.

Board Effectiveness

The board continually strives to improve its effectiveness. We do this on an informal, ongoing basis by discussion amongst board members with feedback to the Chairman and Company Secretary. A formal evaluation is carried out annually and this year’s evaluation was done independently by an external evaluator. One such independently facilitated evaluation took place in early 2017 and was carried out by the Institute of Chartered Secretaries and Administrators (ICSA) Board Evaluation, which has no other connection with ESB. The purpose of the evaluation was to review the Board’s performance as a whole and identify any potential areas for improvement. The results confirmed that the board is operating effectively and a full description of the process and its results are set out on page 84.

Board and Committee Changes

There has been no changes to the Board this year as ESB has not made changes to its Board for the first time in the financial year to 31 December 2017. ESB has put in place the appropriate measures to comply with the State Code, which sets out the governance framework established by the Government for the internal management and the internal and external reporting relationships of State Bodies. ESB continuously reviews and updates its policies and procedures to ensure compliance with the State Code and report on such compliance in its annual report.

The Board’s role in monitoring the Group’s performance, responsible for 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 and experience on the Board.

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

- A broad and deep range of skills and experiences around the boardroom table
- Processes to ensure 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.

The Board is confident that all Board members are fitted for the duties and obligations successfully.

The Board is well placed to make informed decisions.
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 the Chairman, the Executive Team and individual Board members, and approves the 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 refinements of assets
- Assessment and approval of the Group governance, financial internal controls and risk management
- Residential Tariffs
- Key regulatory, legal, industrial relations, accounting and policy matters

The Board has reserved the following key responsibilities in addition to those listed above:
- Approval of ESB Group Strategy, annual budgets and annual and interim financial statements including dividends
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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 59, 96 and 97 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 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 2017

People

- Employee engagement survey results
- Group Health, Safety and Wellbeing Report
- Composition of the Board and its Committees
- Group People Strategy

Operations

- Chief Executive operations reports
- Health and safety reports
- Energy trading updates
- Plant investment overhauls programme
- Capital investment evaluations
- Performance of Novusmodus Fund
- Joint venture reports
- Regulated business updates
- Updates on ESB head office redevelopment
- ESB International consultancy controls
- ESB exams

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
- ESB Networks connections projections
- NIE Networks
- UK Strategy
- Smart Metering
- National Broadband
- Renewables including offshore wind

Governance and Risk Management

- Group Risk Appetite Statement and Group Risk Plan
- Effectiveness of risk management and internal control
- Internal audit plan for the year
- Independent Board evaluation and implementation plan
- Committees Terms of Reference
- ESB Board Code of Ethics
- Code of Practice for the Governance of State Bodies (2016) implementation report
- Effectiveness of internal control and risk management
- UK Modern Slavery Act Statement for publication on the ESB website
- Group Treasury policies
- Policy on engagement of ESB external auditors on non-audit services
- Group authority levels and Group Trading authority levels
- ESB Group’s Risk Policy and Governance Framework
- Cyber security

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

Biographical details of the Chairman, Chief Executive and Senior Independent Director can be found on pages 78 to 79.

Biographical details of the Board Members can be found on pages 78 to 79.

Biographical details of the Company Secretary can be found on page 43.

Biographical details of the Executive Team can be found on page 42 to 43.
ATTENDANCE AT MEETINGS IN 2017
There were 11 General Board meetings during 2017. The attendance by each Board member during the year is set out below.

<table>
<thead>
<tr>
<th>BOARD MEMBERS 2017</th>
<th>MEETINGS ATTENDED</th>
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<tr>
<td>Elverna Graham OBE</td>
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<tr>
<td>Anne Butler</td>
<td>11</td>
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<td>Dave Byrnes</td>
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<td>Andrew Hastings</td>
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<td>Sean Kelly</td>
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<td>Paul Lynan</td>
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<td>Tony Marrinan</td>
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<td>Noreen O’Kelly</td>
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<tr>
<td>Peter O’Sullivan</td>
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<tr>
<td>Ali Sindry</td>
<td>11</td>
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<tr>
<td>Noreen Wright</td>
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</tr>
<tr>
<td>Pat O’Deherty</td>
<td>11</td>
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In addition to the Board members and Company Secretary, a number of senior management personnel attended relevant sections of Board meetings, by invitation.

BOARD EFFECTIVENESS
The Board conducts an annual evaluation of its own performance and that of its Committees. This evaluation is undertaken in order to comply with the State Code and, as far as possible, with the UK Code. The evaluation relates to the Board’s and Committees’ collective performance and to not 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 making appointments.

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.

RECOMMENDATIONS FROM 2017 EXTERNAL BOARD EVALUATION
In 2017 the number of Board meetings will be reduced from eleven in 2017 to ten in 2018. Committee meetings are scheduled where possible to meet this recommendation.

Thac-tips and briefings are also provided to cover relevant areas to the Group. These include presentations on macro-economic, political and regulatory developments and training in corporate matters.

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.

INDEPENDENCE
The Board has determined that those Board members (details on pages 78 to 79) who were independent during 2017. The 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 that the independence of the Board members identified above.

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

Induction
An induction programme is in place to familiarise new Board members with the operations of the Group. The programme is tailored to the experiences, 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.

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 disclose 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 Board ensures that ESB’s remuneration on page 88 do not include amounts paid to the four Worker Board members as employees of ESB (as such pay is neither increased nor decreased as a result of the Board’s membership, 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 Chairman or 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.

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’s responsibilities regarding financial statements and going concern are set out on page 103.

PROCUREMENT
ESB is in compliance with all applicable procurement rules and guidelines as set out in the Utilities Directive and ESB’s Procurement Procedures.

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.

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 a defined authority limit for financial control and formal annual governance compliance statements by the management of business lines and joint ventures (JV)
- 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
- Independent 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 make it all the more important to continuously assess 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 exists in place and is regularly monitored.
- Overseeing that an appropriate risk culture is embedded throughout the Group.
- Oversight of the risk management and crisis management processes.
- Assessment of the likelihood effectiveness of management’s mitigation measures and controls.

The Board retains the overall responsibility for internal control and risk management. During 2017, the Board has directly and through the delegated authority to the Audit and Risk Committee, reviewed the effectiveness of the Group’s system of internal control covering financial, operational and compliance controls and risk management systems for 2017 and will ensure a similar review is performed in 2018.

The process used by the Board and the Audit and Risk Committee to review the effectiveness of the system of internal control includes:
- Evaluation of the principal risks and uncertainties facing the Group and the mitigating strategies are set out on pages 28 to 31.
- 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 industry 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.
- Risk appetite may also vary over time and the Board has explicitly considered the level of its appetite and any deviation from its stated appetite for risk that the Group is prepared to accept in respect of specific risks. The propensity to take risk is always balanced by a focus on exercising control.

**THE 2017 REVIEW OF THE EFFECTIVENESS OF INTERNAL CONTROL AND RISK MANAGEMENT**

The Board retains the overall responsibility for internal control and risk management. During 2017, the Board has directly and through the delegated authority to the Audit and Risk Committee, reviewed the effectiveness of the Group’s system of internal control covering financial, operational and compliance controls and risk management systems for 2017 and will ensure a similar review is performed in 2018.

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 latest review was carried out in 2015)
- Review and consideration of certification from management of satisfactory and effective operation of systems internal controls, 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 and reports from the external auditors.
- Independent assessment of the effectiveness of the internal audit function (this is carried out every five years, the last one was carried out in 2016)

The Audit and Risk Committee reviewed the key audit risks:
- A review of reports of the external auditors which contain details of work carried out on the key audit risks.

The Audit and Risk Committee reviewed the following for 2017:
- 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 Group is well placed to manage its risks successfully. After thorough consideration, the Board is satisfied that ESB has taken adequate controls to continue in operational existence for the foreseeable future. Accordingly, the Board continues to adopt the going concern basis in preparing the Group’s financial statements.
of its financial strength (page 48 to 53), progress against ESB 2030 Strategy (page 21), risk appetite (page 25), principal risks (page 28 to 37) and how these are managed.

The Board believes 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, capital funding and liquidity positions and examine future funding requirements and banking 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 testing a number of the main assumptions underlying the plan to assess key financial metrics, such as Net Debt and EBITDA. Where appropriate, this analysis is carried out to evaluate the potential impact of the Group’s principal risks actually occurring. Sensitivity analysis is focused on the economic environment, regulatory compliance and commodity prices, among others.

The Board recognises the significance of ESB’s strong balance sheet. The Group’s funding operations are of strategic importance and support capital expenditures, the refinancing of maturing debt and the maintenance of adequate liquidity. The Group’s debt management strategy targets a debt structure that is diversified in terms of maturity, funding sources and maturities. The Group’s debt management strategy targets a debt structure that is diversified in terms of maturity, funding sources and maturities. The Group’s debt management strategy targets a debt structure that is diversified in terms of maturity, funding sources and maturities. The Group’s debt management strategy targets a debt structure that is diversified in terms of maturity, funding sources and maturities. The Group’s debt management strategy targets a debt structure that is diversified in terms of maturity, funding sources and maturities. The Group’s debt management strategy targets a debt structure that is diversified in terms of maturity, funding sources and maturities. The Group’s debt management strategy targets a debt structure that is diversified in terms of maturity, funding sources and maturities.

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 20 December 2016 and was appointed a Board member in January 2017. His remuneration consists of an annual salary of €296,000, 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 2017.

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 Schemes.

REMITER

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 20 December 2016 and was appointed a Board member in January 2017. His remuneration consists of an annual salary of €296,000, 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 2017.

INDEPENDENT BOARD MEMBERS’ REMUNERATION

The remuneration of the Independent Board members (including the Chairmen) 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 2017, €67,512 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.

AUDIT AND RISK COMMITTEE REPORT

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 2017. 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, is 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 91 to 92.

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 90 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 78 and 79. 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 2018 by the Audit and Risk Committee will include the following:

- Review the Group’s preparation and impact of new accounting standards effective over the next number of years - IFRS 9 Financial Instruments (effective 1 January 2018), IFRS 15 Revenue from Contracts with Customers (effective 1 January 2018) and IFRS 16 Leases (effective 1 January 2019)
- Oversight of the external audit transition to PwC
- Monitor upcoming legislative / regulatory developments and other legal exposures
- Continued focus on cyber and emerging risks and General Data Protection Regulation (GDPR) readiness
- Continued focus on improving communications between management, the Audit and Risk Committee and the Board

CHIEF EXECUTIVE

<table>
<thead>
<tr>
<th>BOARD MEMBERS’ REMUNERATION</th>
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<tbody>
<tr>
<td>Chairmain</td>
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<tr>
<td>Noreen O’Keeley CBE</td>
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<tr>
<th>CHIEF EXECUTIVE</th>
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<tbody>
<tr>
<td>Salary</td>
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<tr>
<td>Taxable benefits</td>
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<td>Pension contributions</td>
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<tr>
<td>Total remuneration</td>
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INDEPENDENT/WORKER BOARD MEMBERS

<table>
<thead>
<tr>
<th>Name</th>
<th>2017</th>
<th>2016</th>
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<tbody>
<tr>
<td>Andy Byrne</td>
<td>€15,750</td>
<td>€15,750</td>
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<tr>
<td>Dave Byrne</td>
<td>€15,750</td>
<td>€15,750</td>
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<tr>
<td>Andrew Hastings</td>
<td>€15,750</td>
<td>€15,750</td>
</tr>
<tr>
<td>Seán Kelly</td>
<td>€15,750</td>
<td>€15,750</td>
</tr>
<tr>
<td>Pat Lyman</td>
<td>€15,750</td>
<td>€3,810</td>
</tr>
<tr>
<td>Seamus Mallon</td>
<td>€5,335</td>
<td>€5,335</td>
</tr>
<tr>
<td>Tony Quinn</td>
<td>€15,750</td>
<td>€15,750</td>
</tr>
<tr>
<td>Noreen O’Keeley</td>
<td>€15,750</td>
<td>€15,750</td>
</tr>
<tr>
<td>Peter O’Halloran</td>
<td>€15,750</td>
<td>€15,750</td>
</tr>
<tr>
<td>Alf Smiddy</td>
<td>€15,750</td>
<td>€3,810</td>
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<tr>
<td>Noreen Wright</td>
<td>€15,750</td>
<td>€15,750</td>
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<tr>
<td>Michael O’Flaherty</td>
<td>€15,750</td>
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<tr>
<th>MEMBERS’ DESIGNATION LENGTH OF SERVICE MEETINGS ATTENDED</th>
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<tbody>
<tr>
<td>Noreen O’Keeley, Chairman</td>
</tr>
<tr>
<td>Andrew Hastings</td>
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<tr>
<td>Alf Smiddy</td>
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<tr>
<td>Noreen Wright</td>
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</tbody>
</table>

1 Fellow of Chartered Accountants Ireland
2 Energy sector experience through previous roles in Northern Ireland Electricity Networks (NIE Networks)
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

ACTIVITIES CARRIED OUT IN 2017

Financial Reporting
- 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
- Reviewed the interim results which consist of financial statements and explanatory notes
- Reviewed and considered the key messages for the financial result publications
- Reviewed and approved the ESB regulatory financial statements
- 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 and recommended final and interim dividend to the Board

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, Risk Appetite and regular Risk Reports and recommended them to the Board for approval
- Considered deep dives for cyber security and reviewed digital capability in Electric Ireland
- Considered external review of ESB IT Security
- Reviewed update on the implementation of the 2016 Code of Practice for the Governance of State Bodies (the State Code)

Compliance, Whistle-Blowing and Fraud
- Reviewed 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 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
- Considered ESB Code of Ethics
- Approved the statement on the UK Modern Slavery Act
- Received an update on GDPR in advance of implementation in 2018

Internal Audit
- 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 (76% of recommendations implemented within the recommended time)
- Met with the Head of Internal Audit without management being present
- Reviewed internal audit key performance indicators
- Approved revised internal audit charter
- Overseen the transition to PwC as external auditors and the process undertaken to ensure they are independent
- Received an update from PwC on audit transition, engagement and interim review plans
- 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 approved a revised policy on the engagement of the external auditors for non-audit services in line with the EU Audit Regulation and Directive and received a briefing on non-audit services to ensure compliance with policy
- Met with the external auditors without management being present, giving PwC the opportunity to raise any matters in confidence

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 21 to the financial statements. This treatment is based on the following key factors, none of which changed for the year ended 31 December 2017:

- 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 €651 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.

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 €276 million with respect to generation assets was necessary following this review. Further details (including details on the assumptions used) are in Note 4 and Note 10 of the financial statements.

Networks Transmission and Distribution Long-Lived Assets

As at 31 December 2017, there were no indicators of impairment of the carrying value of the asset base of ESB Networks (€7.7 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 2017, there were no indicators of impairment of the carrying value of NIE Networks business as at 31 December 2017 amounted to €171 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 further in note 12 to the financial statements.

FINANCIAL REPORTING

The Audit and Risk Committee 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
- Asset Retirement Provision

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

The Audit and Risk Committee recognizes 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 satisfied with the impairment review approach, key assumptions used and that the exceptional impairment charge of €276 million for generation assets is appropriate.

The accounting for the obligations to be reflected in the financial statements requires the exercise of judgement. The Audit and Risk Committee remains 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.
The above description of significant issues considered should be read in conjunction with the Independent Auditors’ Report on pages 104 to 110 and the statement of accounting policies disclosed in note 1 of the financial statements on page 119.

The Audit and Risk Committee recognises that the inherent complexities around the accounting for derivatives and hedging arrangements and that a significant level of judgement is required in assessing the appropriate accounting treatment. 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 this work, the Audit and Risk Committee is satisfied that the valuation of and accounting treatment for derivatives is appropriate.

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 Audit and Risk Committee recognises that the assessment of the level of potential provision for asset retirement involves a range of judgemental decisions.

To assist with their decision on the level of provision 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 assumptions applied in determining the level of provision, interpretation of legal obligations and events during the year
- Considered the detailed reporting from, and findings of the external auditors

Following the review above, the Audit and Risk Committee is satisfied that the provision of €261 million is appropriate to cover these obligations.

The Audit and Risk Committee considers the reappointment of the external auditors every five years and this process is subject to public tender. The Audit and Risk Committee oversees the relationship with the external auditors including the selection process for the audit tender.

The lead time from appointment provided a smooth handover process from KPMG, the previous external auditors and allowed PwC to shadow KPMG through areas of the 2016 year-end process, giving them a good understanding of the business. The Audit and Risk Committee monitored the transition process and is satisfied that a robust, independent audit was carried out.

PwC undertook a thorough induction process to enhance their understanding of the Group and this included the following:

- Meetings with the Executive Team and senior management across the Group, to understand the processes and controls in place for all business units
- Review of the files of KPMG, the previous external auditors
- A walkthrough of all key processes
- A review of all key documents
- Attendance at the Audit and Risk Committee meetings since December 2016

PwC provided an update to the Audit and Risk Committee on the ongoing transition in July 2017.

Audit Quality

To maintain audit quality and provide comfort 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 2018.

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 91 to 92.

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 reappointment 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.

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.

However as PwC are in the first year of their appointment as external auditors to ESB following their appointment in 2016, the review of the effectiveness of the external audit process is developing. A detailed review of all the key areas of the audit process was carried out to ensure any year one audit learnings are implemented and the overall efficiency and effectiveness of the statutory audit process is developed further in 2018. Any areas identified for development will be shared with PwC for consideration in their future audit plans, as appropriate.

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 paid by ESB to its external auditors in respect of non-audit services in any financial year, excluding permitted non-audit services, 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 9 to 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 professional tax advice. PwC also provided administrative assistance directly to the ESOP in relation to the ESOP process.

The Audit and Risk Committee is satisfied that the fees paid in 2017 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.

On behalf of the Audit and Risk Committee

Noreen O’Kelly,
Chairman,
Audit and Risk Committee
1 March 2018
THE BOARD COMMITTEES IN 2017

HEALTH, SAFETY AND ENVIRONMENT COMMITTEE

Committee Meetings
The Committee held 5 meetings during 2017. The members of the Committee, length of service and the number of meetings attended are set out below:

<table>
<thead>
<tr>
<th>MEMBERS</th>
<th>DESIGNATION</th>
<th>LENGTH OF SERVICE</th>
<th>MEETINGS ATTENDED</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anne Butler, (Chairman from January 2017)</td>
<td>Independent Board Member</td>
<td>2 years and 3 months</td>
<td>5</td>
</tr>
<tr>
<td>Paul Lyman, (from January 2017)</td>
<td>Independent Board Member</td>
<td>1 year</td>
<td>5</td>
</tr>
<tr>
<td>Pat O’Driscoll</td>
<td>Chief Executive</td>
<td>6 years and 1 month</td>
<td>5</td>
</tr>
<tr>
<td>Peter O’Sullivan</td>
<td>Worker Board Member</td>
<td>2 years and 3 months</td>
<td>5</td>
</tr>
</tbody>
</table>

KEY ACTIVITIES OF THE HEALTH, SAFETY AND ENVIRONMENT COMMITTEE IN 2017

Duty: Monitor the development of health, safety and environmental strategy and translation of the strategy into policies and programmes
Activity: Reviewed and considered:
- Group safety KPIs
- The ESB Networks Safety Programme
- The G&PWM Safety Programme
- The Energy Efficiency Audit Programme
- The 2016 Annual Sustainability Report
- Reviewed and considered:
  - Key safety risk updates including lost time injuries, high potential incidents, near-misses and good catches
  - Reviewed and consider reports on compliance with all applicable health, safety and environmental legislation
  - Reports on incidents / non-compliance
  - Prosecution by Environmental Protection Agency (EPA)
  - Annual environment reports from stations to EPA
  - Environment law developments and challenges
  - Annual Fisheries Report

Support the Board in carrying out Board responsibilities in ensuring that health, safety and environmental risks are properly identified, assessed, reported and controlled.
Activity: Considered the risks in the following areas:
- Road Safety
- Electrical Safety
- Health and Wellbeing
- Contractor Safety
- Workplace Safety
- Public Safety

FINANCE AND INVESTMENT COMMITTEE

Committee Meetings
The Committee held 10 meetings during 2017. The members of the Committee, length of service and the number of meetings attended are set out below:

<table>
<thead>
<tr>
<th>MEMBERS</th>
<th>DESIGNATION</th>
<th>LENGTH OF SERVICE</th>
<th>MEETINGS ATTENDED</th>
</tr>
</thead>
<tbody>
<tr>
<td>Andrew Hastings, (Chairman from January 2017)</td>
<td>Independent Board Member</td>
<td>2 years and 3 months</td>
<td>10</td>
</tr>
<tr>
<td>Dave Byrne</td>
<td>Worker Board Member</td>
<td>2 years and 3 months</td>
<td>10</td>
</tr>
<tr>
<td>Elvena Graham OBE (up to January 2017)</td>
<td>Chairman</td>
<td>3 years and 9 months</td>
<td>11</td>
</tr>
<tr>
<td>Seán Kelly</td>
<td>Worker Board Member</td>
<td>2 years and 3 months</td>
<td>8</td>
</tr>
<tr>
<td>Paul Lyman, (from January 2017)</td>
<td>Independent Board Member</td>
<td>1 year</td>
<td>10</td>
</tr>
<tr>
<td>Pat O’Driscoll</td>
<td>Chief Executive</td>
<td>4 years and 9 months</td>
<td>10</td>
</tr>
<tr>
<td>Noreen O’Keeley</td>
<td>Independent Board Member</td>
<td>2 years and 3 months</td>
<td>10</td>
</tr>
</tbody>
</table>

KEY ACTIVITIES OF THE FINANCE AND INVESTMENT COMMITTEE IN 2017

Duty: Review and recommend to the Board (where applicable):
- 2018 Budget and the five-year business plan
- Quarterly financial and capital expenditure reports
- Quarterly loans, swaps and bonds report
- Examined major business proposals for investment and capital expenditure
- Reviewed and recommended to the Board (where applicable):
  - Renewals investments
  - Integrated Single Electricity Market (I-SEM) programme expenditure
  - Participation in the I-SEM capacity auction
  - ESB Head Office Project – business case and capital expenditure
  - Generation assets investment and overhaul programme 2018-2020
  - Report on Consultancy services
  - Exams programme operation update
  - Nuamodus Fund performance

MARKETING AND CUSTOMER COMMITTEE

Committee Meetings
The Marketing and Customer Committee was established in January 2017. The Committee held 3 meetings during 2017. The members of the Committee, length of service and the number of meetings attended are set out below:

<table>
<thead>
<tr>
<th>MEMBERS</th>
<th>DESIGNATION</th>
<th>LENGTH OF SERVICE</th>
<th>MEETINGS ATTENDED</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alf Smiddy, (Chairman from January 2017)</td>
<td>Independent Board Member</td>
<td>1 year</td>
<td>3</td>
</tr>
<tr>
<td>Anne Butler, (from January 2017)</td>
<td>Independent Board Member</td>
<td>1 year</td>
<td>3</td>
</tr>
<tr>
<td>Tony Merriman</td>
<td>Worker Board Member</td>
<td>1 year</td>
<td>2</td>
</tr>
<tr>
<td>Pat O’Driscoll, (from January 2017)</td>
<td>Chief Executive</td>
<td>1 year</td>
<td>2</td>
</tr>
</tbody>
</table>

KEY ACTIVITIES OF THE MARKETING AND CUSTOMER COMMITTEE IN 2017

Duty: Review and consider marketing and customer initiatives and programmes and ensure they are aligned with ESB’s strategic objectives
Activity: Reviewed and considered:
- ESB Networks customer update
- Electric Ireland customer update
- The launch of the ESB Network Customer Services Improvement Plan
- Received an update on:
  - The G&B market entry
  - Smart Home Launch
  - Reviewed and considered:
  - ESB Networks public safety campaign

REMUNERATION AND MANAGEMENT DEVELOPMENT COMMITTEE

Committee Meetings
The Committee held 4 meetings during 2017. The members of the Committee, length of service and the number of meetings attended are set out below:

<table>
<thead>
<tr>
<th>MEMBERS</th>
<th>DESIGNATION</th>
<th>LENGTH OF SERVICE</th>
<th>MEETINGS ATTENDED</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elvena Graham OBE</td>
<td>Chairman</td>
<td>6 years</td>
<td>4</td>
</tr>
<tr>
<td>Andrew Hastings</td>
<td>Independent Board Member</td>
<td>2 years and 3 months</td>
<td>4</td>
</tr>
<tr>
<td>Noreen Wright</td>
<td>Independent Board Member</td>
<td>6 years</td>
<td>4</td>
</tr>
</tbody>
</table>

KEY ACTIVITIES OF THE REMUNERATION AND MANAGEMENT DEVELOPMENT COMMITTEE IN 2017

Duty: Review and consider proposals in respect of:
- The Remuneration and Management Development Committee’s responsibilities are set out in its Terms of Reference.
- Keep under review senior management succession and development plans
- Agree with the Chief Executive has specific annual performance targets
- Determine the remuneration packages for ESB’s Executive Team
- Renewed performance against 2018 targets
- Set 2017 targets
- Review and approve remuneration packages for the Executive Team

Each Board Committee has its Terms of Reference reviewed and approved by the Board annually. These are available upon request from the Company Secretary. 1. The Board Chairman is a member of one committee - The Remuneration and Management Development Committee - but regularly attends meetings of the Finance and Investments Committee and the Audit and Risk Committee.
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 2017, 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 pages 54 to 63, the Financial Review pages 48 to 53 and the Risk Report pages 24 to 37.

RESULTS AND DIVIDEND FOR THE YEAR
The financial results of the Group show a profit after tax before exceptional items of €276 million for the year ended 31 December 2017, compared with a profit of €186 million for 2016. Loss after tax and exceptional items is €32 million (2016: profit of €186 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 (8% in 2018). An interim dividend for 2017 of €55.4 million (2.80 cent per unit of stock) was declared and paid in November, 2017. The Board is now recommending a final dividend for 2017 of 0.23 cent per unit of stock, or €4.6 million which brings the total dividends for 2017 to €60 million. This would bring the total dividends paid over the past decade to over €1.4 billion.

SHARE CAPITAL
An Employee Share Ownership Plan (ESOP) market liquidity plan 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. ESOP agreed to match the expenditure committed by the ESOP Trustees in the period 2014–2018. Acquisition of the capital stock by ESOP commenced in September 2017 with €5.6 million being spent and the acquired stock being cancelled. Further details are outlined in notes 17 and 30. Details of the Group’s share capital are outlined in note 17 to the financial statements.

FUTURE DEVELOPMENTS
ESB is a strongly 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 28 to 37.

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 26 to 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 there were no protected disclosures made during the full year ending 31 December 2017.

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 2017.

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 sordid, 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 first such statement was published by ESB on 27 April 2017.

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 66 to 75 and is described in more detail in the independently verified annual sustainability report, which is available on the Group’s website.

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 33 to 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 28 to 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 63.

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 COMMITTEE
ESB has an Audit Committee, the members of which are set out on page 89.

AUDITORS
It is expected that the appointment of PwC as ESB’s auditors for the 2018 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 2017 and (ii) to appoint PwC as auditors for the 2018 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 2017 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, is fair, balanced and understandable.
Strategy 2030 is anchored in our ambition to create a brighter future by leading the transition to reliable, affordable, low-carbon energy. It sets out a path to achieve our ambition in a way that will also ensure ESB continues to grow as a successful business and maintains the financial strength to invest in a low-carbon future at the necessary pace and scale. It also recognises the potential for new business growth arising from the transition.

The Strategy highlights the importance of being adaptive, responsible 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.

We are investing in exciting energy solutions that harness the power of solar, wind, wave and storage to provide a cleaner future. This, in turn, allows customers to take control of their energy in a way that was never possible before, enabling them to turn from user to producer.
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, Energy and Natural Resources 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 Act 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 the 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 2017 and of the Group for the year then ended 31 December 2017;
- 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

Ellenwa Graham OBE, Chairman

Pat O’Doherty, Chief Executive
INDEPENDENT AUDITOR’S REPORT TO STOCKHOLDERS OF ELECTRICITY SUPPLY BOARD (ESB)

REPORT ON THE AUDIT OF THE FINANCIAL STATEMENTS

OPINION
In our opinion, ESB’s Group 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 2017 and of the Group’s loss and the Parent’s profit 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 2017;
- 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.

BASES 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 ISA(Ireland)’s Ethical Standard and we have fulfilled our other ethical responsibilities in accordance with those requirements.

OUR AUDIT APPROACH

Materiality
- €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.

- €13 million - Parent financial statements

Based on materially applied to the Group financial statements and the level of trading activity in the Parent, we considered it appropriate to apply Group materiality of €13 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 95% 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
- Completeness and valuation of asset retirement obligations
- Revenue recognition – unbilled Electric Ireland revenues

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 Power Generation Assets where there was a risk of impairment based on our consideration of the net book value of the individual assets and the discounted cash flow forecasts, including consideration of the assumptions within the forecasts, and on those Power Generation Assets where management had identified and recorded an impairment based on the impairment test performed.

We evaluated management’s assessment of those Power 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 preparation of budgets and forecasts for Power Generation Assets include: the energy margins, future fuel prices, expected plant running (load factors), discount rates and inflation and plant closure dates.

For Power 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 in 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 assumptions in the context of available internal data, including historical data and budget information.

For the NIE Networks Assets, we obtained an understanding of the key assumptions made in the impairment model and compared the underlying cash flows to the latest Board approved budgets. For cash flow assumptions for the period until March 2024, being the period covered by the most recent regulatory price review, we compared these to the Price Determination issued by the Utility Regulator For the subsequent period, we understood and challenged management’s assumptions around inflation rates, capital expenditure budgets and the allowed return of the Regulated Asset Base (RAB) by reference to available external data and the most recent regulatory price review. We understood and challenged management’s determination of the terminal value and, in particular, the expected premium on the terminal RAB in the context of available external data.

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 THE STOCKHOLDERS OF ELECTRICITY SUPPLY BOARD (ESB) (continued)

Key audit matter: Completeness and valuation of asset retirement obligations

Valuation of financial instruments and hedge designation

Refer to page 92 (Report of the Audit & Risk Committee), note 1 (xxii) (Statement of Accounting Policies) and note 20 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 cashflow hedges with the effective part of any gain or loss being recognised directly in other comprehensive income. The hedging rules under IAS 39 are complex and the documentation and testing requirements are onerous.

The valuation of the derivative financial instruments can require significant judgement. In particular, 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 derivative financial instruments held and because a change in the hedge designation or the inputs to the valuation could have a material impact on the Group’s income statement.

Completeness of pension obligations

Refer to page 91 (Report of the Audit & Risk Committee), note 1 (xxxi) (Statement of Accounting Policies) and note 21 to the financial statements

As set out in Note 21 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 are limited to the amounts provided for in the Scheme Rules, namely, ESB’s obligations in respect of contributions payable by it to the ESB Defined Benefit Scheme stipulate the benefits that are to be provided to scheme members.

As set out in Note 21 to the financial statements, the regulations governing the ‘ESB Defined Benefit Scheme’ stipulate the benefits that are to be provided to scheme members. ESB has informed us that the Defined Benefit Pension Scheme is not a defined contribution scheme and as such ESB has obligations in respect of the retirement and decommissioning of assets.

We evaluated the appropriateness of provisions held at 31 December 2017, in respect of station closure costs, by reference to the external and internal expert reports commissioned by management in respect of power station closures. We assessed the competence, capability and objectivity of those external experts. We also considered the expertise and experience of internal experts. We challenged the assumptions made in respect of the timing of station closures by reference to the underlying asset lives, budgets and forecasts.

We assessed the estimates of asset retirement costs in respect of network assets including considering the quantum and nature of costs by critically assessing management’s cost estimates in this regard including considering current procurement activity. We assessed management’s determination of and the timing of the expected cash outflows for network assets by reference to their useful lives and the ageing of the relevant assets.

We challenged the inflation rates and discount rates used by recalculating an acceptable range using observable inputs from independent external sources.

We also considered the disclosures in the financial statements in relation to these matters. The Group describes the asset retirement obligations in detail in Note 25.

We concluded that the assumptions and methodologies adopted by management to calculate the fair value of financial instruments were reasonable.
Based on our professional judgement, we determined materiality for the financial statements as a whole as follows:

- **Overall materiality**: €13 million.
- **How we determined materiality**: c. 5% of profit before tax and exceptional items.

**Rationale for benchmark applied**

We considered that profit before tax and exceptional items is an appropriate benchmark as the Group is profit-oriented and the exceptional items are significant non-recurring items which are not reflective of the Group’s trading activity.

Based on methodology applied to the Group financial statements and the level of trading activity in the Parent, we considered it appropriate to apply Group materiality of €13 million to the audit of the Parent financial statements.

We agreed with the Audit & Risk Committee that we would report to them misstatements identified during our audit above €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:

<table>
<thead>
<tr>
<th>Reporting obligation</th>
<th>Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>We are required to report if we have anything material to add or draw attention 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 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.</td>
<td>We have nothing material to add or 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.</td>
</tr>
</tbody>
</table>

We have nothing material to add or 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.
## GROUP INCOME STATEMENT

For the year ended 31 December 2017

<table>
<thead>
<tr>
<th></th>
<th>Excluding exceptional items</th>
<th>€ '000</th>
<th>Exceptional items note 4</th>
<th>€ '000</th>
<th>Total</th>
<th>€ '000</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Revenue</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>3,229,022</td>
<td></td>
<td>3,229,022</td>
<td></td>
<td>3,211,751</td>
</tr>
<tr>
<td><strong>Other operating income</strong></td>
<td></td>
<td>32,560</td>
<td></td>
<td>32,560</td>
<td></td>
<td>35,524</td>
</tr>
<tr>
<td><strong>Operating costs</strong></td>
<td></td>
<td>(2,772,019)</td>
<td>(275,579)</td>
<td>(3,047,598)</td>
<td></td>
<td>(2,649,949)</td>
</tr>
<tr>
<td><strong>Operating profit</strong></td>
<td></td>
<td>489,563</td>
<td></td>
<td>275,579</td>
<td>213,984</td>
<td>597,326</td>
</tr>
<tr>
<td><strong>Net interest on borrowings</strong></td>
<td></td>
<td>(188,102)</td>
<td></td>
<td></td>
<td></td>
<td>(170,487)</td>
</tr>
<tr>
<td><strong>Financing charges</strong></td>
<td></td>
<td>(36,823)</td>
<td></td>
<td></td>
<td></td>
<td>(36,823)</td>
</tr>
<tr>
<td><strong>Share of equity accounted investees loss, net of tax</strong></td>
<td></td>
<td>(8,293)</td>
<td></td>
<td></td>
<td></td>
<td>(15,257)</td>
</tr>
<tr>
<td><strong>Profit / (loss) before tax</strong></td>
<td></td>
<td>265,647</td>
<td></td>
<td>(9,032)</td>
<td>256,615</td>
<td>193,645</td>
</tr>
<tr>
<td><strong>Income tax (expense) / credit</strong></td>
<td></td>
<td>(56,673)</td>
<td></td>
<td>(34,695)</td>
<td>(21,978)</td>
<td>(7,454)</td>
</tr>
<tr>
<td><strong>Profit / (loss) after tax</strong></td>
<td></td>
<td>208,974</td>
<td></td>
<td>(240,848)</td>
<td>(31,910)</td>
<td>186,191</td>
</tr>
</tbody>
</table>

### Notes

1. To 33 form an integral part of these financial statements.
GROUP STATEMENT OF COMPREHENSIVE INCOME

For the year ended 31 December 2017

<table>
<thead>
<tr>
<th>2017</th>
<th>2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>€’000</td>
<td>€’000</td>
</tr>
</tbody>
</table>

(Loss) / profit for the financial year

31,910 186,191

Items that will not be reclassified subsequently to profit or loss:

NE Networks pension scheme actuarial gains / (losses)

9,347 66,520

Tax on items that will not be reclassified to profit or loss

(1,689) 9,899

7,658 56,681

Items that are or may be reclassified subsequently to profit or loss:

Effective hedge of a net investment in foreign subsidiary

413 3,004

Translation differences on consolidation of foreign subsidiaries

(3,735) (48,318)

Fair value losses on cash flow hedges in equity accounted investees

35 35

(61,063) 160,173

Other comprehensive expense for the financial year, net of tax

158,516 158,516

Total comprehensive expense for the financial year, net of tax

92,073 158,516

Attributable to:

Equity holders of the Parent

(92,036) 160,173

Non-controlling interest (NCI)

(37) (1,667)

Total comprehensive expense / income for the financial year

(92,073) 158,516

GROUP BALANCE SHEET

As at 31 December 2017

<table>
<thead>
<tr>
<th>2017</th>
<th>2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>€’000</td>
<td>€’000</td>
</tr>
</tbody>
</table>

ASSETS

Non-current assets

Property, plant and equipment

10 10,049,880 10,438,562

Intangible assets

11 275,652 273,221

Goodwill

17 177,242 177,242

Investments in equity accounted investees

13 68,334 80,990

Financial asset investments

13 22,165 56,550

Trade and other receivables

15 74,856 69,995

Derivative financial instruments

20 85,077 183,999

Deferred tax assets

18 179,860 203,714

Total non-current assets

10,800,843 11,081,252

Current assets

Inventories

14 121,985 73,172

Derivative financial instruments

20 117,367 203,192

Current tax asset

12 5,165 15,334

Trade and other receivables

15 783,961 770,081

Cash and cash equivalents

16 380,405 382,624

Total current assets

1,412,393 1,520,207

Total assets

12,293,766 12,906,655

EQUITY

Capital stock

17 1,975,182 1,979,882

Capital redemption reserve

4,700 4,069

Translation reserve

18 6,062 124,119

Other reserves

(242,064) (220,922)

Retained earnings

1,917,619 2,037,459

Total equity

3,712,519 3,923,669

Non-current liabilities

Borrowings and other debt

19 4,389,705 4,556,113

Liability – ESB pension scheme

20 100,190 97,938

Liability – NE Networks pension scheme

21 143,056 170,543

Employee related liabilities

22 46,107 78,336

Deferred income

24 486,975 486,531

Provisions

25 306,525 237,153

Deferred tax liabilities

18 677,853 709,442

Derivative financial instruments

20 637,825 753,968

Total non-current liabilities

6,741,238 7,046,454

Current liabilities

Borrowings and other debt

19 388,073 489,330

Liability – ESB pension scheme

20 294,130 154,504

Employee related liabilities

22 65,811 64,305

Trade and other payables

23 797,822 835,018

Deferred income

24 49,142 50,021

Provisions

25 104,843 84,822

Current tax liabilities

17 750 750

Derivative financial instruments

20 136,528 90,786

Total current liabilities

7,800,011 8,204,056

Total liabilities

8,561,247 8,682,500

Total equity and liabilities

12,293,766 12,906,655

Ellivena Graham, Chairman

Pat O’Doherty, Chief Executive

Pat Fenlon, Executive Director, Group Finance and Commercial
## PARENT BALANCE SHEET

As at 31 December 2017

<table>
<thead>
<tr>
<th>Notes</th>
<th>2017</th>
<th>2016</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ASSETS</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-current assets</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Property, plant and equipment</td>
<td>10</td>
<td>6,826,015</td>
</tr>
<tr>
<td>Intangible assets</td>
<td>11</td>
<td>219,559</td>
</tr>
<tr>
<td>Investments in equity accounted investee</td>
<td>13</td>
<td>100,000</td>
</tr>
<tr>
<td>Investments in subsidiaries</td>
<td>13</td>
<td>61,782</td>
</tr>
<tr>
<td>Derivative financial instruments</td>
<td>20</td>
<td>29,604</td>
</tr>
<tr>
<td>Deferred tax assets</td>
<td>18</td>
<td>74,574</td>
</tr>
<tr>
<td><strong>Total non-current assets</strong></td>
<td></td>
<td>8,731,634</td>
</tr>
<tr>
<td>Current assets</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inventories</td>
<td>14</td>
<td>76,864</td>
</tr>
<tr>
<td>Derivative financial instruments</td>
<td>20</td>
<td>55,054</td>
</tr>
<tr>
<td>Current tax asset</td>
<td></td>
<td>9,362</td>
</tr>
<tr>
<td>Trade and other receivables</td>
<td>15</td>
<td>2,666,001</td>
</tr>
<tr>
<td>Cash and cash equivalents</td>
<td>15</td>
<td>206,499</td>
</tr>
<tr>
<td><strong>Total current assets</strong></td>
<td></td>
<td>3,015,420</td>
</tr>
<tr>
<td><strong>Total assets</strong></td>
<td></td>
<td>10,330,954</td>
</tr>
</tbody>
</table>

| EQUITY | | |
| Capital stock | 17 | 1,975,182 | 1,979,882 |
| Capital redemption reserve | | 4,700 | 4,700 |
| Cash flow hedging and other reserves | 13 | (11,954) | 28,999 |
| Retained earnings | | 1,387,519 | 1,774,247 |
| **Total equity** | | 3,365,447 | 3,783,108 |

**LIABILITIES**

| Non-current liabilities | | |
| Borrowings and other debt | 19 | 1,160,208 | 1,403,367 |
| Liability – ESOP pension scheme | 22 | 100,190 | 370,308 |
| Employee related liabilities | 22 | 45,936 | 78,917 |
| Deferred income | 24 | 433,892 | 468,556 |
| Provisions | 25 | 267,787 | 222,334 |
| Deferred tax liabilities | 25 | 444,160 | 469,373 |
| Derivative financial instruments | 20 | 40,757 | 21,033 |
| **Total non-current liabilities** | | 2,492,930 | 2,638,065 |

| Current liabilities | | |
| Borrowings and other debt | 19 | 170,270 | 132,658 |
| Liability – ESOP pension scheme | 22 | 294,150 | 154,504 |
| Employee related liabilities | 22 | 54,759 | 56,035 |
| Trade and other payables | 23 | 3,798,315 | 3,783,105 |
| Deferred income | 24 | 35,719 | 33,108 |
| Provisions | 25 | 79,394 | 66,540 |
| Derivative financial instruments | 20 | 38,880 | 65,129 |
| **Total current liabilities** | | 4,472,577 | 4,277,420 |

| **Total liabilities** | | 6,965,507 | 7,335,497 |
| **Total equity and liabilities** | | 10,330,954 | 11,118,605 |

Parent profit after tax excluding exceptional items for the financial year ended 31 December 2017 amounted to €302.5 million (2016 profit of €235.6 million). Parent loss after tax including exceptional items for the financial year ended 31 December 2017 amounted to (€261.1) million (2016 profit of €235.6 million).

Ellvena Graham, Chairman

Pat O’Doherty, Chief Executive

Pat Fenton, Executive Director, Group Finance and Commercial

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## GROUP STATEMENT OF CHANGES IN EQUITY

As at 31 December 2017

<table>
<thead>
<tr>
<th>Capital stock</th>
<th>Translation reserve</th>
<th>Capital redemption reserve</th>
<th>Cash flow hedging reserve</th>
<th>Other reserves</th>
<th>Retained earnings</th>
<th>Non-controlling interest</th>
<th>Total</th>
<th>Total</th>
<th>€ '000</th>
<th>€ '000</th>
<th>€ '000</th>
<th>€ '000</th>
<th>€ '000</th>
</tr>
</thead>
<tbody>
<tr>
<td>1979,882</td>
<td>51,378</td>
<td>-</td>
<td>49,799</td>
<td>(151,008)</td>
<td>1,920,058</td>
<td>(187,848)</td>
<td>1,781,670</td>
<td>(185,519)</td>
<td>3,906,517</td>
<td>1,874,083</td>
<td>(3,531)</td>
<td>3,923,669</td>
<td></td>
</tr>
</tbody>
</table>

**Total comprehensive income / (expense) for the year**

Profit for the financial year | 197,848 | 187,848 | (1,657) | 185,191 |

NE Networks pension scheme actuarial losses | - | - | - | - |

Reserve on acquisition of Synergen Power Ltd. | - | - | - | - |

Translation differences net of hedging | (45,314) | (45,314) | - | - |

Cash flow hedges:

- Net fair value gains | - | - | - | - |

- Transfers to income statement:
  - Finance cost (interest) | 0.074 | 0.074 | - | - |
  - Finance cost (foreign translation movements) | - | - | - | - |

- Other operating expenses | - | - | - | - |

- Fair value losses for hedges in equity accounted investments | - | - | - | - |

Tax on items taken directly to statement of comprehensive income (OCI) | - | - | - | - |

Tax on items transferred to income statement | - | - | - | - |

Tax on items taken directly to OCI for equity accounted investments | - | - | - | - |

Total comprehensive income / (expense) for the year | (45,314) | (45,314) | - | - |

Transactions with owners recognised directly in equity

Dividends | - | - | - | - |

Repurchase of own shares | (4,700) | - | 4,700 | - |

Profit for the financial year | 187,848 | 187,848 | (1,657) | 185,191 |

Equity attributable to equity holders of the Parent | 3,365,447 | 3,783,108 | (1,657) | 3,777,451 |


during 2017 the ESOP provision was increased by €2.4 million and this was recognised in other reserves. ESB also commenced the repurchase of the ESOP shares for a consideration of €5.6 million resulting in a net movement of €3.2 million in other reserves.

**Notes**

1 Other reserves comprise of (i) a nil reserve (2016: €392.2 million) which arose following the acquisition of the remaining 30% of Synergen Power Limited in 2009 which was transferred to retained earnings during the year; (ii) other reserves relating to the Northern Ireland Electricity Networks Limited (NE Networks) pension scheme of (€228.6) million; (iii) a non-distributable reserve of (€5.0) million which was created on the acquisition of Synergen Power Limited in 2009 which was transferred to retained earnings during the year; (iv) an ESOP repurchase provision which relates to the amount that ESB has committed to date to purchase from the ESOP internal market (€15.9) million (2016: (€19.1) million). Refer to note 17 for further details on other reserves

2 During 2017 the ESOP provision was increased by €2.4 million and this was recognised in other reserves. ESB also commenced the repurchase of the ESOP shares for a consideration of €5.6 million resulting in a net movement of €3.2 million in other reserves.
## PARENT STATEMENT OF CHANGES IN EQUITY

As at 31 December 2017

<table>
<thead>
<tr>
<th>Reconciliation of changes in equity</th>
<th>Capital stock</th>
<th>Capital redemption reserve(a)</th>
<th>Cash flow hedging and other reserves</th>
<th>Retained earnings</th>
<th>Total €’000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Balance at 1 January 2016</td>
<td>1,979,882</td>
<td>- (35,883)</td>
<td>1,025,100</td>
<td>3,569,099</td>
<td></td>
</tr>
<tr>
<td>Total comprehensive income / (expense) for the year</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Profit for the financial year</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cash flow hedges:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Net fair value gains</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Transfers to income statement</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Finance cost (interest)</td>
<td></td>
<td>(3,845)</td>
<td>(3,845)</td>
<td>(3,845)</td>
<td></td>
</tr>
<tr>
<td>- Finance cost (foreign translation movements)</td>
<td></td>
<td>(10,414)</td>
<td>(10,414)</td>
<td>(10,414)</td>
<td></td>
</tr>
<tr>
<td>- Other operating expenses</td>
<td></td>
<td>(28,304)</td>
<td>(28,304)</td>
<td>(28,304)</td>
<td></td>
</tr>
<tr>
<td>Tax on items taken directly to statement of comprehensive income (OCI)</td>
<td></td>
<td>(8,588)</td>
<td>(8,588)</td>
<td>(8,588)</td>
<td></td>
</tr>
<tr>
<td>Tax on items transferred to income statement</td>
<td></td>
<td>(1,693)</td>
<td>(1,693)</td>
<td>(1,693)</td>
<td></td>
</tr>
<tr>
<td>Total comprehensive income / (expense) for the year</td>
<td>712,424</td>
<td>235,657</td>
<td>307,499</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transactions with owners recognised directly in equity</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dividends</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ESOP repurchase provision(b)</td>
<td></td>
<td>(7,000)</td>
<td>(7,000)</td>
<td>(7,000)</td>
<td></td>
</tr>
<tr>
<td>Balance at 31 December 2016</td>
<td>1,979,882</td>
<td>28,959</td>
<td>1,774,267</td>
<td>3,783,108</td>
<td></td>
</tr>
<tr>
<td>Total comprehensive income / (expense) for the year</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Loss for the financial year</td>
<td></td>
<td></td>
<td></td>
<td>(261,124)</td>
<td></td>
</tr>
<tr>
<td>Tax on items taken directly to statement of comprehensive income (OCI)</td>
<td></td>
<td>7,022</td>
<td>7,022</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tax on items transferred to income statement</td>
<td></td>
<td>(718)</td>
<td>(718)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total comprehensive income / (expense) for the year</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transactions with owners recognised directly in equity</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dividends</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ESOP repurchase provision(b)</td>
<td></td>
<td>(44,131)</td>
<td>(44,131)</td>
<td>(44,131)</td>
<td></td>
</tr>
<tr>
<td>Balance at 1 January 2016</td>
<td>1,979,882</td>
<td>- (261,124)</td>
<td>211,124</td>
<td>3,365,447</td>
<td></td>
</tr>
<tr>
<td>Total comprehensive income / (expense) for the year</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dividends</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ESOP repurchase provision(b)</td>
<td></td>
<td>(115,624)</td>
<td>(115,624)</td>
<td>(115,624)</td>
<td></td>
</tr>
<tr>
<td>Balance at 31 December 2017</td>
<td>1,979,882</td>
<td>(261,124)</td>
<td>(305,250)</td>
<td>3,023,108</td>
<td></td>
</tr>
<tr>
<td>Total comprehensive income / (expense) for the year</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other comprehensive income / (expense)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adjustments for:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Net finance cost 7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Write off of intangible assets 11</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Impairment charge</td>
<td></td>
<td>(4,970)</td>
<td>(4,970)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Operating cash flows before changes in working capital and provisions</td>
<td>1,280,355</td>
<td>1,275,755</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Charge / (credit) in relation to provisions</td>
<td>9,112</td>
<td>(1,170)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Charge in relation to employee related liabilities</td>
<td>38,159</td>
<td>51,446</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Utilisation of provisions</td>
<td></td>
<td>(221,481)</td>
<td>(221,481)</td>
<td>(221,481)</td>
<td></td>
</tr>
<tr>
<td>Payments in respect of employee related liabilities</td>
<td>(238,788)</td>
<td>(227,921)</td>
<td></td>
<td>(227,921)</td>
<td></td>
</tr>
<tr>
<td>Deferred income received</td>
<td></td>
<td>38,994</td>
<td>38,994</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Decrease / (increase) in trade and other receivables (22,335)</td>
<td></td>
<td>(22,335)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Decrease / increase in inventories (12,203)</td>
<td></td>
<td>(12,203)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Increase / decrease in trade and other payables (14,634)</td>
<td></td>
<td>(14,634)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cash generated from operations</td>
<td>1,138,233</td>
<td>1,269,674</td>
<td>1,303,818</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Current tax paid</td>
<td></td>
<td>(27,974)</td>
<td>(27,974)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Financing costs paid</td>
<td></td>
<td>(211,481)</td>
<td>(211,481)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Net cash inflow from operating activities</td>
<td>916,264</td>
<td>1,031,210</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cash flows from investing activities</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Purchase of property, plant and equipment</td>
<td>(734,494)</td>
<td>(721,437)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Purchase of intangible assets</td>
<td>(94,020)</td>
<td>(39,188)</td>
<td>(39,188)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Proceeds from sale of non-current assets</td>
<td>3,056</td>
<td>3,132</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Proceeds from sale of investments</td>
<td>4,390</td>
<td>2,774</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Proceeds from sale of subsidiaries</td>
<td>38,159</td>
<td>6,831</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Amounts advanced to equity accounted investees as shareholder loans</td>
<td>(52,250)</td>
<td>(42,265)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dividends received from associate undertaking</td>
<td>7,022</td>
<td>1,139</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Purchase of financial assets (2,560)</td>
<td></td>
<td>(2,560)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Interest received</td>
<td>682</td>
<td>926</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Net cash inflow from investing activities</td>
<td>(605,230)</td>
<td>(676,027)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cash flows from financing activities</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dividends paid</td>
<td>17</td>
<td>(115,794)</td>
<td>(115,794)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Repayments of term debt facilities</td>
<td>4,390</td>
<td>4,011</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Proceeds from the issue of new debt</td>
<td>509,511</td>
<td>401,121</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Repurchase of ESOP shares</td>
<td>(5,001)</td>
<td>(1,170)</td>
<td>(1,170)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Decrease in other borrowings</td>
<td></td>
<td>(227,921)</td>
<td>(227,921)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Payments on inflation linked interest rate swaps</td>
<td>(16,783)</td>
<td>(15,926)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Net cash outflow from financing activities</td>
<td>(80,163)</td>
<td>(14,566)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Net increase in cash and cash equivalents</td>
<td>18,235</td>
<td>237,725</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cash and cash equivalents at 1 January</td>
<td>363,624</td>
<td>333,863</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Effect of exchange rate fluctuations on cash held</td>
<td>(7,964)</td>
<td>(7,364)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cash and cash equivalents at 31 December</td>
<td>355,652</td>
<td>398,429</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\(a\) A capital redemption reserve of €4.7 million (2016: €6 million) was recognised in other reserves in 2017 (2016: €7.2 million) relating to the amount ESB committed to repurchase from the ESOP internal market. During 2017, ESB commenced the repurchase of 4.7 million shares of this capital stock for a consideration of €5.6 million (2016: €6 million) which was recognised in other reserves.

\(b\) A capital redemption reserve of €4.7 million (2016: €6 million) arose from the purchase and cancellation of the 4.7 million ESOP share capital and represents the nominal amount of the share capital cancelled.
PARENT CASH FLOW STATEMENT
For the year ended 31 December 2017

<table>
<thead>
<tr>
<th>Notes</th>
<th>2017</th>
<th>2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash flows from operating activities</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Loss) / profit after taxation</td>
<td>€261,134</td>
<td>€235,057</td>
</tr>
<tr>
<td>Adjustments for:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Amortisation of supply contributions and other deferred income</td>
<td>24</td>
<td>€566,311</td>
</tr>
<tr>
<td>Net emissions cost</td>
<td>(35,002)</td>
<td>(33,118)</td>
</tr>
<tr>
<td>(Profit) / loss on disposal of non-current assets</td>
<td>27,061</td>
<td>(31,288)</td>
</tr>
<tr>
<td>Net finance cost</td>
<td>(562)</td>
<td>729</td>
</tr>
<tr>
<td>Impact of fair value movement on financial instruments in operating costs</td>
<td>9,701</td>
<td>93,232</td>
</tr>
<tr>
<td>Cash and cash equivalents at 1 January</td>
<td>6,763</td>
<td>559</td>
</tr>
<tr>
<td>Net (decrease) / increase in cash and cash equivalents</td>
<td>(133,485)</td>
<td>(115,624)</td>
</tr>
<tr>
<td>Dividends paid</td>
<td>(9,380)</td>
<td>(6,689)</td>
</tr>
<tr>
<td>Income tax expense</td>
<td>3,811</td>
<td>44,726</td>
</tr>
<tr>
<td>Provisions for amounts due from related undertakings</td>
<td>330,871</td>
<td>-</td>
</tr>
<tr>
<td>(Increase) / decrease in inventories</td>
<td>326,572</td>
<td>-</td>
</tr>
<tr>
<td>Operating cash flows before changes in working capital and provisions</td>
<td>952,402</td>
<td>814,818</td>
</tr>
<tr>
<td>Change in relation to provisions</td>
<td>6,978</td>
<td>2,379</td>
</tr>
<tr>
<td>Change in relation to employee related liabilities</td>
<td>16,292</td>
<td>35,318</td>
</tr>
<tr>
<td>Utilisation of provisions</td>
<td>(9,148)</td>
<td>(6,395)</td>
</tr>
<tr>
<td>Payments in respect of employee related liabilities</td>
<td>22</td>
<td>(205,407)</td>
</tr>
<tr>
<td>Decrease / (increase) in trade and other receivables</td>
<td>69</td>
<td>1,239</td>
</tr>
<tr>
<td>(Increase) / decrease in inventories</td>
<td>89,690</td>
<td>(96,484)</td>
</tr>
<tr>
<td>Decrease / (increase) in trade and other payables</td>
<td>(13,045)</td>
<td>22,470</td>
</tr>
<tr>
<td>Cash generated from operations</td>
<td>785,466</td>
<td>1,059,190</td>
</tr>
<tr>
<td>Current tax paid</td>
<td>22,276</td>
<td>(19,287)</td>
</tr>
<tr>
<td>Interest paid</td>
<td>(127,873)</td>
<td>(134,785)</td>
</tr>
<tr>
<td>Net cash inflow from operating activities</td>
<td>725,316</td>
<td>945,118</td>
</tr>
<tr>
<td>Cash flows from investing activities</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Purchase of property, plant and equipment</td>
<td>458,402</td>
<td>(356,000)</td>
</tr>
<tr>
<td>Purchase of intangible assets</td>
<td>488,866</td>
<td>(33,122)</td>
</tr>
<tr>
<td>Proceeds from the sale of non-current assets</td>
<td>918</td>
<td>1,863</td>
</tr>
<tr>
<td>Amounts advanced to equity accounted investees as shareholder loans</td>
<td>48,000</td>
<td>-</td>
</tr>
<tr>
<td>Interest received</td>
<td>41,271</td>
<td>46,290</td>
</tr>
<tr>
<td>Dividends received from subsidiary undertakings</td>
<td>9,380</td>
<td>8,680</td>
</tr>
<tr>
<td>Net cash inflow from investing activities</td>
<td>501,629</td>
<td>124,290</td>
</tr>
<tr>
<td>Cash flows from financing activities</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dividends paid</td>
<td>(115,624)</td>
<td>(86,490)</td>
</tr>
<tr>
<td>Repayments of term debt facilities</td>
<td>(133,485)</td>
<td>(12,739)</td>
</tr>
<tr>
<td>Decrease in other borrowings</td>
<td>-</td>
<td>(251,211)</td>
</tr>
<tr>
<td>Net cash outflow from financing activities</td>
<td>(249,109)</td>
<td>(350,448)</td>
</tr>
<tr>
<td>(Decrease) / increase in cash and cash equivalents</td>
<td>(37,492)</td>
<td>218,789</td>
</tr>
<tr>
<td>Cash and cash equivalents at 1 January</td>
<td>16</td>
<td>236,991</td>
</tr>
<tr>
<td>Cash and cash equivalents at 31 December</td>
<td>16</td>
<td>208,499</td>
</tr>
</tbody>
</table>

NOTES TO THE FINANCIAL STATEMENTS
1. STATEMENT OF ACCOUNTING POLICIES

1(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 and its subsidiaries reflect the Group’s interests in associate 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 provides that ESB Company that presents its individual financial statements together with its consolidated financial statements with an exemption from 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 those IFRS standards and IFRIC (International Financial Reporting Interpretations Committee) interpretations in the year ending on or before 31 December 2017. 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 is 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 29 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 out below.

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 19 of the financial statements.

1(ii) BASIS OF CONSOLIDATION
The financial statements of the Parent and all of its subsidiary undertakings together with the Group’s share of the results and net assets of associates and joint ventures made up to 31 December 2017. 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 which presents its individual income statement 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 accounts for business combinations under IFRS 3. Business Combinations, the Group measures goodwill at the acquisition date as:

- The fair value of the consideration transferred;
- The recognised amount of any non-controlling interests in the acquiree; and
- 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 related to the acquisition, other than those associated with the issue of debt or equity securities, that the Group incurs 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 was 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.

Acquisitions prior to 1 January 2004 (date of transition to IFRS)
As part of its transition to IFRS, the Group elected to reclassify 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, exposed 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 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 are those undertakings in which ESB exercises contractual control jointly with another party, whereby both parties take part in the 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 losses 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 value of the net assets at acquisition. In the year ended 31 December 2017, ESB refinanced bonds worth €922 million. The Group’s financial instruments were valued at fair value with a material impact on the Group’s consolidated financial statements as follows:

The Group expects to adopt IFRS 9 by applying the modified retrospective transition method, except for investments in associates which will be measured at fair value with gains and losses arising from unrealised gains or losses arising from transactions with equity accounted associates are eliminated on the treatment of the Group’s interests in the net assets. Unrealised losses are eliminated in the same way as unrealised gains, but only to the extent that there is no evidence of impairment.

In the Parent financial statements, investments in associates are carried at cost any impairment charges.

Transactions executed on an arm’s length basis are reflected in the consolidated financial statements. Unrealised gains arising from transactions with equity accounted associates are eliminated on the treatment of the Group’s interests in the net assets. Unrealised losses are eliminated in the same way as unrealised gains, but only to the extent that there is no evidence of impairment.

A number of new Standards, amendments to standards and interpretations are not yet effective for the year ended 31 December 2017 and have not been applied in preparing these consolidated financial statements. The Standards and interpretations that may have relevance to the Group are as follows:

New Standard
Revised International Financial Reporting Standards
IFRS 15: Revenue from Contracts with Customers
Effective date 1 January 2018

IFRS 9: Financial Instruments
Effective date 1 January 2018

Clariﬁcations to IFRS 15: Revenue from Contracts with Customers
Effective date 1 January 2018

IFRS 16: Leases
Effective date 1 January 2019

The effective dates are those applying to EU endorsed IFRS if later than the IASB effective date. The Group has assessed the impact of these changes on the nature and extent of the Group’s disclosures about its financial instruments in particular and the impact on the Group’s consolidated financial statements as follows:

The Group expects to adopt IFRS 9 by applying the modified retrospective transition method, except for investments in associates which will be measured at fair value with gains and losses arising from transactions with equity accounted associates are eliminated on the treatment of the Group’s interests in the net assets. Unrealised losses are eliminated in the same way as unrealised gains, but only to the extent that there is no evidence of impairment.

The group new standard introduces new estimates and judgemental thresholds that affect the presentation of lessees. The Group has assessed the impact of these changes on the nature and extent of the Group’s disclosures about its financial instruments in particular and the impact on the Group’s consolidated financial statements as follows:

The Group expects to adopt IFRS 9 by applying the modified retrospective transition method, except for investments in associates which will be measured at fair value with gains and losses arising from transactions with equity accounted associates are eliminated on the treatment of the Group’s interests in the net assets. Unrealised losses are eliminated in the same way as unrealised gains, but only to the extent that there is no evidence of impairment.

The new standard introduces new estimates and judgemental thresholds that affect the presentation of lessees. The Group has assessed the impact of these changes on the nature and extent of the Group’s disclosures about its financial instruments in particular and the impact on the Group’s consolidated financial statements as follows:

The Group expects to adopt IFRS 9 by applying the modified retrospective transition method, except for investments in associates which will be measured at fair value with gains and losses arising from transactions with equity accounted associates are eliminated on the treatment of the Group’s interests in the net assets. Unrealised losses are eliminated in the same way as unrealised gains, but only to the extent that there is no evidence of impairment.

Other changes to IFRS have been issued but are not yet effective for the Group. However, they are either not expected to have a material effect on the consolidated financial statements or they are not currently relevant for the Group.

These financial instruments are presented in the financial statements at fair value. When a financial instrument is sold or any borrowings forming part of the net investment in subsidiaries are repaid, the associated amount is accounted for as a reduction in profit or loss, as part of the gain or loss on sale.

Goodwill arising on the acquisition of a financial instrument is presented as assets and liabilities for the Group operation and translated at the closing rate.

Revenue is recognised when a customer obtains control of a good or service and therefore has the right to receive the promised goods or services: revenue is recognised from the point in time at which the Group and customer have rights to the good or service. Revenue is measured at the transaction price, which is the amount of consideration for which the Group expects to be compensated.

The Group will apply IFRS 15 from its effective date. The work performed by the Group to date has identified that, for the majority of the Group’s revenue from customers (IFRS 15) will have no material impact on the Group’s current revenue recognition under current revenue standards and interpretations. Additionally, as the business develops new product offerings, the Group is re-evaluating its revenue recognition model and various related processes and procedures.

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.

The Group has assessed the impact of these changes on the nature and extent of the Group’s disclosures about its financial instruments in particular and the impact on the Group’s consolidated financial statements as follows:

The Group expects to adopt IFRS 9 by applying the modified retrospective transition method, except for investments in associates which will be measured at fair value with gains and losses arising from transactions with equity accounted associates are eliminated on the treatment of the Group’s interests in the net assets. Unrealised losses are eliminated in the same way as unrealised gains, but only to the extent that there is no evidence of impairment.

Other changes to IFRS have been issued but are not yet effective for the Group. However, they are either not expected to have a material effect on the consolidated financial statements or they are not currently relevant for the Group.

These financial instruments are presented in the financial statements at fair value. When a financial instrument is sold or any borrowings forming part of the net investment in subsidiaries are repaid, the associated amount is accounted for as a reduction in profit or loss, as part of the gain or loss on sale.

Goodwill arising on the acquisition of a financial instrument is presented as assets and liabilities for the Group operation and translated at the closing rate.

Revenue is recognised when a customer obtains control of a good or service and therefore has the right to receive the promised goods or services: revenue is recognised from the point in time at which the Group and customer have rights to the good or service. Revenue is measured at the transaction price, which is the amount of consideration for which the Group expects to be compensated.

The Group implements IFRS 15: Revenue from Contracts with Customers effective date 1 January 2018. The new standard replaces IAS 18 Revenue, IAS 11 Construction Contracts and related interpretations. The new standard introduces new estimates and judgemental thresholds that affect the presentation of lessees. The Group has assessed the impact of these changes on the nature and extent of the Group’s disclosures about its financial instruments in particular and the impact on the Group’s consolidated financial statements as follows:

The Group expects to adopt IFRS 9 by applying the modified retrospective transition method, except for investments in associates which will be measured at fair value with gains and losses arising from transactions with equity accounted associates are eliminated on the treatment of the Group’s interests in the net assets. Unrealised losses are eliminated in the same way as unrealised gains, but only to the extent that there is no evidence of impairment.

Other changes to IFRS have been issued but are not yet effective for the Group. However, they are either not expected to have a material effect on the consolidated financial statements or they are not currently relevant for the Group.

These financial instruments are presented in the financial statements at fair value. When a financial instrument is sold or any borrowings forming part of the net investment in subsidiaries are repaid, the associated amount is accounted for as a reduction in profit or loss, as part of the gain or loss on sale.

Goodwill arising on the acquisition of a financial instrument is presented as assets and liabilities for the Group operation and translated at the closing rate.

Revenue is recognised when a customer obtains control of a good or service and therefore has the right to receive the promised goods or services: revenue is recognised from the point in time at which the Group and customer have rights to the good or service. Revenue is measured at the transaction price, which is the amount of consideration for which the Group expects to be compensated.

The Group will apply IFRS 15 from its effective date. The work performed by the Group to date has identified that, for the majority of the Group’s revenue from customers (IFRS 15) will have no material impact on the Group’s current revenue recognition under current revenue standards and interpretations. Additionally, as the business develops new product offerings, the Group is re-evaluating its revenue recognition model and various related processes and procedures.

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.

The Group implements the new standard for any previous liability management operations as follows:

The new Standard also introduces expanded disclosures that includes: identifying the contract(s) to which the standard applies; describing the good or service provided; identifying performance obligations; valuing performance obligations; and identifying contract assets and contract liabilities. The lessor is required to disclose the information related to lease accounting, as the Standard introduces a more comprehensive approach to accounting for lease transactions. The Group refinanced bonds worth €922 million. The Group’s financial instruments were valued at fair value with a material impact on the Group’s consolidated financial statements as follows:

The Group expects to adopt IFRS 9 by applying the modified retrospective transition method, except for investments in associates which will be measured at fair value with gains and losses arising from transactions with equity accounted associates are eliminated on the treatment of the Group’s interests in the net assets. Unrealised losses are eliminated in the same way as unrealised gains, but only to the extent that there is no evidence of impairment.

Other changes to IFRS have been issued but are not yet effective for the Group. However, they are either not expected to have a material effect on the consolidated financial statements or they are not currently relevant for the Group.

These financial instruments are presented in the financial statements at fair value. When a financial instrument is sold or any borrowings forming part of the net investment in subsidiaries are repaid, the associated amount is accounted for as a reduction in profit or loss, as part of the gain or loss on sale.

Goodwill arising on the acquisition of a financial instrument is presented as assets and liabilities for the Group operation and translated at the closing rate.
(VI) LEASED ASSETS

Financial 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 financial leases are recognised at the estimated present value of future payments. In the case of right-of-use assets, 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 lease finance payable and the interest element of the lease finance charge 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.

(VII) INTANGIBLE ASSETS AND GOODWILL

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. In determining whether impairment has occurred, goodwill is not allocated to cash generating units.

The recoverable amount of an asset or CGU is the greater of its value in use and its fair value less costs to sell. The value in use of an asset is its net present value (NPV) at discount rates that reflect 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

Emission allowances purchased by ESB are accounted as intangible assets at cost.

As emissions rise, 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 purchased to limit the obligation. These allowances are returned to the relevant Authority in charge of the scheme within four months of a reduction in the limit to cover the liability for actual emissions of CO₂ during that year. Emission allowances are measured at the lower of cost and fair value. Emission allowances are therefore not amortised as they are held for settlement of the emission liability in the following year.

(c) Software costs and other intangible assets

Acquired computer software licences and other intangible assets are valued as from the date on which they become capable of being used to produce revenue, and are presented at cost. The cost comprises the purchase price and any directly attributable costs of bringing the asset into a location or condition ready for its intended use. The purchase price is capitalised as an intangible asset. Software licences and other intangible assets acquired in the ordinary course of business are initially recognised at cost. These assets are amortised on a straight-line basis over their useful life.

Software

- 3 / 5 years
- Other intangibles

- 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 it if it is available to use or sell it if it is available to sell
- There is an ability to use or sell the software if it were completed
- 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
- 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 proportion of overheads. These assets are measured at cost less accumulated amortisation, which is estimated over their useful estimated lives (three to five years) on a straight-line basis, and accumulated impairment losses.

(d) Research and development

Research expenditure and development expenditure that do not meet the criteria above are recognised as an expense as incurred. Development costs previously recognised as an expense are not recognised as an asset in a subsequent period.

(VII) IMPAIRMENT OF NON-CURRENT ASSETS OTHER THAN GOODWILL

Assets that have an indefinite useful life are subject to annual impairment testing for impairment whenever events or changes in circumstances indicate that their carrying amount may not be recoverable. Assets not yet in use are tested annually for impairment. Assessments of the assets subject to depreciation and amortisation are tested for impairment whenever events or changes in circumstances indicate that their carrying amount may not be recoverable. Recoverability of assets is measured by comparing the undiscounted future cash flows expected to be generated by the asset with its carrying amount, and applying the higher of the asset’s carrying amount and its estimated fair value less costs to sell. If the carrying amount of an asset exceeds its recoverable amount, an impairment loss is recognised for the amount by which the 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 level at 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 market prices (where applicable) and the timing and extent of operational and financial costs and capital expenditures. These cash flows are discounted to their present value using a pre-tax discount rate that reflects the group’s current assessment of the current market rate of the time value of money and the risks specific to the asset.

(ii) 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 equals the average cost of ESFs’ outstanding debt and where applicable, a project specific rate, capitalised at the asset’s cost, is restricted to the limits of the financial instruments recognised in the income statement in which they are incurred.

Inventories

Inventories are carried at the lower of cost or net realisable value. Cost comprises acquisition cost and net realisable value. Cost comprises acquisition cost and net realisable value.

- Net realisable value is measured 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 when their sale is not probable.

Construction work in progress is stated at the lower of cost and net realisable value.

Notes to the financial statements

1. STATEMENT OF ACCOUNTING POLICIES (continued)

Within its regular course of business, the Group routinely enters into sale and purchase arrangements that may include provisions for the purposes of receipt or delivery of the commodities in accordance with the relevant contracts. When the minimum requirements, the contracts are designated as earn-out contracts and are accounted for as executory contracts. These contracts are therefore not within the scope of IAS 39 financial instruments: Recognition and Measurement.

Commodity contracts which are not designated as earn-out contracts are accounted for as trading derivatives and are recognised in the balance sheet at fair value. When 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 against foreign exchange risks and currency exposures. All such derivatives are recognised at fair value and are re-measured to fair value through the income statement at each balance sheet date. The majority of these derivative financial instruments are designated as being held for hedging purposes, either for operational risks or for non-derivative financial instruments.

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 collective management of cash flow from a security portfolio, or which have been designated as fair value through profit or loss.

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 through profit or loss. Changes in fair value are recognised in the income statement.

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.

(d) Derivative financial instruments and other hedging instruments

The Group uses derivative financial instruments and other financial instruments to hedge its exposure to commodity price, foreign exchange rate or interest rate risks arising from operational, financial and investing activities.

The principal derivative instruments used include interest rate swaps, currency swaps, forward foreign currency contracts and indexed swap contracts relating to the purchase of fuel.
NOTES TO THE FINANCIAL STATEMENTS

1. STATEMENT OF ACCOUNTING POLICIES (continued)

(XIV) INCOME TAX

Income tax on the profit or loss for the year comprises current and deferred tax. Income tax is accounted for in the statement of profit or loss, except to the extent that it relates to items recognised directly in other comprehensive income or equity.

(a) Current tax

The current tax on the profit or loss is calculated at rates and is based on the calculation of results for the year, taking into account the corporation tax rates applicable at the relevant date. The provision for tax in the income statement does not include taxation on the Group’s share of profits of joint ventures undertaken during the year. It is included in the separate line on the face of the income statement for profits from joint ventures.

(b) Deferred tax

Deferred tax is provided on 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 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 be applied to temporary differences at the balance date.

(XV) PROVISIONS

Provisions for asset retirement obligations are established when the Group has a present legal or constructive obligation, which will generate economic benefits to the Group, and a reasonable estimate of the economic benefits can be measured reliably.

The provision for asset retirement obligation is recognised when the asset is derecognised or the obligation arises.

Provision for asset retirement obligations is included within current or non-current provisions as appropriate on the balance sheet.

(XVI) OPERATING SEGMENTS – IFRS 8

The Group has chosen to operate as a single reporting entity by applying the requirements of IFRS 8 Operating Segments to the Group. IFRS 8 specifies how an entity should disclose information about operating segments. Operating segments are disclosed using a management approach where 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 relating to the business, is presented using the same basis as that used for internal reporting.

(XVII) REVENUE

(a) Revenue

Revenue comprises the sale value derived from the following:

- Electric Ireland revenue consists of sales to electricity and gas customers.
- Generation and Wholesale Markets revenue derives mainly from electricity generation.
- ESB Networks and NE Networks revenue comprises use of System income in the Republic of Ireland and Northern Ireland respectively.

(b) 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.

(XVIII) OTHER OPERATING INCOME

Other operating income comprises of income which accrues to the Group outside of the Group’s principal activities.

(XIX) 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 a number of fixed term power purchase agreements for fixed amounts. Amounts payable under the contracts in excess of or below market rates are receivable from the Group or repayable to the market under the Grid’s Service Obligation (PSO2) key.

(C) Operating and other maintenance costs

Operating and other maintenance costs relate primarily to overhead costs of the contractors, 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 the loan of the European Investment Bank and overseas loans, interest payments on financial instruments (including the cost of hedging interest rate risks) and interest on the use of the Group’s net investment in the electric network.

(XC) EXCEPTIONAL ITEMS

The Group has used the term exceptional to describe certain items which, in the Group’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, pre-closure tax losses, asset disposals, material changes in estimates or one-off costs where the recognition is considered important to gain an understanding of the financial statements. Further details of the Group’s exceptional item is provided in note 4 of the financial statements.

(XXI) EMPLOYEE RELATED LIABILITIES

(A) Employee pension obligations

The obligations to the Scheme reflected in the Group’s financial statements are the amounts determined in accordance with IAS 19 Employee Benefits. Given the Scheme is a defined benefit plan, where the Group bears the risk for the investment performance of the assets of the Scheme (where the employee is liable to pay the balance of contributions required to fund the obligations), the obligations to be reflected in the financial statements require the exercise of judgment in relation to the assumptions used.

The obligations of the Scheme are reviewed annually by the Board and are updated in a triennial and are updated annually thereafter. Actuarial gains and losses are recognised in the financial statements and are included in the Group’s income statement for the year in which they occur. The Group’s obligations to the Scheme are included in the balance sheet.

(B) Other short-term employee related liabilities

The Group is subject to a number of provisions that may arise if employees resign, retire or are laid off. The short-term employee related liabilities are included in note 21 of the financial statements.

(C) Pension schemes

Pension schemes in the Republic of Ireland and Northern Ireland are funded through payments to trustee administrated 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. 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 respect of accelerated contributions agreed pursuant to the 2010 Agreement ($951.0 million remaining to be paid over a number of years);
- (b) pre-existing commitments relating to past service benefits provided as a Defined Benefit Scheme that relates to service prior to October 1997.

(D) Voluntary Pension Save Schemes

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. Unpaid amounts at year end are recognised as liabilities on the balance sheet.

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 employer’s contribution charged to income in the period the contributions become payable.

Pension scheme in Northern Ireland

The wholly owned subsidiary Northern Ireland Electricity Networks Limited (NE Networks), operates a defined benefit scheme in respect of all eligible employees.

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 certain losses are recognised in the income statement in the period they occur.

The interest income from pension scheme assets and the actuarial gains and losses are included within net finance costs.
2. SEGMENT REPORTING
The Group has applied IFRS 8 Operating Segments, and has made the appropriate disclosures in these financial statements.

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 the 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 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 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) Innovation is reported separately in the context of a changing environment. This segment operates adjacent to the core operating segments of the Group. As business opportunities are identified and become viable, they will then be transferred to the relevant core operating segment. Innovation is reported to the CODM as a separate component within Other Segments. The Innovation business unit includes ESB International, a provider of consultancy and engineering services and ESB Telecoms.

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 Wholesale Markets 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

<table>
<thead>
<tr>
<th>Segment revenue - 2017</th>
<th>Electric Ireland</th>
<th>ESB Networks</th>
<th>Generation and Wholesale Markets</th>
<th>NIE Networks</th>
<th>Other Segments</th>
<th>Consolidation and eliminations</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>€’000</td>
<td>€’000</td>
<td>€’000</td>
<td>€’000</td>
<td>€’000</td>
<td>€’000</td>
<td>€’000</td>
</tr>
<tr>
<td>External revenues</td>
<td>1,729,523</td>
<td>493,052</td>
<td>689,747</td>
<td>252,158</td>
<td>64,542</td>
<td>-</td>
<td>3,229,022</td>
</tr>
<tr>
<td>Inter-segment revenue</td>
<td>1,487,314</td>
<td>564,485</td>
<td>716,687</td>
<td>19,644</td>
<td>252,194</td>
<td>(1,537,684)</td>
<td>-</td>
</tr>
<tr>
<td>Revenue</td>
<td>1,734,177</td>
<td>1,057,537</td>
<td>1,406,484</td>
<td>271,802</td>
<td>(205,735)</td>
<td>(1,537,684)</td>
<td>3,229,022</td>
</tr>
</tbody>
</table>

All inter-segment revenues are eliminated upon consolidation and are reflected in the eliminations column above.

(b) Segment operating costs - 2017

<table>
<thead>
<tr>
<th>Segment operating costs - 2017</th>
<th>Electric Ireland</th>
<th>ESB Networks</th>
<th>Generation and Wholesale Markets</th>
<th>NIE Networks</th>
<th>Other Segments</th>
<th>Consolidation and eliminations</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Depreciation and amortisation</td>
<td>(5,718)</td>
<td>(386,167)</td>
<td>(257,305)</td>
<td>(137,682)</td>
<td>(25,088)</td>
<td>-</td>
<td>(615,690)</td>
</tr>
<tr>
<td>Other operating costs</td>
<td>(1,660,450)</td>
<td>(392,475)</td>
<td>(1,032,638)</td>
<td>(93,527)</td>
<td>(304,946)</td>
<td>1,537,684</td>
<td>(1,952,552)</td>
</tr>
<tr>
<td>Impairment charge (including exceptional items)</td>
<td>-</td>
<td>(275,579)</td>
<td>-</td>
<td>(3,777)</td>
<td>-</td>
<td>(273,356)</td>
<td>-</td>
</tr>
<tr>
<td>Operating result</td>
<td>68,029</td>
<td>317,379</td>
<td>(155,177)</td>
<td>34,593</td>
<td>50,840</td>
<td>-</td>
<td>213,984</td>
</tr>
<tr>
<td>Net finance cost (87)</td>
<td>(360)</td>
<td>(194,459)</td>
<td>(47,135)</td>
<td>(148,262)</td>
<td>-</td>
<td>(215,623)</td>
<td>-</td>
</tr>
<tr>
<td>Shares of equity accounted investees' profit / (loss)</td>
<td>-</td>
<td>-</td>
<td>4,108</td>
<td>(12,401)</td>
<td>-</td>
<td>(8,293)</td>
<td>-</td>
</tr>
<tr>
<td>Profit / (loss) before taxation</td>
<td>67,042</td>
<td>317,019</td>
<td>(170,528)</td>
<td>(12,542)</td>
<td>(211,823)</td>
<td>(388,424)</td>
<td>-</td>
</tr>
</tbody>
</table>

(c) Segment revenue - 2016

<table>
<thead>
<tr>
<th>Segment revenue - 2016</th>
<th>Electric Ireland</th>
<th>ESB Networks</th>
<th>Generation and Wholesale Markets</th>
<th>NIE Networks</th>
<th>Other Segments</th>
<th>Consolidation and eliminations</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>€’000</td>
<td>€’000</td>
<td>€’000</td>
<td>€’000</td>
<td>€’000</td>
<td>€’000</td>
<td>€’000</td>
</tr>
<tr>
<td>External revenues</td>
<td>1,800,601</td>
<td>474,103</td>
<td>521,055</td>
<td>256,035</td>
<td>65,057</td>
<td>-</td>
<td>3,211,751</td>
</tr>
<tr>
<td>Inter-segment revenue</td>
<td>1,493,323</td>
<td>544,818</td>
<td>800,690</td>
<td>15,345</td>
<td>209,266</td>
<td>(1,580,111)</td>
<td>-</td>
</tr>
<tr>
<td>Revenue</td>
<td>1,994,093</td>
<td>1,018,921</td>
<td>1,327,345</td>
<td>272,280</td>
<td>278,323</td>
<td>(1,580,111)</td>
<td>3,211,751</td>
</tr>
</tbody>
</table>

All inter-segment revenues are eliminated upon consolidation and are reflected in the eliminations column above.

(d) Segment operating costs - 2016

<table>
<thead>
<tr>
<th>Segment operating costs - 2016</th>
<th>Electric Ireland</th>
<th>ESB Networks</th>
<th>Generation and Wholesale Markets</th>
<th>NIE Networks</th>
<th>Other Segments</th>
<th>Consolidation and eliminations</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Depreciation and amortisation</td>
<td>(9,009)</td>
<td>(379,747)</td>
<td>(202,218)</td>
<td>(141,409)</td>
<td>(28,026)</td>
<td>-</td>
<td>(768,409)</td>
</tr>
<tr>
<td>Other operating costs</td>
<td>(1,813,600)</td>
<td>(357,544)</td>
<td>(990,682)</td>
<td>(65,573)</td>
<td>(306,046)</td>
<td>(1,580,111)</td>
<td>(1,883,540)</td>
</tr>
</tbody>
</table>

(e) Operating result - 2016

<table>
<thead>
<tr>
<th>Operating result - 2016</th>
<th>Electric Ireland</th>
<th>ESB Networks</th>
<th>Generation and Wholesale Markets</th>
<th>NIE Networks</th>
<th>Other Segments</th>
<th>Consolidation and eliminations</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating profit / (loss)</td>
<td>72,378</td>
<td>314,216</td>
<td>230,836</td>
<td>35,298</td>
<td>(55,402)</td>
<td>-</td>
<td>597,336</td>
</tr>
<tr>
<td>Net finance cost (1,660,450)</td>
<td>(289)</td>
<td>(170,528)</td>
<td>(47,135)</td>
<td>(148,262)</td>
<td>-</td>
<td>(215,623)</td>
<td>-</td>
</tr>
<tr>
<td>Shares of equity accounted investees' profit / (loss)</td>
<td>-</td>
<td>(4,108)</td>
<td>(12,401)</td>
<td>-</td>
<td>-</td>
<td>(8,293)</td>
<td>-</td>
</tr>
<tr>
<td>Profit / (loss) before taxation</td>
<td>72,249</td>
<td>310,807</td>
<td>221,401</td>
<td>(14,961)</td>
<td>(15,257)</td>
<td>(388,424)</td>
<td>-</td>
</tr>
</tbody>
</table>

1 NIE Networks segment includes depreciation on fair value uplifts recognised on the acquisition of NIE Networks.
NOTES TO THE FINANCIAL STATEMENTS

2. SEGMENT REPORTING (continued)

(b) Other disclosures

<table>
<thead>
<tr>
<th>2017</th>
<th>2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>€’000</td>
<td>€’000</td>
</tr>
</tbody>
</table>

Additions to non-current assets (excluding acquisitions)
- Electric Ireland 9,325 7,669
- ESB Networks 501,043 375,200
- Generation and Wholesale Markets 128,179 263,403
- NIE Networks 142,791 141,230
- Other Segments 86,101 113,153
Total 857,439 857,616

Additions to non-current assets (excluding acquisitions) includes investments in property, plant and equipment, intangible assets (excluding emission allowances), financial assets and equity accounted investees.

3. GEOGRAPHIC INFORMATION

(a) Non-current assets by geographic location

<table>
<thead>
<tr>
<th>2017</th>
<th>2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>€’000</td>
<td>€’000</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Location</th>
<th>2017</th>
<th>2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ireland</td>
<td>7,550,000</td>
<td>7,812,557</td>
</tr>
<tr>
<td>UK including Northern Ireland</td>
<td>3,002,906</td>
<td>3,571,849</td>
</tr>
<tr>
<td>Rest of world</td>
<td>4,200</td>
<td>10,406</td>
</tr>
</tbody>
</table>
Total | 10,617,106 | 11,094,812 |

Non-current assets for this purpose consist of property, plant and equipment, intangible assets, goodwill, investments in equity accounted investees, financial asset investments and trade and other receivables. Derivative financial instruments and deferred tax assets are excluded.

(b) External revenue by geographic market

<table>
<thead>
<tr>
<th>2017</th>
<th>2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>€’000</td>
<td>€’000</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Market</th>
<th>2017</th>
<th>2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ireland</td>
<td>2,390,156</td>
<td>2,744,916</td>
</tr>
<tr>
<td>UK including Northern Ireland</td>
<td>806,817</td>
<td>449,251</td>
</tr>
<tr>
<td>Rest of world</td>
<td>28,049</td>
<td>17,684</td>
</tr>
</tbody>
</table>
Total | 3,225,022 | 3,311,852 |

4. EXCEPTIONAL ITEMS (continued)

The Group presents certain items separately which are unusual by virtue of their size and incidence in the context of its ongoing core operations. This presentation is made in the income statement to aid understanding of the performance of the Group’s underlying business. Judgement is used by the Group in assessing the particular items which should be disclosed as exceptional.

Impairment charges

International Accounting Standard 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. The following indications have 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 May 2018 on projected revenues, in particular capacity revenue for generation plant in the Republic of Ireland (ROI) and Northern Ireland (NI).
- An impairment charge of €141.7 million was recorded in operating costs in 2017 (note 6) in respect of Moneypoint in the Generation and Wholesale Markets (G&WM) 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.

Moneypoint is an 885 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 upgrade was completed to ensure it complies with strict environmental requirements for flare gas desulphurisation and selective catalytic reduction.

An impairment charge of €141.7 million was recorded in operating costs in 2017 (note 6) in respect of Moneypoint in the Generation and Wholesale Markets (G&WM) 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.

NOTES TO THE FINANCIAL STATEMENTS

4. EXCEPTIONAL ITEMS (continued)

Impairment charges (continued)

Aghada Unit Two (435 MW), Synergen (410 MW) and Poolbeg (463 MW) are Combined Cycle Gas Turbines (CCGT’s) based in Cork and Dublin respectively. Aghada’s construction commenced in October 2007 and it reached commercial operations in May 2010, Synergen has been commercially operating since August 2002 and Poolbeg since 1971, first as an oil-fired plant and later converted to a CCGT in 2000. 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 May 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 9.82%.

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 in 2009 and in 2009 the unit was converted to open cycle operation with an output of 85 MW. An impairment charge of €1.1 million has been recognised 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 6.80%

ESB has installed operational wind farm portfolio totalling 522 MW of capacity, comprising twenty wind farms in the Single Electricity Market (SEM) (Stourline in ROI and six in NI), with a further three wind farms located in Great Britain (SBG). An impairment review has been performed which resulted in an impairment charge of €12.8 million, being recognised in the current year in the SEM segment. The real discount rate applied to the cash flows to determine the NPV was a pre-tax rate of 4.4% (ROD) and 3.8% (NI). The impairment charge arose as a result of a projected reduction in market based revenues.

All cash inflows for each generation plant and wind farm are based on the forecasted running profiles for the plants, forward prices for electricity, gas and carbon. The cash outflows for operating and capital expenditure are based on the Board approved five year business plans, and thereafter, on long-term production and cash flow forecasts.

5. OTHER OPERATING INCOME / (EXPENSES)

<table>
<thead>
<tr>
<th>2017</th>
<th>2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>€’000</td>
<td>€’000</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Description</th>
<th>2017</th>
<th>2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Profit on disposal of property, plant and equipment and intangible assets</td>
<td>1,381</td>
<td>906</td>
</tr>
<tr>
<td>Profit on disposal of investments (note 13)</td>
<td>2,122</td>
<td></td>
</tr>
<tr>
<td>Profit on disposal of subsidiaries1</td>
<td>21,596</td>
<td>9,283</td>
</tr>
<tr>
<td>Amortisation of supply contributions</td>
<td>32,772</td>
<td>38,138</td>
</tr>
<tr>
<td>Dividends received</td>
<td>3,026</td>
<td>1,199</td>
</tr>
<tr>
<td>Fair value movements on assets held at fair value through profit and loss2</td>
<td>(33,884)</td>
<td>(9,063)</td>
</tr>
<tr>
<td>Other operating income</td>
<td>5,146</td>
<td></td>
</tr>
</tbody>
</table>
Total | 32,560 | 35,524 |

1 The profit on disposal of subsidiaries relates to the sale of windfarm subsidiaries in 2017 and 2016.
2 These fair value movements relate to adjustments to the value of investments in renewables enterprises held by Novusmodus, a subsidiary, as detailed in note 13.

6. OPERATING COSTS

<table>
<thead>
<tr>
<th>2017</th>
<th>2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>€’000</td>
<td>€’000</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Description</th>
<th>2017</th>
<th>2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employee costs (note 8)</td>
<td>466,368</td>
<td>463,750</td>
</tr>
<tr>
<td>Fuel costs1</td>
<td>717,290</td>
<td>566,367</td>
</tr>
<tr>
<td>Other electricity related costs</td>
<td>239,042</td>
<td>303,818</td>
</tr>
<tr>
<td>Operations and maintenance2</td>
<td>529,852</td>
<td>520,635</td>
</tr>
<tr>
<td>Impairment charges3</td>
<td>279,356</td>
<td>4,070</td>
</tr>
<tr>
<td>Depreciation and amortisation (notes 10 / 11)</td>
<td>815,690</td>
<td>750,406</td>
</tr>
</tbody>
</table>
Total | 3,047,598 | 2,649,949 |

1 Included in fuel costs is a charge of €15.3 million (2016: €1.5 million) relating to the fair value movements of fuel commodity swaps which have not been designated as accounting hedges.
2 Included in operations and maintenance is a foreign exchange translation loss of €10.8 million (2016: €20.5 million loss) on sterling denominated intercompany positions.
3 An impairment charge of €279.4 million (2016: €439 million) have been recognised in 2017, €275.6 million of which have been disclosed as exceptional items in the income statement which relate to the generation portfolio (see note 4). The remaining €3.8 million relates to other impairments (see note 10).
7. NET FINANCE COST AND OTHER FINANCING CHARGES

<table>
<thead>
<tr>
<th></th>
<th>2017</th>
<th>2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interest payable on borrowings</td>
<td>211,558</td>
<td>219,722</td>
</tr>
<tr>
<td>Less capitalised interest</td>
<td>(33,496)</td>
<td>(40,235)</td>
</tr>
<tr>
<td>Net interest on borrowings</td>
<td>178,062</td>
<td>179,487</td>
</tr>
</tbody>
</table>

Financing charges:

- on NIE Networks pension scheme (note 21) 4,113 4,312
- on ESB pension scheme (note 22) 22,615 29,657
- on employee related liabilities (note 22) 511 835
- on asset retirement costs (note 25) 1,611 1,482
- on other provisions (note 25) 486 537

Net financing charges 25,156 35,839

Fair value (gains) / losses on financial instruments:

- currency / interest rate swaps: cash flow hedges, transfer from OCI 7,844 6,274
- interest rate swaps and inflation linked swaps not qualifying for hedge accounting (2,865) 183,863

Net fair value losses on financial instruments 4,979 185,037

Net finance cost 215,623 388,424

The financing charges on provisions are calculated in accordance with the policy for discounting of future payment obligations as disclosed in the accounting policies - 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 loss of €496.3 million (2016: gain of €101.4 million) has been transferred from the cash flow hedge reserve to net finance cost and other financing charges during the year. However, these amounts are fully 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 Tilbury Green Power Holdings Limited €9.9 million (2016: €8.4 million) - see note 13 for further details.

Positive fair value movements of €3.7 million arose on the inflation linked swaps in 2017 (2016: negative fair value movements of €187.6 million) reflecting lower interest rates and a lower 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.

8. EMPLOYEES

(a) Average number of employees in year by business activity, including temporary employees:

<table>
<thead>
<tr>
<th></th>
<th>2017</th>
<th>2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electric Ireland</td>
<td>386</td>
<td>365</td>
</tr>
<tr>
<td>ESB Networks</td>
<td>3,347</td>
<td>3,289</td>
</tr>
<tr>
<td>Generation and Wholesale Markets</td>
<td>1,009</td>
<td>981</td>
</tr>
<tr>
<td>NIE Networks</td>
<td>1,288</td>
<td>1,261</td>
</tr>
<tr>
<td>Other Segments</td>
<td>1,764</td>
<td>1,701</td>
</tr>
<tr>
<td>Total</td>
<td>7,790</td>
<td>7,597</td>
</tr>
</tbody>
</table>

(b) Employee costs in year

<table>
<thead>
<tr>
<th></th>
<th>2017</th>
<th>2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current staff costs (excluding pension)</td>
<td>523,474</td>
<td>507,776</td>
</tr>
<tr>
<td>Overtime</td>
<td>41,627</td>
<td>35,360</td>
</tr>
<tr>
<td>Social welfare costs (PRSI and national insurance)</td>
<td>38,934</td>
<td>34,576</td>
</tr>
<tr>
<td>Other payroll benefits1</td>
<td>35,243</td>
<td>34,140</td>
</tr>
<tr>
<td>Total employee related costs charged to the income statement</td>
<td>695,578</td>
<td>611,532</td>
</tr>
</tbody>
</table>

1 These benefits primarily include travel and subsistence expenses.

(c) Pension and other employee benefit costs

<table>
<thead>
<tr>
<th></th>
<th>2017</th>
<th>2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pensions charge – other schemes2</td>
<td>47,156</td>
<td>45,374</td>
</tr>
<tr>
<td>NIE Networks pension scheme charge3</td>
<td>11,212</td>
<td>8,037</td>
</tr>
<tr>
<td>Release of restructuring provision4</td>
<td>(21,115)</td>
<td></td>
</tr>
<tr>
<td>Capitalised payroll</td>
<td>676,331</td>
<td>666,263</td>
</tr>
</tbody>
</table>

Total employee related costs charged to the income statement 465,368 465,169

2 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 GB employees (FMUK Pension Scheme). See note 21 for further details.

3 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 21 for further details.

4 A review of the restructuring provision was completed during the year and €21.1 million has been credited to the income statement (note 22) in respect of Parent.
9. (LOSS) / PROFIT FOR THE FINANCIAL YEAR

(a) Average number of employees in year by business activity, including temporary employees:

<table>
<thead>
<tr>
<th>Year</th>
<th>Electrical Ireland</th>
<th>ESB Networks</th>
<th>Generation and Wholesale Markets</th>
<th>Other Segments</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>310</td>
<td>3,338</td>
<td>626</td>
<td>99</td>
<td>3,933</td>
</tr>
<tr>
<td>2016</td>
<td>286</td>
<td>3,289</td>
<td>619</td>
<td>940</td>
<td>3,210</td>
</tr>
</tbody>
</table>

(b) Employee costs in year

<table>
<thead>
<tr>
<th>Year</th>
<th>€ '000</th>
<th>€ '000</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>1,052,687</td>
<td>1,080,987</td>
</tr>
<tr>
<td>2016</td>
<td>1,029,963</td>
<td>1,064,946</td>
</tr>
</tbody>
</table>

(c) Pension and other employee benefit costs

Pension charge

<table>
<thead>
<tr>
<th>Year</th>
<th>€ '000</th>
<th>€ '000</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>32.7</td>
<td>33.1</td>
</tr>
<tr>
<td>2016</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Other deferred income

<table>
<thead>
<tr>
<th>Year</th>
<th>€ '000</th>
<th>€ '000</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>37.7</td>
<td></td>
</tr>
<tr>
<td>2016</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

In 2016, amortisation of supply contributions was €32.7 million, compared to €33.1 million in 2016.

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 does include amounts paid to them by way of Board fees.

A review of the restructuring provision was completed during the year and €21.1 million has been credited to the income statement (note 22).

The pension charge includes contributions to the ESB Defined Contribution Scheme, and the ESB Defined Benefit Pension Scheme. See note 21 for further details.

The carrying value of non-depreciable assets (land) at 31 December 2017 is €913.9 million (2016: €874.4 million).

The carrying value of non-depreciable assets (land) at 31 December 2017 is €913.9 million (2016: €874.4 million).

The impairment reviews completed on ESB’s generation portfolio as part of the year end process have concluded that a number of material impairments are required in 2017 to a total value of €275.6 million, refer to note 4 for further details on these exceptional impairment items.

The Group incorporates a group capitalisation of interest of €23.5 million (2016: €49.2 million) in assets under construction, using an effective interest rate of 8.8% in 2017.

During the year the Group capitalised interest of €23.5 million (2016: €49.2 million) in assets under construction, using an effective interest rate of 8.8% in 2017.
NOTES TO THE FINANCIAL STATEMENTS

10. PROPERTY, PLANT & EQUIPMENT (continued)

<table>
<thead>
<tr>
<th>Parent</th>
<th>Land and buildings</th>
<th>Plant and machinery</th>
<th>Total assets in commission</th>
<th>Assets under construction</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>€ '000</td>
<td>€ '000</td>
<td>€ '000</td>
<td>€ '000</td>
<td>€ '000</td>
</tr>
<tr>
<td>Cost</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Balance at 1 January 2016</td>
<td>1,166,455</td>
<td>125,344,427</td>
<td>13,700,882</td>
<td>857,190</td>
<td>14,558,072</td>
</tr>
<tr>
<td>Additions</td>
<td>54,165</td>
<td>61,274</td>
<td>115,439</td>
<td>365,789</td>
<td>481,228</td>
</tr>
<tr>
<td>(3,324)</td>
<td>(1,122)</td>
<td>(16,446)</td>
<td></td>
<td>(15,446)</td>
<td></td>
</tr>
<tr>
<td>Transfers out of assets under construction</td>
<td>27,336</td>
<td>222,116</td>
<td>249,452</td>
<td>(249,452)</td>
<td></td>
</tr>
<tr>
<td>Transfers to intangible assets</td>
<td>(17,133)</td>
<td></td>
<td>(17,133)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Balance at 31 December 2016</td>
<td>1,244,632</td>
<td>128,055,695</td>
<td>14,050,327</td>
<td>956,294</td>
<td>15,006,721</td>
</tr>
<tr>
<td>Balance at 1 January 2017</td>
<td>1,244,632</td>
<td>128,055,695</td>
<td>14,050,327</td>
<td>956,294</td>
<td>15,006,721</td>
</tr>
<tr>
<td>Additions</td>
<td>57</td>
<td>254,655</td>
<td>254,612</td>
<td>274,490</td>
<td>529,092</td>
</tr>
<tr>
<td>(94)</td>
<td>(6,075)</td>
<td>(6,672)</td>
<td></td>
<td>(6,672)</td>
<td></td>
</tr>
<tr>
<td>Transfers out of assets under construction</td>
<td>11,255</td>
<td>393,889</td>
<td>375,144</td>
<td>(375,144)</td>
<td></td>
</tr>
<tr>
<td>Transfers to intangible assets</td>
<td>(268)</td>
<td>(268)</td>
<td>(24,283)</td>
<td>(24,283)</td>
<td></td>
</tr>
<tr>
<td>Balance at 31 December 2017</td>
<td>1,255,885</td>
<td>131,795,190</td>
<td>14,039,384</td>
<td>831,507</td>
<td>15,004,500</td>
</tr>
</tbody>
</table>

**Depreciation**

| Balance at 1 January 2016 | 671,636 | 6,784,180 | 7,455,816 |       |
| Charge for the year | 18,634 | 461,428 | 480,062 |       |
| Retirements / disposals | (1,610) | (11,177) | (13,327) |       |
| Balance at 31 December 2016 | 688,680 | 7,233,691 | 7,922,551 |       |
| Balance at 1 January 2017 | 688,680 | 7,233,691 | 7,922,551 |       |
| Charge for the year | 29,392 | 496,553 | 525,945 |       |
| Retirements / disposals | (87) | (6,228) | (6,315) |       |
| Transfers to intangible assets | (268) | (268) | (268) |       |
| Impairment | 24,764 | 211,808 | 236,572 |       |
| Balance at 31 December 2017 | 742,729 | 7,935,756 | 8,678,485 |       |

**Net book value at 31 December 2017**

<table>
<thead>
<tr>
<th>Parent</th>
<th>€ '000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Balance at 1 January 2016</td>
<td>513,121</td>
</tr>
<tr>
<td>Additions</td>
<td>5,481,437</td>
</tr>
<tr>
<td>Transfers out of assets under construction</td>
<td>5,994,358</td>
</tr>
<tr>
<td>Impairment</td>
<td>831,457</td>
</tr>
<tr>
<td>Net book value at 31 December 2017</td>
<td>6,286,015</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Parent</th>
<th>€ '000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Balance at 1 January 2016</td>
<td>555,972</td>
</tr>
<tr>
<td>Additions</td>
<td>5,571,934</td>
</tr>
<tr>
<td>Transfers out of assets under construction</td>
<td>6,127,718</td>
</tr>
<tr>
<td>Impairment</td>
<td>564,534</td>
</tr>
<tr>
<td>Net book value at 31 December 2017</td>
<td>7,084,710</td>
</tr>
</tbody>
</table>

During the year, the Parent capitalised interest of €21.7 million (2016: €29.3 million) in assets under construction, using an effective interest rate of 4.6% (2016: 4.0%).

**Other impairments** of €3.8 million have also been recognised during the year in relation to property, plant and equipment assets.

During the year the Parent capitalised interest of €21.7 million (2016: €29.3 million) in assets under construction, using an effective interest rate of 4.6% (2016: 4.0%).

**Intangible Assets**

11. INTANGIBLE ASSETS

<table>
<thead>
<tr>
<th>GROUP</th>
<th>Software and other intangible assets</th>
<th>€ '000</th>
<th>Emission allowances</th>
<th>€ '000</th>
<th>Software under development</th>
<th>€ '000</th>
<th>Total</th>
<th>€ '000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost</td>
<td>Balance at 1 January 2016</td>
<td>661,932</td>
<td>31,263</td>
<td>33,753</td>
<td>727,448</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Additions</td>
<td>4,395</td>
<td>-</td>
<td>36,364</td>
<td>40,759</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Purchase of emission allowances</td>
<td>-</td>
<td>-</td>
<td>91,614</td>
<td>91,614</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Purchase of emission allowances</td>
<td>(2,923)</td>
<td>-</td>
<td>-</td>
<td>(2,923)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Software write off</td>
<td>(859)</td>
<td>-</td>
<td>(61,154)</td>
<td>(61,154)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Settlemet of emission allowances</td>
<td>-</td>
<td>-</td>
<td>(61,154)</td>
<td>(61,154)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transfers out of software under development</td>
<td>14,024</td>
<td>-</td>
<td>(14,024)</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transfers from property, plant and equipment</td>
<td>-</td>
<td>-</td>
<td>28,022</td>
<td>28,022</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Translation differences</td>
<td>(28,184)</td>
<td>-</td>
<td>(30)</td>
<td>(28,214)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Balance at 31 December 2016</td>
<td>676,407</td>
<td>62,423</td>
<td>50,063</td>
<td>749,893</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Balance at 1 January 2017</td>
<td>676,407</td>
<td>62,423</td>
<td>50,063</td>
<td>749,893</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Software additions</td>
<td>1,068</td>
<td>-</td>
<td>56,334</td>
<td>57,402</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Purchase of emission allowances</td>
<td>-</td>
<td>-</td>
<td>31,795</td>
<td>31,795</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Purchase of emission allowances</td>
<td>(2,946)</td>
<td>-</td>
<td>(2,946)</td>
<td>(2,946)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Settlement of emission allowances</td>
<td>-</td>
<td>-</td>
<td>(63,232)</td>
<td>(63,232)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transfers out of software under development</td>
<td>14,031</td>
<td>-</td>
<td>(14,031)</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transfers from / to property, plant and equipment</td>
<td>24,898</td>
<td>-</td>
<td>-</td>
<td>24,898</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Translation differences</td>
<td>(5330)</td>
<td>-</td>
<td>(27)</td>
<td>(5357)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Balance at 31 December 2017</td>
<td>737,128</td>
<td>62,490</td>
<td>50,097</td>
<td>832,755</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Amortisation**

| Balance at 1 January 2016 | 499,908 | - | - | 499,908 |
| Charge for the year | 43,099 | - | - | 43,099 |
| Retirements / disposals | (1,020) | - | (1,020) | - |
| Translation differences | (20,285) | - | - | (20,285) |
| Balance at 31 December 2016 | 521,762 | - | - | 521,762 |
| Balance at 1 January 2017 | 521,762 | - | - | 521,762 |
| 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 |

<table>
<thead>
<tr>
<th>Parent</th>
<th>€ '000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Software additions</td>
<td>1,068</td>
</tr>
<tr>
<td>Purchase of emission allowances</td>
<td>-</td>
</tr>
<tr>
<td>Purchase of emission allowances</td>
<td>(2,946)</td>
</tr>
<tr>
<td>Settlement of emission allowances</td>
<td>-</td>
</tr>
<tr>
<td>Transfers out of software under development</td>
<td>14,031</td>
</tr>
<tr>
<td>Transfers from / to property, plant and equipment</td>
<td>24,898</td>
</tr>
<tr>
<td>Translation differences</td>
<td>(5330)</td>
</tr>
<tr>
<td>Balance at 31 December 2017</td>
<td>737,128</td>
</tr>
</tbody>
</table>

**Amortisation**

**Intangible assets** include grid connections and other wind farm development assets.

**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.

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 and other wind farm development assets.

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.

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 and other wind farm development assets.

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.
11. INTANGIBLE ASSETS (continued)

<table>
<thead>
<tr>
<th>PARENT</th>
<th>Software and other intangible assets</th>
<th>Emission allowances</th>
<th>Software under development</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>€ '000</td>
<td>€ '000</td>
<td>€ '000</td>
<td>€ '000</td>
</tr>
<tr>
<td>Cost</td>
<td>475,924</td>
<td>32,045</td>
<td>31,241</td>
<td>539,210</td>
</tr>
<tr>
<td>Software additions</td>
<td>3,960</td>
<td>-</td>
<td>30,743</td>
<td>34,693</td>
</tr>
<tr>
<td>Purchase of emission allowances</td>
<td>-</td>
<td>77,447</td>
<td>-</td>
<td>77,447</td>
</tr>
<tr>
<td>Software disposals</td>
<td>(2,923)</td>
<td>-</td>
<td>(2,923)</td>
<td>-</td>
</tr>
<tr>
<td>Settlement of emission allowances</td>
<td>(46,987)</td>
<td>(13,893)</td>
<td>-</td>
<td>(60,880)</td>
</tr>
<tr>
<td>Transfers out of software under development</td>
<td>13,693</td>
<td>-</td>
<td>-</td>
<td>13,693</td>
</tr>
<tr>
<td>Transfers from property, plant and equipment</td>
<td>17,183</td>
<td>-</td>
<td>-</td>
<td>17,183</td>
</tr>
<tr>
<td>Balance at 31 December 2016</td>
<td>507,777</td>
<td>62,505</td>
<td>48,291</td>
<td>618,573</td>
</tr>
<tr>
<td>Balance at 1 January 2017</td>
<td>507,777</td>
<td>62,505</td>
<td>48,291</td>
<td>618,573</td>
</tr>
<tr>
<td>Software additions</td>
<td>80</td>
<td>-</td>
<td>52,167</td>
<td>52,247</td>
</tr>
<tr>
<td>Purchase of emission allowances</td>
<td>-</td>
<td>13,262</td>
<td>-</td>
<td>13,262</td>
</tr>
<tr>
<td>Settlement of emission allowances</td>
<td>(13,029)</td>
<td>(13,029)</td>
<td>-</td>
<td>(26,058)</td>
</tr>
<tr>
<td>Transfers from / (to) property, plant and equipment</td>
<td>24,606</td>
<td>-</td>
<td>(55)</td>
<td>24,551</td>
</tr>
<tr>
<td>Balance at 31 December 2017</td>
<td>442,375</td>
<td>29,068</td>
<td>87,374</td>
<td>558,817</td>
</tr>
</tbody>
</table>

Amortisation

| Balance at 1 January 2016 | 379,824 | - | - | 379,824 |
| Charge for the year | 32,037 | - | - | 32,037 |
| Retirements / disposals | (1,020) | - | - | (1,020) |
| Balance at 31 December 2016 | 411,741 | - | - | 411,741 |
| 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 |

Net book value at 31 December 2017

<table>
<thead>
<tr>
<th>€ '000</th>
<th>€ '000</th>
</tr>
</thead>
<tbody>
<tr>
<td>155,117</td>
<td>29,088</td>
</tr>
<tr>
<td>96,100</td>
<td>30,366</td>
</tr>
</tbody>
</table>

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 and other wind farm development assets.

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.

12. GOODWILL

Balance at 1 January 2016

Translation differences

Balance at 31 December 2016

Balance at 1 January 2017

Translation differences

Balance at 31 December 2017

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 2017 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 8.6% (2016: 8.0%).

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.
13. FINANCIAL ASSET INVESTMENTS

NOTES TO THE FINANCIAL STATEMENTS

<table>
<thead>
<tr>
<th>Group</th>
<th>Equity accounted investments</th>
<th>Financial assets at fair value through profit or loss</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>€'000</td>
<td>€'000</td>
<td>€'000</td>
</tr>
</tbody>
</table>

**Balance at 1 January 2016**
- Balance: 157,413
- Additions: 10,066
- Transfer to other payables: -1,121
- Share of loss: -15,257
- Fair value movement on cash flow hedges: -3,258
- Fair value movement – transfer to income statement (note 5): -9,062
- Translation differences: 2,266
- Proceeds received on disposal: 2,266

**Balance at 31 December 2016**
- Balance: 137,492
- Additions: 2,565
- Disposal of investments: -2,266
- Transfer from other payables: -3,427
- Share of loss: -2,933
- Fair value movement on cash flow hedges: -13
- Fair value movement – transfer to income statement (note 5): -12
- Dividends received: -750
- Translation differences: -750

**Balance at 31 December 2017**
- Balance: 90,492

---

**Equity accounted investments**

The fair value movement on cash flow hedges for equity accounted investments relates to derivatives held in Raheenleagh Power DAC, Castlepook 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 as this company’s functional currency is sterling.

---

**Emerald Bridge Fibres DAC (EBFD)**

The Group is a 50% partner in EBFD, a joint arrangement formed 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 €47 million of which €10 million was advanced as equity and €37 million as shareholder loans. Interest on borrowings receivable to date from EBFD amounts to €1.8 million (2016: €1.4 million). Loans to EBFD were impaired by €3.9 million at 31 December 2017 (2016: €0 million) in relation to EBFD outstanding loans and accrued interest.

---

**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 BN3C 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 €33 million. €10 million was advanced as equity and €23 million as shareholder loans. Interest on borrowings receivable to date from Tilbury amounts to €1.3 million (2016: €1.4 million).

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 investment 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 from the wind farm. Payments made under this contract are based upon actual production. Tilbury reached commercial operation in 2016.

---

**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 wind farm located in Belcoocon, Co. Mayo. As at 31 December 2017 the amount invested in Oweninny as a shareholder loan amounts to €10.8 million. Interest on borrowings receivable to date from Oweninny amounts to €0.7 million (2016: €0.4 million). The Group’s share of capital commitments at 31 December 2017 amounts to €1.6 million.

---

**Sirop 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 €85.0 million, of which €40.0 million has been advanced as a short-term shareholder loan during the year. The Group’s share of capital commitments at 31 December 2017 amounts to €35.4 million.

---

**Rahenleigh Power DAC (Rahenleigh)**

The Group is a 50% partner in Rahenleigh, a joint arrangement formed with Coillte Teoranta. The purpose of this joint arrangement is to construct and operate a 33.1 MW wind farm in Co. Cork. In 2016, the Group recorded its remaining 50% equity investment at fair value. No gain or loss arose on the loss of control of subsidiary in 2016. The Group has classified its interest in Rahenleigh as an equity accounted investee. The Group’s share of capital commitments at 31 December 2017 amounts to €8.9 million.

---

**Emerald Bridge Fibres DAC (EBFD)**

The Group is a 50% partner in EBFD, a joint arrangement formed 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 €47 million of which €10 million was advanced as equity and €37 million as shareholder loans. Interest on borrowings receivable to date from EBFD amounts to €1.8 million (2016: €1.4 million). Loans to EBFD were impaired by €3.9 million at 31 December 2017 (2016: €0 million) in relation to EBFD outstanding loans and accrued interest.

Investment in EBFD was held at €nil at 31 December 2017.

---

**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 BN3C 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 €33 million. €10 million was advanced as equity and €23 million as shareholder loans. Interest on borrowings receivable to date from Tilbury amounts to €1.3 million (2016: €1.4 million).

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 from the wind farm. Payments made under this contract are based upon actual production. Tilbury reached commercial operation in 2016.
NOTES TO THE FINANCIAL STATEMENTS

13. FINANCIAL ASSET INVESTMENTS (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:

<table>
<thead>
<tr>
<th>SIRO Limited</th>
<th>Tilbury Green Power Holdings Limited</th>
<th>Other equity accounted investees</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenue</td>
<td>€'000</td>
<td>€'000</td>
</tr>
<tr>
<td>Total (loss)/gain</td>
<td>(27,661)</td>
<td>(28,942)</td>
</tr>
<tr>
<td>Share of group (loss)/gain</td>
<td>(12,921)</td>
<td>(14,471)</td>
</tr>
<tr>
<td>Group share of fair value movement on cash flow hedges</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Total comprehensive (loss)/gain</td>
<td>(13,931)</td>
<td>(14,971)</td>
</tr>
</tbody>
</table>

| Current assets | €'000 | €'000 | €'000 | €'000 |
| Cash | 11,787 | 10,558 | 25,891 | 13,744 |
| Current assets | 7,937 | 4,090 | 5,569 | 2,439 |
| Non-current assets | 111,958 | 81,682 | 111,958 | 81,682 |
| Non-current liabilities | (129,191) | (90,133) | (3,261) | (3,202) |
| Non-current liabilities | (760) | (226,192) | (187,803) | (118,759) |
| Net assets | 126,303 | 164,182 | 1,797 | 1,540 |

Reconciliation of the above amounts to the investment recognised in the consolidated statement of financial position:

| Group equity interest | 50% | 50% | 47% | 47% |
| Net assets | 126,303 | 164,182 | 1,797 | 1,540 |
| Other assets | 196 | 196 | 196 | 196 |
| Other adjustments | (484) | (484) | (484) | (484) |
| Carrying value of Group's equity interest | 82,957 | 109,027 | 844 | 742 |

Other equity accounted investees include ESB's 50% share in Emerald Bridge Fibres DAC, Kingspan ESB Limited, Raheenleagh Power DAC, Greenvision Power DAC, Casselbrook Power DAC and 25% share in Terra Solar Limited.

Interest in financial assets held at fair value through profit and loss

The Group owns a venture capital fund, Noxomuris, 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. Additions include investments in a number of clean energy and new technology companies and also an investment in VantagePoint clean energy fund. These investments have been fair valued at the year end and the movement in the income statement. The fair value movements in both 2017 and 2016 primarily relate to the value of certain investments in the fund.

At 31 December 2017, the Group could be called upon by its partners in the VantagePoint fund to make a further €0.5 million (2016: €0.5 million) investment in the fund.

<table>
<thead>
<tr>
<th>PARENT</th>
<th>2017</th>
<th>2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Equity accounted investments</td>
<td>€'000</td>
<td>€'000</td>
</tr>
<tr>
<td>Subsidiary undertakings</td>
<td>€'000</td>
<td>€'000</td>
</tr>
<tr>
<td>Balance at 1 January 2016</td>
<td>100,000</td>
<td>61,782</td>
</tr>
<tr>
<td>Balance at 31 December 2016</td>
<td>100,000</td>
<td>61,782</td>
</tr>
</tbody>
</table>

1 Other equity accounted investees include ESB's 50% share in Emerald Bridge Fibres DAC, Kingspan ESB Limited, Raheenleagh Power DAC, Greenvision Power DAC, Casselbrook Power DAC and 25% share in Terra Solar Limited.

14. INVENTORIES

<table>
<thead>
<tr>
<th>GROUP</th>
<th>2017</th>
<th>2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parent</td>
<td>€'000</td>
<td>€'000</td>
</tr>
<tr>
<td>Materials</td>
<td>50,319</td>
<td>31,665</td>
</tr>
<tr>
<td>Fuel</td>
<td>58,821</td>
<td>41,507</td>
</tr>
<tr>
<td>Construction work in progress</td>
<td>12,845</td>
<td>-</td>
</tr>
<tr>
<td>Total</td>
<td>121,985</td>
<td>73,172</td>
</tr>
</tbody>
</table>

Inventories consumed during the year ended 31 December 2017 totalled €145.6 million (2016: €115.9 million). There were no inventory impairments recognised during the year (2016: €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.

15. TRADE AND OTHER RECEIVABLES

<table>
<thead>
<tr>
<th>GROUP</th>
<th>2017</th>
<th>2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parent</td>
<td>€'000</td>
<td>€'000</td>
</tr>
<tr>
<td>Current receivables:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Retail electricity receivables - billed</td>
<td>54,902</td>
<td>69,990</td>
</tr>
<tr>
<td>Retail electricity receivables - unbilled</td>
<td>187,600</td>
<td>192,968</td>
</tr>
<tr>
<td>Total retail electricity receivables</td>
<td>242,502</td>
<td>262,958</td>
</tr>
<tr>
<td>SEM pool related receivables</td>
<td>154,162</td>
<td>182,970</td>
</tr>
<tr>
<td>Use of System receivables (including unbilled)</td>
<td>232,158</td>
<td>238,386</td>
</tr>
<tr>
<td>Other electricity receivables</td>
<td>18,230</td>
<td>24,030</td>
</tr>
<tr>
<td>total electricity receivables</td>
<td>585,194</td>
<td>585,007</td>
</tr>
<tr>
<td>Trade receivables - non-electricity</td>
<td>56,388</td>
<td>59,428</td>
</tr>
<tr>
<td>Amounts due from equity accounted investees</td>
<td>68,278</td>
<td>55,935</td>
</tr>
<tr>
<td>Other receivables</td>
<td>34,753</td>
<td>82,575</td>
</tr>
<tr>
<td>Amounts due from subsidiary undertakings</td>
<td>273,372</td>
<td>270,072</td>
</tr>
<tr>
<td>Prepayments</td>
<td>39,368</td>
<td>38,320</td>
</tr>
<tr>
<td>Total</td>
<td>783,981</td>
<td>770,081</td>
</tr>
</tbody>
</table>

Wholesale and retail credit risk

Trade and other receivables can be divided into final retail electricity customers (billed and unbilled), SEM pool related receivables, Use of System receivables, other (non-electricity) receivables and equity accounted investees.

The maximum credit exposure of the Group at 31 December is set out on the following page. Prepayments of €39.4 million (2016: €38.3 million) are excluded from the analysis as no credit exposure is perceived in relation to these. In the case of the Parent, balances stated in the following table also exclude amounts due from subsidiary undertakings of €2,284.3 million (2016: €2,766.9 million). A credit risk analysis was carried out during the year on amounts due from subsidiary undertakings and an impairment provision of €330.9 million was recognised for the year end 31 December 2017 (2016: €nil).

The maximum credit exposure of the Group at 31 December is set out on the following page. Prepayments of €39.4 million (2016: €38.3 million) are excluded from the analysis as no credit exposure is perceived in relation to these. In the case of the Parent, balances stated in the following table also exclude amounts due from subsidiary undertakings of €2,284.3 million (2016: €2,766.9 million). A credit risk analysis was carried out during the year on amounts due from subsidiary undertakings and an impairment provision of €330.9 million was recognised for the year end 31 December 2017 (2016: €nil).
15. TRADE AND OTHER RECEIVABLES (continued)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>PARENT</td>
<td>€ '000</td>
<td>€ '000</td>
<td>€ '000</td>
<td>€ '000</td>
<td>€ '000</td>
<td>€ '000</td>
</tr>
<tr>
<td>Not past due</td>
<td>310,176 (1,729)</td>
<td>308,447</td>
<td>251,607 (653)</td>
<td>250,954</td>
<td>32,010</td>
<td>354,537</td>
</tr>
<tr>
<td>Past due 30 days</td>
<td>30,768 (3,339)</td>
<td>27,429</td>
<td>34,668 (702)</td>
<td>33,966</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Past due 30-120 days</td>
<td>8,181 (3,844)</td>
<td>4,497</td>
<td>9,547 (1,094)</td>
<td>8,453</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Past due &gt; 120 days</td>
<td>21,772 (10,711)</td>
<td>11,061</td>
<td>18,176 (15,985)</td>
<td>3,191</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Past due by more than one year</td>
<td>15,650 (12,647)</td>
<td>3,103</td>
<td>18,286 (17,725)</td>
<td>560</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>386,547 (32,010)</td>
<td>354,537</td>
<td>333,284 (38,169)</td>
<td>297,124</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Management does not expect any significant losses of receivables that have not been provided for as shown above. As explained below overdue amounts, including amounts past due by more than one year, are impaired only to the extent that there is evidence that they are not ultimately recoverable. The impairment provision recognised is collective rather than specific in nature and is calculated based on the level of credit risk perceived in relation to the underlying balances. The movement in the allowance for impairment in respect of trade receivables during the year was as follows:

**Retail electricity receivables**

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 an 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 follow-up, the use of debt collection agencies and legal action when necessary including the obtaining of publication of judgements.

The impairment provisioning policy in relation to retail electricity receivables is based on the historical experience of debts written off. Provision may be made in respect of specific balances where there is evidence of a dispute or an inability to settle. An additional provision is made on a portfolio basis to cover additional anticipated losses based on an analysis of previous losses experienced and an evaluation of the impact of economic conditions and particular industry issues. Provision is not made in cases where appropriate repayment arrangements are in place and there is evidence that balances are ultimately recoverable, notwithstanding that such balances may be seriously in arrears. Collateral is held in the form of security deposits on new customers accounts not on direct debit arrangements. The largest single billed retail balance outstanding at 31 December 2017 was €112,000 (2016: €135,000).

Controls around electricity receivables are focused on the full recovery of amounts invoiced. In 2017, electricity receivables to the value of €388.8 million (2016: €45.1 million) were provided for at year end. The single largest electricity receivable amount outstanding was €360,000 (2016: €486,000) relating to a customer that went into liquidation. Retail electricity receivables arise largely in the Republic of Ireland (ROI), with 5% (2016: 4%) relating to Northern Ireland (NI) revenue.

Unbilled electricity receivables represent estimates of consumption not yet invoiced.

**Use of System receivables**

Use of System income in ROI comprises of Distribution Use of System (DUsO) income, Transmission Use of System (TUsO) income and operation and maintenance (O&M) charges for generators connected to the Distribution System. The credit terms for DUsO are 10 business days and there are currently 35 suppliers. TUsO 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 172 generators during 2017 for operation and maintenance charges. 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. In addition, amounts due from subsidiary undertakings in Parent are included in “Amounts billed and collected through Networks DAC, a subsidiary of the Parent in respect of Use of System receivables €55.2 million (2016: €70.4 million).”

The credit risk in relation to DUsO is managed by the invocation of section 7 of the DUsO 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 a customer they must sign up to the DUsO agreement. All suppliers must provide security in accordance with section 7.2. The DUsO 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 DUsO 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 DUsO Framework Agreement there is security cover in place for all suppliers. TUsO credit risk is managed through the timely collection procedures in place and the monitoring of debtor days to keep these to a minimum. Provisions for the payment by EirGrid of TUsO income due to ESB Networks 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 TUsO receivables is considered to be low. The amount due in respect of TUsO income at 31 December 2017 was €40.5 million (2016: €40.4 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, PPSO charges levied on electricity suppliers and charges for transmission services levied on 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 2017 is €365 million (2016: €104.4 million).

**Other electricity receivables**

Other electricity receivables include amounts in relation to Public Service Obligation (PSO) levy in addition to amounts relating to ancillary services and electricity trading in the UK market which is not included in the ROI.
17. CHANGES IN EQUITY

(i) Capital stock

<table>
<thead>
<tr>
<th>Issue</th>
<th>2017</th>
<th>2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>1,975,182</td>
<td>1,979,881</td>
</tr>
</tbody>
</table>

In accordance with the Electricity (Supply) (Amendment) Act 2001, on 30 December 2001, the equity of ESB was converted to capital stock and issued to the Department of Finance. At the same time, ESB ESOE 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 2000 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.

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.

(ii) Capital redemption reserve

In May 2015, the ESB Board approved a 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 €25.5 million of funds to acquire capital stock in the ESOP internal market. ESB will match the expenditure committed by the ESOP Trustee in the period 2014–2018.

During 2017, ESB commenced the repurchase of the ESOP capital stock and consequently a capital redemption reserve arose from the purchase and cancellation of own share capital (€4.7 million) for a consideration of €5.0 million and represents the nominal amount of the share capital cancelled (note 30).

(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 IAS 39, 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:

- Reserve of €0.6 million (2016: €13.2 million) which arose following the acquisition of the remaining 30% of Synergy Power Limited in 2009 which was fully transferred to retained earnings during the year;
- Non-distributable reserves of €15.0 million which was created on the sale of the Group’s share in Ocean Communications Limited in 2001;
- Actuarial movements on the NE Networks defined benefit scheme; net of the related deferred tax adjustments, totalling (€20.3) million (2016: (€28.6) million); and
- ESOP repurchase provision of €(15.9) million (2016: €19.1) million which relates to the amount that ESB has committed at 31 December 2017 to repurchase from the ESOP internal market.

Parent other reserves include the following:

- ESOP repurchase provision of €(15.9) million (2016: €19.1) million which relates to the amount that ESB has committed at 31 December 2017 to repurchase from the ESOP internal market.

(v) Non-controlling interest - Group

Non-controlling interests at 31 December 2017 relate to the minority shareholdings in Crockahenny Wind Farm DAC, Mountain Lodge Power DAC, Asoil Energy Limited and wind farms associated with Conisill Energy.

(vi) Dividends

<table>
<thead>
<tr>
<th>2017</th>
<th>2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>GROUP</td>
<td>€'000</td>
</tr>
<tr>
<td>Dividends paid per share</td>
<td>0.85 (2016: 0.437)</td>
</tr>
<tr>
<td>Dividend to non-controlling interest</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>116,624</td>
</tr>
<tr>
<td>PARENT</td>
<td>€'000</td>
</tr>
<tr>
<td>Dividends paid per share</td>
<td>0.85 (2016: 0.437)</td>
</tr>
<tr>
<td>Total</td>
<td>116,624</td>
</tr>
</tbody>
</table>

Total dividends paid during 2017 amounted to €115.2 million and include a final dividend of €90.2 million (3.05 cent per unit of stock) in respect of 2016 and an interim dividend, declared and paid, of €25.0 million (2.80 cent per unit of stock).

The Board is now recommending that a final dividend of 2.23 cent per unit of capital stock, or €4.6 million in aggregate, in accordance with the dividend policy of 40% of adjusted profit after tax agreed with the government.

NOTES TO THE FINANCIAL STATEMENTS

18. TAXATION

(a) Income tax expense

<table>
<thead>
<tr>
<th>2017</th>
<th>2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current tax expense</td>
<td>€'000</td>
</tr>
<tr>
<td>Current tax</td>
<td>25,777</td>
</tr>
<tr>
<td>Prior year over provision</td>
<td>(2,071)</td>
</tr>
<tr>
<td>Value of tax losses surrendered to equity accounted investees</td>
<td>2,888</td>
</tr>
<tr>
<td>Deferred tax expense</td>
<td>(9,654)</td>
</tr>
<tr>
<td>Origination and reversal of temporary differences</td>
<td>-</td>
</tr>
<tr>
<td>Reduction in tax rate1</td>
<td>-</td>
</tr>
<tr>
<td>Prior year under provision</td>
<td>5,838</td>
</tr>
<tr>
<td>Total</td>
<td>25,774</td>
</tr>
</tbody>
</table>

Reconciliation of effective tax rate

<table>
<thead>
<tr>
<th>2017</th>
<th>2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Loss) / profit before tax</td>
<td>€'000</td>
</tr>
<tr>
<td>Plus: after tax share of equity accounted investees</td>
<td>(1,639)</td>
</tr>
<tr>
<td>Taxed at 125%</td>
<td>(205)</td>
</tr>
<tr>
<td>Expenses not deductible</td>
<td>18,702</td>
</tr>
<tr>
<td>Deferred tax asset on IDC previously unrecognised2</td>
<td>-</td>
</tr>
<tr>
<td>Income not taxable2</td>
<td>(3,212)</td>
</tr>
<tr>
<td>Capital gains on development land</td>
<td>271</td>
</tr>
<tr>
<td>Income taxed at higher rate of corporation tax</td>
<td>3,026</td>
</tr>
<tr>
<td>Impact of reduced rate of UK tax on deferred tax3</td>
<td>-</td>
</tr>
<tr>
<td>Revisions to prior year estimates</td>
<td>3,267</td>
</tr>
<tr>
<td>Other items</td>
<td>-</td>
</tr>
<tr>
<td>Income tax expense</td>
<td>21,978</td>
</tr>
</tbody>
</table>

1 This relates to a deduction on interest during construction (IDC) in respect of property, plant and equipment previously not recognised.
2 This relates to disposals of shares in wind farm companies in the UK that qualified for substantial shareholding relief.
3 The 2016 Budget for the UK included the provision that the UK corporation tax rate will reduce to 17% over a period up to 2020. The reduction in the UK corporation tax rate to 17% (effective 1 April 2020) was substantively enacted on 15 September 2016. This will reduce the Group’s future current tax charge accordingly. The deferred tax liability at 31 December 2017 has been calculated based on the rate of 17% (2016: 17%) substantively enacted at the balance sheet date.
### 18. TAXATION (continued)

#### (b) Deferred tax assets and liabilities

**GROUP**

<table>
<thead>
<tr>
<th></th>
<th>2017</th>
<th>2016</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Deferred tax assets</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Property, plant and equipment and intangible assets</td>
<td>2,176</td>
<td>1,703</td>
</tr>
<tr>
<td>Liability – ESB pension scheme</td>
<td>24,300</td>
<td>28,004</td>
</tr>
<tr>
<td>Provisions</td>
<td>1,985</td>
<td>3,136</td>
</tr>
<tr>
<td><strong>Total deferred tax assets</strong></td>
<td>24,560</td>
<td>32,146</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>2017</th>
<th>2016</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Deferred tax liabilities</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Property, plant and equipment and intangible assets</td>
<td>645,987</td>
<td>680,132</td>
</tr>
<tr>
<td>Provisions</td>
<td>6,703</td>
<td>796</td>
</tr>
<tr>
<td>Derivative financial instruments</td>
<td>23,983</td>
<td>27,334</td>
</tr>
<tr>
<td>Capital gains tax</td>
<td>1,180</td>
<td>1,180</td>
</tr>
<tr>
<td><strong>Total deferred tax liabilities</strong></td>
<td>677,853</td>
<td>709,442</td>
</tr>
</tbody>
</table>

**Net deferred tax liability** | (499,193) | (508,701) |

The movement in temporary differences for the Group were as follows:

<table>
<thead>
<tr>
<th></th>
<th>2017</th>
<th>2016</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ASSETS</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Property, plant and equipment and intangible assets</td>
<td>1,703</td>
<td>1,703</td>
</tr>
<tr>
<td>Liability – ESB pension scheme</td>
<td>24,300</td>
<td>28,004</td>
</tr>
<tr>
<td>Provisions</td>
<td>1,985</td>
<td>3,136</td>
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</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>2017</th>
<th>2016</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>LIABILITIES</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Property, plant and equipment and intangible assets</td>
<td>690,132</td>
<td>(36,698)</td>
</tr>
<tr>
<td>Provisions</td>
<td>796</td>
<td>1,180</td>
</tr>
<tr>
<td>Derivative financial instruments</td>
<td>23,983</td>
<td>27,334</td>
</tr>
<tr>
<td>Capital gains tax</td>
<td>1,180</td>
<td>1,180</td>
</tr>
<tr>
<td><strong>Total deferred tax liabilities</strong></td>
<td>444,160</td>
<td>468,373</td>
</tr>
</tbody>
</table>

**Net deferred tax liability** | (369,686) | (369,686) |

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 €538.0 million (2016: €546.0 million) as at 31 December 2017.

<table>
<thead>
<tr>
<th></th>
<th>2017</th>
<th>2016</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ASSETS</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Property, plant and equipment and intangible assets</td>
<td>1,753</td>
<td>(50)</td>
</tr>
<tr>
<td>Liability - ESB Networks pension scheme</td>
<td>25,556</td>
<td>9,839</td>
</tr>
<tr>
<td>Liability - ESB pension scheme</td>
<td>87,266</td>
<td>21,655</td>
</tr>
<tr>
<td>Provisions</td>
<td>3,663</td>
<td>527</td>
</tr>
<tr>
<td><strong>Total deferred tax assets</strong></td>
<td>106,648</td>
<td>25,067</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>2017</th>
<th>2016</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>LIABILITIES</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Property, plant and equipment and intangible assets</td>
<td>731,414</td>
<td>(304,840)</td>
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<tr>
<td>Provisions</td>
<td>166</td>
<td>630</td>
</tr>
<tr>
<td>Derivative financial instruments</td>
<td>18,322</td>
<td>16,619</td>
</tr>
<tr>
<td>Capital gains tax</td>
<td>1,180</td>
<td>1,180</td>
</tr>
<tr>
<td><strong>Total deferred tax liabilities</strong></td>
<td>751,082</td>
<td>(130,437)</td>
</tr>
</tbody>
</table>

**Net deferred tax liability / asset** | (543,836) | (105,370) |

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 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 €538.0 million (2016: €546.0 million) as at 31 December 2017.

<table>
<thead>
<tr>
<th></th>
<th>2017</th>
<th>2016</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ASSETS</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Property, plant and equipment and intangible assets</td>
<td>2,176</td>
<td>1,703</td>
</tr>
<tr>
<td>Liability – ESB Networks pension scheme</td>
<td>24,300</td>
<td>28,004</td>
</tr>
<tr>
<td>Provisions</td>
<td>1,985</td>
<td>3,136</td>
</tr>
<tr>
<td><strong>Total deferred tax assets</strong></td>
<td>24,560</td>
<td>32,146</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>2017</th>
<th>2016</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>LIABILITIES</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Property, plant and equipment and intangible assets</td>
<td>645,987</td>
<td>680,132</td>
</tr>
<tr>
<td>Provisions</td>
<td>6,703</td>
<td>796</td>
</tr>
<tr>
<td>Derivative financial instruments</td>
<td>23,983</td>
<td>27,334</td>
</tr>
<tr>
<td>Capital gains tax</td>
<td>1,180</td>
<td>1,180</td>
</tr>
<tr>
<td><strong>Total deferred tax liabilities</strong></td>
<td>677,853</td>
<td>709,442</td>
</tr>
</tbody>
</table>

**Net deferred tax liability** | (499,193) | (508,701) |
NOTES TO THE FINANCIAL STATEMENTS

18. TAXATION (continued)

(b) Deferred tax assets and liabilities (continued)

The movement in temporary differences for the Parent were as follows:

**ASSETS**

<table>
<thead>
<tr>
<th>Description</th>
<th>Balance at 1 January € '000</th>
<th>Recognised in income € '000</th>
<th>Recognised in OCI € '000</th>
<th>Balance at 31 December € '000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Liability – ESB pension scheme</td>
<td>65,602</td>
<td>(16,311)</td>
<td></td>
<td>49,291</td>
</tr>
<tr>
<td>Provisions</td>
<td>2,358</td>
<td>-</td>
<td>17,870</td>
<td>17,870</td>
</tr>
<tr>
<td>Derivative financial instruments</td>
<td></td>
<td>7,413</td>
<td></td>
<td>7,413</td>
</tr>
<tr>
<td>Total deferred tax assets</td>
<td>67,960</td>
<td>(7,500)</td>
<td></td>
<td>74,574</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>LIABILITIES</th>
<th>Balance at 1 January € '000</th>
<th>Recognised in income € '000</th>
<th>Recognised in OCI € '000</th>
<th>Balance at 31 December € '000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Property, plant and equipment</td>
<td>464,569</td>
<td>(25,322)</td>
<td></td>
<td>439,247</td>
</tr>
<tr>
<td>Derivative financial instruments</td>
<td>2,624</td>
<td>-</td>
<td>1,109</td>
<td>3,733</td>
</tr>
<tr>
<td>Capital gains tax</td>
<td>1,180</td>
<td></td>
<td></td>
<td>1,180</td>
</tr>
<tr>
<td>Total deferred tax liabilities</td>
<td>498,373</td>
<td>(26,322)</td>
<td>1,109</td>
<td>524,151</td>
</tr>
</tbody>
</table>

Net deferred tax liabilities / asset

| 2017                              | Recognised in income € '000 | Recognised in OCI € '000 | Recognised in income 6,304 | Recognised in OCI 395,586 |
|                                  | 400,413                     |                           |                           |                              |

| 2016                              | Recognised in income € '000 | Recognised in OCI € '000 | Recognised in income 6,304 | Recognised in OCI 395,586 |
|                                  | 24,523                      |                           |                           |                              |

19. BORROWINGS AND OTHER DEBT

<table>
<thead>
<tr>
<th>Group</th>
<th>Recourse borrowings € '000</th>
<th>Non-recourse borrowings € '000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>1,093,127</td>
<td>2,877,987</td>
</tr>
</tbody>
</table>

Current borrowings

- Repayable by instalments
  - Between one and two years 76,019
  - Between two and five years 349,259
  - After five years 305,987

- Repayable other than by instalments
  - Between one and two years 432,485
  - Between two and five years 349,259
  - After five years 2,206,085

Non-current borrowings

- Repayable by instalments
  - Between one and two years 119,636
  - Between two and five years 349,259
  - After five years 500,984

- Repayable other than by instalments
  - Between one and two years 303,430
  - Between two and five years 825,237
  - After five years 2,085,776

Total current borrowings 1,093,127

Total non-current borrowings 2,877,987

Total borrowings outstanding 3,971,114

See section (b) for details of applicable interest rates.

Current borrowings by facility

<table>
<thead>
<tr>
<th>Ref</th>
<th>ESB Eurobonds</th>
<th>Non-recourse long-term project finance debt</th>
<th>Non-recourse NIE Networks Eurobonds</th>
<th>Long-term bank borrowings</th>
<th>Private placement borrowings</th>
<th>Non-recourse short-term project finance debt (Ansolution)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>119,636</td>
<td>349,259</td>
<td>305,987</td>
<td>500,984</td>
<td>303,430</td>
<td>2,206,085</td>
</tr>
<tr>
<td></td>
<td>119,636</td>
<td>349,259</td>
<td>305,984</td>
<td>500,984</td>
<td>303,430</td>
<td>2,206,085</td>
</tr>
</tbody>
</table>

Non-current borrowings by facility

<table>
<thead>
<tr>
<th>Ref</th>
<th>ESB Eurobonds</th>
<th>Non-recourse long-term project finance debt</th>
<th>Non-recourse NIE Networks Eurobonds</th>
<th>Long-term bank borrowings</th>
<th>Private placement borrowings</th>
<th>Non-recourse short-term project finance debt (Ansolution)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>119,636</td>
<td>349,259</td>
<td>305,984</td>
<td>500,984</td>
<td>303,430</td>
<td>2,206,085</td>
</tr>
<tr>
<td></td>
<td>119,636</td>
<td>349,259</td>
<td>305,984</td>
<td>500,984</td>
<td>303,430</td>
<td>2,206,085</td>
</tr>
</tbody>
</table>

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), BBB+ from Fitch (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 2017:

<table>
<thead>
<tr>
<th>Issuer</th>
<th>Value (€ million)</th>
<th>Issue Date</th>
<th>Tenor</th>
<th>Coupon</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESB Finance DAC</td>
<td>350,000.0</td>
<td>March 2016</td>
<td>10 years</td>
<td>6.500%</td>
</tr>
<tr>
<td>ESB Finance DAC</td>
<td>420,000.0</td>
<td>November 2012</td>
<td>7 years</td>
<td>4.975%</td>
</tr>
<tr>
<td>ESB Finance DAC</td>
<td>230,000.0</td>
<td>November 2013</td>
<td>10 years</td>
<td>3.494%</td>
</tr>
<tr>
<td>ESB Finance DAC</td>
<td>350,000.0</td>
<td>June 2015</td>
<td>12 years</td>
<td>2.125%</td>
</tr>
<tr>
<td>ESB Finance DAC</td>
<td>500,000.0</td>
<td>June 2016</td>
<td>15 years</td>
<td>1.875%</td>
</tr>
<tr>
<td>ESB Finance DAC</td>
<td>500,000.0</td>
<td>January 2017</td>
<td>12 years</td>
<td>1.750%</td>
</tr>
</tbody>
</table>
19. BORROWINGS AND OTHER DEBT (continued)

2. Non-recourse long-term project finance debt
In September 2012 Carlington Power Limited (CPL), a 100% owned subsidiary of ESB, completed the financial close of an 885 MW combined cycle gas turbine power plant in Carlington, near Manchester. Finance was structured on a T030 debt / equity basis, with the debt of £532.0 million being provided by a syndicate of banks by way of non-recourse project finance, incorporating export credit support from the Swiss Export Credit Agency, SERV. Stg£396.0 million (2016: Stg£420.1 million) debt was drawn at the year end. The plant entered commercial operation in September 2016 marking the end of construction. 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 is repayable in 2018. In June 2011, NIE Finance PLC, a subsidiary company of Northern Ireland Electricity Networks Limited issued a Stg£400.0 million 15 year sterling bond with a fixed coupon of 6.375%.

4. Long-term bank borrowings
Long-term bank borrowings include €352.5 million (2016: €113.2 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. This facility is undrawn at 31 December 2017. It is available to finance both the Group’s current liquidity requirements and any expected cash flow requirements. A €2.70 billion syndicated loan facility with a number of well-rated financial institutions as well as EIB (European Investment Bank) was signed in December 2013 with the European Investment Bank (EIB) to support renewable connections to the electricity network in the southwest of Ireland was increased by a further €100.0 million in October 2014, bringing the total value of the facility up to €200.0 million dependent on the completion of certain specified capital expenditure. In December 31 2017, €100.0 million of the EIB facility has been drawn down.

5. Private placement borrowings
The first private placement senior unsecured notes were issued to a range of institutional investors in December 2009. These fixed rate notes were issued in US dollars and sterling and in 31 December 2017 comprise US$370.0 million, maturing on dates between 2018 and 2023, and Stg£20.0 million, maturing on dates between 2018 and 2023.

The second private placement senior unsecured notes were issued in June 2009. These notes were issued in US dollars, sterling and at 31 December 2017 comprise US$205.0 million, maturing in 2019, Stg£35.0 million maturing in 2021 and €40.0 million maturing in 2019, Stg£35.0 million of this debt was repaid in June 2017 as scheduled.

The private placement debt and certain other facilities have conditions which require ESB to maintain certain interest cover and asset covenants. At 31 December 2017 ESB is fully in compliance with all the covenant requirements associated with the private placement debt and other facilities.

6. Non-recourse short-term project finance debt
Short-term non-recourse project funding of Stg£337.0 million at 31 December 2016 was repaid during the year. This was in relation to the financing of certain Avonmore projects.

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 (UK), as outlined below:

Sterling denominated loans designated as a hedge of Group’s investment in subsidiary

<table>
<thead>
<tr>
<th>Year</th>
<th>€’000</th>
<th>€’000</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>44,563</td>
<td>64,981</td>
</tr>
<tr>
<td>2016</td>
<td>(10,872)</td>
<td>(11,892)</td>
</tr>
<tr>
<td>Rate on translation to euro</td>
<td>1,655</td>
<td>8,026</td>
</tr>
<tr>
<td>Value at 31 December</td>
<td>32,254</td>
<td>44,563</td>
</tr>
</tbody>
</table>

Loss on translation of intragroup euro loan to subsidiary (taken to OCI)
(1,034) (5,029)

(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 treasurers 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 debt capital markets to pre-fund, or pre-finance, any funding requirements arising from maturing debt, capital expenditure and general business requirements. At 31 December 2017 the Group had over €1.9 billion available in cash or cash equivalents and committed bank facilities, ensuring liquidity demands can be met as required. The committed bank facilities include a syndicated loan facility with a large number of well-rated financial institutions as well as facilities with the EIB. Included in the amount disclosed are facilities totalling €83.0 million (which may be increased to €100.0 million) and can only be drawn against certain specified capital expenditure.

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:

<table>
<thead>
<tr>
<th>maturity</th>
<th>in one year or less</th>
<th>between one and two years</th>
<th>between two and five years</th>
<th>after five years</th>
</tr>
</thead>
<tbody>
<tr>
<td>2018</td>
<td>388,073</td>
<td>592,121</td>
<td>791,515</td>
<td>4,797,778</td>
</tr>
<tr>
<td>2019-2023</td>
<td>469,330</td>
<td>403,577</td>
<td>1,175,201</td>
<td>2,819,335</td>
</tr>
<tr>
<td>2023-2025</td>
<td>170,370</td>
<td>304,389</td>
<td>260,614</td>
<td>1,330,578</td>
</tr>
<tr>
<td>2025-2027</td>
<td>132,858</td>
<td>308,458</td>
<td>534,034</td>
<td>403,577</td>
</tr>
<tr>
<td>2027-2028</td>
<td>83,000</td>
<td>132,858</td>
<td>692,821</td>
<td>170,370</td>
</tr>
<tr>
<td>2028-2029</td>
<td></td>
<td></td>
<td></td>
<td>94,097</td>
</tr>
<tr>
<td>2029-2030</td>
<td></td>
<td></td>
<td></td>
<td>38,751</td>
</tr>
<tr>
<td>2030-2031</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(1) EUR to USD exchange rate is 1:1.50 for the year to 31 December 2017. The year end forward rate is 1:1.50.
NOTES TO THE FINANCIAL STATEMENTS

10. 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 €3,427.2 million (2016: €3,345.2 million) are included in the Group balances below:

<table>
<thead>
<tr>
<th>Contractual amount</th>
<th>Carrying amount</th>
<th>Within 1 year</th>
<th>1-2 years</th>
<th>2-5 years</th>
<th>More than 5 years</th>
</tr>
</thead>
<tbody>
<tr>
<td>€ '000</td>
<td>€ '000</td>
<td>€ '000</td>
<td>€ '000</td>
<td>€ '000</td>
<td>€ '000</td>
</tr>
</tbody>
</table>

31 December 2017
Recourse borrowings 3,664,651 4,521,873 301,975 633,290 726,694 2,787,714
Non-recourse borrowings 1,093,127 1,457,536 279,576 87,741 360,354 727,865
Total borrowings 4,757,778 5,979,409 581,545 721,031 1,127,068 3,515,579

31 December 2016
Recourse borrowings 3,687,446 4,904,196 578,658 311,442 2,383,125
Non-recourse borrowings 1,190,077 1,595,892 115,281 273,240 240,011 958,564
Total borrowings 4,877,523 6,500,088 693,939 584,682 2,623,136 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 2017, 99.3% of the Group’s debt was fixed to maturity or inflation linked (2016: 96%). The fair value of interest rate swaps is disclosed in note 25.

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:

<table>
<thead>
<tr>
<th>Effective interest rate</th>
<th>Total € '000</th>
<th>Within 1 year € '000</th>
<th>1-2 years € '000</th>
<th>2-5 years € '000</th>
<th>More than 5 years € '000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Private placement borrowings (fixed interest rate) 6.4</td>
<td>615,655</td>
<td>91,705</td>
<td>228,870</td>
<td>56,537</td>
<td>239,243</td>
</tr>
<tr>
<td>Non-recourse borrowings (fixed interest rate) 5.6</td>
<td>1,093,127</td>
<td>217,703</td>
<td>43,917</td>
<td>237,668</td>
<td>594,139</td>
</tr>
<tr>
<td>Other long-term borrowings and fixed variable interest rate 3.1</td>
<td>3,048,996</td>
<td>78,665</td>
<td>280,134</td>
<td>497,510</td>
<td>2,192,687</td>
</tr>
</tbody>
</table>

Included within other long-term borrowings in this analysis are floating rate liabilities of €35.2 million (2016: €113.2 million).

The effective interest rate on the private placement borrowings has been fixed through the use of cross currency swaps and interest rate swaps. The effective rate of non-recourse sterling borrowings of Stg£412.2 million has been fixed using interest rate swaps. In the absence of these interest rate swaps, the floating rate on the underly-8ng sterling and euro borrowings at 31 December 2017 would be 2.3%, in line with prevailing interest rates in the effective rate of non-recourse sterling borrowings.

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.

<table>
<thead>
<tr>
<th>(Loss) / Profit before taxation</th>
<th>31 December 2017</th>
<th>31 December 2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interest payable</td>
<td>(1,031)</td>
<td>845 (566)</td>
</tr>
<tr>
<td>Fair value movements on financial instruments</td>
<td>64,415</td>
<td>(69,897)</td>
</tr>
<tr>
<td>Other comprehensive income</td>
<td>10,498</td>
<td>(10,498)</td>
</tr>
</tbody>
</table>

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 financial 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.

(c) Reconciliation of external borrowings

GROUP

<table>
<thead>
<tr>
<th>Debt Facilities</th>
<th>Balance at 1 January € '000</th>
<th>Cash flows € '000</th>
<th>Disposal of subsidiary € '000</th>
<th>Effects of foreign exchange € '000</th>
<th>Other € '000</th>
<th>Balance at 31 December € '000</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESB Eurobonds 2,147,222</td>
<td>191,253</td>
<td>-</td>
<td>(11,239)</td>
<td>50,966</td>
<td>2,334,097</td>
<td></td>
</tr>
<tr>
<td>Non-recourse long-term project finance debt 488,566</td>
<td>(28,013)</td>
<td>-</td>
<td>(18,895)</td>
<td>30,118</td>
<td>444,676</td>
<td></td>
</tr>
<tr>
<td>Non-recourse NE Networks 677,718</td>
<td>-</td>
<td>-</td>
<td>(23,488)</td>
<td>(5,779)</td>
<td>648,451</td>
<td></td>
</tr>
<tr>
<td>Long-term bank borrowings 815,007</td>
<td>(93,682)</td>
<td>-</td>
<td>(7,658)</td>
<td>1,292</td>
<td>714,969</td>
<td></td>
</tr>
<tr>
<td>Private placement borrowings 727,117</td>
<td>(38,803)</td>
<td>-</td>
<td>(72,388)</td>
<td>130</td>
<td>615,855</td>
<td></td>
</tr>
<tr>
<td>Total 4,887,443</td>
<td>48,015</td>
<td>(54,270)</td>
<td>(139,842)</td>
<td>12,323</td>
<td>4,757,778</td>
<td></td>
</tr>
</tbody>
</table>

PARENT

<table>
<thead>
<tr>
<th>Debt Facilities</th>
<th>Balance at 1 January € '000</th>
<th>Cash flows € '000</th>
<th>Disposal of subsidiary € '000</th>
<th>Effects of foreign exchange € '000</th>
<th>Other € '000</th>
<th>Balance at 31 December € '000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Long-term bank borrowings 814,508</td>
<td>(93,682)</td>
<td>-</td>
<td>(7,658)</td>
<td>1,755</td>
<td>714,923</td>
<td></td>
</tr>
<tr>
<td>Private placement borrowings 727,117</td>
<td>(38,803)</td>
<td>-</td>
<td>(72,388)</td>
<td>130</td>
<td>615,855</td>
<td></td>
</tr>
<tr>
<td>Total 1,542,225</td>
<td>(133,485)</td>
<td>(60,047)</td>
<td>1,885</td>
<td>1,330,278</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## NOTES TO THE FINANCIAL STATEMENTS

### 20. 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:

<table>
<thead>
<tr>
<th>Group</th>
<th>2017</th>
<th>Non-current assets €’000</th>
<th>Current assets €’000</th>
<th>Non-current liabilities €’000</th>
<th>Current liabilities €’000</th>
<th>Total €’000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Currency swaps</td>
<td>61,289</td>
<td>-</td>
<td>(10,270)</td>
<td>-</td>
<td>51,019</td>
<td></td>
</tr>
<tr>
<td>Forward electricity price contracts</td>
<td>-</td>
<td>38,681</td>
<td>-</td>
<td>(2,161)</td>
<td>36,520</td>
<td></td>
</tr>
<tr>
<td>Foreign exchange contracts</td>
<td>4,379</td>
<td>7,590</td>
<td>(619)</td>
<td>(16,185)</td>
<td>(4,835)</td>
<td></td>
</tr>
<tr>
<td>Interest rate swaps</td>
<td>24,066</td>
<td>10</td>
<td>(37,508)</td>
<td>(5,749)</td>
<td>(19,181)</td>
<td></td>
</tr>
<tr>
<td>Foreign exchange contracts</td>
<td>8,472</td>
<td>5,799</td>
<td>(180)</td>
<td>(2,260)</td>
<td>12,061</td>
<td></td>
</tr>
<tr>
<td>Forward fuel price contracts</td>
<td>2,980</td>
<td>57,628</td>
<td>(4,867)</td>
<td>(31,123)</td>
<td>24,476</td>
<td></td>
</tr>
<tr>
<td>Forward electricity price contracts</td>
<td>90,883</td>
<td>33,950</td>
<td>-</td>
<td>-</td>
<td>93,833</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>55,877</strong></td>
<td><strong>117,387</strong></td>
<td><strong>(63,325)</strong></td>
<td><strong>(134,538)</strong></td>
<td><strong>211,289</strong></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Group</th>
<th>2016</th>
<th>Non-current assets €’000</th>
<th>Current assets €’000</th>
<th>Non-current liabilities €’000</th>
<th>Current liabilities €’000</th>
<th>Total €’000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Currency swaps</td>
<td>10,296</td>
<td>-</td>
<td>(31,699)</td>
<td>(8,021)</td>
<td>(28,426)</td>
<td></td>
</tr>
<tr>
<td>Interest rate swaps</td>
<td>-</td>
<td>-</td>
<td>(603,271)</td>
<td>(89,005)</td>
<td>(692,276)</td>
<td></td>
</tr>
<tr>
<td>Currency swaps</td>
<td>24,066</td>
<td>10</td>
<td>(37,508)</td>
<td>(5,749)</td>
<td>(19,181)</td>
<td></td>
</tr>
<tr>
<td>Foreign exchange contracts</td>
<td>7,297</td>
<td>5,799</td>
<td>(180)</td>
<td>(2,260)</td>
<td>12,061</td>
<td></td>
</tr>
<tr>
<td>Forward fuel price contracts</td>
<td>2,980</td>
<td>57,628</td>
<td>(4,867)</td>
<td>(31,123)</td>
<td>24,476</td>
<td></td>
</tr>
<tr>
<td>Forward electricity price contracts</td>
<td>90,883</td>
<td>33,950</td>
<td>-</td>
<td>-</td>
<td>93,833</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>2016</strong></td>
<td><strong>55,877</strong></td>
<td><strong>117,387</strong></td>
<td><strong>(63,325)</strong></td>
<td><strong>(134,538)</strong></td>
<td><strong>211,289</strong></td>
</tr>
</tbody>
</table>

#### (b) Inflation linked interest rate swaps

In inflation linked interest rate swaps with a fair value liability on acquisition of €727.5 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. 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).

#### (c) Foreign exchange contracts

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 19. 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 2015 to 2029.

Ineffectiveness under the meaning of IAS 39 on the currency swaps during the year resulting in the recognition of a charge of €1.0 million (2016: charge €0.5 million) within finance costs in the income statement. Separately included in the income statement for the year ended 31 December 2017 is a loss of €89.0 million (2016: loss of €10.4 million) arising on cross currency swaps which is fully offset by movements in the translation of the underlying hedged foreign currency borrowings at the prevailing exchange rates (see note 7).

In addition to foreign currency forward contracts entered into in relation to the Group’s borrowings, the Group has entered into foreign currency 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 2022. Total positive fair value movements of €11.2 million (2016 positive movements of €19.0 million) were recognised during the year in relation to such foreign exchange contracts, of which a positive fair value movement of €3.1 million (2016 positive movements of €13.8 million) was recognised through OCI and a positive fair value movement of €8.1 million (2016 positive movement of €6.3 million) was recognised in the income statement.

#### Fair value hierarchy

Further information on the methods of valuing financial instruments is included in note 26.
NOTES TO THE FINANCIAL STATEMENTS

20. 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 €580.5 million (2016: €601.2 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 26 (b) for further analysis of Group and Parent financial assets and liabilities.

<table>
<thead>
<tr>
<th>Contractual cash outflows / (inflows) - net</th>
<th>Within 1 year</th>
<th>1 - 2 years</th>
<th>2 - 5 years</th>
<th>More than 5 years</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Net derivative assets / (liabilities)</strong></td>
<td>€’000</td>
<td>€’000</td>
<td>€’000</td>
<td>€’000</td>
</tr>
<tr>
<td>31 December 2017</td>
<td>202,444</td>
<td>207,060</td>
<td>125,315</td>
<td>68,321</td>
</tr>
<tr>
<td>31 December 2016</td>
<td>15,901</td>
<td>16,710</td>
<td>3,724</td>
<td>3,595</td>
</tr>
<tr>
<td>Inflation linked interest rate swaps</td>
<td>61,289</td>
<td>118,528</td>
<td>6,900</td>
<td>17,384</td>
</tr>
<tr>
<td>Interest rate swaps</td>
<td>24,076</td>
<td>25,188</td>
<td>7,960</td>
<td>7,960</td>
</tr>
<tr>
<td>Currency swaps</td>
<td>14,271</td>
<td>17,889</td>
<td>7,846</td>
<td>1,945</td>
</tr>
<tr>
<td>Foreign exchange contracts</td>
<td>60,468</td>
<td>60,900</td>
<td>68,025</td>
<td>2,639</td>
</tr>
<tr>
<td>Foreign exchange contracts</td>
<td>93,533</td>
<td>93,086</td>
<td>53,783</td>
<td>26,086</td>
</tr>
<tr>
<td>Foreign exchange contracts</td>
<td>(8,504)</td>
<td>(8,504)</td>
<td>(2,852)</td>
<td>(162)</td>
</tr>
<tr>
<td>Inflation linked interest rate swaps</td>
<td>(10,270)</td>
<td>(10,270)</td>
<td>(1,335)</td>
<td>(103)</td>
</tr>
<tr>
<td>Interest rate swaps</td>
<td>(2,210)</td>
<td>(4,529)</td>
<td>(4,325)</td>
<td>(204)</td>
</tr>
<tr>
<td>Currency swaps</td>
<td>(1,06)</td>
<td>(1,06)</td>
<td>(1,06)</td>
<td>(1,06)</td>
</tr>
<tr>
<td>Foreign exchange contracts</td>
<td>(39,000)</td>
<td>(39,000)</td>
<td>(31,607)</td>
<td>(4,663)</td>
</tr>
<tr>
<td>Foreign exchange contracts</td>
<td>(774,383)</td>
<td>(849,078)</td>
<td>(141,105)</td>
<td>(28,110)</td>
</tr>
<tr>
<td>Total liabilities</td>
<td>(571,009)</td>
<td>(642,018)</td>
<td>(15,786)</td>
<td>40,211</td>
</tr>
</tbody>
</table>

31 December 2017

Interest rate swaps | 10,096 | 20,437 | 3,254 | 2,989 | 4,694 |

Currency swaps | 24,076 | 25,188 | 7,960 | 7,960 | 10,296 |

Foreign exchange contracts | 14,271 | 17,889 | 7,846 | 1,945 | 7,008 |

Forward rate swap contracts | 60,468 | 60,900 | 68,025 | 2,639 | 207 |

Forward currency price contracts | 93,533 | 93,086 | 53,783 | 26,086 | 605 |

Total assets | (8,504) | (8,504) | (2,852) | (162) | - |

Forward rate swap contracts | (39,000) | (39,000) | (31,607) | (4,663) | (254) |

Total liabilities | (774,383) | (849,078) | (141,105) | (28,110) | (63,851) |

Net derivative assets / (liabilities) | (571,009) | (642,018) | (15,786) | 40,211 | (50,427) |

2.1. 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 United Kingdom (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 by 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 amendment 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 €195.7 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 Rivalled Earnings (CARE) pension model for benefits earned before 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 does not have a deficit on an on-going actuarial basis, 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 in 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 2017 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 2017 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. This funding plan aims to resolve the Minimum Funding Standard requirements by the end of 2018 and during 2017 the Scheme Actuary confirmed that this Plan was on track to meet that objective based on existing contribution levels (including the €591.0 million commitment from the 2010 Pensions Agreement).
NOTES TO THE FINANCIAL STATEMENTS

21. PENSION LIABILITIES (continued)

(a) Parent and Group - Republic of Ireland (continued)

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

Accounting

The financial statements reflect the following obligations to the Scheme:
- Ongoing contributions - those are recognised in the income statement as incurred. Any unpaid amounts at year end are recognised as liabilities on the balance sheet.
- Obligations of €304.3 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 €10.7 million (2016: €9.7 million).

(b) FM United Kingdom Stakeholder Scheme

In addition, the company 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 €0.7 million (2016: €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. 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 2014 and showed a deficit of €174.8 million. The Company is paying deficit contributions of €19.1 million per annum (increasing in line with inflation) from 1 April 2015. The Company also pays contributions of 36.6% of pensionable salaries in respect of current accrual, with active members paying a further 8% of pensionable salaries. The formal valuation as at 31 March 2017 is currently on-going.

Profile of the Scheme

The net liability includes benefits for current employees, former employees and current pensioners. Broadly, about 21% of the liabilities are attributable to current employees, 5% to former employees and 74% 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 13 years (2016: 13 years) based on the last funding valuation.

Financial assumptions

The validation 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:

<table>
<thead>
<tr>
<th>% at 31 December</th>
<th>% at 31 December</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>2016</td>
</tr>
<tr>
<td>Rate of interest applied to discount liabilities</td>
<td>2.5%</td>
</tr>
<tr>
<td>Price inflation (CPI in the United Kingdom)</td>
<td>3.1%</td>
</tr>
<tr>
<td>Rate of increase of pensionable salaries</td>
<td>3.2%</td>
</tr>
<tr>
<td>Rate of increase of pensions in payment</td>
<td>2.1%</td>
</tr>
</tbody>
</table>

The discount rate used in the calculation of the pension liability at 31 December 2017 was 2.5% (2016: 2.7%). 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

21. PENSION LIABILITIES (continued)

(c) Northern Ireland Electricity Networks (NIE Networks) Pension Scheme (continued) At 31 December 2017 €’000 At 31 December 2016 €’000

Change in benefit obligation
Benefit obligation at the beginning of the year 1,463,969 1,494,343
Movement during the year:
Current service cost 9,203 7,859
Interest cost 37,577 49,527
Plan members’ contributions 435 496
Actuarial loss - impact of financial assumption changes 37,592 215,474
Actuarial loss - impact of demographic assumption changes - -
Actuarial loss / gain - experience loss 6,350 (8,744)
Benefits paid (78,231) (103,561)
Curtailment cost 2,009 178
Translation difference on benefit obligation in the year (51,643) (221,609)
Benefit obligation at the end of the year 1,293,426 1,352,274

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 pension scheme liabilities 33,464 45,225
Actual returns on assets less interest 53,209 137,206
Employer contributions 27,641 27,602
Plan members’ contributions 435 496
Benefits paid (76,231) (103,561)
Curtailment cost 2,009 178
Translation difference on assets in the year (199,116) (201,635)
Fair value of plan assets at the end of the year 1,293,426 1,352,274

Actuarial loss / (gain) - experience loss 6,350 496
Translation differences - (8)

Curtailment cost 2,009 178

Actual return on plan assets for the year 86,713 182,431

The curtailment loss arising in 2017 reflects the past service costs associated with employees who left the company by voluntary exit restructuring programme. The Group expects to make contributions of €26.6million to Focus in 2018.

Analysis of the amounts recognised in the employee costs as part of the employee benefit programme. The Group expects to make contributions of €26.6million to Focus in 2018.

Analysis of the amounts recognised in the employee costs as part of the employee benefit programme. The Group expects to make contributions of €26.6million to Focus in 2018.

NOTES TO THE FINANCIAL STATEMENTS

3.2. LIABILITY - ESB PENSION SCHEME AND EMPLOYEE RELATED LIABILITIES

Balance at 31 December 2017 524,812 95,647 47,054 142,701

Balance at 1 January 2017 524,812 95,647 47,054 142,701

Motions during the year:
(Release) / charge to the income statement - - 19,107 26,847
Utilised during the year (153,007) (15,628) (42,312) (58,140)
Financing charge 22,915 511 511 511
Translation differences - (10) (21) (31)

Balance at 31 December 2017 394,320 61,213 50,775 111,982

Analysed as follows:
Non-current liabilities 100,190 46,107 - 46,107
Current liabilities 294,130 15,106 50,775 66,881
Total 394,320 61,213 50,775 111,982

The curtailment loss arising in 2017 reflects the past service costs associated with employees who left the company by voluntary exit restructuring programme. The Group expects to make contributions of €26.6million to Focus in 2018.

Analysis of the amounts recognised in the employee costs as part of the employee benefit programme. The Group expects to make contributions of €26.6million to Focus in 2018.
### 22. LIABILITY - ESB PENSION SCHEME AND EMPLOYEE RELATED LIABILITIES (continued)

**Liability - ESB pension scheme**

See note 21 (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.

A review of the restructuring provision was completed during the year ended 31 December 2017 and €21.1 million (2016: €nil) was released to the income statement (note 8).

**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.

### 23. TRADE AND OTHER PAYABLES

<table>
<thead>
<tr>
<th></th>
<th>GROUP 2017</th>
<th>GROUP 2016</th>
<th>GROUP 2017</th>
<th>GROUP 2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current payables:</td>
<td>€'000</td>
<td>€'000</td>
<td>€'000</td>
<td>€'000</td>
</tr>
<tr>
<td>Trade payables</td>
<td>316,260</td>
<td>358,392</td>
<td>185,966</td>
<td>200,526</td>
</tr>
<tr>
<td>Capital creditors</td>
<td>68,335</td>
<td>70,473</td>
<td>43,675</td>
<td>37,299</td>
</tr>
<tr>
<td>Progress payments on work in progress</td>
<td>78,722</td>
<td>80,220</td>
<td>41,695</td>
<td>1,462</td>
</tr>
<tr>
<td>Other payables</td>
<td>49,988</td>
<td>65,966</td>
<td>43,675</td>
<td>37,299</td>
</tr>
<tr>
<td>Payroll taxes</td>
<td>14,059</td>
<td>13,554</td>
<td>13,049</td>
<td>12,646</td>
</tr>
<tr>
<td>Pay related social insurance</td>
<td>5,222</td>
<td>4,906</td>
<td>4,329</td>
<td>4,083</td>
</tr>
<tr>
<td>Value added tax</td>
<td>42,747</td>
<td>43,337</td>
<td>17,147</td>
<td>19,173</td>
</tr>
<tr>
<td>Accruals</td>
<td>142,909</td>
<td>114,122</td>
<td>3,369,107</td>
<td>3,415,444</td>
</tr>
<tr>
<td>Amounts owed to subsidiary undertakings</td>
<td>-</td>
<td>-</td>
<td>26,448</td>
<td>26,448</td>
</tr>
<tr>
<td>Accrued interest on borrowings</td>
<td>79,680</td>
<td>77,058</td>
<td>39,912</td>
<td>35,606</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>797,822</td>
<td>835,018</td>
<td>3,799,315</td>
<td>3,789,195</td>
</tr>
</tbody>
</table>

**NOTES TO THE FINANCIAL STATEMENTS**

### 24. DEFERRED INCOME

#### GROUP

<table>
<thead>
<tr>
<th></th>
<th>Supply contributions and others €'000</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Balance at 1 January 2016</strong></td>
<td>558,284</td>
</tr>
<tr>
<td>Receivables</td>
<td>38,994</td>
</tr>
<tr>
<td>Released to the income statement</td>
<td>(58,548)</td>
</tr>
<tr>
<td><strong>Balance at 31 December 2016</strong></td>
<td>539,557</td>
</tr>
<tr>
<td><strong>Balance at 1 January 2017</strong></td>
<td>536,552</td>
</tr>
<tr>
<td>Receivables</td>
<td>44,912</td>
</tr>
<tr>
<td>Released to the income statement</td>
<td>(70,462)</td>
</tr>
<tr>
<td><strong>Balance at 31 December 2017</strong></td>
<td>515,117</td>
</tr>
</tbody>
</table>

**Analysed as follows:**

- **Non-current liabilities**
  - 460,975
- **Current liabilities**
  - 49,142
- **Total**
  - 510,117

#### PARENT

<table>
<thead>
<tr>
<th></th>
<th>Supply contributions and others €'000</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Balance at 1 January 2016</strong></td>
<td>533,542</td>
</tr>
<tr>
<td>Receivables</td>
<td>1,249</td>
</tr>
<tr>
<td>Released to the income statement</td>
<td>(33,118)</td>
</tr>
<tr>
<td><strong>Balance at 31 December 2016</strong></td>
<td>501,664</td>
</tr>
<tr>
<td><strong>Balance at 1 January 2017</strong></td>
<td>501,664</td>
</tr>
<tr>
<td>Receivables</td>
<td>2,949</td>
</tr>
<tr>
<td>Released to the income statement</td>
<td>(35,002)</td>
</tr>
<tr>
<td><strong>Balance at 31 December 2017</strong></td>
<td>469,611</td>
</tr>
</tbody>
</table>

**Analysed as follows:**

- **Non-current liabilities**
  - 433,892
- **Current liabilities**
  - 35,719
- **Total**
  - 469,611

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. Accounting for supply contributions post July 2009 have been described further in the statement of accounting policies in these financial statements.

Included in the above Group closing balance are supply contributions €466.8 million (2016: €499.6 million), deferred income €43.3 million (2016: €35.4 million) and government grants of €nil (2016: €1.5 million).
25. PROVISIONS

NOTES TO THE FINANCIAL STATEMENTS

The Group provision at 31 December 2017 of €260.7 million (2016: €180.3 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 many 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 regarding environmental costs and decommissioning during the year ended 31 December 2017 the asset retirement provision increased by €90.7 million (2016: €56.9 million increase). The estimated value of future retirement costs at the balance sheet date include 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 contaminations, 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.

Emission provisions

In accordance with the provisions of the European CO2 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 CO2 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 CO2 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.

Asset retirement provision (previously named power station closure costs)

\[
\begin{array}{lcccc}
\text{Asset retirement} & \text{Emissions} & \text{Other} & \text{Total} \\
\text{provision} & \text{provision} & & \text{€'000} \\
\hline
\text{GROUP} & & & \\
\text{Balance at 1 January 2016} & 131,707 & 69,929 & 275,631 \\
\text{Charged / (credited) to the income statement} & & & \\
\text{- Emission allowances} & - & 64,266 & - & 64,266 \\
\text{- Legal and other} & - & 4,320 & - & 4,320 \\
\text{- Asset retirement} & 5,700 & - & - & 5,700 \\
\text{Asset retirement provision capitalised in the year} & 56,900 & - & - & 56,900 \\
\text{ESOP provision (note 30)} & 7,000 & - & - & 7,000 \\
\text{Utilised in the year} & 3,623 & (61,154) & (15,860) & (80,837) \\
\text{Financing charge} & 1,482 & - & 537 & 2,019 \\
\text{Translation differences} & 159 & (1,228) & (1,845) & \\
\hline
\text{Balance at 31 December 2016} & 227,778 & 41,083 & 78,320 & \\
\text{Current liabilities} & 6,078 & - & 46,087 & \\
\text{Non-current liabilities} & 221,700 & - & - & 221,700 \\
\text{Analysed as follows:} & & & \\
\text{Utilised in the year} & (2,604) & (46,699) & (12,145) & \\
\hline
\text{Balance at 1 January 2017} & 180,301 & 65,403 & 76,271 & 321,975 \\
\text{Charged / (credited) to the income statement} & & & \\
\text{- Emission allowances} & - & 68,896 & - & 68,896 \\
\text{- Legal and other} & - & - & 18,247 & 18,247 \\
\text{- Asset retirement} & 9,055 & - & - & 9,055 \\
\text{Asset retirement provision capitalised in the year} & 90,721 & - & - & 90,721 \\
\text{ESOP provision (note 30)} & 2,384 & - & - & 2,384 \\
\text{Utilised in the year} & 2,604 & (65,232) & (12,735) & (80,571) \\
\text{Financing charge} & 1,611 & - & 1,809 & 3,420 \\
\text{Translation differences} & (242) & (138) & (324) & (704) \\
\hline
\text{Balance at 31 December 2017} & 250,732 & 60,403 & 83,959 & 413,094 \\
\text{Analysed as follows:} & & & \\
\text{Non-current liabilities} & 254,655 & - & 50,870 & 305,525 \\
\text{Current liabilities} & 6,077 & 68,929 & 33,429 & 108,435 \\
\hline
\text{TOTAL} & 260,732 & 68,929 & 84,359 & 413,094 \\
\text{PARENT} & & & \\
\text{Balance at 1 January 2016} & 125,965 & 48,096 & 57,048 & 231,109 \\
\text{Charged / (credited) to the income statement} & & & \\
\text{- Emission allowances} & - & 46,159 & - & 46,159 \\
\text{- Legal and other} & - & 8,079 & - & 8,079 \\
\text{- Asset retirement} & 9,055 & - & - & 9,055 \\
\text{Asset retirement provision capitalised in the year} & 53,500 & - & - & 53,500 \\
\text{ESOP provision (note 30)} & 7,000 & - & - & 7,000 \\
\text{Utilised in the year} & (2,604) & (65,232) & (12,735) & (82,571) \\
\text{Financing charge} & 1,809 & - & 1,809 & 3,618 \\
\hline
\text{Balance at 31 December 2016} & 171,414 & 47,468 & 68,892 & 287,774 \\
\text{Balance at 1 January 2017} & 171,414 & 47,468 & 69,892 & 288,774 \\
\text{Charged / (credited) to the income statement} & & & \\
\text{- Emission allowances} & - & 46,087 & - & 46,087 \\
\text{- Legal and other} & - & 17,733 & - & 17,733 \\
\text{- Asset retirement} & 9,055 & - & - & 9,055 \\
\text{Asset retirement provision capitalised in the year} & 66,615 & - & - & 66,615 \\
\text{ESOP provision (note 30)} & 2,384 & - & - & 2,384 \\
\text{Utilised in the year} & (2,604) & (66,099) & (12,145) & (80,848) \\
\text{Financing charge} & 1,809 & - & 1,809 & 3,618 \\
\hline
\text{Balance at 31 December 2017} & 227,178 & 41,083 & 78,320 & 347,181 \\
\text{Analysed as follows:} & & & \\
\text{Non-current liabilities} & 221,700 & - & 46,087 & 267,787 \\
\text{Current liabilities} & 6,078 & 41,083 & 32,233 & 79,394 \\
\hline
\text{TOTAL} & 227,778 & 41,083 & 78,320 & 347,181 \\
\end{array}
\]
26. FINANCIAL RISK MANAGEMENT AND FAIR VALUE (continued)

(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 and 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. 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 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 IFRS) 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 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.

In both Generation & 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 includes 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 IAS 39 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 IAS 39. Where the IAS 39 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.
### 26. FINANCIAL RISK MANAGEMENT AND FAIR VALUE (continued)

#### (b) Overview of financial assets and liabilities (continued)

<table>
<thead>
<tr>
<th>Financial assets at fair value through profit or loss</th>
<th>Assets / liabilities held at amortised cost</th>
<th>Derivative instruments with hedging relationships</th>
<th>Derivative financial instruments with no hedging relationships</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PARENT</strong></td>
<td><strong>2017</strong></td>
<td><strong>2016</strong></td>
<td><strong>2017</strong></td>
<td><strong>2016</strong></td>
</tr>
<tr>
<td><strong>ASSETS</strong></td>
<td><strong>€ '000</strong></td>
<td><strong>€ '000</strong></td>
<td><strong>€ '000</strong></td>
<td><strong>€ '000</strong></td>
</tr>
<tr>
<td>Non-current assets</td>
<td><strong>-</strong></td>
<td><strong>-</strong></td>
<td><strong>-</strong></td>
<td><strong>-</strong></td>
</tr>
<tr>
<td>Derivative financial instruments</td>
<td><strong>-</strong></td>
<td><strong>-</strong></td>
<td><strong>-</strong></td>
<td><strong>-</strong></td>
</tr>
<tr>
<td>Current assets</td>
<td><strong>-</strong></td>
<td><strong>-</strong></td>
<td><strong>-</strong></td>
<td><strong>-</strong></td>
</tr>
<tr>
<td>Trade and other receivables*</td>
<td><strong>-</strong></td>
<td><strong>2,638,848</strong></td>
<td><strong>3,064,009</strong></td>
<td><strong>-</strong></td>
</tr>
<tr>
<td>Cash and cash equivalents</td>
<td><strong>-</strong></td>
<td><strong>208,499</strong></td>
<td><strong>235,991</strong></td>
<td><strong>-</strong></td>
</tr>
<tr>
<td>Derivative financial instruments</td>
<td><strong>-</strong></td>
<td><strong>-</strong></td>
<td><strong>-</strong></td>
<td><strong>-</strong></td>
</tr>
<tr>
<td>Total current financial assets</td>
<td><strong>-</strong></td>
<td><strong>2,847,347</strong></td>
<td><strong>3,300,000</strong></td>
<td><strong>2,905,941</strong></td>
</tr>
<tr>
<td><strong>Total financial assets</strong></td>
<td><strong>-</strong></td>
<td><strong>2,847,347</strong></td>
<td><strong>3,300,000</strong></td>
<td><strong>2,905,941</strong></td>
</tr>
<tr>
<td><strong>LIABILITIES</strong></td>
<td><strong>€ '000</strong></td>
<td><strong>€ '000</strong></td>
<td><strong>€ '000</strong></td>
<td><strong>€ '000</strong></td>
</tr>
<tr>
<td>Non-current liabilities</td>
<td><strong>-</strong></td>
<td><strong>1,160,208</strong></td>
<td><strong>1,409,367</strong></td>
<td><strong>1,162,065</strong></td>
</tr>
<tr>
<td>Derivative financial instruments</td>
<td><strong>-</strong></td>
<td><strong>-</strong></td>
<td><strong>-</strong></td>
<td><strong>-</strong></td>
</tr>
<tr>
<td>Total non-current financial liabilities</td>
<td><strong>-</strong></td>
<td><strong>1,160,208</strong></td>
<td><strong>1,409,367</strong></td>
<td><strong>1,162,065</strong></td>
</tr>
<tr>
<td><strong>Current liabilities</strong></td>
<td><strong>€ '000</strong></td>
<td><strong>€ '000</strong></td>
<td><strong>€ '000</strong></td>
<td><strong>€ '000</strong></td>
</tr>
<tr>
<td>Borrowings and other debt</td>
<td><strong>30,870</strong></td>
<td><strong>35,000</strong></td>
<td><strong>41,905</strong></td>
<td><strong>3,725</strong></td>
</tr>
<tr>
<td>Derivative financial instruments</td>
<td><strong>6,778</strong></td>
<td><strong>50,472</strong></td>
<td><strong>64,727</strong></td>
<td><strong>64,727</strong></td>
</tr>
<tr>
<td>Total current financial liabilities</td>
<td><strong>37,648</strong></td>
<td><strong>86,472</strong></td>
<td><strong>98,452</strong></td>
<td><strong>98,452</strong></td>
</tr>
<tr>
<td><strong>Total financial liabilities</strong></td>
<td><strong>3,520,816</strong></td>
<td><strong>3,885,407</strong></td>
<td><strong>4,015,480</strong></td>
<td><strong>4,015,480</strong></td>
</tr>
</tbody>
</table>

#### 26. 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 £4,627.2 million (2016: £3,345.2 million) and net derivative financial instrument liabilities of £850.5 million (2016: £601.2 million) are included in the Group balances but do not comprise part of the Parent's assets and liabilities as they are not held directly by the Parent. See notes 19, 20 and 23 for further analysis of Group and Parent financial assets and liabilities.

### Net liabilities

<table>
<thead>
<tr>
<th>Date</th>
<th>Borrowings</th>
<th>Trade and other payables (excluding tax)</th>
<th>Derivative financial instruments</th>
<th>Total liabilities</th>
<th>Derivative financial instruments</th>
<th>Net liabilities</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>31 December 2017</strong></td>
<td>4,757,778</td>
<td>5,987,029</td>
<td>656,114</td>
<td>6,380,911</td>
<td>385,182</td>
<td>5,995,801</td>
</tr>
<tr>
<td><strong>31 December 2016</strong></td>
<td>4,887,443</td>
<td>6,190,094</td>
<td>665,173</td>
<td>7,562,610</td>
<td>385,182</td>
<td>5,977,428</td>
</tr>
</tbody>
</table>

### Carrying amount

<table>
<thead>
<tr>
<th>Date</th>
<th>Borrowings</th>
<th>Trade and other payables (excluding tax)</th>
<th>Derivative financial instruments</th>
<th>Total liabilities</th>
<th>Derivative financial instruments</th>
<th>Total liabilities</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>31 December 2017</strong></td>
<td>1,330,578</td>
<td>1,581,981</td>
<td>233,651</td>
<td>1,691,232</td>
<td>1,349,025</td>
<td>3,940,257</td>
</tr>
<tr>
<td><strong>31 December 2016</strong></td>
<td>1,542,225</td>
<td>1,811,568</td>
<td>217,868</td>
<td>2,171,203</td>
<td>1,349,025</td>
<td>3,480,228</td>
</tr>
</tbody>
</table>

### Contractual cash inflows / (outflows) - net

<table>
<thead>
<tr>
<th>Date</th>
<th>Borrowings</th>
<th>Trade and other payables (excluding tax)</th>
<th>Derivative financial instruments</th>
<th>Total liabilities</th>
<th>Derivative financial instruments</th>
<th>Total liabilities</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>31 December 2017</strong></td>
<td>3,724,879</td>
<td>3,724,879</td>
<td>3,724,879</td>
<td>3,724,879</td>
<td>3,724,879</td>
<td>3,724,879</td>
</tr>
<tr>
<td><strong>31 December 2016</strong></td>
<td>3,724,879</td>
<td>3,724,879</td>
<td>3,724,879</td>
<td>3,724,879</td>
<td>3,724,879</td>
<td>3,724,879</td>
</tr>
</tbody>
</table>

### Notes to the Financial Statements

- Prepayments have been excluded as they are not classified as a financial asset. Comparative amounts have been restated where necessary to ensure consistency in the two years being presented.
- VAT and employment taxes have been excluded as these are statutory liabilities. Comparative amounts have been restated where necessary to ensure consistency in the two years being presented.

The Group’s provisions and employee related liabilities are not analysed in the table above, or in the further analysis below. This includes the liability for pension obligation of €394.3 million at 31 December 2017 (2016: €524.8 million). See Notes 21, 22 and 25 in relation to this and to the other provisions and employee related liabilities.
26. FINANCIAL RISK MANAGEMENT AND FAIR VALUE (continued)

(d) Master netting or similar agreements

The Group enters into derivative transactions under International Swaps and Derivative 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.

<table>
<thead>
<tr>
<th>Gross amount of financial instruments in the statement of financial position</th>
<th>Amounts not offset on the balance sheet</th>
<th>Net amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>GROUP</td>
<td>€'000</td>
<td>€'000</td>
</tr>
<tr>
<td><strong>31 December 2017</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Financial assets</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interest rate swaps</td>
<td>10,296</td>
<td>(5,662)</td>
</tr>
<tr>
<td>Currency swaps</td>
<td>24,076</td>
<td>(7,555)</td>
</tr>
<tr>
<td>Foreign exchange contracts</td>
<td>14,271</td>
<td>(13,815)</td>
</tr>
<tr>
<td>Forward fuel price contracts</td>
<td>60,468</td>
<td>(24,016)</td>
</tr>
<tr>
<td>Forward electricity price contracts</td>
<td>93,333</td>
<td>(572)</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>202,444</td>
<td>(51,820)</td>
</tr>
<tr>
<td><strong>Financial liabilities</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interest rate swaps</td>
<td>(39,720)</td>
<td>9,428</td>
</tr>
<tr>
<td>Inflation linked interest rate swaps</td>
<td>(653,176)</td>
<td>-</td>
</tr>
<tr>
<td>Currency swaps</td>
<td>(43,257)</td>
<td>19,415</td>
</tr>
<tr>
<td>Foreign exchange contracts</td>
<td>(2,210)</td>
<td>2,074</td>
</tr>
<tr>
<td>Forward fuel price contracts</td>
<td>(35,990)</td>
<td>20,703</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>(774,353)</td>
<td>51,820</td>
</tr>
<tr>
<td><strong>31 December 2016</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Financial assets</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interest rate swaps</td>
<td>15,901</td>
<td>(11,340)</td>
</tr>
<tr>
<td>Currency swaps</td>
<td>61,289</td>
<td>(7,964)</td>
</tr>
<tr>
<td>Foreign exchange contracts</td>
<td>17,684</td>
<td>(14,369)</td>
</tr>
<tr>
<td>Forward fuel price contracts</td>
<td>131,285</td>
<td>(43,661)</td>
</tr>
<tr>
<td>Forward electricity price contracts</td>
<td>190,932</td>
<td>(18,426)</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>387,191</td>
<td>(95,760)</td>
</tr>
<tr>
<td><strong>Financial liabilities</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interest rate swaps</td>
<td>(49,660)</td>
<td>14,099</td>
</tr>
<tr>
<td>Inflation linked interest rate swaps</td>
<td>(658,472)</td>
<td>-</td>
</tr>
<tr>
<td>Currency swaps</td>
<td>(10,270)</td>
<td>9,885</td>
</tr>
<tr>
<td>Foreign exchange contracts</td>
<td>(16,804)</td>
<td>13,978</td>
</tr>
<tr>
<td>Forward fuel price contracts</td>
<td>(57,869)</td>
<td>55,956</td>
</tr>
<tr>
<td>Forward electricity price contracts</td>
<td>(20,975)</td>
<td>1,202</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>(853,754)</td>
<td>(95,760)</td>
</tr>
</tbody>
</table>
(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 amount due for equity accounted investees, outstanding receivables and commitments.

Dealing 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 terms 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 derivatives 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 2017 was €477.7 million (2016: €450.0 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 exist of a deterioration in the financial standing of counterparties.

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; and
- 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.

(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 19) 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 2017 relate to forecast cash flows expected to occur up to 2028.

At year end, ESB’s total debt portfolio amounted to €4.8 billion (2016: €4.9 billion), of which the Parent held €1.3 billion (2016: €1.5 billion). The underlying debt, before and after swaps, was denominated in the following currencies:

![Currency Denomination Table]

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 NI Networks acquisition and the operation of Carrington Power Limited.

A general increase of 10% in foreign currency exchange rates at 31 December 2017 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, all of which are in effective hedge relationships at 31 December 2017.

![Sensitivity Analysis Table]
26. 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 20 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.

A general increase of 10% in the price of gas and coal at 31 December 2017 would impact equity 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 of the value of commodity swaps in place, all of which are in effective hedge relationships at 31 December 2017. A 10% reduction would have an equal and opposite effect, on the basis that all other variables remain constant.

<table>
<thead>
<tr>
<th></th>
<th>31 December 2017</th>
<th>31 December 2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gain / (loss) due to 10% increase in the SMP</td>
<td>€ '000</td>
<td>€ '000</td>
</tr>
<tr>
<td>GROUP</td>
<td>(24,722)</td>
<td>(58,050)</td>
</tr>
<tr>
<td>PARENT</td>
<td>(10,557)</td>
<td>(1,025)</td>
</tr>
</tbody>
</table>

The sensitivity analysis provided above for the Group and Parent has been calculated as at 31 December 2017 using the following base commodity prices and foreign currency rates:

- Gas (Stg. p/therm): 48.03 - 49.20
- SMP (€/MWh): 48.77 - 53.01
- Coal (US$/tonne): 90.50 - 69.50
- Foreign currency rate (US$ = €1): 1.20 - 1.05
- Foreign currency rate (Stg£ = €1): 0.8872 - 0.8562

The fair values of financial assets and liabilities together with the carrying amounts shown in the balance sheet are as follows:

<table>
<thead>
<tr>
<th></th>
<th>GROUP</th>
<th>PARENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carrying value 2017</td>
<td>€ '000</td>
<td>€ '000</td>
</tr>
<tr>
<td>Fair value 2017</td>
<td>€ '000</td>
<td>€ '000</td>
</tr>
<tr>
<td>Carrying value 2016</td>
<td>€ '000</td>
<td>€ '000</td>
</tr>
<tr>
<td>Fair value 2016</td>
<td>€ '000</td>
<td>€ '000</td>
</tr>
</tbody>
</table>

26. FINANCIAL RISK MANAGEMENT AND FAIR VALUE (continued)

(b) Fair value

The fair values of financial assets and liabilities together with the carrying amounts shown in the balance sheet are as follows:

<table>
<thead>
<tr>
<th></th>
<th>GROUP</th>
<th>PARENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carrying value 2017</td>
<td>€ '000</td>
<td>€ '000</td>
</tr>
<tr>
<td>Fair value 2017</td>
<td>€ '000</td>
<td>€ '000</td>
</tr>
<tr>
<td>Carrying value 2016</td>
<td>€ '000</td>
<td>€ '000</td>
</tr>
<tr>
<td>Fair value 2016</td>
<td>€ '000</td>
<td>€ '000</td>
</tr>
</tbody>
</table>

31 December 2017

- Long-term debt: 4,369,705 - 5,615,889
- Short-term borrowings: 398,073 - 400,078

Total borrowings: 4,767,778 - 6,015,967

Current trade and other payables: 739,794 - 739,794
Non-current trade and other receivables: (740,939) - (79,374)
Cash and cash equivalents: (380,405) - (380,306)
Cash and cash equivalents: (208,499) - (208,499)

Net liabilities: 4,283,618 - 5,547,369

31 December 2016

- Long-term debt: 4,396,113 - 5,507,281
- Short-term borrowings: 489,330 - 530,046

Total borrowings: 4,885,443 - 6,015,967

Current trade and other payables: 773,131 - 773,131
Non-current trade and other receivables: (692,000) - (125,180)
Cash and cash equivalents: (363,024) - (383,624)
Cash and cash equivalents: (199,991) - (225,991)

Net liabilities: 4,405,194 - 5,549,853

* VAT and employment taxes have been excluded as these are statutory liabilities. Comparative amounts have been restated where necessary to ensure consistency in the two years being presented.
** Prepayments have been excluded as they are not classified as a financial asset. Comparative amounts have been restated where necessary to ensure consistency in the two years being presented.

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 NE 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:

<table>
<thead>
<tr>
<th></th>
<th>2017</th>
<th>2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other loans and borrowings</td>
<td>1.7</td>
<td>1.7</td>
</tr>
<tr>
<td>Derivative financial instruments</td>
<td>0.9</td>
<td>0.7</td>
</tr>
<tr>
<td>Trade and other payables</td>
<td>0.6</td>
<td>0.8</td>
</tr>
</tbody>
</table>
26. 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

<table>
<thead>
<tr>
<th>Date</th>
<th>Level 2 €'000</th>
<th>Level 3 €'000</th>
<th>Total €'000</th>
</tr>
</thead>
<tbody>
<tr>
<td>31 December 2017</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ASSETS</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Derivative financial instruments</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Interest rate swaps</td>
<td>10,296</td>
<td>-</td>
<td>10,296</td>
</tr>
<tr>
<td>- Currency swaps</td>
<td>24,076</td>
<td>-</td>
<td>24,076</td>
</tr>
<tr>
<td>- Foreign exchange contracts</td>
<td>14,271</td>
<td>-</td>
<td>14,271</td>
</tr>
<tr>
<td>- Forward fuel price contracts</td>
<td>56,847</td>
<td>3,621</td>
<td>60,468</td>
</tr>
<tr>
<td>- Forward electricity price contracts</td>
<td>15</td>
<td>93,318</td>
<td>93,333</td>
</tr>
<tr>
<td>Financial assets at fair value through profit or loss</td>
<td>-</td>
<td>22,165</td>
<td>22,165</td>
</tr>
<tr>
<td>Total</td>
<td>105,305</td>
<td>119,104</td>
<td>224,609</td>
</tr>
<tr>
<td>LIABILITIES</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Derivative financial instruments</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Interest rate swaps</td>
<td>(39,720)</td>
<td>-</td>
<td>(39,720)</td>
</tr>
<tr>
<td>- Currency swaps</td>
<td>(43,257)</td>
<td>-</td>
<td>(43,257)</td>
</tr>
<tr>
<td>- Foreign exchange contracts</td>
<td>(2,210)</td>
<td>-</td>
<td>(2,210)</td>
</tr>
<tr>
<td>- Forward fuel price contracts</td>
<td>(34,192)</td>
<td>(1,198)</td>
<td>(35,990)</td>
</tr>
<tr>
<td>- Inflation linked interest rate swaps</td>
<td>(653,176)</td>
<td>-</td>
<td>(653,176)</td>
</tr>
<tr>
<td>Total</td>
<td>(772,555)</td>
<td>(1,198)</td>
<td>(774,353)</td>
</tr>
<tr>
<td>Net (liability) / asset</td>
<td>(667,050)</td>
<td>117,104</td>
<td>(549,744)</td>
</tr>
</tbody>
</table>

### PARENT

<table>
<thead>
<tr>
<th>Date</th>
<th>Level 2 €'000</th>
<th>Level 3 €'000</th>
<th>Total €'000</th>
</tr>
</thead>
<tbody>
<tr>
<td>31 December 2017</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ASSETS</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Derivative financial instruments</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Interest rate swaps</td>
<td>1,857</td>
<td>-</td>
<td>1,857</td>
</tr>
<tr>
<td>- Currency swaps</td>
<td>-</td>
<td>24,076</td>
<td>24,076</td>
</tr>
<tr>
<td>- Foreign exchange contracts</td>
<td>5,419</td>
<td>-</td>
<td>5,419</td>
</tr>
<tr>
<td>- Forward fuel price contracts</td>
<td>56,846</td>
<td>-</td>
<td>56,846</td>
</tr>
<tr>
<td>Total</td>
<td>68,118</td>
<td>-</td>
<td>68,118</td>
</tr>
<tr>
<td>LIABILITIES</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Derivative financial instruments</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Interest rate swaps</td>
<td>-</td>
<td>(43,257)</td>
<td>(43,257)</td>
</tr>
<tr>
<td>- Foreign exchange contracts</td>
<td>(2,198)</td>
<td>-</td>
<td>(2,198)</td>
</tr>
<tr>
<td>- Forward fuel price contracts</td>
<td>(34,192)</td>
<td>(943)</td>
<td>(35,135)</td>
</tr>
<tr>
<td>Total</td>
<td>(79,557)</td>
<td>(943)</td>
<td>(80,500)</td>
</tr>
<tr>
<td>Net asset</td>
<td>8,551</td>
<td>-</td>
<td>8,551</td>
</tr>
</tbody>
</table>

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

26. FINANCIAL RISK MANAGEMENT AND FAIR VALUE (continued)

(i) Fair value hierarchy (continued)

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:

<table>
<thead>
<tr>
<th>Type</th>
<th>Valuation techniques</th>
<th>Significant unobservable inputs</th>
<th>Inter relationship between significant unobservable inputs and fair value measurement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type</td>
<td>Currency swaps, foreign exchange contracts and interest rate swaps</td>
<td>Level 2: Present valuation of future contracted foreign exchange cash flows using constructed zero-coupon discount curve.</td>
<td>The zero-coupon curve is based on the interest yield curve of the relevant currency.</td>
</tr>
<tr>
<td>Type</td>
<td>Forward fuel and electricity price contracts</td>
<td>Level 2: The fair value of forward fuel and electricity contracts is determined by reference to forward electricity, gas, coal and carbon prices with the resulting value discounted to present values.</td>
<td>System marginal price (SMP) generally a change in gas prices is accompanied by a directionally similar change in SMP.</td>
</tr>
<tr>
<td>Type</td>
<td>Inflation linked interest rate swaps</td>
<td>Level 2: Independent valuations are used and validated using the present valuation of expected cash flows using constructed zero-coupon discount curve.</td>
<td>The zero-coupon curve is based on the interest rate yield curve of the relevant currency.</td>
</tr>
<tr>
<td>Type</td>
<td>Financial assets at fair value through profit or loss</td>
<td>Discount cash flows: the valuation model considers the present value of expected cash flows.</td>
<td>Forecast annual revenue growth rate; Forecast gross margin;</td>
</tr>
</tbody>
</table>

NOTES TO THE FINANCIAL STATEMENTS

26. FINANCIAL RISK MANAGEMENT AND FAIR VALUE (continued)

(ii) Measurement of fair values - valuation techniques and significant unobservable inputs

The following table shows a reconciliation from opening balances at 1 January 2016 to the year ended 31 December 2017 for fair value measurements in Level 3 of the fair value hierarchy:

<table>
<thead>
<tr>
<th>Financial assets at fair value through profit or loss</th>
<th>€ ’000</th>
<th>Forward electricity price contracts</th>
<th>€ ’000</th>
<th>Forward fuel price contracts</th>
<th>€ ’000</th>
<th>Total</th>
<th>€ ’000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Balance at 1 January 2016</td>
<td>61,993</td>
<td>295,208</td>
<td>295,208</td>
<td>295,208</td>
<td>262,527</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Additions</td>
<td>6,116</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>6,116</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Disposals</td>
<td>(1,266)</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>(1,266)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total gains / (losses):</td>
<td>(0,062)</td>
<td>-</td>
<td>-</td>
<td>(0,062)</td>
<td>(0,062)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- in profit or loss</td>
<td>(0,062)</td>
<td>-</td>
<td>-</td>
<td>(0,062)</td>
<td>(0,062)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- in OCI</td>
<td>(33,884)</td>
<td>-</td>
<td>-</td>
<td>(33,884)</td>
<td>(33,884)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Settlements</td>
<td>70,038</td>
<td>72,233</td>
<td>72,233</td>
<td>(26,103)</td>
<td>25,130</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Translation movements</td>
<td>(1,849)</td>
<td>-</td>
<td>-</td>
<td>(1,849)</td>
<td>(1,849)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Balance 31 December 2016 - net</td>
<td>22,165</td>
<td>93,318</td>
<td>93,318</td>
<td>117,306</td>
<td>262,527</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Balance 1 January 2017</td>
<td>55,932</td>
<td>140,253</td>
<td>140,253</td>
<td>220,579</td>
<td>220,579</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Additions</td>
<td>2,565</td>
<td>-</td>
<td>-</td>
<td>2,565</td>
<td>2,565</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Disposals</td>
<td>(2,268)</td>
<td>-</td>
<td>-</td>
<td>(2,268)</td>
<td>(2,268)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total gains / (losses):</td>
<td>(33,884)</td>
<td>-</td>
<td>-</td>
<td>(33,884)</td>
<td>(33,884)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- in profit or loss</td>
<td>47,496</td>
<td>-</td>
<td>-</td>
<td>47,496</td>
<td>47,496</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- in OCI</td>
<td>(54,431)</td>
<td>-</td>
<td>-</td>
<td>(54,431)</td>
<td>(54,431)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Settlements</td>
<td>(87,573)</td>
<td>-</td>
<td>-</td>
<td>(87,573)</td>
<td>(87,573)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Translation movements</td>
<td>(180)</td>
<td>-</td>
<td>-</td>
<td>(180)</td>
<td>(180)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Balance 31 December 2017 - net</td>
<td>22,165</td>
<td>93,318</td>
<td>93,318</td>
<td>117,306</td>
<td>262,527</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Financial assets at fair value through profit or loss are carried at fair value. Where applicable, the fair value is based on the most recent funding valuation statement available adjusted for a liquidity discount. In relation to stand alone investments, the valuation methodology used is in accordance with International Private Equity and Venture Capital Valuation Guidelines which have been developed by a number of international venture capital associations. 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, 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:

<table>
<thead>
<tr>
<th>Change in significant unobservable input</th>
<th>Gain due to 10% increase in gas and coal prices</th>
<th>Loss due to 10% increase in the SMP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fuel prices</td>
<td>(14,165)</td>
<td>(87,573)</td>
</tr>
<tr>
<td>Electric prices</td>
<td>12,625</td>
<td>1,849</td>
</tr>
</tbody>
</table>

Financial assets at fair value through profit or loss are carried at fair value. Where applicable, the fair value is based on the most recent funding valuation statement available adjusted for a liquidity discount. In relation to stand alone investments, the valuation methodology used is in accordance with International Private Equity and Venture Capital Valuation Guidelines which have been developed by a number of international venture capital associations. 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, 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:

<table>
<thead>
<tr>
<th>Change in significant unobservable input</th>
<th>Gain due to 10% increase in gas and coal prices</th>
<th>Loss due to 10% increase in the SMP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fuel prices</td>
<td>(14,165)</td>
<td>(87,573)</td>
</tr>
<tr>
<td>Electric prices</td>
<td>12,625</td>
<td>1,849</td>
</tr>
</tbody>
</table>

Financial assets at fair value through profit or loss are carried at fair value. Where applicable, the fair value is based on the most recent funding valuation statement available adjusted for a liquidity discount. In relation to stand alone investments, the valuation methodology used is in accordance with International Private Equity and Venture Capital Valuation Guidelines which have been developed by a number of international venture capital associations. 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, 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:

<table>
<thead>
<tr>
<th>Change in significant unobservable input</th>
<th>Gain due to 10% increase in gas and coal prices</th>
<th>Loss due to 10% increase in the SMP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fuel prices</td>
<td>(14,165)</td>
<td>(87,573)</td>
</tr>
<tr>
<td>Electric prices</td>
<td>12,625</td>
<td>1,849</td>
</tr>
</tbody>
</table>
27. COMMITMENTS AND CONTINGENCIES

(a) Operating lease obligations

Total commitments under non-cancellable operating leases are as follows:

<table>
<thead>
<tr>
<th></th>
<th>2017</th>
<th>2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Within one year</td>
<td>17,172</td>
<td>16,631</td>
</tr>
<tr>
<td>Between two and five years</td>
<td>56,075</td>
<td>54,110</td>
</tr>
<tr>
<td>After five years</td>
<td>149,475</td>
<td>136,148</td>
</tr>
<tr>
<td>Total payable</td>
<td>23,172</td>
<td>20,887</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th></th>
<th>2017</th>
<th>2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contracted for</td>
<td>342,422</td>
<td>248,364</td>
</tr>
<tr>
<td>Share of equity accounted investees commitments</td>
<td>2017</td>
<td>2016</td>
</tr>
<tr>
<td>Contracted for</td>
<td>61,130</td>
<td>20,414</td>
</tr>
</tbody>
</table>

(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 input energy market indicators. Where appropriate, embedded derivatives have been separated and valued in accordance with IAS 39.

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 input energy market indicators. Where appropriate, embedded derivatives have been separated and valued in accordance with IAS 39.

(d) Other disclosures

Following on from flooding in Cork in November 2005, Aniva 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 2010 the High Court delivered its judgement in the case and found ESB 60% liable for the damage caused and UCC 40% contributorily negligent.

Based on legal advice received, ESB has appealed the decision to the Court of Appeal and the appeal was heard in November 2017. A decision is expected in 2018. Pending the decision, no hearing on quantum (i.e. the actual amount of damages payable in respect of UCC’s losses) will take place and the High Court has stayed its order on costs.

In addition to the UCC claim ESB has, since the judgement 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 Court of Appeal find against ESB) 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 Aniva / 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 appeal will be successful 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 disputes 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.

28. 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 EirGrid, Eirnet, 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 2017. A portion of the cash and cash equivalents as disclosed in note 16 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 repurchase

Please refer to note 30 for details of ESOP repurchase.

Subsidiary undertakings

During the year ended 31 December 2017, ESB Parent purchased engineering, consulting and other services, including rental services of €302.3 million (2016: €362.2 million) from its subsidiaries.

During the year, ESB Parent had sales of €1,950.0 million (2015: €1,612.1 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 and accrued interest of €1,612.1 million (2016: €462.2 million) from subsidiaries and paid accrued interest of €71.8 million (2016: €70.1 million) to subsidiaries on inter-company loans.

At 31 December 2017, ESB Parent had amounts payable of €3,369.1 million (2016: €3,415.4 million) to its subsidiaries. These payables mainly relate to amounts held on deposit for subsidiaries, borrowings raised by ESB Finance DAC and loaned to ESB Parent, as well as amounts due in respect of engineering and consulting services.

At 31 December 2017, ESB Parent had balances receivable of €2,284.3 million (2016: €2,765.9 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 2017 was €330.9 million (2016: €60). At 31 December 2017, ESB Parent investments in subsidiary undertakings amounted to €61.8 million (2016: €61.8 million). See note 13 for further details.

Equity accounted investees

Sale of goods / services

<table>
<thead>
<tr>
<th></th>
<th>2017</th>
<th>2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kingspan ESB DAC</td>
<td>1,016</td>
<td>874</td>
</tr>
<tr>
<td>Tilbury Green Power Holdings Ltd</td>
<td>1,458</td>
<td>1,000</td>
</tr>
<tr>
<td>SIRO Ltd</td>
<td>9,499</td>
<td>3,400</td>
</tr>
<tr>
<td>Terra Solar Ltd</td>
<td>51,094</td>
<td>46,800</td>
</tr>
<tr>
<td>Total</td>
<td>5,200</td>
<td>4,200</td>
</tr>
</tbody>
</table>

Purchase of goods / services

<table>
<thead>
<tr>
<th></th>
<th>2017</th>
<th>2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kingspan ESB DAC</td>
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<td>1,000</td>
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</tr>
<tr>
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<td>51,094</td>
<td>46,800</td>
</tr>
<tr>
<td>Total</td>
<td>5,200</td>
<td>4,200</td>
</tr>
</tbody>
</table>

Amounts owed (to) from as at 31 December

<table>
<thead>
<tr>
<th></th>
<th>2017</th>
<th>2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kingspan ESB DAC</td>
<td>1,016</td>
<td>874</td>
</tr>
<tr>
<td>Tilbury Green Power Holdings Ltd</td>
<td>1,458</td>
<td>1,000</td>
</tr>
<tr>
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<td>9,499</td>
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</tr>
<tr>
<td>Terra Solar Ltd</td>
<td>51,094</td>
<td>46,800</td>
</tr>
<tr>
<td>Total</td>
<td>5,200</td>
<td>4,200</td>
</tr>
</tbody>
</table>

Equity advanced during the year

<table>
<thead>
<tr>
<th></th>
<th>2017</th>
<th>2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kingspan ESB DAC</td>
<td>1,016</td>
<td>874</td>
</tr>
<tr>
<td>Tilbury Green Power Holdings Ltd</td>
<td>1,458</td>
<td>1,000</td>
</tr>
<tr>
<td>SIRO Ltd</td>
<td>9,499</td>
<td>3,400</td>
</tr>
<tr>
<td>Terra Solar Ltd</td>
<td>51,094</td>
<td>46,800</td>
</tr>
<tr>
<td>Total</td>
<td>5,200</td>
<td>4,200</td>
</tr>
</tbody>
</table>

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 ESB has provided electricity sales, management and other professional services during the year to equity accounted investees as set out in the above table.
4 Amounts owed (to) from equity accounted investees include shareholder loans, interest on these loans and trade receivable and payable balances.
5 ESB has committed to provide capital funding to SIRO Ltd of €85.0 million, of which €48.0 million has been advanced as a short-term shareholder loan as included in the above table.

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.
28. RELATED PARTY TRANSACTIONS (continued)

Key management compensation

<table>
<thead>
<tr>
<th>Year</th>
<th>2017</th>
<th>2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salaries and other short-term employee benefits</td>
<td>€2,688</td>
<td>€2,567</td>
</tr>
<tr>
<td>Post-employment benefits</td>
<td>€329</td>
<td>€374</td>
</tr>
<tr>
<td>Total</td>
<td>€3,117</td>
<td>€2,941</td>
</tr>
</tbody>
</table>

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.

29. ESTIMATES AND JUDGEMENTS

The preparation of the 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 carrying value of the assets and liabilities in the balance sheet. Such estimates and judgements are based on historical experience and other factors. As such, there is a risk that actual results may deviate from those estimates.

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 21).

(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 benefit obligations involves judgements made in conjunction with independent actuaries. These include 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 those assumptions are described in note 21.

(c) The value in use, in accordance with IAS 36 Impairment of Assets, of long lived assets and associated goodwill, as described in note 12 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.

As described in note 26 section (f), the valuation of certain financial instruments is based on a number of judgemental factors and assumptions which are not based on observable inputs. These have been classified as Level 3 financial instruments, under the meaning of IFRS 13 Fair Value Measurement.

(d) Future costs required to settle current provisions, such as the asset retirement costs and voluntary severance obligations. These liabilities are disclosed in notes 21, 22 and 25.

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 unutilised electricity income and unutilised trade and other receivables, the useful lives of property, plant and equipment and intangible assets. These items are estimated in accordance with the accounting policies of the Group and current International Financial Reporting Standards.

(e) ESB provides 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 15).

Further details of estimates and judgements regarding ongoing legal claims are disclosed in note 27.

30. ESB ESP Trustee LIMITED

ESB ESP 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 ESP 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 ESP. As such, these 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 ESP 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 ESP capital markets. As part of the agreement ESB committed to match the acquisitions made by the ESP Trustee up to a value of €50.0 million. An ESP provision of €54.3 million (2014: €70.0 million) was recognised in the 2017 financial statements in relation to the capital stock repurchases by the ESP Trustee. During 2017, ESB also commenced the repurchase of the ESP capital stock and consequently a capital redemption reserve of €4.7 million representing the nominal amount of the share capital cancelled (2016: €nil) arose from the purchase and cancellation of the 4.7 million ESP share capital for a consideration of €4.7 million. The repurchase reduced the ESP provision balance by €56.6 million and at 31 December 2017, the ESP provision reserve (note 25) recognised in other reserves amounted to €159.0 million (2016: €191.1 million).

31. 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 since the year end that the directors believe require adjustment to or disclosure in the financial statements.

32. APPROVAL OF FINANCIAL STATEMENTS

The Board approved the financial statements on 27 February 2018.
### NOTES TO THE FINANCIAL STATEMENTS

#### 33. SUBSIDIARY, EQUITY ACCOUNTED INVESTEES AND ASSOCIATE UNDERTAKINGS (continued)

<table>
<thead>
<tr>
<th>Company name</th>
<th>Registered office</th>
<th>Group share %</th>
<th>Nature of business</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indirect subsidiary (continued)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ESB Independent Energy Ltd.</td>
<td>2</td>
<td>100</td>
<td>Electricity sales</td>
</tr>
<tr>
<td>ESB Independent Generation Trading Ltd.</td>
<td>2</td>
<td>100</td>
<td>Electricity and gas trading</td>
</tr>
<tr>
<td>ESB Innovation UK Ltd.</td>
<td>4</td>
<td>100</td>
<td>Provision of energy and electromobility services</td>
</tr>
<tr>
<td>ESB Innovation ROI Ltd.</td>
<td>2</td>
<td>100</td>
<td>Provision of energy and electromobility services</td>
</tr>
<tr>
<td>ESB Novus Modus GP Ltd.</td>
<td>2</td>
<td>100</td>
<td>Clean technology investment</td>
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<td>ESB Power Generation Holding Company Ltd.</td>
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<td>100</td>
<td>Holding company</td>
</tr>
<tr>
<td>ESB Services BV (Holland).</td>
<td>12</td>
<td>100</td>
<td>Operations and maintenance services</td>
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<tr>
<td>ESB Solar (REF) Ltd.</td>
<td>2</td>
<td>100</td>
<td>Business and management consultancy activities</td>
</tr>
<tr>
<td>ESB Solar (NI) Ltd.</td>
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<td>100</td>
<td>Business and management consultancy activities</td>
</tr>
<tr>
<td>ESB Telecoms Ltd.</td>
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<td>100</td>
<td>Telecommunications</td>
</tr>
<tr>
<td>ESB Trading Ltd.</td>
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<td>100</td>
<td>Management and operation services</td>
</tr>
<tr>
<td>ESB Wind Development Ltd.</td>
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<td>100</td>
<td>Business development</td>
</tr>
<tr>
<td>ESB Carbon Solutions Ltd.</td>
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</tr>
<tr>
<td>ESB Computing Ltd.</td>
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<tr>
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<td>ESB Eng &amp; FM (Botswana) (Proprietary) Ltd.</td>
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<tr>
<td>ESB Engineering and Facility Management Ltd.</td>
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<tr>
<td>ESB UK Ltd.</td>
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<tr>
<td>ESB Luxembourg S.A.</td>
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<td>Electricity generating assets investment</td>
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<tr>
<td>Garvay Wind Farm Ltd.</td>
<td>9</td>
<td>8</td>
<td>Power generation</td>
</tr>
<tr>
<td>Geothermal International Ltd.</td>
<td>10</td>
<td>82.1</td>
<td>Power generation</td>
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<tr>
<td>Geothermal International Hrvatiska (Croatia) d.d.</td>
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<td>10</td>
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<tr>
<td>Geothermal International Italia SRL</td>
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<td>40</td>
<td>Power generation</td>
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<td>Geothermal International Polska Sp.Zo.o (Spolka Z Organiczna Odpowiedzialna).</td>
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<tr>
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<tr>
<td>Knockingly Power Ltd.</td>
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</tr>
<tr>
<td>Mount Eagle Wind Farm Ltd.</td>
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<td>Power generation</td>
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<tr>
<td>Mountainlodge Power DAC.</td>
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<td>85.9</td>
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<tr>
<td>NIE Ltd.</td>
<td>6</td>
<td>100</td>
<td>Dorman</td>
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<tr>
<td>NIE Network Services Ltd.</td>
<td>6</td>
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<td>Non-trading</td>
</tr>
<tr>
<td>Northern Ireland Electricity Ltd.</td>
<td>6</td>
<td>100</td>
<td>Dorman</td>
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<tr>
<td>Northern Ireland Electricity Networks Ltd.</td>
<td>6</td>
<td>100</td>
<td>Power transmission and distribution</td>
</tr>
<tr>
<td>Olriven Ltd.</td>
<td>2</td>
<td>100</td>
<td>Power generation</td>
</tr>
</tbody>
</table>

#### NOTES TO THE FINANCIAL STATEMENTS

#### 33. SUBSIDIARY, EQUITY ACCOUNTED INVESTEES AND ASSOCIATE UNDERTAKINGS (continued)

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<tbody>
<tr>
<td>Indirect subsidiary (continued)</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Planet 9 Energy Ltd.</td>
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<tr>
<td>REG Knockochar Ltd.</td>
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<td>Power generation</td>
</tr>
<tr>
<td>Silahartane Energy Project Two Ltd.</td>
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<td>100</td>
<td>Power generation</td>
</tr>
<tr>
<td>Synergen Power Ltd.</td>
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</tr>
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<td>Power Generation Technology Snd. Blvd.</td>
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<td>Power generation</td>
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<tr>
<td>Turnalt Wind Farm Ltd.</td>
<td>9</td>
<td>8</td>
<td>Power generation</td>
</tr>
<tr>
<td>Utility Operation &amp; Maintenance Services Ltd.</td>
<td>14</td>
<td>100</td>
<td>Operations and maintenance services</td>
</tr>
<tr>
<td>Walerferm Ltd.</td>
<td>2</td>
<td>100</td>
<td>Power generation</td>
</tr>
<tr>
<td>West Durham Wind Farm (Holdings) Ltd.</td>
<td>4</td>
<td>100</td>
<td>Holding company</td>
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<tr>
<td>West Durham Wind Farm (Holdings) Ltd.</td>
<td>4</td>
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<td>Holding company</td>
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<tr>
<td>West Durham Wind Farm Ltd.</td>
<td>4</td>
<td>100</td>
<td>Power generation</td>
</tr>
<tr>
<td>Woodhouse Wind Farm Ltd.</td>
<td>2</td>
<td>100</td>
<td>Power generation</td>
</tr>
</tbody>
</table>

#### Equity accounted investees

- Castlepook Power DAC. 2 50 Power generation
- Emerald Bridge Fibres DAC. 2 50 Telecommunications
- Kingspan ESB DAC. 2 50 Business and management consultancy activities
- Downinny Power DAC. 2 50 Power generation
- Rahanvenagh Power DAC. 2 50 Power generation
- SIRO Ltd. 2 50 Fibre to the building
- Tibury Green Power Holdings Ltd. 4 47 Holding company
- Tibury Green Power Ltd. 4 47 Power generation

#### Associate undertakings

- Terra Solar Ltd. 27 25 Power generation

#### Investments

- Cylon Controls Ltd. 20 36.3 Clean technology investment
- Endico Technologies Ltd. 21 22 Clean technology investment
- Helix Power Ltd. 22 34.3 Clean technology investment
- NuScale Ltd. 23 41 Clean technology investment
- Pusaka Technologies 17 30 Power generation
- Roush Pakistan Power 13 7 Power generation
- TekSolar Inc. 25 4 Clean technology investment
- UNES Operation and Maintenance Inc. 16 50 Operations and maintenance services
- VantagePoint Cleantech Partners II, L.P. 24 45 Clean technology investment

#### Other

- ESB ESOP Trustee Ltd. 15 100 Staff shareholding scheme
NOTES TO THE FINANCIAL STATEMENTS

33. 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, Clongrahan, Co. Dublin
2 Two Gateway, East Wall Road, Dublin 3, D03 A995
3 Mitchell Road, Phoenix Parkway, Corby, Northamptonshire NN17 1QZ
4 Tricor Services Europe LLP, 4th Floor, 50 Mark Lane, London, EC3R 7QR
5 2 Eccles Road, Maydown, Derry, BT47 6UL
6 120 Malone Road, Block B7, BT9 6HT
7 Palladium House, 1 - 4 Argyll Street, London, W1F 7TA
8 Clanwilliam House, Clanwilliam Place, Dublin 2
9 22-24 King Street, Maidenhead, SL6 9EF
10 Shellingford House, Westwood Way, Westwood Business Park, Coventry, CV48J2
11 Deloitte House, First Floor, Plot, 645/18, Fairgrounds Office Park, Galore, Boston, Massachusetts
12 2nd Floor, Menara, EDN Bank, Lala Raja Laut, 50350 Kuala Lumpur, Malaysia
13 S4-W, 3rd Floor, AAMIR Plaza, Jimnah Avenue, Blue Area, Islamabad, Pakistan
14 ESB Dublin Bay, Pigonous House Road, Ringsend, Dublin 4, D04 Y5N2
15 43 Merrion Square, Dublin 2
16 Nâşpulea Cad Ammanze E3 Blok K, 13E/Eliter/Besiktas, Turkey
17 Level 1, Menara Yasayan, Tunk Razak, 55100 Kuala Lumpur, Malaysia
18 10th Floor, Wisma Havela, Thakardar, No 1, Jalan Raja Laut, 50350 Kuala Lumpur, Malaysia
19 C/O Stafford’s Cpc 1 Capital Park, Fulbourne, Cambridge, United Kingdom, CB1 5XE
20 Clonshaugh Business and Technology Park, Clonshaugh, Dublin 17
21 3015, Laker Drive, Citywood Business Park, Dublin 24
22 Holin Building, Broomh Avenue, East Kilbride, Glasgow, G75 0RD
23 Cork Business and Technology Park, Model Farm Road, Cork
24 C/O Codan Trust Company (Cayman) Limited, Cricket Square, Hutchins Drive, PO Box 2681, Grand Cayman, KY1-1111, Cayman Islands
25 9231 Penn Avenue South, Minneapolis, Minnesota, 55431
26 134 N LaSalle St, Suite 510, Chicago, IL 60602
27 57 Holybank Avenue Lower, Ranelagh, Dublin 6
28 H-1015 Budapest, Batthyany utca 56, Hungary
29 Trasimeno Sul Naviglio - Viale C.Colombo, 8
30 Geothermal International Polska, Parkowa 21 lok 7, 00-759 Warszawa, Poland
31 Zagrebacika 94, 42000 Varazdin
32 6, Rue Eugene Ruppert, L-2453, Luxembourg
33 3rd Floor Edgebrough House, Edgebrough Road, Guildford, Surrey, GU1 2BJ

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 Payments in Commercial Transactions) Amendment Regulations 2016 (S.I. No. 281 of 2016)

Introduction
Payments terms during 2017 were governed by three items of legislation:
- The Prompt Payment of Accounts Act, 1997,
- European Communities (Late Payment 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 operations and ancillary services 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 are signatories to this code and undertake to pay suppliers on time, give clear guidance to suppliers on payment procedures and encourage the adoption of the Code by ESB suppliers within their own supply chains.

Construction Contracts Act 2013
This Act came into effect on 25 July 2016. ESB have reviewed their responsibilities under this Act and have communicated these responsibilities to all impacted staff.

Details of late payment interest in respect of 2017
When ESB validates a late payment request from a supplier, it is ESB’s policy to pay interest due on such late payments. Two payments amounting to €7,542 were made in respect of late payments during the year 2017 (2016: €nil).

Ellen Graham OBE
Chairman
Pat O'Doherty
Chief Executive
1 March 2018
energy equivalent to delivering 1 billion watts of electricity and the cost of the gas used to generate it.

2. Brexit
Brexit is the potential departure of the United Kingdom (UK) from the European Union (EU).

3. Commission for Regulation of Utilities, Water and Energy (CRU)
The Commission for Regulation of Utilities, Water and Energy (CRU) is the independent regulator of water and energy in the Republic of Ireland (ROI).

4. Contract for Difference (CfD)
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 Excluding Exceptional Items
Operating profit 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 GB’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 €2 million per year disbursed across a range of community and issue-based initiatives.

9. Environmental Protection Agency (EPA)
The Environmental Protection Agency is an independent public body established under the Environmental Protection Act, 1992. It is at the front line of environmental protection and policing.

10. Gigabit (Gb/s)
A gigabit (Gb/s) is a unit of data transfer rate equal to 1,000 megabits per second.

11. Gigawatt (GW)
Gigawatt (GW), being the amount of power equal to 1 billion watts.

12. Gigawatt Hours (GWh)
Gigawatt Hours (GWh), 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 (MW), being the amount of power equal to 1 million watts.

20. Megawatt Hours (MWh)
Megawatt hours (MWh), 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 allow 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 Control Review 4 (PR4)
Regulatory periods are of 5 years duration and the Price Control Review 4 (PR4) covers the period 2016 to 2020 and sets out the total regulated allowed revenues over that period as determined by the CRU.

26. Regulatory Period 5 (RPP)
Regulatory Period 5 (RPP), 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 (NI).

27. Regulatory Period 6 (RPP)
Regulatory Period 6 (RPP), is a regulatory period for price control, covering the period 1 October 2017 to 31 March 2024, determined by the Utility Regulator in NI.

28. Return on Capital Employed (ROCE)
The Return on Capital Employed (ROCE) shows the overall return on capital provided by both debt and equity.

29. Single Electricity Market (SEM)
The Single Electricity Market (SEM) is a wholesale pool-based electricity market operating north and south of the Irish Border.

30. Single Electricity Market Operator (SEMO)
The SEMO is operated by the Single Electricity Market Operator (SEMO), a joint venture between EirGrid and the System Operator for Northern Ireland (SONI), the transmission system operators in ROI and NI respectively.

31. SIRO
A joint venture with Siodaline, which will bring 1 gigabit per second (Gb/s) to 500,000 customers in 50 towns across Ireland using the existing distribution network.

32. Smart Energy Services (SES)
Smart Energy Services (SES) 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 control and decrease the risks associated with health and safety within companies.

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 (SEAI) 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 (SONI) ensures the safe, secure and economic operation of the high voltage electricity grid in NI 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 NI.

44. Vertically Integrated Utility (VIU)
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 and distribution and supply of power to customers.

45. X Site
ESB’s first innovation hub, X Site is a place where new business ideas and start-ups are incubated.