

**REGISTERED NUMBER: 03476201 (England and Wales)**

**GROUP STRATEGIC REPORT, REPORT OF THE DIRECTORS AND  
CONSOLIDATED FINANCIAL STATEMENTS FOR THE YEAR ENDED 31 DECEMBER 2016  
FOR  
NORTHERN POWERGRID HOLDINGS COMPANY**

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FOR THE YEAR ENDED 31 DECEMBER 2016**

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**NORTHERN POWERGRID HOLDINGS COMPANY**

**COMPANY INFORMATION  
FOR THE YEAR ENDED 31 DECEMBER 2016**

**DIRECTORS:**

G E Abel  
D L Anderson  
R Dixon  
J M France  
P J Goodman  
P A Jones  
J N Reynolds

**COMPANY SECRETARY:**

J Riley

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**REGISTERED NUMBER:**

03476201 (England and Wales)

**AUDITOR:**

Deloitte LLP  
Chartered Accountants and Statutory Auditor  
Newcastle upon Tyne  
United Kingdom

**GROUP STRATEGIC REPORT  
FOR THE YEAR ENDED 31 DECEMBER 2016**

The directors present the annual reports and accounts of Northern Powergrid Holdings Company (the "Company") and its subsidiary companies (together the "Group") for the year ended 31 December 2016, which includes the Group Strategic Report, the Report of the Directors, Directors' Statement of Responsibility and the audited financial statements for that year. Pages 2 to 21 inclusive comprise the Strategic Report and pages 22 to 32 comprise the Report of the Directors, which have been drawn up and are presented in accordance with the Companies Act 2006.

**CAUTIONARY STATEMENT REGARDING FORWARD-LOOKING STATEMENTS**

These annual reports and accounts have been prepared for the members of the Company only. The Company, its directors, employees or agents do not accept or assume responsibility to any other person in connection with this document and any such responsibility or liability is expressly disclaimed. These annual reports and accounts contain certain forward-looking statements, which can be identified by the fact that they do not relate only to historical or current facts. In particular, all statements that express forecasts, expectations and projections with respect to future matters, including trends in results of operations, business prospects, the availability of financing to the Company and anticipated cost savings are forward-looking statements.

By their nature, forward-looking statements and forecasts involve risk and uncertainty because they relate to events and depend on circumstances that may or may not occur in the future. There are a number of factors that could cause actual results or developments to differ materially from those expressed or implied by these forward-looking statements and forecasts. The forward-looking statements reflect the knowledge and information available at the date of preparation of these annual reports and accounts and will not be updated during the year. Nothing in these annual reports and accounts should be construed as a profit forecast.

**BUSINESS MODEL**

The Company is the ultimate parent undertaking for the Group in the United Kingdom and its main subsidiary companies are Northern Powergrid (Northeast) Limited ("NPg Northeast"), Northern Powergrid (Yorkshire) plc ("NPg Yorkshire"), Integrated Utility Services Limited, registered in the United Kingdom, ("IUS"), CalEnergy Resources Limited ("CE Resources"), Integrated Utility Services Limited, registered in the Republic of Ireland ("IUS Ireland") and Northern Powergrid Metering Limited ("Northern Powergrid Metering").

NPg Northeast and NPg Yorkshire (together "Northern Powergrid") are distribution network operators ("DNOs") and, during the year, distributed some 36,580 gigawatt-hours (GWh) of electricity to approximately 3.9 million customers connected to their electricity distribution networks in the northeast of England and Yorkshire. Northern Powergrid's combined distribution networks include over 18,000 miles of overhead lines, 40,000 miles of underground cables and 725 major substations. Electricity is received from the National Grid's transmission system and from generators connected directly to the network and then distributed at voltages of up to 132 kilovolts (kV).

IUS and IUS Ireland provide engineering contracting services, CE Resources holds interests in hydrocarbon permits in Australia, Poland and the United Kingdom, and Northern Powergrid Metering rents meters to energy suppliers.

The Group operates a business model and strategy based on its six core principles (the "Core Principles"), which are:

<b>Principle</b>	<b>Strategy</b>	<b>Indicator</b>
Financial strength	Effective stewardship of the Group's financial resources, investing in assets and focusing on long-term opportunities, which contribute to the Group's future strength.	Profitability, cash flow and maintenance of investment grade credit ratings.
Customer service	Delivering reliability, dependability, fair prices and exceptional service.	Improving network resilience and performance, measured by: customer minutes lost, customer interruptions and customer satisfaction.

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Operational excellence	Setting high standards for the Group's operations, system investment and maintenance.	Effective asset management, managing commercial risk and improving network resilience and performance.
Employee commitment	Equipping employees with the resources and support they need to operate successfully and in a safe and rewarding work environment.	Leading safety performance, engaging employees and effective leadership.
Environmental respect	Using natural resources wisely and protecting the environment, where it is impacted by the Group's operations.	Reducing environmental impact and promoting and pursuing long-term sustainability.
Regulatory integrity	Adhering to a policy of strict compliance with applicable laws, regulations, standards and policies.	Strong internal controls, regulatory engagement and industry influence.

**STRATEGIC OBJECTIVES**

The Group's strategic objectives are based on the Core Principles and accordingly remain consistent to build a business, which:

- continues to generate value over the long-term;
- invests in and manages its electricity distribution networks in an efficient and effective manner;
- provides its customers with an excellent standard of service;
- engages with its employees so that they feel rewarded and recognised as part of a team that sets and achieves increasingly high standards of performance; and
- is viewed as being a leader in shaping the future direction of the electricity distribution sector in the United Kingdom.

As part of its strategy, the Group continues to be committed to putting safety first, respecting its customers, their time and property, doing a quality job, responding effectively to major incidents on the network in times of severe weather and caring for its local community and environment.

**GROUP STRATEGIC REPORT  
FOR THE YEAR ENDED 31 DECEMBER 2016**

**REVIEW OF THE YEAR**

The Group delivered a satisfactory financial performance for the year, benefitting from a further change to the rate of taxation, the settlement of a prior year tax claim, and continued effective cost control, with revenue at £768.5 million being £7.8 million less than 2015. The decrease in revenue was due to lower distribution use of system and contracting revenues partially offset by increased smart meter volumes.

Throughout 2016, Northern Powergrid continued its policy of enhancing the efficiency of its electricity distribution network by investing £406.5 million in order to deliver the improvements required to maintain an effective supply of electricity to customers. As was the case in 2015, the resilience of the network was tested during the year by several major weather events, including intense lightning storms, periods of very heavy rain and high winds. Northern Powergrid's major incident management processes were implemented in these instances to ensure that interruptions to customers were minimised. The on-going investments in the network, including those to assist with the management of environmental incidents, and the responses put in place to mitigate the effects of such events, supported the Company's achievements made against the incentive scheme operated by the Office of Gas and Electricity Markets (Ofgem) for quality of service targets with the number of customer minutes lost and customer interruptions both below the target levels.

Northern Powergrid remained focussed on the affordability, availability and reliability of the service it provides. Accordingly, the way in which Northern Powergrid interacted with and supported its stakeholders continued to be important. The results of Ofgem's stakeholder engagement and customer vulnerability submission were disappointing. When compared against the other five DNOs, Northern Powergrid ranked in fifth place (a decline from its previous position of second). In response, the opportunity was taken to further engage with vulnerable customers, those who struggle with fuel poverty, customers who require priority services and those whose welfare could be affected in the event of an interruption to supply. Collaboration with partners including the Children's Society, the British Red Cross and Citizens Advice was undertaken to deliver enhanced support to those groups with a greater need for assistance.

Customer satisfaction continued to be a management priority and therefore multi-year programmes continued throughout the year to embed improvements into the overall customer experience. To further develop the quality of customer conversations, defined performance standards were implemented, supported by a pilot recognition and reward scheme for employees. The Customer Relationship Management ("CRM") IT system was further deployed allowing faster responses with a greater degree of accuracy for the management of customer complaints, general enquiries services and service alterations. The use of technology (including the CRM system) was further embedded to enhance the ways in which customers can make contact with Northern Powergrid. Due to the initiatives in place, with Northern Powergrid writing, emailing and sending text messages to remind customers 72 hours and then 24 hours ahead of any planned power cuts taking place, further progress was made during the year to improve the level of customer satisfaction relating to planned power cuts.

The effect of Group's operations on the local landscape, and upon wildlife and birds remained important and, accordingly, progress continued in the implementation of measures designed to protect the environment. Incidents reportable to the Environment Agency, including oil spills and leaks from Northern Powergrid's assets and SF6 gas discharges from electrical plant, were all significantly better than target. Given the impact on the environment of such events, Northern Powergrid remains committed to reducing losses from fluid-filled cables and, during the ED1 period, plans to replace a significant number of those assets on a phased and prioritised basis.

The health and safety of the Group's employees, its contractors and customers continued to be a key priority in 2016, with the focus on delivering a safety and health improvement plan designed to accomplish a world class safety performance. Education concerning the dangers of coming into contact with the network's assets and how people can identify these dangers remained a firm commitment. A number of approaches were therefore deployed during the year to communicate health and safety messages to the Group's employees and stakeholders, including delivering regional school safety presentations, running operational seminars for the Group's engineers and circulating regular safety newsflashes to all staff. The Group also placed emphasis on the identification of significant health and safety risks and allocating the necessary resource to put actions in place to mitigate those risks. Driving the Group's vehicles has been identified as one such risk, and therefore a robust road risk management plan was expanded throughout 2016. This included the completion of the programme to install a telematics system in all fleet vehicles to increase driver and vehicle safety and to assist with vehicle safety checks.

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IUS' external revenue in 2016, at £29.8 million was £3.1 million lower than 2015 mainly due reduction in revenues from Rail contracts partially offset by an increase in other contracts.

Northern Powergrid Metering's performance was encouraging, with it delivering the contracts secured with energy suppliers for the provision of meters in the United Kingdom and Ireland and continuing to pursue business development opportunities with other energy suppliers in advance of the full smart meter roll-out programme. The development of Northern Powergrid Metering's business during 2016 has led to it now owning and renting just under one million gas and electricity smart meters as well as approximately 50 thousand conventional meters installed in the United Kingdom.

CE Resources continued to develop its portfolio of hydrocarbon exploration, development and producing assets in Australia, Poland and the United Kingdom. Against a background of falling global oil and gas prices, progress continued towards the commercialization of the Baltic Gas Project, which is seeking to develop two gas fields offshore to Poland. Further studies and evaluation will be undertaken prior to a possible final investment decision. The Platypus discovery, which is offshore to the United Kingdom, continued in the Concept Select phase while gas export options are evaluated. Following a flow test on the onshore Australian Whicher Range gas field in 2015, a decision to progress to a retention licence was taken.

**CORE PRINCIPLES**

**Financial strength**

During the year, the Group continued to maintain good control in respect of both its capital and operating costs by effectively managing the various financial risks that could have had an adverse impact on its business.

The ED1 price control provides Northern Powergrid with some stability in terms of its income until 31 March 2023. The ED1 price control has been set for eight years with provision for a mid-period review of the outputs that Northern Powergrid is required to deliver and, in that respect, Northern Powergrid recognises that it needs to continue to show that it is delivering reliable services to its customers, while operating in an efficient and effective manner.

Key aspects of financial performance for the year were as follows:

**Revenue**

The Group's revenue at £768.5 million was £7.8 million lower than the prior year as lower distribution use of system and contracting revenues were partially offset by increased smart meter rental volumes. The distribution use of system revenue reduction was due to tariffs introduced with effect from the start of the ED1 period.

**Operating profit and position at the year end**

The Group's operating profit of £355.7 million was £28.1 million less than the previous year, primarily reflecting decreased revenues and higher depreciation and amortisation charges.

The statement of financial position on page 37 and 38 shows that, as at 31 December 2016, the Group had total equity of £2,200.8 million. The directors consider the Group to have a strong statement of financial position which, when coupled with the preference of the Group's parent company, Berkshire Hathaway Energy Company ("Berkshire Hathaway Energy"), for operating with lower levels of debt than equivalent companies in the sector, creates a stable base for continued strong performance during the ED1 period.

**Finance costs and investments**

Finance costs net of investment income at £96.5 million were £6.0 million higher than the prior year due to the bond issuance on 1 April 2015 and a new credit facility with the European Investment Bank (the "EIB") from 16 December 2015 (see debt structure below).

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**Taxation**

The effective tax rate in the year was 2.2%. The effective tax rate before adjusting for the impact of the changes in tax rates by the Finance Act 2016 and the settlement of a prior year tax claim would be 20.4%. Details of the income tax expense are provided in Note 7 to the accounts.

**Results and dividends**

The Group made a profit after tax for the year of £254.3 million (2015: £269.7 million). No interim dividend was paid during the year (2015: £100 million). The directors recommended that no final dividend be paid in respect of the year to 31 December 2016. Other comprehensive income for the year, net of income tax, was a loss of £65.8 million (2015: loss of £5.5 million).

**Share capital and debt structure**

There were no changes to the Company's share capital during the year.

On 1 March 2016, NPg Yorkshire entered into a Deed of Amendment and Consent which increased the facility provided by the EIB under the agreement entered into on 2 December 2015 from £130 million to £180 million. The additional committed facility of £50 million was drawn during the year.

**Cash flow**

The Group aims to collect from customers and pay suppliers within contracted terms. Any surplus cash held is remitted to Yorkshire Electricity Group plc ("YEG"), a company within the Group, and invested accordingly, generating a market rate of return for the Company.

Movements in cash flows were as follows:

Operating activities: Cash flow from operating activities at £376.3 million was £48.5 million higher than the previous year, mainly due to lower tax paid offset by adverse working capital movements and higher finance costs paid.

Investing activities: Net cash used in investing activities at £431.2 million was £0.1 million higher than the previous year, reflecting lower capital expenditure offset by lower customer contributions.

Financing activities: The net cash from financing activities at £50 million was £108.1 million lower than prior year reflecting no dividend being paid in 2016.

**Liquidity risk**

As at 31 December 2016, Northern Powergrid had access to £75 million under a five-year committed revolving credit facility provided by Lloyds Bank plc, The Royal Bank of Scotland plc and Abbey National Treasury Services plc. This expires on 30 April 2020. Northern Powergrid expects to raise further facilities, as required, at that time.

In addition, the Group has access to further short-term borrowing facilities provided by YEG and to a £19 million overdraft facility provided by Lloyds Bank plc, which is reviewed annually.

The directors do not consider there to be any doubt over the Group's ability to raise appropriate levels of finance in the future, given its investment grade issuer credit rating and the fundamental financial strength and nature of its business.

**Interest rate risk**

The Group is financed by long-term borrowings at fixed rates and has access to short-term borrowing facilities at floating rates of interest. As at 31 December 2016, 100% of the Group's long-term borrowings were at fixed rates and the average maturity for these borrowings was 10 years.

**Currency risk**

No material currency risks are faced by the Group.



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**Pensions**

Northern Electric plc, a company in the Group, is the principal employer of the Group of the Electricity Supply Pension Scheme (the "Scheme"), a defined benefit scheme. Full details of the Group's commitments to the Scheme and the associated deficit repair payments are provided in Note 26 to the accounts.

Companies in the Group also participate in the Northern Powergrid Pension Scheme, which is a defined contribution scheme.

**Insurance**

As part of its insurance and risk strategy, the Group has in place insurance policies, which cover risks associated with employers, third party motor and public liability. The Group carries appropriate excesses on those policies and is effectively self-insured up to the level of those excesses. Consequently, the risk management and health and safety programmes in place are viewed as extremely important elements of the business, given the contribution they make to the elimination or reduction of exposure to such risks.

**Customer service**

During the year, Northern Powergrid distributed electricity to customers in its distribution services area and continued to improve the overall performance of the distribution network through an investment strategy targeted at delivering improvements in an efficient and cost-effective manner. Northern Powergrid remains focused on delivering a safe, reliable and dependable supply of electricity, together with a high standard of service to its customers.

Customer service improvements are a priority for Northern Powergrid, which, in recent years had been consistently ranking in the lower half of Ofgem's customer service league tables. Northern Powergrid has a long-term goal to improve this position and has a multi-year programme of actions in place to support improvements to the overall customer experience.

Customer satisfaction with Northern Powergrid's response to unplanned power cuts showed gradual improvement in the year and the focus remains on improving restoration times and proactively communicating more timely and accurate information to customers. Continuous improvements were made to the interactive voice response telephony system throughout the year to make it easier for customers to talk to a customer service advisor and to route their calls appropriately. Customer satisfaction with planned power cuts also showed some improvement with Northern Powergrid continually enhancing the content of written customer communications and continuing to provide a text and email service to remind customers 72 hours and then 24 hours ahead of the planned power cut taking place.

A framework was introduced during 2016 to define the high standards required of our staff when interacting with our customers, supported by a pilot recognition and reward scheme as well as a performance management structure.

Northern Powergrid has continued to invest in improving the reliability of under-performing parts of the distribution network by identifying "hot spots" of substandard network performance and taking specific action to address the issues in those areas. In the customer service support areas, further investment has been directed towards information technology with the continued deployment of the new CRM system for customer complaints, additional general enquiries services and service alterations, to both improve the self-service offering and provide quicker and more accurate information to customers with workflows automatically routed within both Northern Powergrid and its contractors. This technology will enable customers to communicate with Northern Powergrid in a range of accessible and easy ways across several channels.

During the year Northern Powergrid has continued to build on the industry-leading communications and engagement approaches used to support its business plan and maintains a number of engagement channels. Independently chaired expert panels continue to play a key role in challenging Northern Powergrid's plans, monitoring its performance and helping to deliver innovative initiatives and services. Guided by these panels, Northern Powergrid has been able to direct effort towards public meetings in the operating zones, community energy workshops aimed at enhancing the take-up of low-carbon technologies and wider collaborations such as with other utilities via Infrastructure North. The feedback received as part of the stakeholder engagement process helped Northern Powergrid to further develop its customer experience improvement and social obligations programme.

**GROUP STRATEGIC REPORT  
FOR THE YEAR ENDED 31 DECEMBER 2016**

**Customer service – continued**

Northern Powergrid recognised that the evolving nature of the environment and the level of customer service provided in respect of new connections to the network required additional significant focus and, as such, initiated a fundamental business process re-engineering review of this area of the business. Further details regarding the connections activity in the year are provided under "Connections to the network" below.

The single emergency number, 105, went live in September 2016, providing customers with a free national easy to remember phone number. During the winter period of 2016, approximately 28% of all inbound calls relating to power cuts were received via the 105 number, calls that previously would all have been made to Northern Powergrid's Freephone contact numbers.

In May 2016, Northern Powergrid put forward its stakeholder engagement and customer vulnerability submission to Ofgem in respect of its work during the year. This included initiatives such as expanding the role of digital solutions in providing customer services and the enhancement of Northern Powergrid's relationship with some voluntary sector organisations, with which it works closely in developing and delivering certain services particularly in respect of those customers on Northern Powergrid's Priority Services Register. Following the submission to Ofgem's panel, the position of Northern Powergrid in the context of the wider DNO group dropped from second place to fifth. The outcome was disappointing and in response to Ofgem's feedback some changes were initiated.

Under the Broad Measure of Customer Satisfaction, an independent market research company carried out telephone surveys with Northern Powergrid's customers to find out how satisfied they were with the services provided. During the year, surveys were carried out with a number of customers who had contacted Northern Powergrid regarding an unplanned or a planned power cut, had requested a price quotation and a subsequent connection, or had a general enquiry where a service had been provided or a job completed. Northern Powergrid recorded an overall satisfaction score of 86.4% for the financial year and expects that the customer experience improvement plan, including the range of initiatives noted on pages 7 and 8, will improve the services provided to customers and so increase the satisfaction ratings year-on-year.

While recognising that its customer service performance can continually be improved, Northern Powergrid made significant progress during the year ameliorating its overall customer satisfaction scores.

**Connections to the network**

During the year, Northern Powergrid continued to deliver its action plans to improve the connections services provided to its customers, whilst also actively facilitating the development of competition from independent connections providers ("ICPs"); Northern Powergrid continued to engage regularly with its connections customers both in groups and individually, by holding monthly customer surgeries, twice yearly customer stakeholder events and contributing to national stakeholder forums and events.

There were three main areas of development in Northern Powergrid's connections business during the year: the introduction of the new Competition in Connections Code of Practice, compliance with which became a licence condition with effect from the end of October 2015, the introduction of the full Incentive on Connections Engagement ("ICE") regime in April 2015 and the introduction of a customer service improvement programme to deliver improvements in customer satisfaction for connections customers.

The delivery of the customer satisfaction improvement programme continued to evolve during 2016, with its focus being in response to actions derived from customers' feedback obtained from weekly Ofgem telephone surveys. The programme is designed to support Northern Powergrid's goal to be the leading provider of customer service within the electricity distribution sector.

Northern Powergrid participated with other DNOs in the development of the new Competition in Connections code of practice and implemented the required new processes, including the provision of dual quotations, enabling ICPs to self-determine and approve points of connection to the network, and simplifying the authorisation process for ICPs' operational staff.

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**Customer service – continued**

The start of the ED1 period saw the introduction of ICE in respect of customers requiring larger connections to the network, so that the needs of those customers can be met more effectively. Under ICE, Northern Powergrid is required to submit a customer service improvement work plan for the forthcoming regulatory year at the end of April, followed by a comprehensive "looking back and forward" report commenting on the actions delivered in the previous year and future actions proposed in the service improvement plan. Northern Powergrid worked throughout the year to deliver those actions and continued to engage actively with customers through both informal and formal stakeholder events.

**Corporate responsibility**

The Group places significant value on the relationships that it has with its customers and other stakeholders, and for Northern Powergrid in particular, also understands the importance of ensuring a secure and safe power supply for its customers and their local communities. To further embed these values, Northern Powergrid has developed a vision to maximise the value of contact with customers, especially those who are vulnerable and hard to reach, while ensuring that all stakeholders have the opportunity to influence the local and national energy agenda through effective engagement. This vision applies Ofgem's feedback to Northern Powergrid in the Stakeholder Engagement and Consumer Vulnerability review directed at a cohesive approach to customer experience; consumer vulnerability and stakeholder engagement. Northern Powergrid has made a commitment to tailor and enhance the support provided for more vulnerable and hard to reach customers and to ensure an optimum overall customer experience. In addition, through effective engagement, stakeholders can shape and influence Northern Powergrid's agenda and have the opportunity to help shape and prioritise plans according to customer preference.

Northern Powergrid continued to work closely with key partners such as the Environment Agency, the local authorities and the local resilience forums so that it can respond quickly to significant faults on, or threats to, the network. An example of this collaboration in the year included the cascade of the new national '105' number, designed to make it easier for partners and customers to quickly get in touch to report a problem. Northern Powergrid has well-established emergency procedures that are implemented when customers are without power for some time and, as such, Northern Powergrid responded well to the significant weather-related incidents, which affected the distribution network during the year.

To address customer concerns and resolve any complaints, Northern Powergrid utilises its customer ambassadors and customer liaison officers, who are allocated to each of its operating zones. Dedicated Priority Service Register co-ordinators contact our vulnerable customers to offer support during and after a power cut. Support may include liaising with staff from the British Red Cross who check on the welfare of the customer.

Northern Powergrid has developed its support for vulnerable customers based on market research which defined where and what assistance was most needed. This work has been supported by Northern Powergrid's Social Issues Expert Group which comprises external experts and advises on service improvements. Membership of the internal Social Responsibility Management Group has been widened to include more business representatives to help develop this programme. Northern Powergrid continued to campaign to promote the Priority Services Register to eligible customers and now has a clear view of service need profiles for each customer to inform the appropriate priority service response. Northern Powergrid has undertaken a comprehensive data cleanse process for the Register and developed a proactive contact programme to routinely renew records and ensure that the quality of the information held on the register and the services offered to priority services customers continue to improve.

The Group has maintained its support to charitable organisations through sponsorship and the "Safety Champions" initiative, which is aimed at enhancing safety performance in the operational zones. Furthermore, a volunteering policy was implemented permitting employees to volunteer on schemes specifically designed to support the five priority areas within the Group's community investment programme.

Safety remains the Group's first priority and underpins all operations. During the year, Northern Powergrid continued to deliver initiatives that reached thousands of school children including its regular series of school safety presentations. Northern Powergrid participated in 'Crucial Crew', which is a schools-based safety initiative that teaches children to recognise and avoid situations that put them in danger.

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**Customer service – continued**

Other programmes expanded during the year included Make the Grade in Energy, an education, skills and employability programme, Energy Heroes, a new educational programme, which uses the maths curriculum at primary school level to promote awareness of energy costs and ways of saving energy, and Green Doctors, a multi-partner project which helped to install energy saving measures and give advice to fuel poor households. New projects undertaken in the year included a partnership with the Children's Society, which aims to support young people and families through specialist support services, including work sessions and group activities, and the creation of an outreach worker in Citizens Advice to train volunteers to help more vulnerable people, particularly those with fuel debt.

**Operational excellence**

Northern Powergrid's core service continues to be providing and maintaining an efficient distribution network that delivers electricity effectively. During the year, £406.5 million was invested in the improvement of the distribution network. Northern Powergrid's inspection and maintenance regimes have ensured that the underlying health of the network assets has been sustained and none of the leading indicators used by Northern Powergrid suggest any diminishing performance in this respect in the future.

Ofgem's incentive scheme for quality of service provides a measure of the level of customer service. As a result of Northern Powergrid's continued and substantial investment in its distribution network, reliability has increased over a sustained period and Northern Powergrid has generally outperformed in relation to the customer service targets set by Ofgem in respect of customer interruptions ("CI") and customer minutes lost ("CML").

CML and CI are the key performance indicators used by Northern Powergrid to measure the quality of supply and system performance. Both indicators are measured on a Regulatory Year basis, which runs annually to 31 March, (being 31 March 2016 for the period covered by this report). CML measures the average number of supply minutes lost for every connected customer due to both planned and unplanned power cuts that last for three minutes or longer. CI measures the average number of supply interruptions per every 100 connected customers due to planned and unplanned power cuts that last for three minutes or longer.

	Year to 31 March 2016		Year to 31 March 2016	
	NPg Yorkshire Actual	NPg Yorkshire Target	NPg Northeast Actual	NPg Northeast Target
<b>CML</b>	41.8 (2015: 50.4)	<63.1 (2015: <76.0)	50.1 (2015: 56.1)	<65.9 (2015: <70.6)
<b>CI</b>	52.5 (2015: 60.9)	<68.5 (2015: <75.3)	58.2 (2015: 65.3)	<63.8 (2015: <68.1)

Consequently, performance in the Regulatory Year was better than Ofgem's target for both CML and CI and contributed to Northern Powergrid's improved customer service performance.

**Operational activity**

During 2016, Northern Powergrid continued to implement its approved network investment strategy, which is designed to deliver improvements in an efficient and cost-effective manner in order to improve the network's resilience. Northern Powergrid is committed to enhancing the reliability of the network such that fewer power cuts affect customers and, when power cuts do happen, they are shorter in duration.

Northern Powergrid's Operations structure is designed to respond effectively to the needs of customers and local communities by delivering improved performance standards in the restoration of power following power cuts and in new connection activities for small works. That structure is organised into operating zones around the main conurbation of Tyne and Wear, the industrialised area around the Tees and the rural areas of Northumberland, Durham and North Yorkshire, including the Dales, the Vale of York and the North Yorkshire Moors. The guaranteed standard for the restoration of supply within 12 hours of a power cut occurring came into effect from 1 April 2015 and Northern Powergrid's operational structure provides a localised focus to optimise response times in the event of a power cut.

**GROUP STRATEGIC REPORT  
FOR THE YEAR ENDED 31 DECEMBER 2016**

**Operational excellence – continued**

During the year, Northern Powergrid continued to invest in technology to support its drive to improve response times, including the expansion of the automated power restoration system ("APRS") which operates within the existing network management system. In the event of a high-voltage fault, APRS analyses the information presented by intelligent assets installed on the network and, from that information, determines where the fault is located and executes switching to restore power to the 'healthy' network in a safe manner in under three minutes.

It is planned to enable APRS at 306 primary substations across the Group by the end of the ED1 period. Northern Powergrid expects, therefore, that APRS will significantly improve the service to customers due to the speed with which it can understand the information presented and then complete the switching required to restore power.

Northern Powergrid responded well to the major weather events that impacted its network during the year including as a result of three significant events which resulted in Northern Powergrid invoking its full major incident management plan on each occasion.

Northern Powergrid's priorities during the year included delivering a significant level of capital expenditure on the network as in the previous year, a further reduction in the average level of fault repair work in progress and continued focus on the restoration times associated with both high-voltage and low-voltage power cuts, with high-voltage restoration performance averaging 60 minutes for NPg Northeast (2015: 55.6 minutes) and some 52.8 minutes for NPg Yorkshire (2015: 55.5 minutes), after allowing for severe weather incidents and other exemptions.

The major projects undertaken by NPg Northeast during the year in support of those targets and as part of the investment strategy included:

- Completion of the work to reinforce the network around Potterhouse substation and replacement of one 66kV circuit breaker at Peterlee Industrial substation;
- Refurbishment of eight EHV transformers, including four at 66kV and four at 33kV
- Cable replacement work on the Coalburns - Prudhoe 66kV underground cable circuit with 1.8km of oil filled cable decommissioned and on the Bowesfield - Urray Nook 1 33kV circuit 1km of solid cable was replaced. Work also commenced on the second phase of the Sunderland - West Boldon scheme which will result in the eventual decommissioning of 16km of 66kV oil-filled underground cable assets
- Commissioning of 20km of 66kV underground cable on the 66kV circuit route which runs between Malton, Thornton Dale and Whitby in order to facilitate the decommissioning of the overhead towers from the North Yorkshire Moors in 2017;
- Refurbishment of twelve 132kV overhead line towers and 286 EHV overhead line towers and replacement of two EHV poles based on their condition;
- 96km of high-voltage overhead line and 78km of low-voltage overhead line were rebuilt and/or refurbished;
- 200km of high-voltage overhead line and 115km of low-voltage overhead line was rebuilt and/or refurbished;
- 14 units of high-voltage outdoor switchgear, 36 high-voltage distribution substations and 190 units of high-voltage indoor switchgear were replaced; and
- 360 additional remote control points were installed and commissioned

The major projects undertaken by Yorkshire included:

- Continuation of reinforcement of the primary network in the Doncaster area with excavation and duct installation for the 132kV cables to connect West Melton to the new 132/33kV Mallard Way substation at Potteric Carr;

**GROUP STRATEGIC REPORT  
FOR THE YEAR ENDED 31 DECEMBER 2016**

**Operational excellence – continued**

- Completion of the work to replace the 6kV network in the King George Docks area of Hull and replacement of the 11kV switchboard at West End Lane;
- Refurbishment of two 132kV transformers and plant replacement at Horbury substation;
- Replacement of 19km of 132kV oil-filled cable from Creyke Beck to Hull South;
- Replacement of 4km of 132kV oil-filled cable from Beeston Royds to Kirkstall;
- Extensive on-going works in the Sheffield area including the replacement of 15km of 33kV gas insulated cable and 3km of 33kV oil-filled cable;
- Extensive ongoing works in the Huddersfield area including the replacement of 14km of 33kV solid cable and 1km of 33kV gas insulated cable;
- Sections of nine extra-high-voltage overhead line circuits were rebuilt with the replacement of 27km of conductor, 44 decayed wood poles and the removal of 165 Woodhouse Mast overhead line structures;
- 35km of high-voltage overhead line and 22km of low-voltage overhead line were refurbished or rebuilt;
- 78 units of high-voltage outdoor switchgear, 60 high-voltage distribution substations and 258 units of high-voltage indoor switchgear were replaced; and
- 190 new remote control points were installed and commissioned.

In order to deliver its investment strategy, Northern Powergrid used a mix of its own staff and contractors to undertake its activities, including affiliated companies in the Group.

**Employee commitment**

**Health and safety**

The focus on health and safety continued to be of paramount importance for the directors, as it is for all employees. There is a continuous drive for improvement in safety performance through the setting of challenging goals and the pursuit of a comprehensive safety and health improvement plan, which reflects the Group's fundamental objective that every employee and contractor should go home uninjured and in good health after a productive day's work. The Group makes no compromise in respect of its health and safety obligations and centres its safety plans and systems on the principles found in companies with world class safety performance.

The Group's safety record over a number of years suggests that it is one of the safest in the sector in which it operates. There is an intention to improve performance still further and, in doing so, maintain its position over the coming years. Having identified issues that may pose an increased safety risk, such as metal theft and the roll-out of smart meters, the Group is implementing measures through its safety and health improvement plan that will build incrementally on the existing strong safety record and ensure that safety considerations are always part of the investment decision-making and appraisal process.

The Group measures its health and safety performance in calendar years and operational incident performance for the year ended 31 December 2016 had significantly improved with only three switching-related incidents experienced on the high-voltage network against a target of five and compared with eight events recorded in 2015. As one of the key deliverables in the Group's safety and health improvement plan is to raise awareness and improve the concentration skills of its operational engineers and other employees, Northern Powergrid continued its operational audit programme of senior authorised persons such that the operational practices of 81% of senior authorised persons were verified during the year. The Group also delivered operational seminars, stand-down briefings, and regular safety newsflashes to staff in order to cascade information on safety trends, issues and incidents.

## NORTHERN POWERGRID HOLDINGS COMPANY (REGISTERED NUMBER: 03476201)

### GROUP STRATEGIC REPORT FOR THE YEAR ENDED 31 DECEMBER 2016

#### Employee commitment – continued

Several key performance indicators are used to monitor safety performance, with the goal of achieving performance that is below the target number. The main key performance indicators are as follows:

	2016		2015	
	Target	Actual	Target	Actual
Lost time accidents	3	5	2	5
Restricted duty accidents	2	0	2	0
Medical treatment accidents	2	2	4	1
Operational incidents	11	7	12	18
Preventable vehicle accidents	23	23	25	26

The number of lost time accidents experienced by the Group was the same as that experienced in 2015 and, although preventable vehicle accident performance marginally missed the target for 2016, it was the best performance achieved against this metric to date. None of those incidents gave rise to any significant safety-related risks.

In common with the Berkshire Hathaway Energy Group, the Group measures its safety performance in terms of the OSHA rate, which is a measure used in the United States to capture safety incidents down to minor levels of medical treatment, such as a stitch or the use of prescription pain killers. As part of its plan to reduce the OSHA rate across the group, Berkshire Hathaway Energy issues daily e-mail updates in respect of performance against its overall OSHA rate and preventable vehicle accident targets, which include information on incidents that have occurred. The Group's Director of Safety, Health and Environment also delivered updates using conference call facilities, which were available to the entire workforce, regarding performance and other safety-related issues.

Delivery of the various initiatives in the safety and health improvement plan also contributed to the Group achieving an OSHA rate of 0.30 against a target of 0.30, which equated to seven recordable incidents; this was one more than performance recorded in 2015. The Group recorded an OSHA rate for 2016 of 0.20 (2015: 0.20) against a target of 0.32.

As part of the safety and health improvement plan and in order to reinforce the operational safety values, Northern Powergrid continued to implement its cross-business operational assurance audit programme and its senior management field engagement programme in order to improve two-way communication on safety and other key business issues. During the year, a robust road risk management plan was effective which involved electronic driving licence checking, delivering road risk awareness workshops to new employees and using risk reduction tools such as online driver assessment and training followed by an on-road refresher training session if required. The driver training programme provides practical driving training to a targeted population of drivers and is the primary route to improving driver skills in the longer term. Recognising that driving is one of most hazardous activities undertaken on a daily basis, the programme has continued to expand further throughout 2016 via an interactive, web-based system designed to assess skills and then provide individual training plans to improve hazard perception and reinforce specific aspects of driving-related skills. The Group also completed a programme to install a telematics system in all of its fleet vehicles in order to support driver and vehicle safety by encouraging responsible and safe driving styles, assist with the completion and management of vehicle safety checks, and expedite investigation of vehicle accidents and incidents.

During the year, Northern Powergrid received an Order of Distinction Award from the Royal Society for the Prevention of Accidents for achieving 15 consecutive Gold Awards in recognition of achievements in 2015 and for continued or improving standards of health and safety over a sustained period. The Group's OHSAS 18001 health and safety management systems successfully retained certification having been subject to a ten-day recertification audit by an external auditor.

The sickness absence rate across the Group for 2016 was 2.96% (2015: 2.71%).

**GROUP STRATEGIC REPORT  
FOR THE YEAR ENDED 31 DECEMBER 2016**

**Employee commitment – continued**

**Management structure**

Operational management of Northern Powergrid is undertaken by a single senior management team with specific functional responsibilities. Those functional responsibilities are in respect of operations, safety, health and environment, asset management (including procurement), customer service, business development (including new connections to the network), policy and markets (including trading and innovation), regulation, human resources, organisation development, legal and finance (including property management, stakeholder engagement and information technology). Some of those functions also provide services across the Group.

**Employees**

The Group continued to apply appropriate control to its headcount policy and to place significant emphasis on the importance and application of high standards of management and performance in support of the Core Principles. The Group ensures that a level of consistency is adopted in so doing and, in respect of employee relations, continued to build constructive and partnered relationships with the trades unions. In that respect, the Group has secured multi-year pay agreements with the various employment groups such that the relevant terms and conditions are fair and appropriate across the Group.

The Group will continue to recruit trainees under its workforce renewal programme during ED1 taking account of the rate at which existing employees either leave or retire from the Group. A total of 71 new recruits joined the workforce renewal programmes during 2016. In addition, 73 trainees who were part of the workforce renewal programme in previous years graduated from their training programmes. In total, the Group recruited 95 new employees from the external market.

As a member of the Berkshire Hathaway Inc. group of companies, Berkshire Hathaway Energy sets high expectations for honesty and integrity in the conduct of all business activity. Consequently, the Group is committed to proper business conduct and has adopted the Berkshire Hathaway Energy code of business conduct, which details the commitment to ethics and compliance with the law, provides reporting mechanisms for known or suspected ethical or legal violations, and establishes minimum standards of behaviour expected of all employees. All employees must complete annual training on the code of business conduct. A "speaking up" policy is also in place so that members of staff are able to raise any instances of unethical acts, malpractice or impropriety. An additional process is also available to all staff via an international, anonymous help line operated by an independent company.

In order to support the welfare of its employees, the Group provides an employee assistance service to its staff via an independent company that supports over 350 organisations in the United Kingdom. The programme is a confidential, self-referral counselling and information service to assist with personal or work-related problems that may be affecting health, wellbeing or performance and is available 24 hours a day, 365 days a year. The services available include health, wellbeing and family-care information, financial information and debt counselling, and legal guidance. Working in partnership with its occupational health provider, the Group is delivering a long-term strategic programme aimed at improving the health of its staff.

Progress continued to be made during the year on the key priorities in the human resources and organisational development functions, including recruitment, employee engagement, and performance management and development. Throughout the year, the Group continued to set and uphold the promotion of high standards of probity among staff. In addition, the Group's organisational structure has been developed to control business units and to delegate authority and accountability, having regard to acceptable levels of risk.

As at 31 December 2016, the Group employed 2,489 staff (2015:2,547).

**Environmental respect**

The Group's approach to environmental compliance is governed by an environmental policy and, in addition, the policy of Environmental RESPECT (Responsibility, Efficiency, Stewardship, Performance, Evaluation, Communication and Training) implemented by Berkshire Hathaway Energy. These policies and their subordinate operational control procedures and systems address compliance with legal and other key environmental requirements, pollution prevention and continual improvement, and also promote environmental awareness and best practice amongst the Group's staff and contractors.



**GROUP STRATEGIC REPORT  
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**Environmental respect – continued**

The Group has operated a United Kingdom Accreditation Service scheme for environmental management since the late 1990s, certified to the environmental management systems standard ISO 14001: 2004. It is subject to regular six-monthly assessment visits and a three-yearly certificate renewal assessment by an accredited external certification body in order to retain that status.

The most recent visit was a surveillance assessment carried out by Lloyd's Register Quality Assurance in October 2016. The assessment reported the continued improvement made to the environmental management system over the past three years. There were no non-conformances noted and, after a rigorous three-day surveillance audit, continued certification was recommended and subsequently confirmed.

Procedures and processes were reviewed and developed in the year to improve the effectiveness of the environmental management system. Operational controls at depots have also significantly improved, which has supported the reduced number of minor non-conformances raised at recent surveillance visits, with zero minor non-conformances reported in 2016. In the event that fluid leakages do occur, the Group has in place an emergency incident response support contract with a specialist service provider, under which 24-hour environmental incident assistance is provided, including contamination mitigation, remediation and incident-validation reporting.

Improvements in support of Northern Powergrid's environmental policy objectives continued to focus on replacing selected fluid-filled cable sections with non-fluid polymeric equivalents, replacing oil-filled circuit breakers with vacuum and sulphur hexafluoride gas-filled units at outdoor substations to reduce the potential for oil leakage and using gas tracer technology to locate cable fluid leaks quicker, where it was practicable to do so. The Group also provided environmental awareness training for staff via an online system to avoid the need for travelling to central training locations. These improvements support Northern Powergrid in delivering sustained environmental performance, which it measures on a calendar year basis, and, in the year ended 31 December 2016, only eight incidents were reportable to the Environment Agency, which was significantly better than the target of fourteen. Oil spills and leaks from NPg Yorkshire's assets were 39% better than the target of 25,714 litres and SF6 gas discharges from electrical plant exceeded the target of 89 kilogrammes by 19%. Oil spills and leaks from NPg Northeast's assets were below the target of 17,142 litres by 1% and SF6 gas discharges from electrical plant were also under the target of 28 kilogrammes by 49%.

During the year, work continued with many of Group's key stakeholders, including the Environment Agency, to enhance the advanced environmental management processes already in place and, in 2017, Northern Powergrid plans to maintain this progress so that the impact on the environment in which it works is reduced and the most effective ways of doing so are utilised. Northern Powergrid's business plan contains a commitment to reduce its business carbon footprint by 10% by the end of ED1 and performance remains on course to achieve that target.

The Group's commitment to the Environmental RESPECT policy and its improved overall performance contributes towards minimising its impact on the environment. As part of its annual environmental improvement plan, Northern Powergrid has mobilised significant programmes to replace fluid-filled cables and place overhead lines underground in National Parks and Areas of Outstanding Natural Beauty, reduce electrical losses and implement further improvements to the network that take account of protected structures, features, areas, wildlife and habitat. Birdlife is being protected by placing bird-diverters on power lines where they are in proximity to nature reserves, wetlands, flight paths or in locations where rare species of bird are known to live or breed and also in response to information obtained from incident trends. Northern Powergrid continues to work with local social enterprises that rescue waste timber in order to provide affordable reclaimed timber products to the local community.

**Sustainability**

The Group's activities have an important part to play in the United Kingdom's transition to a low-carbon economy, both in its capacity as a major participant in the United Kingdom energy industry and in terms of its own carbon footprint.

**GROUP STRATEGIC REPORT  
FOR THE YEAR ENDED 31 DECEMBER 2016**

**Environmental respect – continued**

As the country takes action to make significant reductions in its carbon emissions, the way in which electricity is produced and used is expected to have a significant impact on the electricity network over time. Evidence of this has already been seen through the number of installations made by customers of low-carbon technologies such as photovoltaic solar panels, electric vehicles and heat pumps which continued to increase during the year and are reported via the regulatory reporting process. The volume and total capacity of decentralised energy generation has also been growing steadily for the last few years and, given the greater range of load and generation technologies now being connected to the network, Northern Powergrid is taking action to develop innovative solutions that will reduce the need for traditional and potentially expensive reinforcement of the network.

The Group's innovation projects have continued this year from the platform established by the ground-breaking Customer-Led Network Revolution ("CLNR") programme of work that concluded in 2015. The four priorities of smart grids, smart meters, digital-enabled services and issues of affordability continue to be highly relevant to our stakeholders. In the smart grid area, the transition to distribution system operator is taking increased prominence in the innovation portfolio. During the year, Northern Powergrid completed work to better understand how local energy markets may develop, the potential impact of future market models and the role of new players such as local authorities. Deployment of innovation in the year has delivered £7.5 million of value, with around half of that centred on releasing capacity and providing flexible connections for immediate customer benefit.

The Group climate change adaptation strategy outlines the impact that climate change is anticipated to have on the business, the risks that this poses and the proposals recommended to mitigate these risks. The proposals include flood defences, vegetation management, network specifications for changing temperatures, improved weather prediction, and adequate staff availability. The planned number of flood defences to be installed during the year was not achieved. This was primarily due to the re-tendering of the delivery contract. Under the re-phased programme the delivery of the overall commitment to install further flood defences during the ED1 period remains on-track.

Environmental performance was strong with incidents reportable to the Environment Agency, fluid loss and Northern Powergrid's carbon footprint being lower than targeted. Northern Powergrid's policy of installing over-sized cables continues to save network losses, which contributed to further carbon emission reductions.

**Regulatory Integrity**

The Group manages its business to the highest behavioural standards and adheres to a policy of strict compliance with all relevant standards, legislation and regulatory conditions. The Governance and Risk Management Group ("GRMG") is the principal risk management forum in the Group, and monitors and manages performance in risk-related and compliance areas. The GRMG met on three occasions during the year in order to review the mechanisms for meeting external obligations, to strengthen the business-control-improvement environment, and to consider and advise on key strategic risks facing the Group.

As has been the case for some years, breaches by a DNO of its licence conditions and certain other statutory requirements could lead to financial penalties, which Ofgem has stated "will have a proportionate impact on shareholder returns". In order to assure compliance with licence and other regulatory obligations, Northern Powergrid operates a regulatory compliance affirmation process, under which ownership of approximately 1,780 regulatory obligations contained within the compliance database is currently assigned to around 75 responsible managers. Those responsible managers are required, on a quarterly basis, to review compliance with the relevant obligations that have been assigned to them for certification and report on any identified non-compliances or perceived risks to the compliance process, which are then addressed. The Head of Regulatory Compliance reports to the board of directors on the outcome of each quarter's exercise.

Under the RIIO (revenue = incentives + innovation + outputs) model for regulation, price controls are set for eight years (rather than five as has previously been the case), with provision for a mid-period review of the outputs that network companies are required to deliver. The ED1 price control became effective on 1 April 2015 and is due to end on 31 March 2023.

**GROUP STRATEGIC REPORT  
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**Regulatory Integrity – continued**

Under the ED1 price control, excluding the effects of incentive schemes and any deferred revenues from the prior price control, Northern Powergrid's base allowed revenue before inflation reduced by 1.0% for the regulatory year ended 31 March 2017, relative to the previous year. Base allowed revenues before inflation will then be constant for each subsequent regulatory year through to the regulatory year ended 31 March 2023. Nominal base allowed revenues will therefore increase in line with inflation (as measured by the United Kingdom's Retail Prices Index).

The ED1 price control is the first to be set for electricity distribution in Great Britain since Ofgem completed its review of network regulation (known as the RPI-X @ 20 project). The key changes to the price control calculations, compared to those used in previous price controls are that:

- the period over which new regulatory assets are depreciated is being gradually lengthened, from 20 years to 45 years, with the change being phased over eight years;
- allowed revenues will be adjusted during the price control period, rather than at the next price control review, to partially reflect cost variances relative to cost allowances;
- the allowed cost of debt will be updated within the price control period by reference to a long-run trailing average based on external benchmarks of public debt costs;
- allowed revenues will be adjusted in relation to some new service standard incentives, principally relating to speed and service standards for new connections to the network; and
- there is scope for a mid-period review and adjustment to revenues in the latter half of the period for any changes in the outputs required of licensees for certain specified reasons.

Many other aspects of the previous price control remain in place (either in their previous or similar form), including adjustments to revenues in relation to the number and duration of service interruptions and customer service standards. In addition, network tariffs, from which actual revenues are derived, are now set further in advance than was previously the case.

With the start of the new price control, changes were also made to the legislation that prescribes the standards of service to be provided by the DNOs in specified circumstances and payments to be made to end-customers for failure to meet those standards. The most significant of these changes reduced from 18 to 12 hours the time that is allowed for restoration of supplies following an unplanned power cut in normal weather conditions.

Northern Powergrid submits a number of information returns to Ofgem and is required, under the terms of Northern Powergrid's licences, to assure the accuracy of those returns. These arrangements involve the preparation and submission to Ofgem, by the end of February in each year, of a risk-based data-assurance plan for the regulatory year ahead, together with a report detailing the assurance work actually carried out in the regulatory year just ended and the findings of that work

**GROUP STRATEGIC REPORT  
FOR THE YEAR ENDED 31 DECEMBER 2016**

**PRINCIPAL RISKS AND UNCERTAINTIES**

There are a number of potential risks and uncertainties, which could have an impact on the Group, its financial position and its operations and may cause actual results to vary materially from those expected or historically experienced. The principal risks are outlined as follows:

**Financial risk**

As a holder of an electricity distribution licence, Northern Powergrid is subject to regulation by the Gas and Electricity Markets Authority (GEMA), which acts through Ofgem. Most of the revenue of the electricity distribution licence holders is controlled by the distribution price control formula set out in the electricity distribution licence.

The price control formula does not constrain profits from year to year but sets the maximum permitted revenue for each regulatory year, taking into account base allowed revenues and movements in Retail Prices Index ("RPI"), as well as factors such as performance against certain regulatory incentives. Where Northern Powergrid recovers more, or less, than this maximum the difference is carried forward, with interest. For amounts relating to the regulatory year ended 31 March 2016, the carry forward will be into the entitlement for the regulatory year ended 31 March 2018.

The price control for ED1 has been set for the eight-year period commencing on 1 April 2015, although the price control formula may be reviewed at other times at the discretion of Ofgem, and it is Ofgem's intention to use eight-year price control periods in the future. A resetting of the formula is now made by GEMA without the consent of the electricity distribution licence holder, but a licensee can appeal to the CMA against a decision by GEMA to proceed with such a modification. Certain other interested parties have the same right.

During the term of the price control, the rate of inflation as measured by RPI is taken into account in setting Northern Powergrid's allowed income in respect of each regulatory year. Consequently, one of the risks faced by the Group is that its costs may increase by more than RPI. Any changes in costs incurred will have a direct impact on Northern Powergrid's financial results, as will changes in performance under incentive schemes, such as in customer service, which can lead to adjustments to allowed revenues.

Ofgem recognises that defined benefit pension schemes and, particularly, the current deficit positions of various schemes, represent a significant cost to the DNOs and, in its final proposals in respect of the previous price control period ("DPCR5"), Ofgem confirmed that DNOs would be allowed to recover the actuarial value of the deficits attributable to a licensee's distribution business in existence as at 31 March 2010 via its regulated revenues (after an adjustment to reflect the residual of unfunded early retirement deficiency costs as at 31 March 2010). Ofgem re-affirmed these principles in its ED1 final determination.

However, given the stable and regulated nature of the DNOs' businesses, Ofgem took the view that a notional repair period of 15 years from 1 April 2010 was appropriate for the purpose of assessing the DNOs' allowed revenues in respect of pension costs. Moreover, Ofgem reviews the reasonableness of the triennial actuarial valuations of DNOs' pension schemes and calculates new deficit funding allowances, including any adjustments that may be necessary to account for differences between allowances received and payments actually made to the relevant pension scheme.

The other financial risks facing the Group are outlined on page 6 of this Strategic Report.

**Operational risk**

There are a number of risks to the Group's operational performance in respect of which mitigating actions have been taken. Appropriate credit cover arrangements are in place with the electricity suppliers, which would allow recovery of defaulted payments through the price control mechanism and a robust major incident management plan is implemented whenever severe weather impacts on the distribution network's performance. Given the regular instances of metal theft experienced in previous years, Northern Powergrid maintained its programme of risk-assessed and enhanced security measures at its sites and pursued awareness raising activity at a national and local level, including commencing a social media campaign in early 2016 in partnership with Crimestoppers.

**GROUP STRATEGIC REPORT  
FOR THE YEAR ENDED 31 DECEMBER 2016**

**PRINCIPAL RISKS AND UNCERTAINTIES - continued**

The electricity distribution business has an inherently increased health and safety risk due to the network operating at up to 132kV. Employees work at height, in closed spaces and with live electricity, increasing the risk of potential safety matters. Health and safety is given the highest priority within the Group and strict policies and procedures are in place both to ensure the safety of the employees and customers.

Cyber security is an increasing risk. The Group has a robust cyber security risk mitigation programme in place including gaining accreditation under of ISO 27001 Information Security (process security) standard for certain discrete business areas, plus compliance with the Centre for Internet Security Critical Security Controls. Further advances to this are being continuously implemented and managed.

Northern Powergrid recognises that there are uncertainties around the future take-up of low-carbon technologies and the resulting capacity requirements for the network, and from the fitting of smart meters throughout Northern Powergrid's distribution services area, which is expected to result in a requirement to address a proportionate number of reported defects. Northern Powergrid believes that it can effectively manage these issues through its usual risk management practices.

**Commercial risk**

Managing commercial risk continued to be of key importance and the Group remained focused on ensuring that its policies for credit checking, payment terms, payment performance tracking and debt management were strictly adhered to.

Northern Powergrid's relationship with its main customers is governed by a distribution connection and use of system agreement ("DCUSA"), which is in place with each of those customers. Those customers are the electricity suppliers who, under the terms of the DCUSA, pay charges for the use of the distribution network, in respect of which it is necessary to ensure that credit cover arrangements in line with Ofgem's guidance remain in place. The principal electricity suppliers that use Northern Powergrid's network are RWE Npower, British Gas, EDF Energy, E.ON, Scottish and Southern Energy and Scottish Power.

Northern Powergrid operates utilising a mix of direct labour and contracted resource and has a range of contracts in place with various service providers for delivery of its work programmes, which are subject to regular market testing and tendering exercises. Those services include vegetation management, overhead line inspection and construction, substation construction and maintenance, underground cable laying services, vehicle leasing and servicing, tower refurbishment and information technology services. Northern Powergrid also has an extensive suite of contracts in place for the procurement of all of the goods and equipment it requires to deliver its capital expenditure programme and to run its business, including for varying types of transformers, switchgear and cables

**Risk Management**

The Group operates a structured and disciplined approach to the management of risk as part of its overall risk management policy and, in DPCR5 and previous price control periods, accepted and successfully managed substantial cost and delivery risks by developing a culture of cost and risk management over that period of time. Risks are divided into a number of risk sectors which, in turn, align to the Group's Core Principles, as detailed on page 2 and 3 of this Strategic Report. A report regarding the effectiveness of each risk sector in terms of risk management, control activity, key success factors and supporting measures is presented at meetings of the GRMG. The risk environment is reviewed continually in order that new or emerging potential risks are identified.

The Group identifies and assesses risks associated with the achievement of its strategic objectives so that any actions needed to further enhance the control environment are identified, along with the person responsible for the management of the specific risk. A regular review of the key risks, controls and action plans is undertaken. The risk management programme includes regular review of the crisis management, disaster recovery and major incident plans, which are periodically tested, the sharing of best practice on disaster preparedness and response, disaster recovery tests of IT servers and priority processes, penetration tests against firewall systems, and a peer review of the Group's risk management systems by Berkshire Hathaway Energy.

**GROUP STRATEGIC REPORT  
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**PRINCIPAL RISKS AND UNCERTAINTIES - continued**

Risk management continues to be a central theme of senior management priority setting, as well as an explicit business process that helps to identify lower probability, high consequence threats to business success or continuity. This approach is reinforced by that of the Berkshire Hathaway Energy group, whose activities have continued to include benchmarking of risk management activities across its business units, including the sharing of significant lessons learned associated with risk management.

A key element and requirement of the risk management process is that a written certificate is provided by the President and Chief Executive Officer of the Group confirming that the effectiveness of the system of internal controls has been reviewed during the year. A self-certification process is in place, in support of this review, whereby certain senior managers are required to confirm that the system of internal control in their area of the business is operating effectively. Consequently, the directors believe that a robust system of risk assessment and management is in place.

**Internal Control**

A rigorous internal control environment exists within the Group based on regular reporting, a series of operational and financial policy statements, investigations undertaken by internal audit and a stringent process for ensuring the implementation of any recommendations. Berkshire Hathaway Energy requires a quarterly risk control assessment to be undertaken by certain senior managers as part of its programme for compliance with the requirements of the United States Sarbanes-Oxley Act and, while no significant areas of weakness have been identified, any recommended improvements are implemented.

In addition, the Group employs comprehensive business planning and financial reporting procedures, regularly reviews key performance indicators to assess progress towards its goals and has a strong internal audit function to provide independent scrutiny of its internal control systems. The Group has risk management procedures in place, including the standards required by the United States Sarbanes-Oxley Act, and has centralised treasury operations and established procedures for the planning, approving and monitoring of major capital expenditure.

The Group is committed to maintaining the highest ethical standards in the conduct of its business and, in that respect, implements Berkshire Hathaway Energy's code of business conduct for employees. The code of conduct sets out and emphasises the required standards and commitment to ethical behaviour, provides reporting mechanisms for known or suspected ethical issues, helps prevent wrongdoing, and creates and sustains an ethical work environment across the Group. All employees are required to complete annual training on the code of business conduct and then confirm that they understand the requirements outlined in the code. The training is available online and employees who do not have access to the online system attend a briefing with their line manager.

The Group does not have a specific human rights policy but, as noted in this Strategic Report, it bases its operations on the Core Principles in order to deliver its long-term objectives. Accordingly, the Group remains fully committed to operating ethically and responsibly and with fairness and integrity through the policies and procedures it has in place which set the approach to its employees, their health, safety and welfare, its dealings with customers, particularly those who are vulnerable and on the priority services register, its impact on the environment and its contribution to the sustainability agenda within the energy industry. The Core Principles are a key factor in the responsible way in which Northern Powergrid operates its electricity distribution business, examples of which are described throughout this Strategic Report.

The Group is also committed to preventing corruption in all its forms and continues to have a zero-tolerance approach to corruption in its business or by those with whom it does business. The board of the Company has addressed the risks introduced by the Bribery Act 2010 through a compliance policy, changes to contractual terms, training and other staff awareness measures. The introduction of annual risk assessments and enhanced due diligence in respect of new business transactions has further assisted in ensuring compliance.

The Group requires staff, suppliers of services and business partners to comply with the Bribery Act. Its policies encourage an employee who has any suspicion of bribery or other form of corruption within or related to the Group to report the suspicion to a manager or via the international, anonymous help line mentioned in the Employee commitment section.

**GROUP STRATEGIC REPORT  
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**PRINCIPAL RISKS AND UNCERTAINTIES - continued**

Northern Powergrid has appropriate controls in place directed at ensuring compliance with the conditions in its Licence requiring any payments made to, or received from, affiliates or related undertakings in respect of goods and services provided or supplied to be on an arm's length basis and on normal commercial terms.

In preparing these accounts, the directors have assessed the viability of the Group for the purposes of making the statement below and do so on an ongoing basis as part of the preparation and approval of the Group's ten-year business plan.

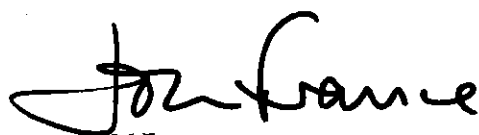
The directors have chosen the eight-year period from 1 April 2015 for the purposes of making this statement because it equates to the ED1 regulatory period, though longer periods may be appropriate given the 45-year life ascribed to the Group's new assets, the enduring nature of the Group's business and the fact that the notice period for revocation of Northern Powergrid's electricity distribution licence is 25 years. Northern Powergrid's income has been set for the ED1 regulatory period, although there is scope for a mid-period review and Ofgem may adjust revenues in the latter half of the period for any changes in the outputs required of Northern Powergrid for certain specified reasons. Consequently and given the general stability associated with the regulatory environment in which Northern Powergrid operates, the directors have been able to prepare sufficiently robust forecasts as part of the Group's annual business planning process, taking account of the principal risks and uncertainties which might have an impact on those forecasts. The Group's forecasts look forward for a 10-year period and anticipate the Group's continued stable operations beyond the ED1 price control.

Details of the principal risks and uncertainties, which could have an impact on the Group, are provided on pages 18 to 21 of the Strategic Report and details of how those principal risks are assessed and managed are provided in the Risk Management section of the Strategic Report.

The directors' ongoing assessment of the principal risks and uncertainties facing the Group also includes meeting the obligations in Northern Powergrid's Licences to provide Ofgem with annual certificates, approved by the board, confirming that the directors have a reasonable expectation that the Group will have sufficient financial resources, financial facilities and operational resources available to it so that Northern Powergrid is able to carry on its Distribution Business for a period of 12 months from the dates of those certificates. Assumptions taken into account when approving those certificates include (i) the potential for significant adverse financial impact from the various incentive schemes that can lead to variations in Northern Powergrid's allowed income under its price control arrangements; (ii) the occurrence of catastrophic natural or other events, which could have a significant impact on the operating performance of the distribution network or involve significant expenditure; (iii) whether significant customer payment defaults may be experienced; and (iv) the continued availability to the Group of suitably qualified and experienced staff. Given the regulatory environment in which Northern Powergrid operates, it is currently considered unlikely that there will be material variances to the assumptions used in providing those certificates during ED1.

The stable nature of the Group's business is evidenced by the fact that the commitments made by Northern Powergrid in its well-justified business plan, which was originally submitted to Ofgem as part of the ED1 price control review process, have not changed fundamentally. Consequently, assuming that the principal risks and uncertainties facing the Group continue to be managed effectively, the directors have a reasonable expectation that the Group will be able to continue in operation and meet its liabilities as they fall due over the ED1 period.

**ON BEHALF OF THE BOARD:**



J M France  
Director

26 April 2017

## **NORTHERN POWERGRID HOLDINGS COMPANY (REGISTERED NUMBER: 03476201)**

### **REPORT OF THE DIRECTORS FOR THE YEAR ENDED 31 DECEMBER 2016**

The directors present their report with the financial statements of the Company and the Group for the year ended 31 December 2016.

#### **DIVIDENDS**

No dividends will be distributed for the year ended 31 December 2016.

During the year, no interim dividend was paid (2015: £100 million). The directors recommend that no final dividend be paid in respect of the year.

The Company's dividend policy is that dividends will be paid only after having due regard to available distributable reserves, available liquid funds and the financial resources and facilities needed to enable the Company to carry on its business for at least the next year. In addition, the level of dividends is set to maintain sufficient equity in the Company so as not to jeopardise its investment grade issuer credit rating.

#### **RESEARCH AND DEVELOPMENT**

The Group supports a programme of research that is expected to contribute to higher standards of performance and a more cost-effective operation of its business. Projects to investigate enhanced load reduction opportunities from customer participation, the accessing of disbursed domestic demand-side response and, alongside other utilities, to determine optimum energy system technology approaches appropriate to local socio-economic factors have continued. New activities initiated in the year included projects regarding the use of domestic electricity storage in conjunction with small-scale photovoltaic solar generation, an improved methodology to determine network load growth and a project to improve circuit reliability and reduce restoration times through fault monitoring and anticipation on the low-voltage network. In addition, a wood replacement technology for overhead line support was evaluated and an investigations into environmentally acceptable alternative systems for wood preservation, was undertaken.

During the year, the Group invested £2.4 million (2015: £4.8 million) (Note 6 to the accounts) in its research and development activities.

#### **FUTURE DEVELOPMENTS**

The financial position of the Group, as at 31 December 2016, is shown in the consolidated statement of financial position on page 37.

There have been no significant events since the year end and the directors intend that:

Northern Powergrid will continue to implement its well-justified business plan that was revised as part of the ED1 price control review process and will develop its business by operating with the goal of efficiently investing in the network and improving the quality of supply and service provided to customers.

The objective for IUS will remain the development of its business in a manner that concentrates on its core skills of engineering contracting by delivering a high standard of service to its existing clients and pursuing opportunities to increase its portfolio of clients across all regions of the United Kingdom in the sectors within which it operates.

Northern Powergrid Metering will retain its focus on pursuing opportunities in the market for meter asset provision as the smart meter roll-out programme develops.

CE Resources will continue to look to build value through the management of a portfolio of hydrocarbon projects in Australia, Poland and the United Kingdom.



**NORTHERN POWERGRID HOLDINGS COMPANY (REGISTERED NUMBER: 03476201)**

**REPORT OF THE DIRECTORS  
FOR THE YEAR ENDED 31 DECEMBER 2016**

**DIRECTORS**

The directors who held office during the year under review and to the date of signing this report were:

G E Abel	Chairman
D L Anderson	Chief Corporate Counsel, Berkshire Hathaway Energy (Retired 3 January 2017)
R Dixon	Non-executive Director
J M France	Regulation Director
P J Goodman	Executive Vice-President and Chief Financial Officer, Berkshire Hathaway Energy
P A Jones	President and Chief Executive Officer
J N Reynolds	Non-executive Director

During the year, no director was interested in any contract which was significant in relation to the business of the Company or the Group.

During the year and up to the date of approval of the Directors' Report, an indemnity contained in the Company's Articles of Association was in force for the benefit of the directors of the Company and as directors of associated companies, which was a qualifying third party indemnity provision for the purposes of the Companies Act 2006.

**FINANCIAL RISK MANAGEMENT**

The Group's short-term financial objective is to ensure that it has access to sufficient liquidity to enable it to meet its obligations as they fall due and to provide adequately for contingencies. The long-term objective is to provide a stable and low cost of financing over time whilst observing approved risk parameters. The main risks are liquidity and interest rate risk.

**Trading risk**

Throughout the year under review, the Group's policy was that no trading in financial instruments should be undertaken.

**Financial derivatives**

As at 31 December 2016 and during the year, it was the Group's policy not to hold any derivative financial instruments.

Further details of the financial risks facing the Group are provided in the Financial Strength and Principal Risks and Uncertainties sections on pages 6 and 18 to 21 respectively of the Strategic Report.

**POLITICAL DONATIONS**

During the year, no contributions were made to political organisations (2015: £nil).

**REPORT OF THE DIRECTORS  
FOR THE YEAR ENDED 31 DECEMBER 2016**

**EMPLOYEES**

**Employee consultation**

The Group has a constitutional framework in place for employee consultation and has agreed that framework with trade union representatives. In addition, the Group communicates directly and through the management structure with non-collectively bargained staff, who are primarily of management grade, and keeps them informed of and involved as appropriate in developments that may impact on them now or in the future.

The Group is committed to maintaining and improving effective engagement and communication with employees. Following the employee engagement survey in 2016, the results continue to show improvement and work has been undertaken to analyse the feedback and develop local action plans. This approach is augmented by routine communication channels including regular staff briefs on current issues, meetings with staff and their representatives, and utilising the Group's intranet to communicate and engage with employees.

During the year, the President and Chief Executive Officer of the Group continued to provide employees with updates on the Group's financial, organisational, safety and customer service performance through postings and weekly blogs on the Group's intranet on key elements of performance during the preceding week.

**Disabled employees**

The Group is committed to equality at work and, as such, its policy is to provide all protected groups, including disabled people, with equality at work in respect of employment, training, career development and promotion, having regard to their aptitudes and abilities. Should any member of staff become disabled during their employment, the Group would work to make reasonable adjustments, wherever possible.

## NORTHERN POWERGRID HOLDINGS COMPANY (REGISTERED NUMBER: 03476201)

### REPORT OF THE DIRECTORS FOR THE YEAR ENDED 31 DECEMBER 2016

#### CORPORATE GOVERNANCE STATEMENT

In accordance with Disclosure and Transparency Rule (DTR) 7.2.9, the information provided on pages 25 to 31 inclusive, represent the Corporate Governance statement applicable to the Company and to the subsidiary companies within the Group to which the DTR's apply.

The Company has sought to apply a number of provisions in the UK Corporate Governance Code 2014 (the "Code") in so far as it considers them to be appropriate.

The Company has not complied with certain of the main principles of the Code, including main principles A2, A3, B2, B6, B7, D1, D2 and E2.

The directors confirm that the governance framework in place is appropriate to the circumstances of the Company and where possible, the spirit of the Code has been applied. The framework is agreed with Berkshire Hathaway Energy and includes regular reporting to and meetings with the Chairman and senior management of Berkshire Hathaway Energy. Sufficiently independent, non-executive directors are present at board meetings of the Company and in addition there is a strong internal control environment designed to meet the standards required by the United States Sarbanes-Oxley Act.

#### Section A: Leadership

##### Main Principle A1: The Role of the Board

The board meets on a quarterly basis to review business performance, strategic initiatives and operational and risk-related issues. Additional board meetings are held as required.

Attendance at meetings by board members during the year was as follows:

G E Abel	President, and Chief Executive Officer, Berkshire Hathaway Energy	0
D L Anderson*	Chief Corporate Counsel, Berkshire Hathaway Energy	0
R Dixon	Non-Executive Director	5
J M France	Regulation Director	5
P J Goodman	Executive Vice-President and Chief Financial Officer, Berkshire Hathaway Energy	0
P A Jones	President and Chief Executive Officer	5
J N Reynolds	Non-Executive Director	5

\* Retired 3 January 2017

The directors have overall responsibility for the internal control environment, which, within the Group, is based on regular reporting, a series of operational and financial policy statements, investigations undertaken by internal audit and a stringent process for ensuring the implementation of any recommendations. In addition, Berkshire Hathaway Energy requires a quarterly risk control assessment to be undertaken by certain senior managers as part of its programme for compliance with the requirements of the United States Sarbanes-Oxley Act. The assessments undertaken during the year did not identify any significant weaknesses in the process but resulted in the implementation of recommended improvements. The key features of the Company's internal control system and the issues addressed by the Company during the year can be found on page 20 and 21 of the Strategic Report.

A schedule of key delegations of authority has been approved by the board which enables senior and other managers to make decisions in respect of issues such as capital expenditure, procurement, contractual arrangements, human resource matters, payment processes and for the conduct of claims and litigation. That schedule reserves decision-making to the directors above certain financial limits. Matters reserved for board approval includes but are not limited to, the declaration of dividends, the approval of the annual statutory and regulatory accounts and changes to capital structure.

**REPORT OF THE DIRECTORS  
FOR THE YEAR ENDED 31 DECEMBER 2016**

Operational management of the Group is delegated to a single senior management team, with specific functional responsibilities. That senior management team meets on a monthly basis with the senior management of the Group to monitor performance and address issues of policy across all areas of the business. In addition, weekly conference calls are held to report on and consider performance-related issues. Further details of the management structure of the Group are provided on page 14 of the Strategic Report.

**Board and Management Committees**

During the year, there were a number of committees in operation, acting under delegated terms of reference, which oversee the Group and, therefore, Company policy. As part of their approved terms of reference, certain of those committees report regularly to the board on their activities.

**Health and Safety Management Committee**

The board of the Company has established the Northern Powergrid Group Health and Safety Management Committee with delegated powers to manage the health and safety policy and performance of the Group. The committee meets on a regular basis in order to:

- oversee implementation of health and safety policy;
- review and agree strategy for the management of health and safety issues;
- monitor health and safety performance across the Group;
- review the effectiveness of the health and safety policies and the health and safety management system; and consider recommendations for changes in policy due to changes in appropriate legislation, codes of practice or guidance or due to recommendations arising from investigations into significant incidents.

**Committee members:**

T E Fielden	Finance Director
J M France	Regulation Director
N M Gill	Operations Director
P A Jones	President and Chief Executive Officer
A J Maclellan	Business Development Director
G M Earl	Director of Safety, Health, and Environment

**Treasury Committee**

The Treasury Committee oversees and implements the treasury policies, which are outlined in the Strategic Report and the Directors' Report.

**Committee members:**

G E Abel	Chairman, Berkshire Hathaway Energy
L Bennett	Treasurer and Investor Reporting Manager
D Brady	Treasury and Reporting Manager
T E Fielden	Finance Director
P J Goodman	Executive Vice President and Chief Financial Officer, Berkshire Hathaway Energy
S Gormally	Accounting Assistant and Secretary to the Committee
P A Jones	President and Chief Executive Officer
S J Lockwood	Group Financial Controller

**REPORT OF THE DIRECTORS  
FOR THE YEAR ENDED 31 DECEMBER 2016**

**Pensions Committee**

The Pensions Committee oversees the Group's approach to the pension schemes to which it contributes.

**Committee members:**

N Dawson	Senior Pensions Advisor (retired 24 February 2017)
T E Fielden	Finance Director
J M France	Regulation Director
K Weatherburn	Director of Human Resources
S J Lockwood	Group Financial Controller
K Mawson	Head of Regulatory Finance and Systems
L Tweedie	Head of Field Change

**Governance and Risk Management Group (GRMG)**

Details can be found on pages 28 and 29 below.

**Audit Committee**

Details can be found on pages 29 and 30 below.

**Main Principle A2: Division of Responsibility**

Mr G E Abel, the Chairman of Berkshire Hathaway Energy, is also the Chairman of the Company. As President and Chief Executive Officer, Dr P A Jones is responsible for the operational management of both the Company and the Group. Dr P A Jones reports directly to Mr G E Abel.

**Main Principle A3: The Chairman**

The board does not have a formally appointed Chairman. Dr P A Jones chairs board meetings and is responsible for the operational management of both the Company and the Group. Dr P A Jones divides his time accordingly between his various commitments within the Group.

**Main Principle A4: Non-Executive Directors**

Two non-executive directors served on the board of the Company during the year, each of whom acts under the terms of their individual service contracts or terms of reference. Two additional non-executive directors are appointed to the boards of Northern Powergrid as sufficiently independent non-executive directors in accordance with the requirement in condition 43A of the electricity distribution licences.

**Section B: Effectiveness**

**Main Principle B1: The composition of the board**

The board comprises four executive directors and two non-executive directors. Although the board does not include a balanced number of executive and non-executive directors, the board believes that it possesses the requisite skills and experience necessary to provide effective leadership, stewardship and control of the Company and the Group.

**Main Principle B2: Appointments to the board**

The Company does not have a nomination committee. The Chairman of Berkshire Hathaway Energy, in conjunction with the President and Chief Executive Officer make appointments to the board with due regard to the board's overall composition including the balance of skills and experience.

**Main Principle B3: Commitment**

The Company's non-executive directors commit sufficient time to preparation for and attendance at board meetings. Service contracts or terms of reference do not specify a time commitment.

**Main Principle B4: Development**

The directors continually update their knowledge of and familiarity with the operations of the Company and the group due to the robust reporting arrangements in place and have on-going access to the Group's operations and its staff.

**REPORT OF THE DIRECTORS  
FOR THE YEAR ENDED 31 DECEMBER 2016**

**Main Principle B5: Information and support**

The board is provided with timely information during the course of the regular board meeting cycle and via interim briefings in order that it can discharge its duties effectively. The directors are able to utilise the advice and services of the Company Secretary, in respect of their duties and responsibilities and any new legislation that may affect those duties and responsibilities. Upon request, the directors have access to independent professional advice.

**Main Principle B6: Evaluation**

As part of their approved terms of reference, certain committees report regularly on their activities, enabling the board to perform an evaluation of their effectiveness. The board itself does not have a process of evaluation of its own performance or of the performance of individual directors in their capacity as directors. The performance of the executive directors and senior managers is reviewed formally on an annual basis as part of Berkshire Hathaway Energy's performance appraisal and development scheme. Performance is measured against individual and Berkshire Hathaway Energy goals.

**Main Principle B7: Re-election**

The Company's articles of association do not require the periodic retirement and re-election of directors.

**Section C: Accountability**

**Main Principle C1: Financial and business reporting**

The board considers that the annual reports and accounts, which include the Strategic Report and the Report of the Directors, taken as a whole is fair, balanced and understandable and provides the information necessary for shareholders to assess the Company's performance, position, business model and strategy.

The directors explain, at pages 2 to 3, the Core Principles behind the Company's strategy and, at page 31, their responsibility for preparing the Strategic Report, the Report of the Directors and the annual accounts. They have reported, at page 31 in the Report of the Directors that the Company is a going concern and have included the Report of the Independent Auditor to the Company at pages 33 and 34 of these annual reports and accounts.

**Main Principle C2: Risk management and internal control**

Details of the principal risks and uncertainties facing the Company and its internal control system, together with details of the issues addressed by the Company during the year, can be found at pages 18 to 21 of the Strategic Report. Also included at page 21 of the Strategic Report is an explanation of how the prospects of the Company have been assessed, the period to which that assessment relates and the reasons as to why that period is considered to be appropriate.

The Governance and Risk Management Group ("GRMG") is the principal management forum in the Group with regard to corporate governance and the management of risk. Its purpose is to ensure that companies in the Group apply and maintain appropriate arrangements to deliver sound corporate governance and comply with the overall strategy, framework and supporting policies. The GRMG monitors and reviews the strategic risk environment, ensuring the continued suitability, adequacy and effectiveness of risk management arrangements and reports to the Group's Audit Committee.

N Applebee	Head of Shared Services
J Cardwell	Head of Trading and Innovation
R Dixon	Non-Executive Director
M Drye	Director of Asset Management
G Earl	Director of Safety, Health, and Environment
T E Fielden	Finance Director
J M France	Regulation Director
T France	General Counsel
N M Gill	Operations Director
A Jones	Head of Strategic Planning and Delivery
L Mackay	Head of Internal Audit
A J MacLennan	Business Development Director
A Patterson	Director of Organisation Development
K Weatherburn	Director of Human Resources

**REPORT OF THE DIRECTORS  
FOR THE YEAR ENDED 31 DECEMBER 2016**

During the year, the GRMG monitored the risk management framework regularly to ensure that all key risks were being addressed and further enhanced the development of the risk assessment process seeing guidance and training provided to employees to support them in identifying and reporting on key risks. In addition, risk management policies and procedures were reviewed and updated to ensure a robust and clear approach was maintained. Mr R Dixon, one of the Company's non-executive directors, attended meetings of the GRMG to provide an independent view in respect of the matters discussed.

The Company has a strong focus on the management of its assets and as a consequence, the Asset Risk Management Executive Review Group had comprehensive plans in place to manage risks affecting all critical property assets and to strengthen the arrangements for crisis management and business continuity planning. In that respect, the Emergency Planning and Co-ordination Group ("EPCG") has a remit to develop and maintain the Group's approach to emergency planning and to provide strategic leadership and guidance in respect of such matters.

The EPCG also ensures appropriate coordination between the various emergency planning disciplines, which include operational management of network incidents, property and the physical environment, non-operational management and resources and the support areas of human resources, information technology, health and safety, communications and legal services.

Further details of the Group's approach to corporate governance and the management of internal controls can be found in the Strategic Report. Additional key features of the internal control system include:

- Comprehensive business planning and financial reporting procedures, including the annual preparation of detailed operational budgets for the year ahead and projections for subsequent years;
- Regular review of key performance indicators to assess progress towards objectives;
- A range of policies, codes of practice and more detailed instructions that define the processes to be followed;
- A strong internal audit function, which provides independent scrutiny of internal control systems and risk management procedures, including the standards required by the United States Sarbanes-Oxley Act;
- On-going health and safety performance reviews carried out by in-house safety professionals in addition to the regime of routine health and safety risk assessment and management processes carried out within each of the operating units;
- Processes and procedures to operate under OHSAS 18001, which is subject to external certification and regular assessment;
- An external obligations register, which assists with compliance with financial, legal and regulatory obligations;
- Centralised treasury operations that operate within defined limits and are subject to regular reporting requirements and audit reviews; and
- Established procedures for planning, approving and monitoring major capital expenditure, major projects and the development of new business which includes short and long-term budgets, risk evaluation, detailed appraisal and review procedures, defined authority levels and post-investment performance reviews.

**Main Principle C3: Audit committee and auditor**

The board of the Company has established an audit committee for the Group under delegated terms of reference which include monitoring the financial reporting process, the effectiveness of internal controls, internal audit and risk management systems, the statutory audit of the accounts, and the independence of and the provision of non-audit services by the auditor.

The audit committee comprises three members, two of whom are considered as independent and one who has competence in accounting. At its meetings, the committee receives reports from the GRMG and from the Group's Head of Internal Audit on the internal audits undertaken during the year and the audit plan for the following year.

**REPORT OF THE DIRECTORS  
FOR THE YEAR ENDED 31 DECEMBER 2016**

**Committee members:**

R Dixon  
J Reynolds  
T E Fielden

Non-Executive Director (Chairman)  
Non-Executive Director (appointed 20 January 2016)  
Finance Director

Details of the fees paid by the Company to Deloitte LLP in relation to non-audit services during the year are provided in Note 6 to the accounts.

The Company has a process in place by which staff can confidentially raise any concerns that they may have. Details of the Company's "speaking up" policy can be found in the employee section on page 14 of the Strategic Report.

**Section D: Remuneration**

**Main Principle D1: The level and components of remuneration**

Remuneration of the directors is designed to promote the long-term success of the Company and the Group with clear performance accountabilities defined either in personal goals, or in the individual's terms of reference or service contract. As the Company has no equity securities listed on the London Stock Exchange, it is not required to make directors' remuneration disclosures, other than those required for private companies. The Company does not have a remuneration committee.

**Main Principle D2: Procedure**

As noted under main principle D1, the Company does not have a remuneration committee. Annual remuneration awards for the senior management of the Group are subject to the performance appraisal and development scheme process and consideration by the Chairman of Berkshire Hathaway Energy and the President and Chief Executive Officer. No director is involved in deciding his own remuneration.

**Section E: Relations with shareholders**

**Main Principle E1: Dialogue with Shareholders**

As a wholly-owned subsidiary of a privately held group of companies, the board is in continuing dialogue with Berkshire Hathaway Energy.

The President and Chief Executive Officer participates in weekly performance review meetings with the Chairman of Berkshire Hathaway Energy and other senior managers of the Berkshire Hathaway Energy group, including the Executive Vice President and Chief Financial Officer. At those weekly meetings, the key current issues facing the Group are discussed. The review meetings are supported by regular reports detailing the Group's performance.

Weekly review meetings are also held in respect of Berkshire Hathaway Energy's financial and legal functions, at which the Group's Finance Director and General Counsel present their respective updates.

**Main Principle E2: Constructive use of General Meetings**

This section of the Code is not applicable as the Company is privately owned and not traded.



**REPORT OF THE DIRECTORS  
FOR THE YEAR ENDED 31 DECEMBER 2016**

**STATEMENT OF DIRECTORS' RESPONSIBILITIES**

The directors are responsible for preparing the Strategic Report, the Report of the Directors and the financial statements in accordance with applicable law and regulations.

Company law requires the directors to prepare financial statements for each financial year. Under that law the directors have elected to prepare the financial statements in accordance with International Financial Reporting Standards ("IFRS") as adopted by the European Union. Under company law the directors must not approve the financial statements unless they are satisfied that they give a true and fair view of the state of affairs of the Company and the Group and of the profit or loss of the Group and Company for that period.

In preparing these financial statements, International Accounting Standard 1 requires the directors to:

- Properly select and apply accounting policies;
- Present information, including accounting policies, in a manner that provides relevant, reliable, comparable and understandable information;
- Provide additional disclosures when compliance with the specific requirements in IFRSs are insufficient to enable users to understand the impact of particular transactions, other events and conditions on the Company's and the Group's financial position and financial performance; and
- Make an assessment of the Company's and the Group's ability to continue as a going concern.

The directors are responsible for keeping adequate accounting records that are sufficient to show and explain the Company's and the Group's transactions and disclose with reasonable accuracy at any time the financial position of the Company and the Group and enable them to ensure that the financial statements comply with the Companies Act 2006. They are also responsible for safeguarding the assets of the Company and the Group and hence for taking reasonable steps for the prevention and detection of fraud and other irregularities. The directors are responsible for the maintenance and integrity of the corporate and financial information included on the Group's website. Legislation in the United Kingdom governing the preparation and dissemination of financial statements may differ from legislation in other jurisdictions.

**GOING CONCERN**

A review of the Group's business activities during the year, together with details regarding its future development, performance and position, its objectives, policies and processes for managing its capital, its financial risk management objectives and details of its exposures to trading risk, credit risk and liquidity risk are set out in the Strategic Report, the Report of the Directors and the appropriate notes to the accounts.

When considering if to continue to adopt the going concern basis in preparing the annual report and accounts, the directors have taken into account a number of factors, including the following:

- The Group's main subsidiaries, NPg Northeast and NPg Yorkshire, are stable electricity distribution businesses operating an essential public service and are regulated by GEMA. In carrying out its functions, GEMA has a statutory duty under the Electricity Act 1989 to have regard to the need to secure that licence holders are able to finance the activities, which are the subject of obligations under Part 1 of the Electricity Act 1989 (including the obligations imposed by the electricity distribution licence) or by the Utilities Act 2000;
- The Group is profitable with strong underlying cash flows. The Company, NPg Northeast and NPg Yorkshire hold investment grade credit ratings;
- The Group is financed by long-term borrowings with an average maturity of 12 years and has access to a £150m, five year committed revolving credit facility provided by Lloyds Bank plc, Royal Bank of Scotland plc and Abbey National Treasury Services plc;

**REPORT OF THE DIRECTORS  
FOR THE YEAR ENDED 31 DECEMBER 2016**

**STATEMENT OF DIRECTORS' RESPONSIBILITIES - continued**

- No repayments of long-term debt are due until 2018.

Consequently, after making enquiries, the directors have a reasonable expectation that the Company and the Group have adequate resources to continue in operational existence for the foreseeable future. Accordingly, they continue to adopt the going concern basis in preparing the annual reports and accounts.

**DIRECTORS' RESPONSIBILITY STATEMENT PURSUANT TO DTR 4**

- a) the accounts, prepared in accordance with applicable UK law and in conformity with IFRS, give a true and fair view of the assets, liabilities, financial position and profit of the Company and the undertakings included in the consolidation taken as a whole; and
- b) the Management Report (which is comprised of the Strategic Report and the Report of the Directors) includes a fair review of the development and performance of the business and the position of the Company and the undertakings included in the consolidation taken as a whole, together with a description of the principal risks and uncertainties it faces.

**STATEMENT AS TO DISCLOSURE OF INFORMATION TO AUDITOR**

Each of the directors, who is a director of the Company as at the date of this report, confirms that:

- a) so far as he is aware, there is no relevant audit information of which the Company's auditor is unaware; and
- b) he has taken all the steps he ought to have taken as a director in order to make himself aware of any relevant audit information and to establish that the auditor is aware of that information.

This confirmation is given and should be interpreted in accordance with the provisions of S418 of the Companies Act 2006.

**AUDITOR**

Deloitte LLP will continue in office in accordance with the provisions in section 487 of the Companies Act 2006 and has indicated its willingness to do so.

**ON BEHALF OF THE BOARD:**



J M France  
Director

26 April 2017

## **REPORT OF THE INDEPENDENT AUDITOR TO THE MEMBERS OF NORTHERN POWERGRID HOLDINGS COMPANY**

We have audited the financial statements of Northern Powergrid Holdings Company ("the Company") for the year ended 31 December 2016, which comprise the Consolidated Statement of Profit or Loss, the Consolidated Statement of Profit or Loss and Other Comprehensive Income, the Consolidated Statement of Financial Position, the Company Statement of Financial Position, the Consolidated Statement of Changes in Equity, the Company Statement of Changes in Equity, the Consolidated Statement of Cash Flows, the Company Statement of Cash Flows, and related notes 1 to 30. The financial reporting framework that has been applied in their preparation is applicable law and International Financial Reporting Standards (IFRSs) as adopted by the European Union.

This report is made solely to the Company's members, as a body, in accordance with Chapter 3 of Part 16 of the Companies Act 2006. Our audit work has been undertaken so that we might state to the Company's members those matters we are required to state to them in a Report of the Auditor and for no other purpose. To the fullest extent permitted by law, we do not accept or assume responsibility to anyone other than the Company and the Company's members as a body, for our audit work, for this report, or for the opinions we have formed.

### **Respective responsibilities of directors and auditor**

As explained more fully in the Statement of Directors' Responsibilities set out on pages 31 and 32, the directors are responsible for the preparation of the financial statements and for being satisfied that they give a true and fair view. Our responsibility is to audit and express an opinion on the financial statements in accordance with applicable law and International Standards on Auditing (UK and Ireland). Those standards require us to comply with the Auditing Practices Board's Ethical Standards for Auditors.

### **Scope of the audit of the financial statements**

An audit involves obtaining evidence about the amounts and disclosures in the financial statements sufficient to give reasonable assurance that the financial statements are free from material misstatement, whether caused by fraud or error. This includes an assessment of whether the accounting policies are appropriate to the circumstances of the Company and the Group and have been consistently applied and adequately disclosed the reasonableness of significant accounting estimates made by the directors and the overall presentation of the financial statements. In addition, we read all the financial and non-financial information in the Strategic Report and the Report of the Directors to identify material inconsistencies with the audited financial statements and to identify any information that is apparently materially incorrect based on, or materially inconsistent with, the knowledge acquired by us in the course of performing the audit. If we become aware of any apparent material misstatements or inconsistencies we consider the implications for our report.

### **Opinion on financial statements**

In our opinion the financial statements:

- give a true and fair view of the state of the Company's and the Group's affairs as at 31 December 2016 and of the Group's profit for the year then ended;
- have been properly prepared in accordance with the requirements of the Companies Act 2006 and in accordance with IFRSs as adopted by the European Union;
- in respect of the Company have been properly prepared in accordance with IFRSs as adopted by the European Union and as applied in accordance with the provisions of the Companies Act 2006;
- in respect of the Group Financial Statements, have been properly prepared in accordance with Article 4 of the IAS Regulations.

### **Opinion on other matter prescribed by the Companies Act 2006**

In our opinion, based on the work undertaken in the course of the audit:

- the information given in the Strategic Report and the Report of the Directors for the financial year for which the financial statements are prepared is consistent with the financial statements; and
- the Strategic Report and the Report of the Directors have been prepared in accordance with applicable legal requirements.

In the light of the knowledge and understanding of the Company and its environment obtained in the course of the audit, we have not identified any material misstatements in the Strategic Report and the Report of the Directors.

**REPORT OF THE INDEPENDENT AUDITOR TO THE MEMBERS OF  
NORTHERN POWERGRID HOLDINGS COMPANY**

**Matters on which we are required to report by exception**

We have nothing to report in respect of the following matters where the Companies Act 2006 requires us to report to you if, in our opinion:

- adequate accounting records have not been kept by the Company, or
- returns adequate for our audit have not been received from branches not visited by us; or
- the financial statements of the Company are not in agreement with the accounting records and returns; or
- certain disclosures of directors' remuneration specified by law are not made; or
- we have not received all the information and explanations we require for our audit.



David M Johnson FCA (Senior Statutory Auditor)  
for and on behalf of Deloitte LLP  
Chartered Accountants and Statutory Auditor  
Newcastle upon Tyne  
United Kingdom

Date: 26 April 2017

**NORTHERN POWERGRID HOLDINGS COMPANY (REGISTERED NUMBER: 03476201)**

**CONSOLIDATED STATEMENT OF PROFIT OR LOSS  
FOR THE YEAR ENDED 31 DECEMBER 2016**

	Notes	2016 £'000	2015 £'000
<b>CONTINUING OPERATIONS</b>			
Revenue	3	768,468	776,315
Cost of sales		<u>(57,600)</u>	<u>(58,449)</u>
<b>GROSS PROFIT</b>		710,868	717,866
Operating expenses		<u>(355,203)</u>	<u>(334,073)</u>
<b>OPERATING PROFIT</b>		355,665	383,793
Other gains		1,005	738
Finance costs	5	<u>(97,819)</u>	<u>(91,373)</u>
Finance income	5	<u>1,343</u>	<u>884</u>
<b>PROFIT BEFORE INCOME TAX</b>	6	260,194	294,042
Income tax	7	<u>(5,847)</u>	<u>(24,390)</u>
<b>PROFIT FOR THE YEAR</b>		<u>254,347</u>	<u>269,652</u>
Profit attributable to:			
Owners of the parent		252,137	267,814
Non-controlling interests		<u>2,210</u>	<u>1,838</u>
		<u>254,347</u>	<u>269,652</u>

The notes on pages 44 to 93 form part of these financial statements

**NORTHERN POWERGRID HOLDINGS COMPANY (REGISTERED NUMBER: 03476201)**

**CONSOLIDATED STATEMENT OF PROFIT OR LOSS AND OTHER COMPREHENSIVE INCOME  
FOR THE YEAR ENDED 31 DECEMBER 2016**

	2016 £'000	2015 £'000
<b>PROFIT FOR THE YEAR</b>	254,347	269,652
<b>OTHER COMPREHENSIVE INCOME</b>		
<b>Item that will not be reclassified to profit or loss:</b>		
Employee benefit obligation	(84,700)	(400)
Income tax relating to item of other comprehensive income	<u>14,197</u>	<u>(2,099)</u>
	(70,503)	(2,499)
<b>Items that may be reclassified subsequently to profit or loss:</b>		
Exchange difference on translation of foreign operations	4,630	(1,938)
Dividends paid to minority interest	-	(1,057)
Income tax relating to items of other comprehensive income	<u>-</u>	<u>-</u>
	4,630	(2,995)
<b>OTHER COMPREHENSIVE INCOME FOR THE YEAR, NET OF INCOME TAX</b>	<u>(65,873)</u>	<u>(5,494)</u>
<b>TOTAL COMPREHENSIVE INCOME FOR THE YEAR</b>	<u>188,474</u>	<u>264,158</u>
 Total comprehensive income attributable to:		
Owners of the parent	186,264	263,377
Non-controlling interests	<u>2,210</u>	<u>781</u>
	<u>188,474</u>	<u>264,158</u>

The notes on pages 44 to 93 form part of these financial statements

**NORTHERN POWERGRID HOLDINGS COMPANY (REGISTERED NUMBER: 03476201)**

**CONSOLIDATED STATEMENT OF FINANCIAL POSITION  
31 DECEMBER 2016**

	Notes	2016 £'000	2015 £'000
<b>ASSETS</b>			
<b>NON-CURRENT ASSETS</b>			
Goodwill	11	248,843	248,843
Intangible assets	12	42,361	44,050
Property, plant and equipment	13	5,478,204	5,159,563
Investments	14	21,155	15,698
Pension asset	26	31,500	88,100
Trade and other receivables	16	8,406	8,769
Tax receivable		<u>627</u>	<u>1,966</u>
		<b>5,831,096</b>	<b>5,566,989</b>
<b>CURRENT ASSETS</b>			
Inventories	15	13,101	13,917
Trade and other receivables	16	153,387	131,508
Tax receivable		757	945
Cash and cash equivalents	17	<u>52,937</u>	<u>57,895</u>
		<b>220,182</b>	<b>204,265</b>
<b>TOTAL ASSETS</b>		<b><u>6,051,278</u></b>	<b><u>5,771,254</u></b>
<b>EQUITY</b>			
<b>SHAREHOLDERS' EQUITY</b>			
Called up share capital	19	354,550	354,550
Share premium	20	(810)	(810)
Other reserves	20	(2,079)	(6,709)
Retained earnings	20	<u>1,817,975</u>	<u>1,636,341</u>
		<b>2,169,636</b>	<b>1,983,372</b>
Non-controlling interests	18	<u>31,177</u>	<u>28,967</u>
<b>TOTAL EQUITY</b>		<b><u>2,200,813</u></b>	<b><u>2,012,339</u></b>


The notes on pages 44 to 93 form part of these financial statements

**NORTHERN POWERGRID HOLDINGS COMPANY (REGISTERED NUMBER: 03476201)**

**CONSOLIDATED STATEMENT OF FINANCIAL POSITION - continued**  
**31 DECEMBER 2016**

	Notes	2016 £'000	2015 £'000
<b>LIABILITIES</b>			
<b>NON-CURRENT LIABILITIES</b>			
Trade and other payables	21	1,337,735	1,271,612
Borrowings			
Interest bearing loans and borrowings	22	1,938,914	1,891,456
Deferred tax	25	230,420	254,920
Provisions	24	4,763	5,278
		<u>3,511,832</u>	<u>3,423,266</u>
<b>CURRENT LIABILITIES</b>			
Trade and other payables	21	259,529	269,636
Borrowings			
Interest bearing loans and borrowings	22	54,162	53,279
Tax payable		22,259	9,073
Provisions	24	2,683	3,661
		<u>338,633</u>	<u>335,649</u>
<b>TOTAL LIABILITIES</b>		<u><b>3,850,465</b></u>	<u><b>3,758,915</b></u>
<b>TOTAL EQUITY AND LIABILITIES</b>		<u><b>6,051,278</b></u>	<u><b>5,771,254</b></u>

The financial statements were approved by the Board of Directors on 26 April 2017 and were signed on its behalf by:



J M France  
 Director

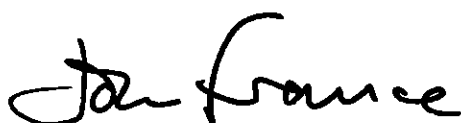


**NORTHERN POWERGRID HOLDINGS COMPANY (REGISTERED NUMBER: 03476201)**

**COMPANY STATEMENT OF FINANCIAL POSITION  
31 DECEMBER 2016**

	Notes	2016 £'000	2015 £'000
<b>ASSETS</b>			
<b>NON-CURRENT ASSETS</b>			
Investments	14	376,289	376,289
Trade and other receivables	16	<u>264,158</u>	<u>264,158</u>
		<u>640,447</u>	<u>640,447</u>
<b>CURRENT ASSETS</b>			
Trade and other receivables	16	101	101
Cash and cash equivalents	17	<u>27,377</u>	<u>18,549</u>
		<u>27,478</u>	<u>18,650</u>
<b>TOTAL ASSETS</b>		<u><b>667,925</b></u>	<u><b>659,097</b></u>
<b>EQUITY</b>			
<b>SHAREHOLDERS' EQUITY</b>			
Called up share capital	19	354,550	354,550
Retained earnings	20	<u>108,583</u>	<u>103,736</u>
<b>TOTAL EQUITY</b>		<u><b>463,133</b></u>	<u><b>458,286</b></u>
<b>LIABILITIES</b>			
<b>NON-CURRENT LIABILITIES</b>			
Borrowings			
Interest bearing loans and borrowings	22	<u>195,953</u>	<u>195,448</u>
<b>CURRENT LIABILITIES</b>			
Trade and other payables	21	8,034	4,468
Borrowings			
Interest bearing loans and borrowings	22	644	644
Tax payable		<u>161</u>	<u>251</u>
		<u>8,839</u>	<u>5,363</u>
<b>TOTAL LIABILITIES</b>		<u><b>204,792</b></u>	<u><b>200,811</b></u>
<b>TOTAL EQUITY AND LIABILITIES</b>		<u><b>667,925</b></u>	<u><b>659,097</b></u>

The financial statements were approved by the Board of Directors on 26 April 2017 and were signed on its behalf by:



J M France  
Director

The notes on pages 44 to 93 form part of these financial statements

**NORTHERN POWERGRID HOLDINGS COMPANY (REGISTERED NUMBER: 03476201)**

**CONSOLIDATED STATEMENT OF CHANGES IN EQUITY  
FOR THE YEAR ENDED 31 DECEMBER 2016**

	<b>Called up share capital £'000</b>	<b>Retained earnings £'000</b>	<b>Share premium £'000</b>
<b>Balance at 1 January 2015</b>	354,550	1,471,026	(810)
<b>Changes in equity</b>			
Dividends	-	(100,000)	-
Total comprehensive income	-	265,315	-
<b>Balance at 31 December 2015</b>	<u>354,550</u>	<u>1,636,341</u>	<u>(810)</u>

<b>Changes in equity</b>			
Total comprehensive income	-	181,634	-
<b>Balance at 31 December 2016</b>	<u>354,550</u>	<u>1,817,975</u>	<u>(810)</u>

	<b>Other reserves £'000</b>	<b>Total £'000</b>	<b>Non-controlling interests £'000</b>	<b>Total equity £'000</b>
<b>Balance at 1 January 2015</b>	(4,771)	1,819,995	28,186	1,848,181
<b>Changes in equity</b>				
Dividends	-	(100,000)	(1,057)	(101,057)
Total comprehensive income	(1,938)	263,377	1,838	265,215
<b>Balance at 31 December 2015</b>	<u>(6,709)</u>	<u>1,983,372</u>	<u>28,967</u>	<u>2,012,339</u>
<b>Changes in equity</b>				
Total comprehensive income	4,630	186,264	2,210	188,474
<b>Balance at 31 December 2016</b>	<u>(2,079)</u>	<u>2,169,636</u>	<u>31,177</u>	<u>2,200,813</u>

The notes on pages 44 to 93 form part of these financial statements

**NORTHERN POWERGRID HOLDINGS COMPANY (REGISTERED NUMBER: 03476201)**

**COMPANY STATEMENT OF CHANGES IN EQUITY  
FOR THE YEAR ENDED 31 DECEMBER 2016**

	<b>Called up share capital £'000</b>	<b>Retained earnings £'000</b>	<b>Total equity £'000</b>
<b>Balance at 1 January 2015</b>	354,550	77,902	432,452
<b>Changes in equity</b>			
Dividends	-	(100,000)	(100,000)
Total comprehensive income	-	125,834	125,834
<b>Balance at 31 December 2015</b>	<u>354,550</u>	<u>103,736</u>	<u>458,286</u>
<b>Changes in equity</b>			
Total comprehensive income	-	4,847	4,847
<b>Balance at 31 December 2016</b>	<u>354,550</u>	<u>108,583</u>	<u>463,133</u>

The notes on pages 44 to 93 form part of these financial statements

**NORTHERN POWERGRID HOLDINGS COMPANY (REGISTERED NUMBER: 03476201)**

**CONSOLIDATED STATEMENT OF CASH FLOWS  
FOR THE YEAR ENDED 31 DECEMBER 2016**

	Notes	2016 £'000	2015 £'000
<b>Cash flows from operating activities</b>			
Cash generated from operations	29	479,575	479,136
Interest paid		(102,024)	(96,271)
Dividends received		80	76
Interest received		91	180
Tax paid		(1,435)	(55,347)
<b>Net cash from operating activities</b>		<b>376,287</b>	<b>327,774</b>
<b>Cash flows from investing activities</b>			
Purchase of intangible fixed assets		(19,757)	(19,744)
Purchase of tangible fixed assets		(502,562)	(531,637)
Proceeds from sale of assets		978	723
Investment in associate		(5,779)	(6,713)
Dividends received from joint ventures		491	513
Receipt of customer contributions		95,439	126,776
Dividends paid to minority interest		-	(1,057)
<b>Net cash from investing activities</b>		<b>(431,245)</b>	<b>(431,139)</b>
<b>Cash flows from financing activities</b>			
New loans in year		50,000	258,067
Equity dividends paid		-	(100,000)
<b>Net cash from financing activities</b>		<b>50,000</b>	<b>158,067</b>
<b>(Decrease)/increase in cash and cash equivalents</b>		<b>(4,958)</b>	<b>54,702</b>
<b>Cash and cash equivalents at beginning of year</b>		<b>57,895</b>	<b>3,193</b>
<b>Cash and cash equivalents at end of year</b>		<b>52,937</b>	<b>57,895</b>

The notes on pages 44 to 93 form part of these financial statements

**NORTHERN POWERGRID HOLDINGS COMPANY (REGISTERED NUMBER: 03476201)**

**COMPANY STATEMENT OF CASH FLOWS  
FOR THE YEAR ENDED 31 DECEMBER 2016**

	Notes	2016 £'000	2015 £'000
<b>Cash flows from operating activities</b>			
Cash generated from operations	29	3,494	1,790
Interest paid		(15,005)	(15,243)
Interest received		18,584	18,491
Dividend received		2,362	123,923
Tax paid		(607)	(757)
Net cash from operating activities		<u>8,828</u>	<u>128,204</u>
<b>Cash flows from financing activities</b>			
Loan repayments in year		-	(9,655)
Equity dividends paid		-	(100,000)
Net cash from financing activities		<u>-</u>	<u>(109,655)</u>
<b>Increase in cash and cash equivalents</b>		<b>8,828</b>	<b>18,549</b>
<b>Cash and cash equivalents at beginning of year</b>		<b><u>18,549</u></b>	<b><u>-</u></b>
<b>Cash and cash equivalents at end of year</b>		<b><u>27,377</u></b>	<b><u>18,549</u></b>

The notes on pages 44 to 93 form part of these financial statements

**NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS  
FOR THE YEAR ENDED 31 DECEMBER 2016**

**1. GENERAL INFORMATION**

Northern Powergrid Holdings Company (the "Company") is a company incorporated in England and Wales. The address of the registered office is Lloyds Court, 78 Grey Street, Newcastle-upon-Tyne, NE1 6AF.

The nature of the Group's business model, strategic objectives, operations and activities are set out in the Strategic Report. The company is limited by shares.

**2. ACCOUNTING POLICIES**

**Accounting convention and basis of preparation**

These financial statements have been prepared in accordance with International Financial Reporting Standards ("IFRS"). These financial statements have also been prepared in accordance with IFRSs as adopted by the European Union, and with those parts of the Companies Act 2006 (the "Act") that are applicable to companies reporting under IFRS. The Company's financial statements have also been prepared in accordance with IFRS, as applied in accordance with the provisions of the Act. The directors have taken advantage of the exemption offered by Section 408 of the Act not to present a separate statement of profit or loss for the Company.

The financial statements have been prepared under the historical cost convention. Historical cost is generally based on the fair value of the consideration given in exchange for goods and services. Fair value 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, regardless of whether that price is directly observable or estimated using another valuation technique. In estimating the fair value of an asset or a liability, the Group takes into account the characteristics of the asset or liability if market participants would take those characteristics into account when pricing the asset or liability at the measurement date. Fair value for measurement and/or disclosure purposes in these consolidated financial statements is determined on such a basis, except for leasing transactions which are in the scope of IAS 17, and measurements that have some similarities to fair value but are not fair value, such as net realisable value in IAS 2 or value in use in IAS 36.

In addition, for financial reporting purposes, fair value measurements are categorised into Level 1, 2 or 3 based on the degree to which the inputs to the fair value measurements are observable and the significance of the inputs to the fair value measurement in its entirety, which are described as follows:

- Level 1 inputs are quoted prices (unadjusted) in active markets for identical assets or liabilities that the Company can access at the measurement date;
- Level 2 inputs are inputs, other than quoted prices included within Level 1, that are observable for the asset or liability, either directly or indirectly; and
- Level 3 inputs are unobservable inputs for the asset or liability.

The principal accounting policies are set out below.

**Basis of consolidation**

The consolidated financial statements incorporate the financial statements of the Company and entities controlled by the Company and its subsidiaries made up to 31 December each year. Control is achieved where the Company has power over the investee, is exposed, or has rights, to variable returns from its involvement with the investee, and has the ability to use its power to affect its returns.

**NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS - continued  
FOR THE YEAR ENDED 31 DECEMBER 2016**

**2. ACCOUNTING POLICIES - continued**

**Investments in associates and joint ventures**

An associate is an entity over which the Group has significant influence. Significant influence is the power to participate in the financial and operating policy decisions of the investee but is not control or joint control over those policies. A joint venture is a joint arrangement whereby the parties that have joint control of the arrangement have the rights to the net assets of the joint arrangement. Joint control is the contractually agreed sharing of control of an arrangement, which exists only when decisions about the relevant activities require unanimous consent of the parties sharing control.

The results and assets and liabilities of associates or joint ventures are incorporated in these consolidated financial statements using the equity method of accounting except when classified as held for sale. Investments in associates or joint venture entities are initially recognised at cost and adjusted thereafter to recognise the Group's share of profit or loss and other comprehensive income of the associate or joint venture. When the Group's share of losses of an associate or a joint venture exceeds the Group's interest in that associate or joint venture, the Group discontinues recognising its share of future losses.

An investment in an associate or a joint venture is accounted for using the equity method from the date on which the investee becomes an associate or a joint venture. On acquisition of the investment in an associate or a joint venture, any excess of the cost of the investment over the Group's share of the net fair value of the identifiable assets and liabilities of the investee is recognised as goodwill, which is included within the carrying amount of the investment. Any excess of the Group's share of the net fair value of the identifiable assets and liabilities over the cost of the investment, after reassessment, is recognised immediately in profit or loss in the period in which the investment is acquired.

A joint operation is a joint arrangement whereby the parties that have joint control of the arrangement have rights to the assets, and obligations for the liabilities, relating to the arrangement. Joint control is the contractually agreed sharing of control of an arrangement, which exists only when decisions about the relevant activities require unanimous consent of the parties sharing control.

Fixed asset investments are stated at cost less provision or amounts written off for impairment in value.

**Investments in joint operations**

A joint operation is a joint arrangement whereby the parties that have joint control of the arrangement have rights to the assets, and obligations for the liabilities, relating to the arrangement. Joint control is the contractually agreed sharing of control of an arrangement, which exists only when decisions about the relevant activities require unanimous consent of the parties sharing control.

Exploration, development and production activities are conducted as co-licensee in joint ventures with other similar companies. The accounts reflect the relevant proportions of production, capital expenditure, operating costs and current assets and liabilities applicable to the Group's interests.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS - continued  
FOR THE YEAR ENDED 31 DECEMBER 2016

2. ACCOUNTING POLICIES - continued

**Adoption of new or revised standards**

In the current year, the Company has a number of amendments to IFRSs issued by the International Accounting Standards Board ("IASB") that are mandatorily effective for an accounting period that begins on or after 1 January 2016:

- Amendments to IAS 1 Disclosure Initiative The amendments clarify that an entity need not provide specific disclosure required by an IFRS if the information resulting from that disclosure is not material, and give guidance on the bases of aggregating and disaggregating information for disclosure purposes. However, the amendments reiterate that an entity should consider providing additional disclosures when compliance with the specific requirements of IFRS is insufficient to enable users of financial statements to understand the impact of particular transactions, events and conditions on the entity's financial position and financial performance.

The application of these amendments has not resulted in any impact on the financial performance or financial position of the Company.

- IAS 16 and IAS 38 Clarification of Acceptable Methods of Depreciation and Amortisation The amendments to IAS 16 prohibit entities from using a revenue-based depreciation method for items of property, plant and equipment. The amendments to IAS 38 introduce a rebuttable presumption that revenue is not an appropriate basis for amortisation of an intangible asset. This presumption can only be rebutted in the following two limited circumstances:-when the intangible asset is expressed as a measure of revenue; or-when it can be demonstrated that revenue and consumption of the economic benefits or the intangible asset are highly correlated.

As the group already uses the straight line method for depreciation for its property, plant and equipment, and intangible assets respectively, the application of these amendments has had no impact on the Company's financial position.

- Annual Improvements to IFRSs 2012-2014 Cycle The Annual Improvements to IFRSs 2012-2014 Cycle include a number of amendments to various IFRSs. The application of these amendments has had no effect on the Company's financial statements.

**New and revised standards in issue but not yet effective**

The Company has not applied the following new and revised IFRSs that have been issued but are not yet effective for the year ended 31 December 2016:

- IFRS 9 - Financial Instruments (1 January 2018). A revised version of IFRS 9, Financial Instruments, was issued in July 2014 mainly to include: a) impairment requirements for financial assets; and b) limited amendments to the classification and measurement requirements by introducing a 'fair value through other comprehensive income' ("FVTOCI") measurement category for certain simple debt instruments. The directors of the Company anticipate that the application of IFRS 9 in the future is unlikely to have an impact on amounts reported in respect of the Company's financial assets and financial liabilities.



**NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS - continued**  
**FOR THE YEAR ENDED 31 DECEMBER 2016**

**2. ACCOUNTING POLICIES - continued**

- IFRS 15 - Revenue from Contracts with Customers (1 January 2018).

In May 2014, IFRS 15, Revenue from Contracts with Customers, was issued which establishes a single comprehensive model for entities to use in accounting for revenue arising from contracts with customers.

IFRS 15 will supersede the current revenue recognition guidance including IAS 11 Construction Contracts, IAS 18 Revenue and the related Interpretations. The core principle of IFRS 15 is that an entity should recognise revenue to depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services.

Under IFRS 15, an entity recognises revenue when (or as) a performance obligation is satisfied. Far more prescriptive guidance has been added in IFRS 15 to deal with specific scenarios. Furthermore, extensive disclosures are required by IFRS 15.

The directors anticipate that the application of IFRS 15 will not have a material impact on the Company's financial statements.

- IFRS 16 - Leases (1 January 2019)

IFRS 16 introduces a comprehensive model for the identification of lease arrangements and accounting treatments for both lessors and lessees. IFRS 16 will supersede the current lease guidance including IAS 17 Leases and the related interpretations when it becomes effective.

IFRS 16 distinguishes between leases and service contracts on the basis of whether an identified asset is controlled by a customer. Distinctions between operating leases and finance leases are removed for lessee accounting, and is replaced by a model where right-of-use asset and a corresponding liability have to be recognised for all leases by lessees except for short term leases and leases of low-value assets.

As of 31 December 2016, the Company has non-cancellable operating lease commitments of £31.9 million, IAS 17 does not require recognition of any right-of-use asset or liability for future payments for these leases. A preliminary assessment indicates that these arrangements will meet the definition of a lease under IFRS 16, and hence the Company will recognise a right-of-use asset and corresponding liability in respect of all these leases unless they qualify for low-value or short-term leases upon the application of IFRS 16.

- Amendments to IAS 7 (1 January 2017)

The amendments require an entity to provide disclosures that enable users of financial statements to evaluate changes in liabilities arising from financing activities. The directors of the Company do not anticipate the application of these amendments will have a material impact on the Company's financial statements.

**NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS - continued**  
**FOR THE YEAR ENDED 31 DECEMBER 2016**

**2. ACCOUNTING POLICIES – continued**

**Critical judgements in applying accounting policies**

The following are the critical judgements, apart from those involving estimations, that the directors have made in the process of applying the Group's accounting policies and that have the most significant effect on amounts recognised in the consolidated financial statements:

- Revenue recognition, the methodology for which is disclosed below.
- Useful economic lives for property, plant and equipment, details of which can be found on page 50;
- The split of operating and capital expenditure and the allocation of overheads to property, plant and equipment. The allocation of overheads to capital is derived from a detailed analysis of indirect cost centres and their usage which is reviewed on a regular basis; and
- Impairment reviews carried out to evaluate the carrying value of assets held at the end of the reporting period.

**Key sources of estimation uncertainty**

The following are the key assumptions concerning the future and other key sources of estimation uncertainty at the end of the reporting period that may have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial year:

- Assumptions used when evaluating long-term pension plan assets and liabilities, these assumptions and their possible impacts are disclosed in note 26.

**Revenue**

Revenue is only recognised when the risks and rewards of ownership have been transferred to a third party. No revenue is recognised where there are significant uncertainties regarding the consideration to be received or the costs associated with the transaction.

Revenue is measured at the fair value of consideration received or receivable.

Revenue represents charges for the use of the Group's distribution network, meter rental, amortisation of customer contributions, recharge of costs incurred on behalf of related parties and the invoiced value of other goods sold and services provided, exclusive of value added tax.

Revenues from charges to end customers for the use of the Group's distribution network include estimates of the units distributed. The estimated usage is based on historic data, judgement and assumptions. Revenues are gradually adjusted to reflect actual usage in the period during which actual meter readings are obtained.

Any under or over-recovery of allowed distribution network revenues as prescribed by Ofgem is not provided for in the financial statements and will be recovered/repaid through future tariffs.

Customer contributions towards distribution system assets are included in deferred revenue. The Group's policy is to credit the customer contribution to revenue on a straight-line basis, in line with the useful life of the distribution system assets.

Income from credit sale charges is apportioned in the statement of profit or loss over the period of the sales agreements.

Revenue from the sale of gas is measured at the fair value of the consideration receivable, principally from the Group's share of production from its field interests, net of value added tax.

Interest income from a financial asset is recognised when it is probable that the economic benefits will flow to the Group and the amount of income can be measured reliably. Interest income is accrued on a time basis, by reference to the principal outstanding and at the effective interest rate applicable, which is the rate that exactly discounts estimated future cash receipts through the expected life of the financial asset to that asset's net carrying amount on initial recognition.

Dividend income from investments is recognised when the shareholders' rights to receive payment have been established.

**NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS - continued  
FOR THE YEAR ENDED 31 DECEMBER 2016**

**2. ACCOUNTING POLICIES - continued**

**Construction Contracts**

Where the outcome of a construction contract can be estimated reliably, revenue and costs are recognised by reference to the stage of completion of the contract activity at the end of the reporting period, measured based on the proportion of contract costs incurred for work performed to date relative to the estimated total contract costs, except where this would not be representative of the stage of completion. Variations in contract work, claims and incentive payments are included to the extent that they have been agreed with the customer.

Where the outcome of a construction contract cannot be estimated reliably, contract revenue is recognised to the extent of the costs incurred where it is probable they will be recoverable. Contract costs are recognised as expenses in the period in which they are incurred. When it is probable that total contract costs will exceed total contract revenue, the expected loss is recognised as an expense immediately.

When contract costs incurred to date plus recognised profits less recognised losses exceed progress billings, the surplus is shown as amounts due from customers for contract work. For contracts where progress billings exceed contract costs incurred to date plus recognised profits less recognised losses, the surplus is shown as the amounts due to customers for contract work. Amounts received before the related work is performed are included in the consolidated statement of financial position, as a liability, as advances are received. Amounts billed for work performed but not yet paid by the customer are included in the consolidated statement of financial position under trade and other receivables.

**Goodwill**

Goodwill arising on an acquisition of a business is carried at cost as established at the date of acquisition of the business less accumulated impairment losses, if any.

For the purpose of impairment testing, goodwill is allocated to each of the Group's cash-generating units (or groups of cash-generating units) that is expected to benefit from the synergies of the combination. A cash-generating unit to which goodwill has been allocated is tested for impairment annually, or more frequently when there is an indication that the unit may be impaired. If the recoverable amount of the cash-generating unit is less than its carrying amount, the impairment loss is allocated first to reduce the carrying amount of any goodwill allocated to the unit and then to the other assets of the unit pro-rata based on the carrying amount of each asset in the unit. Any impairment loss for goodwill is recognised directly in profit or loss. An impairment loss recognised for goodwill is not reversed in subsequent periods.

On disposal of the relevant cash-generating unit, the attributable amount of goodwill is included in the determination of the profit or loss on disposal.

**Oil and gas assets**

Exploration and appraisal costs are accounted for on the successful efforts basis. All costs relating to licence and data acquisition, geological and geophysical activity and exploration and appraisal drilling are initially capitalised as intangible oil and gas assets pending determination of the commercial potential of the relevant oil and gas properties. Exploration costs, which are not incurred under a specific licence, are written off in the year incurred. If prospects are subsequently deemed to be unsuccessful on completion of evaluation, the associated costs are charged to the statement of profit or loss in the year in which that determination is made. If the prospects are deemed to be commercially viable, such costs are transferred to tangible oil and gas assets under property, plant and equipment.

Depreciation, depletion and amortisation for oil and gas properties is calculated on a unit-of-production basis, using the ratio of oil and gas production in the period to the estimated quantities of proven and probable reserves at the end of the period plus production in the period, on a field-by-field basis. Proven and probable reserve estimates are based on a number of underlying assumptions including oil and gas prices, future costs, oil and gas in place and reservoir performance, which are inherently uncertain. Management uses established industry techniques to generate its estimates and regularly references its estimates against those of joint venture partners or external consultants. However, the amount of reserves that will ultimately be recovered from any field cannot be known with certainty until the end of the field's life.

**NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS - continued**  
**FOR THE YEAR ENDED 31 DECEMBER 2016**

**2. ACCOUNTING POLICIES - continued**

**Oil and gas assets - continued**

Where there has been a change in economic or commercial conditions that indicates a possible impairment in a field, the recoverability of the net book value relating to that field, less any provisions for decommissioning costs, is assessed by comparison with the estimated discounted future net cash flows based on management's expectations of future gas and oil prices and future costs. Any impairment identified is charged to the statement of profit or loss as additional depreciation. Where conditions giving rise to impairment subsequently reverse, the effect of the impairment charge is also reversed as a credit to the statement of profit or loss.

**Software development costs**

Costs in respect of major developments are carried at cost less accumulated amortisation and accumulated impairment losses. Amortisation is recognised on a straight-line basis over the estimated useful life of the software of up to 15 years. The estimated useful life and amortisation method are reviewed at the end of each reporting period, with the effect of any changes in estimate being accounted for on a prospective basis.

**Property, plant and equipment and depreciation**

Property, plant and equipment is stated at cost less accumulated depreciation and accumulated impairment losses. Cost includes the purchase price of the asset and any costs, including internal employee and other costs, directly attributable to bringing the asset to the location and condition necessary for it to be capable of operating in the manner intended by management.

Depreciation is recognised so as to write off the cost of assets less their residual values over their useful lives, using the straight-line method:

Distribution system assets	45 years
Distributed generation	15 years
Information technology equipment included in distribution system assets	up to 10 years
Metering equipment	up to 10 years
Non-operational assets:	
Buildings - freehold	up to 60 years lower of lease period or 60 years
Buildings - leasehold	up to 10 years
Fixtures and equipment	
Software development costs	up to 15 years

Freehold land is not depreciated.

The estimated useful lives, residual values and depreciation method are reviewed at the end of each reporting period, with the effect of any material changes in estimate accounted for on a prospective basis. Due to the significance of the Group's investment in property, plant and equipment, variations in estimates could impact operating results both positively and negatively although, historically, few changes have been required.

Assets in the course of construction are carried at cost, less any recognised impairment loss. Costs include professional fees, and, for qualifying assets, borrowing costs capitalised in accordance with the Group's accounting policy. Such assets are classified to the appropriate categories of property, plant and equipment when completed and ready for intended use. Depreciation on these assets, on the same basis as other assets, commences when the assets are commissioned.

**NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS - continued  
FOR THE YEAR ENDED 31 DECEMBER 2016**

**2. ACCOUNTING POLICIES - continued**

**Financial instruments**

Financial assets and financial liabilities are recognised on the statement of financial position when the Group becomes a party to the contractual provisions of the instrument.

Financial assets and financial liabilities are initially measured at fair value. Transaction costs that are directly attributable to the acquisition or issue of financial assets and financial liabilities are added to or deducted from the fair value of the financial assets or financial liabilities, as appropriate, on initial recognition.

Financial liabilities are derecognised when the Group's obligations are discharged, cancelled, or have expired. The differences between the carrying amount of the financial liability derecognised and the consideration paid is recognised in profit and loss.

**Inventories**

Inventories are stated at the lower of cost and net realisable value. Net realisable value represents the estimated selling price for inventories less all estimated costs of completion and costs necessary to make the sale. Raw materials and goods for resale are valued at purchase cost on an average price basis. Work in progress is valued at the cost of direct materials and labour plus attributable overheads based on the normal level of activity less progress payments.

Assets held for sale comprise of vehicles which have been sold to the Group at the end of the lease agreement and are stated at the lower of the value attributed to the vehicle under the terms of the agreement or net realisable value. Net realisable value is based on estimated selling price less further costs expected to be incurred to completion and disposal. Within the statement of profit or loss, any profits or losses arising from the sale of assets held for sale are recognised in costs of sales.

**Taxation**

The income tax expense represents the sum of the tax currently payable and deferred tax.

The tax currently payable is based on taxable profit for the year. Taxable profit differs from 'profit before tax' as reported in the consolidated statement of profit or loss because of items of income or expense that are taxable or deductible in other years and items that are never taxable or deductible. The Group's current tax is calculated using tax rates that have been enacted or substantively enacted by the end of the reporting period.

Deferred tax is recognised on temporary differences between the carrying amounts of assets and liabilities in the consolidated financial statements and the corresponding tax bases used in the computation of taxable profit. Deferred tax liabilities are generally recognised for all taxable temporary differences. Deferred tax assets are generally recognised for all deductible temporary differences to the extent that it is probable that taxable profits will be available against which those deductible temporary differences can be utilised. Such deferred tax assets and liabilities are not recognised if the temporary difference arises from the initial recognition of assets and liabilities in a transaction that affects neither the taxable profit nor the accounting profit. In addition, deferred tax liabilities are not recognised if the temporary difference arises from the initial recognition of goodwill.

Deferred tax liabilities are recognised for taxable temporary differences associated with investments in subsidiaries and associates, and interests in joint ventures, except where the Group is able to control the reversal of the temporary difference and it is probable that the temporary difference will not reverse in the foreseeable future. Deferred tax assets arising from deductible temporary differences associated with such investments and interests are only recognised to the extent that it is probable that there will be sufficient taxable profits against which to utilise the benefits of the temporary differences and they are expected to reverse in the foreseeable future.

The carrying amount of deferred tax assets is reviewed at each reporting period and reduced to the extent that that it is no longer probable that sufficient taxable profits will be available to allow all or part of the asset to be recovered.

Current and deferred tax are recognised in profit or loss, except when they relate to items that are recognised in other comprehensive income or directly in equity, in which case, the current and deferred tax are also recognised in other comprehensive income or directly in equity respectively.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS - continued  
FOR THE YEAR ENDED 31 DECEMBER 2016

2. ACCOUNTING POLICIES - continued

**Research costs**

Expenditure on research activities is written off to the statement of profit or loss in the year in which it is incurred.

Other than the software development and gas licenses, the Group and the Company do not carry out any other development activity that would give rise to an intangible asset.

**Foreign currencies**

Transactions in foreign currencies are recognised at the rate of exchange prevailing at the date of the transaction. At the end of each reporting period, monetary items denominated in foreign currencies are retranslated at the rates prevailing at that date. Non-monetary items carried at fair value that are denominated in foreign currencies are retranslated at the rates prevailing at that date when the fair value was determined. Non-monetary items that are measured in terms of historical cost in a foreign currency are not retranslated.

The assets and liabilities of the Group's foreign operations are translated using exchange rates prevailing at the end of each reporting period. Income and expense items are translated at the average exchange rates for the year, unless exchange rates fluctuate significantly during that year, in which case the exchange rates at the dates of the transactions are used. Exchange differences arising, if any, are recognised in other comprehensive income and accumulated in equity (and attributed to non-controlling interests as appropriate).

**Leases**

Leases are classified as finance leases wherever the terms of the lease transfer substantially all the risks and rewards of ownership to the lessee. All other leases are classified as operating leases.

Operating lease rentals are charged to the statement of profit or loss or in property, plant and equipment on a straight-line basis over the lease term.

**Provisions**

Provisions are recognised when the Group has a present obligation (legal or constructive) as a result of a past event, it is probable that the Group will be required to settle the obligation and a reliable estimate can be made of the amount of the obligation. The amount recognised as a provision is the best estimate of the consideration required to settle the present obligation at the end of the reporting period, taking into account the risks and uncertainties surrounding the obligation. When a provision is measured using the cash flows estimated to settle the present obligation, its carrying amount is the present value of those cash flows (when the effect of the time value of money is material). When some or all of the economic benefits required to settle a provision are expected to be recovered from a third party, a receivable is recognised as an asset if it is virtually certain that reimbursement will be received and the amount of the receivable can be measured reliably.

Provisions for decommissioning costs are recorded at the present value of the expenditures expected to be required to settle the Group's future obligations, to the extent of any damage, which has been caused to date and taking risks and uncertainties into account in reaching the best estimate of the provision. These provisions have been created based on the Group's internal estimates and, where available, operators' estimates. Assumptions, based on the current economic environment, have been made, which management believe are a reasonable basis upon which to estimate the future liability.

A decommissioning asset is also established, since the future cost of decommissioning is regarded as part of the total investment made in order to generate future economic benefits. The decommissioning asset is then depleted in line with production volumes on a site-by-site basis.

Provisions are reviewed at the end of each reporting period to reflect the current best estimate of the cost at present value. However, actual decommissioning costs will ultimately depend upon future market prices for the necessary decommissioning works reflecting market conditions at that time. Furthermore, the timing of decommissioning is likely to depend on when the fields cease to produce at economically viable rates. This in turn will depend upon future oil and gas prices, which are inherently uncertain.

It is assumed that certain abandonment costs will be allowable for Petroleum Revenue Tax ("PRT") and corporation tax purposes when incurred.

**NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS - continued  
FOR THE YEAR ENDED 31 DECEMBER 2016**

**2. ACCOUNTING POLICIES - continued**

**Pensions**

The Group contributes to the Northern Powergrid Group of the Electricity Supply Pension Scheme (the "Northern Powergrid Group of the ESPS"), a defined benefit scheme.

The cost of providing benefits is determined using the projected unit credit method, with actuarial valuations being carried out at the end of each annual reporting period. Re-measurement, comprising actuarial gains and losses, the effect of the changes to the asset ceiling and the return on plan assets (excluding interest) are reflected immediately in the statement of financial position with a charge or credit recognised in other comprehensive income in the period in which they occur. Re-measurement recognised in other comprehensive income is reflected immediately in retained earnings and will not be reclassified to profit or loss. Past service cost is recognised in profit or loss in the period of a plan amendment. Net interest is calculated by applying a discount rate at the beginning of the period to the net defined liability or asset. Defined benefit costs are categorised as service cost, net interest expense or income and re-measurement.

The retirement benefit obligation recognised in the statement of financial position represents the actual deficit or surplus in the Group's defined benefit plan. Any surplus resulting from this calculation is limited to the present value of any economic benefits available in the form of refunds from the plan or reductions in future contributions to the plan.

The Group also participates in a defined contribution scheme. Contributions payable to the defined contribution scheme are charged to the statement of profit or loss in the year or capitalised as appropriate when employees have rendered service entitling them to the contributions.

A liability is recognised for benefits accruing to employees in respect of wages and salaries, annual leave and sick leave in the period in which the related service is rendered at the undiscounted amount of the benefits expected to be paid in exchange for that service. Liabilities recognised in respect of short-term employee benefits are measured at the undiscounted amount of the benefits expected to be paid in exchange for the related service. Liabilities recognised in respect of other long-term employee benefits are measured at the present value of the estimated future cash outflows expected to be made by the Company in respect of services provided by employees up to the reporting date.

**Financial assets**

Financial assets, including trade and other receivables and cash and cash equivalents, are classified as loans and receivables. Loans and receivables are non-derivative financial assets with fixed or determinable payments that are not quoted in an active market. Loans and receivables are measured at amortised cost using the effective interest method, less any impairment.

The effective interest method is a method of calculating the amortised cost of an instrument and of allocating income over the relevant period. The effective interest rate is the rate that exactly discounts estimated future cash receipts through the expected life of the instrument to the net carrying amount on initial recognition.

Interest income is recognised by applying the effective interest rate, except for short-term receivables when the effect of discounting is immaterial.

Cash and cash equivalents (which are presented as a single class of assets on the face of the statement of financial position) comprise cash at bank and other short-term highly liquid investments with a maturity of three months or less, which are subject to an insignificant risk of changes in value.

Financial assets are assessed for indicators of impairment at the end of each reporting period. Financial assets are considered to be impaired where there is objective evidence that, as a result of one or more events that occurred after the initial recognition of the financial asset, the estimated future cash flows of the investment have been affected.

**NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS - continued**  
**FOR THE YEAR ENDED 31 DECEMBER 2016**

**2. ACCOUNTING POLICIES - continued**

For certain categories of financial assets, such as trade receivables, assets are assessed for impairment on a collective basis even if they were assessed not to be impaired individually. Objective evidence of impairment for a portfolio of receivables could include the Group's past experience of collecting payments, an increase in the number of delayed payments in the portfolio past the average credit period of 30 days, as well as observable changes in national or local economic conditions that correlate with default on receivables.

The carrying amount of the financial asset is reduced by the impairment loss directly for all financial assets with the exception of trade receivables, where the carrying amount is reduced through the use of an allowance account. When a trade receivable is considered uncollectible, it is written off against the allowance account. Subsequent recoveries of amounts previously written off are credited against the allowance account. Changes in the carrying amount of the allowance account are recognised in the statement of profit or loss.

**Going Concern**

The directors have, at the time of approving the financial statements, a reasonable expectation that the Company and the Group have adequate resources to continue in operational existence for the foreseeable future. Accordingly, they continue to adopt the going concern basis in preparing the financial statements. Further detail is contained within the Going Concern Statement in the Report of the Directors.

**3. SEGMENTAL REPORTING**

The tables below represent the internal information provided to the President and Chief Executive Officer of the Group for the purposes of resource allocation and segmental performance appraisal.

The Group operates in four principal areas of activity, those of the distribution of electricity, engineering contracting, gas exploration and smart meter rental in the United Kingdom.

Group revenue, Group profit before tax and Group net assets are analysed below:

	Distribution	Other	Total
	2016	2016	2016
	£m	£m	£m
<b>REVENUE</b>			
External sales	718.8	49.7	768.5
Inter-segment sales	1.0	(1.0)	-
<b>Total revenue</b>	<b>719.8</b>	<b>48.7</b>	<b>768.5</b>
<b>SEGMENT RESULTS</b>			
Operating profit	358.3	(2.6)	355.7
Other gains			1.0
Finance costs			(97.8)
Finance income			1.3
<b>Profit before tax</b>			<b>260.2</b>
<b>OTHER INFORMATION</b>			
Capital additions	428.9	93.7	522.4
Depreciation and amortisation	174.2	34.9	209.1
Amortisation of deferred revenue	(47.2)	-	(47.2)



NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS - continued  
FOR THE YEAR ENDED 31 DECEMBER 2016

3. **SEGMENTAL REPORTING - continued**  
**STATEMENT OF FINANCIAL POSITION**

	Distribution	Other	Total
	2016	2016	2016
	£m	£m	£m
Segment assets	<u>5,464.1</u>	<u>384.1</u>	<u>5,848.2</u>
Unallocated corporate assets			<u>203.1</u>
Total assets			<u>6,051.3</u>
Segment liabilities	<u>(1,690.3)</u>	<u>(49.3)</u>	<u>(1,739.6)</u>
Unallocated corporate liabilities			<u>(2,110.9)</u>
Total liabilities			<u>(3,850.5)</u>
Net assets/(liabilities) by segment	<u>3,773.8</u>	<u>334.8</u>	<u>4,108.6</u>
Unallocated net corporate liabilities			<u>(1,907.8)</u>
Total net assets			<u>2,200.8</u>

	Distribution	Other	Total
	2015	2015	2015
	£m	£m	£m
<b>REVENUE</b>			
External sales	735.1	41.2	776.3
Inter-segment sales	<u>1.0</u>	<u>(1.0)</u>	<u>-</u>
Total revenue	<u>736.1</u>	<u>40.2</u>	<u>776.3</u>
<b>SEGMENT RESULTS</b>			
Operating profit	<u>374.3</u>	<u>9.5</u>	<u>383.8</u>
Other gains			0.7
Finance costs			(91.4)
Finance income			<u>0.9</u>
Profit before tax			<u>294.0</u>
<b>OTHER INFORMATION</b>			
Capital additions	506.8	56.7	563.5
Depreciation and amortisation	163.0	19.8	182.8
Amortisation of deferred revenue	<u>(48.2)</u>	<u>-</u>	<u>(48.2)</u>

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS - continued  
FOR THE YEAR ENDED 31 DECEMBER 2016

3. **SEGMENTAL REPORTING – continued**  
**STATEMENT OF FINANCIAL POSITION**

	Distribution 2015 £m	Other 2015 £m	Total 2015 £m
Segment assets	<u>5,204.5</u>	<u>244.4</u>	5,448.9
Unallocated corporate assets			<u>322.4</u>
Total assets			<u>5,771.3</u>
Segment liabilities	<u>(1,503.7)</u>	<u>(50.3)</u>	(1,554.0)
Unallocated corporate liabilities			<u>(2,206.7)</u>
Total liabilities			<u>(3,760.7)</u>
Net assets/(liabilities) by segment	<u>3,700.9</u>	<u>194.1</u>	3,894.9
Unallocated net corporate liabilities			<u>(1,882.6)</u>
Total net assets			<u>2,012.3</u>

"Other" comprises engineering contracting, hydrocarbon exploration, smart Meter rental and business support units.

Sale and purchases between different segments are made at commercial prices.

Unallocated net corporate assets and liabilities include cash and cash equivalents of £52.9 million (2015: £57.9 million), borrowings of £1,938.9 million (2015: £1,944.7 million) and taxation of £261.1 million (2015: £261.1 million).

External sales to RWE Npower plc in 2016 of £177.2 million (2015: £199.6 million) are included within the Distribution segment. External sales to British Gas plc in 2016 of £128.8 million (2015: £143.9 million) are included within the Distribution segment.

4. **EMPLOYEES AND DIRECTORS**

	2016 £'000	2015 £'000
Salaries	122,618	118,705
Social security costs	13,506	12,252
Defined benefit pension costs	12,551	17,482
Defined contribution pension costs	<u>4,244</u>	<u>3,687</u>
	152,919	152,126
Less charged to property, plant and equipment	<u>(92,447)</u>	<u>(91,153)</u>
	<u>60,472</u>	<u>60,973</u>

**NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS - continued**  
**FOR THE YEAR ENDED 31 DECEMBER 2016**

**4. EMPLOYEES AND DIRECTORS - continued**

The majority of the Group's employees are members of the Northern Powergrid Group of the ESPS, details of which are given in the Employee Benefit Obligations note.

The average monthly number of employees during the year was:

	2016 No.	2015 No.
Distribution	2,244	2,260
Engineering Contracting	170	178
Hydrocarbon exploration and development	23	29
Other	48	41
	<u>2,485</u>	<u>2,508</u>

The Company had no employees in the years ended 31 December 2016 and 31 December 2015.

**DIRECTORS' REMUNERATION**

	2016 £'000	2015 £'000
Highest Paid:		
Short-term employee benefits	668	526
Post-employment benefits	22	41
Other long-term benefits	774	663
	<u>1,464</u>	<u>1,230</u>
Total:		
Short-term employee benefits	867	719
Post-employment benefits	22	41
Other long-term benefits	883	818
	<u>1,772</u>	<u>1,578</u>
Directors who are a member of the defined benefit scheme	<u>3</u>	<u>3</u>
Accrued pension benefit relating to highest paid director	<u>-</u>	<u>-</u>

**OTHER KEY PERSONNEL REMUNERATION**

	2016 £'000	2015 £'000
Total:		
Short-term employee benefits	1,267	1,064
Post-employment benefits	242	262
Other long-term benefits	816	635
	<u>2,325</u>	<u>1,961</u>

Other key personnel includes a number of senior functional managers who, whilst not board directors, have authority and responsibility for planning, directing and controlling the activities of the Group.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS - continued  
FOR THE YEAR ENDED 31 DECEMBER 2016

5. NET FINANCE COSTS

	2016 £'000	2015 £'000
Finance income:		
Interest in joint venture	254	628
Dividends received	73	76
Interest on tax refund	925	-
Deposit account interest	91	180
	<u>1,343</u>	<u>884</u>
	2016 £'000	2015 £'000
Finance costs:		
Bank interest	218	1,927
Interest payable on other loans	99,982	92,913
Unwinding of discount	71	224
Interest in associate	85	105
Capitalised interest	(5,316)	(6,575)
Preference dividends	2,779	2,779
	<u>97,819</u>	<u>91,373</u>
Net finance costs	<u>96,476</u>	<u>90,489</u>

6. PROFIT BEFORE INCOME TAX

The profit before income tax is stated after charging/(crediting):

	2016 £'000	2015 £'000
Depreciation - owned assets	187,647	172,979
Oil & gas exploration amortisation	17,715	8,678
Software development costs amortisation	3,730	2,674
Profit on disposal of fixed assets	(1,005)	(738)
Foreign exchange differences	(40)	23
Research costs	2,392	4,779
Amortisation of deferred revenue	(44,206)	(48,206)
Impairment loss on trade and other receivables	<u>1,461</u>	<u>581</u>

Analysis of auditor's remuneration is as follows:

	2016 £'000	2015 £'000
Fees payable to the Company's auditor for the audit of the Company's annual accounts	145	125
Fees payable to the Company's auditor for the audit of the Company's subsidiaries pursuant to legislation	<u>438</u>	<u>301</u>
Total audit fees	<u>583</u>	<u>426</u>
Other services	<u>105</u>	<u>111</u>
Total auditor's remuneration	<u>688</u>	<u>537</u>

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS - continued  
FOR THE YEAR ENDED 31 DECEMBER 2016

6. PROFIT BEFORE INCOME TAX - continued

	2016 £'000	2015 £'000
Fees payable to the Company's auditor for other services pursuant to legislation	<u>7</u>	<u>6</u>

7. INCOME TAX

Analysis of tax expense

	2016 £'000	2015 £'000
Current tax:		
Current tax	21,764	50,061
Deferred tax	<u>(15,917)</u>	<u>(25,671)</u>
Total tax expense in consolidated statement of profit or loss	<u>5,847</u>	<u>24,390</u>

Factors affecting the tax expense

The tax assessed for the year is lower than the standard rate of corporation tax in the UK. The difference is explained below:

	2016 £'000	2015 £'000
Profit before income tax	<u>260,194</u>	<u>294,042</u>
Profit multiplied by the standard rate of corporation tax in the UK of 20% (2015 - 20.250%)	52,039	59,543
Effects of:		
Interest payable on non-cumulative preference shares	556	563
Tax effect of result of joint venture entities	(51)	(127)
PRT	(181)	(746)
Agreement of prior year tax claim	(31,662)	(6,055)
(Under)/over provision for prior years	(2,161)	502
Effect of change in tax rates	(15,497)	(29,402)
Pension contributions recognised in Other Comprehensive Income ("OCI")	789	801
Deferred tax asset not recognised	614	1,603
Tax charged at different rates	866	(1,514)
Other	<u>535</u>	<u>(778)</u>
Tax expense	<u>5,847</u>	<u>24,390</u>

The prior year tax claim refers to a capital allowances claim for earlier years agreed with HMRC in the year ended 31 December 2016.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS - continued  
FOR THE YEAR ENDED 31 DECEMBER 2016

7. INCOME TAX - continued

	2016 £'000	2015 £'000
Tax expense comprises:		
Current tax expense:		
Corporation tax charge for the year	54,707	58,979
PRT	571	(2,126)
Over provision for prior years	<u>(33,514)</u>	<u>(6,792)</u>
Total current tax charge	21,764	50,061
Deferred tax:		
Deferred tax expenses relating to the origination and reversal of temporary differences	(420)	3,731
Effect of changes in legislation	<u>(15,497)</u>	<u>(29,402)</u>
Total deferred tax charge	<u>(15,917)</u>	<u>(25,671)</u>
Tax on profit before tax	<u>5,847</u>	<u>24,390</u>

The Finance No2 Act 2015 reduced the rate of corporation tax to 19% effective from 1 April 2017 and to 18% effective from 1 April 2020. The Finance Act 2016, which was substantively enacted on 6 September, 2016 further reduced the rate of corporation tax effective from 1 April 2020 to 17%. Accordingly deferred tax assets and liabilities have been calculated at the tax rates which will be in force when the underlying temporary differences are expected to reverse.

8. PROFIT OF PARENT COMPANY

As permitted by Section 408 of the Companies Act 2006, the statement of profit or loss of the Company is not presented as part of these financial statements. The Company's profit for the financial year was £4.8 million (2015: £125.8 million).

9. DIVIDENDS

	2016 £'000	2015 £'000
Interim dividend paid: 2016 nil per share (2015: 28.2p per share)	<u>-</u>	<u>100,000</u>

10. OPERATING EXPENSES

Operating expenses comprise:

	2016 £'000	2015 £'000
Distribution costs	244,018	237,089
Administrative expenses	<u>111,185</u>	<u>96,984</u>
	<u>355,203</u>	<u>334,073</u>

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS - continued  
FOR THE YEAR ENDED 31 DECEMBER 2016

11. GOODWILL

<b>Group</b>	<b>£'000</b>
<b>COST</b>	
At 1 January 2016 and 31 December 2016	<u>248,843</u>
<b>NET BOOK VALUE</b>	
At 31 December 2016	<u>248,843</u>
	£'000
<b>COST</b>	
At 1 January 2015 and 31 December 2015	<u>248,843</u>
<b>NET BOOK VALUE</b>	
At 31 December 2015	<u>248,843</u>

**Group**

All of the goodwill arose on the acquisition of Yorkshire Power Group Limited prior to the adoption of IFRS by the Group. In accordance with the transitional rules on first time adoption, the allocation of goodwill to cash generating units ("CGU") has not been reassessed from that used in the previous UK GAAP accounts.

The Group's distribution activities comprise two cash generating units ("CGUs") with carrying values as follows:

	2016 £m	2015 £m
Northern Powergrid (Northeast) Limited	1,753	1,674
Northern Powergrid (Yorkshire) plc (including Goodwill)	<u>2,501</u>	<u>2,403</u>
Total Distribution	<u>4,254</u>	<u>4,077</u>

The carrying values of the CGUs comprise tangible and intangible assets with finite lives and are net of deferred revenues. In addition, the Northern Powergrid (Yorkshire) plc CGU includes goodwill of £248.8m (2015: £248.8m).

The Group tests goodwill annually for impairment or more frequently if there are indications that goodwill might be impaired.

The recoverable amounts of the CGUs are determined from value in use calculations. The key assumptions for the value in use calculations are those regarding the discount rates, growth rates and expected outcomes of future distribution price control reviews.

**NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS - continued**  
**FOR THE YEAR ENDED 31 DECEMBER 2016**

**11. GOODWILL - continued**

Management estimates discount rates using pre-tax rates that reflect the current market assessments of the time value of money and the risks specific to the CGUs. Growth rates are derived from the historic results and the forecasts in the most recent board approved budgets and ten-year plans. The use of the ten-year plan reflects the long-term nature of the assets and associated costs as well as the regulatory environment within which future revenue is determined. The rate used to discount the cash flows applicable to Northern Powergrid (Northeast) Limited and Northern Powergrid (Yorkshire) plc was 4.9% (2015: 5.7%) pre-tax and ignoring the impact of price inflation. This rate represents the directors' estimate of the average rate of return for the Group, incorporating some degree of out-performance against Ofgem allowances.

The forecast of cash flows for future periods is extrapolated from the last year of the plan based on an estimated growth rate of 4.3% (nominal).

The application of these assumptions did not give rise to an impairment charge in 2016 (2015: £nil).

The sensitivity to changes in the assumptions used in the impairment calculation is:

	Rate used in calculation %	Rate to impair %
Growth rate	4.250	3.693
Discount rate	4.927	5.427

**12. INTANGIBLE ASSETS****Group**

	Oil & gas exploration £'000	Software development costs £'000	Totals £'000
<b>COST</b>			
At 1 January 2016	58,498	100,700	159,198
Additions	4,898	12,964	17,862
Exchange differences	1,894	-	1,894
At 31 December 2016	65,290	113,664	178,954
<b>AMORTISATION</b>			
At 1 January 2016	46,071	69,077	115,148
Amortisation for year	17,715	3,730	21,445
At 31 December 2016	63,786	72,807	136,593
<b>NET BOOK VALUE</b>			
At 31 December 2016	1,504	40,857	42,361



**NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS - continued**  
**FOR THE YEAR ENDED 31 DECEMBER 2016**

**12. INTANGIBLE ASSETS - continued**

	Oil & gas exploration £'000	Software development costs £'000	Totals £'000
<b>COST</b>			
At 1 January 2015	49,230	90,224	139,454
Additions	<u>9,268</u>	<u>10,476</u>	<u>19,744</u>
At 31 December 2015	<u>58,498</u>	<u>100,700</u>	<u>159,198</u>
<b>AMORTISATION</b>			
At 1 January 2015	37,393	66,403	103,796
Amortisation for year	<u>8,678</u>	<u>2,674</u>	<u>11,352</u>
At 31 December 2015	<u>46,071</u>	<u>69,077</u>	<u>115,148</u>
<b>NET BOOK VALUE</b>			
At 31 December 2015	<u>12,427</u>	<u>31,623</u>	<u>44,050</u>

The Company had no intangible assets at 31 December 2016 or 31 December 2015.

**13. PROPERTY, PLANT AND EQUIPMENT****Group**

	Non operational land & buildings £'000	Distribution system £'000	Fixtures and fittings £'000
<b>COST</b>			
At 1 January 2016	8,229	6,519,917	73,850
Additions	-	406,511	9,414
Abandonment provision	-	-	-
Disposals	-	(19,240)	(521)
Exchange differences	-	-	53
At 31 December 2016	<u>8,229</u>	<u>6,907,188</u>	<u>82,796</u>
<b>DEPRECIATION</b>			
At 1 January 2016	4,016	1,474,248	57,165
Charge for year	283	165,343	6,350
Adjustment to charge abandonment provision	-	-	-
Eliminated on disposal	-	(19,117)	(521)
Impairments	-	-	-
At 31 December 2016	<u>4,299</u>	<u>1,620,474</u>	<u>62,994</u>
<b>NET BOOK VALUE</b>			
At 31 December 2016	<u>3,930</u>	<u>5,286,714</u>	<u>19,802</u>

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS - continued  
FOR THE YEAR ENDED 31 DECEMBER 2016

## 13. PROPERTY, PLANT AND EQUIPMENT - continued

	Metering equipment £'000	Oil & gas assets £'000	Totals £'000
<b>COST</b>			
At 1 January 2016	216,411	20,831	6,839,238
Additions	89,996	17	505,938
Abandonment provision	-	(1,427)	(1,427)
Disposals	(622)	-	(20,383)
Exchange differences	-	1,847	1,900
At 31 December 2016	<u>305,785</u>	<u>21,268</u>	<u>7,325,266</u>
<b>DEPRECIATION</b>			
At 1 January 2016	136,150	8,096	1,679,675
Charge for year	16,212	886	189,074
Adjustment to charge abandonment provision	-	(1,427)	(1,427)
Eliminated on disposal	(622)	-	(20,260)
At 31 December 2016	<u>151,740</u>	<u>7,555</u>	<u>1,847,062</u>
<b>NET BOOK VALUE</b>			
At 31 December 2016	<u>154,045</u>	<u>13,713</u>	<u>5,478,204</u>
<b>Group</b>			
	Non operational land & buildings £'000	Distribution system £'000	Fixtures and fittings £'000
<b>COST</b>			
At 1 January 2015	8,029	6,063,609	61,339
Additions	-	476,730	13,364
Disposals	200	(20,422)	(853)
At 31 December 2015	<u>8,229</u>	<u>6,519,917</u>	<u>73,850</u>
<b>DEPRECIATION</b>			
At 1 January 2015	3,722	1,336,643	53,246
Charge for year	294	157,947	4,772
Eliminated on disposal	-	(20,342)	(853)
At 31 December 2015	<u>4,016</u>	<u>1,474,248</u>	<u>57,165</u>
<b>NET BOOK VALUE</b>			
At 31 December 2015	<u>4,213</u>	<u>5,045,669</u>	<u>16,685</u>

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS - continued  
FOR THE YEAR ENDED 31 DECEMBER 2016

13. PROPERTY, PLANT AND EQUIPMENT - continued

	Metering equipment £'000	Oil & gas assets £'000	Totals £'000
<b>COST</b>			
At 1 January 2015	162,114	20,831	6,315,922
Additions	54,389	-	544,483
Disposals	(92)	-	(21,167)
At 31 December 2015	<u>216,411</u>	<u>20,831</u>	<u>6,839,238</u>
<b>DEPRECIATION</b>			
At 1 January 2015	127,451	6,921	1,527,983
Charge for year	8,791	1,175	172,979
Eliminated on disposal	(92)	-	(21,287)
At 31 December 2015	<u>136,150</u>	<u>8,096</u>	<u>1,679,675</u>
<b>NET BOOK VALUE</b>			
At 31 December 2015	<u>80,261</u>	<u>12,735</u>	<u>5,159,563</u>

**Group**

Assets in the course of construction included above:

	Distribution system £'000	Fixtures and fittings £'000	Totals £'000
At 1 January 2016	355,282	-	355,282
Additions	406,568	9,335	415,903
Available for use	(402,414)	(9,335)	(411,749)
At 31 December 2016	<u>359,436</u>	<u>-</u>	<u>359,436</u>

The Group has entered into contractual commitments in relation to the future acquisition of property, plant and equipment of £52.8 million (2015: £58.1 million).

The net book value of the Group's non-operational land and buildings comprises:

	2016 £'000	2015 £'000
Freehold	2,336	2,621
Long leasehold	1,296	1,270
Short leasehold	<u>298</u>	<u>322</u>
	<u>3,930</u>	<u>4,213</u>

The Company had no property, plant and equipment assets as at 31 December 2016 (2015: £nil)

**NORTHERN POWERGRID HOLDINGS COMPANY (REGISTERED NUMBER: 03476201)**

**NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS - continued  
FOR THE YEAR ENDED 31 DECEMBER 2016**

**14. INVESTMENTS**

<b>Group</b>	<b>Share of joint venture's net assets £'000</b>	<b>Share of associate's net assets £'000</b>	<b>Shares in other undertakings £'000</b>	<b>Total £'000</b>
At 1 January 2016	3,535	12,142	21	15,698
Acquisitions	-	5,779	-	5,779
Movement	(237)	(85)	-	(322)
At 31 December 2016	<u>3,298</u>	<u>17,836</u>	<u>21</u>	<u>21,155</u>

<b>Company</b>	<b>Shares in subsidiary undertakings £'000</b>
At 1 January 2016	376,289
Acquisitions	-
Movement	-
At 31 December 2016	<u>376,289</u>

Details of the principal investments of the Group at 31 December 2016 are listed below:

<b>Name of company</b>	<b>Holding of shares</b>	<b>Proportion of voting rights and shares held</b>	<b>Nature of business</b>
<b>Subsidiary undertakings:</b>			
<b>Held by the Company</b>			
Northern Powergrid UK Holdings (private unlimited company with share capital)	354,550,312 at £1	99%	Holding company
Yorkshire Power Group Limited	23,100,001 at £1	5.25%	Holding company
<b>Held by Northern Powergrid UK Holdings and its subsidiaries:</b>			
CalEnergy Gas Limited (registered office - 3rd Floor, 55 Drury Lane, London, WC2B 5SQ)	2,682,373 at £1	100%	Hydrocarbon exploration and development
CalEnergy Gas (Holdings) Limited	36,000,000 at £1	100%	Holding company
CalEnergy Resources Limited (Preference shares)	17,897,530 at £1	100%	Holding company
CalEnergy Resources Limited (Management shares)	375,125 at 1p	100%	Holding company
CalEnergy Resources Poland Sp. z o.o. (registered office - Al. Wilanowska 206 app. 19, 02-765, Warsaw, Poland)	34,074 at 500PLN	100%	Hydrocarbon exploration and development

**NORTHERN POWERGRID HOLDINGS COMPANY (REGISTERED NUMBER: 03476201)**

**NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS - continued  
FOR THE YEAR ENDED 31 DECEMBER 2016**

**14. INVESTMENTS – continued**

<b>Name of company</b>	<b>Holding of shares</b>	<b>Proportion of voting rights and shares held</b>	<b>Nature of business</b>
<b>Held by Northern Powergrid UK Holdings and its subsidiaries:</b>			
CalEnergy Resources (Australia) Limited (registered office - 3rd Floor, 55 Drury Lane, London, WC2B 5SQ)	1 at £1	100%	Hydrocarbon exploration and development
CE Electric Services Limited	1 at £1	100%	Dormant
CE Electric (Ireland) Limited (registered office – C11 Gateway, Rosemount Business Park, Ballycoolin, Dublin 15, Eire)	2 at 1 Euro	100%	In liquidation
Central PowerGrid Limited	1 at £1	100%	Dormant
East PowerGrid Limited	1 at £1	100%	Dormant
Eastern PowerGrid Limited	1 at £1	100%	Dormant
Infrastructure North Limited	1 at £1	100%	Dormant
Integrated Utility Services Limited	3,103,000 at £1	100%	Engineering contracting services
Integrated Utility Services Limited (registered office – C11 Gateway, Rosemount Business Park, Ballycoolin, Dublin 15, Eire)	10,000 at 1.27 Euro	100%	Engineering contracting services
IUS Limited	100 at £1	100%	Dormant
Midlands PowerGrid Limited	1 at £1	100%	Dormant
NEDL Limited	2 at £1	100%	Dormant
North East PowerGrid Limited	1 at £1	100%	Dormant
North Eastern PowerGrid Limited	1 at £1	100%	Dormant
North PowerGrid Limited	1 at £1	100%	Dormant
North West PowerGrid Limited	1 at £1	100%	Dormant
North Western PowerGrid Limited	1 at £1	100%	Dormant
Northern Electric & Gas Limited	84,785,000 at £1	100%	Non-trading company
Northern Electric Distribution Limited	1 at £1	100%	Dormant
Northern Electric Finance plc	50,000 at £1	100%	Finance company
Northern Electric plc (ordinary shares)	127,689,809 at 56 12/23p	100%	Holding company
Northern Electric plc (preference shares)	77,188,706 at 1p	69.1%	Holding company
Northern Electric Properties Limited	32,207,100 at £1	100%	Property holding & management company
Northern Electric Share Scheme Trustee Limited	2 at £1	100%	Dormant
Northern Electricity (North East) Limited	1 at £1	100%	Dormant
Northern Electricity (Yorkshire) Limited	1 at £1	100%	Dormant
Northern Electricity Limited	1 at £1	100%	Dormant
Northern Electricity Networks Company (North East) Limited	1 at £1	100%	Dormant
Northern Electricity Networks Company (Yorkshire) Limited	1 at £1	100%	Dormant
Northern Electricity Networks Company Limited	1 at £1	100%	Dormant

**NORTHERN POWERGRID HOLDINGS COMPANY (REGISTERED NUMBER: 03476201)**

**NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS - continued  
FOR THE YEAR ENDED 31 DECEMBER 2016**

**14. INVESTMENTS – continued**

<b>Name of company</b>	<b>Holding of shares</b>	<b>Proportion of voting rights and shares held</b>	<b>Nature of business</b>
<b>Held by Northern Powergrid UK Holdings and its subsidiaries:</b>			
Northern Electrics Limited	2 at £1	100%	Dormant
Northern Energy Funding Company Limited	1 at £1	100%	Dormant
Northern Metering Services Limited	100 at £1	100%	Dormant
Northern Powergrid Gas Limited	36,000,001 at £1	100%	Holding company
Northern Powergrid Limited	405,000,000 at £1	100%	Holding company
Northern Powergrid Metering Limited	1 at £1	100%	Meter asset provider
Northern Powergrid (Northeast) Limited	200,000,100 at £1	100%	Distribution of electricity
Northern PowerGrid (North West) Limited	1 at £1	100%	Dormant
Northern Powergrid (Yorkshire) plc	290,000,000 at £1	100%	Distribution of electricity
Northern Power Networks Company (North East) Limited	1 at £1	100%	Dormant
NewGen Drilling Pty Limited (registered office – Level 1, 12 St Georges Terrace, Perth, WA 6000, Australia)	25,030,490 at A\$1	80%	Hydrocarbon exploration and development
Northern Power Networks Company (Yorkshire) Limited	1 at £1	100%	Dormant
Northern Power Networks Company Limited	1 at £1	100%	Dormant
Northern Transport Finance Limited	7,000,000 at £1	100%	Car finance company
Northern Utility Services Limited	100 at £1	100%	Dormant
PowerGrid (Central) Limited	1 at £1	100%	Dormant
PowerGrid (East) Limited	1 at £1	100%	Dormant
PowerGrid (Eastern) Limited	1 at £1	100%	Dormant
PowerGrid (Midlands) Limited	1 at £1	100%	Dormant
PowerGrid (North East) Limited	1 at £1	100%	Dormant
PowerGrid (North Eastern) Limited	1 at £1	100%	Dormant
PowerGrid (North West) Limited	1 at £1	100%	Dormant
PowerGrid (North Western) Limited	1 at £1	100%	Dormant
PowerGrid (North) Limited	1 at £1	100%	Dormant
PowerGrid (Northern) Limited	1 at £1	100%	Dormant
PowerGrid (South East) Limited	1 at £1	100%	Dormant
PowerGrid (South Eastern) Limited	1 at £1	100%	Dormant
PowerGrid (South West) Limited	1 at £1	100%	Dormant
PowerGrid (South Western) Limited	1 at £1	100%	Dormant

**NORTHERN POWERGRID HOLDINGS COMPANY (REGISTERED NUMBER: 03476201)**

**NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS - continued  
FOR THE YEAR ENDED 31 DECEMBER 2016**

**14. INVESTMENTS – continued**

<b>Name of company</b>	<b>Holding of shares</b>	<b>Proportion of voting rights and shares held</b>	<b>Nature of business</b>
<b>Held by Northern Powergrid UK Holdings and its subsidiaries:</b>			
PowerGrid (South) Limited	1 at £1	100%	Dormant
PowerGrid (Southern) Limited	1 at £1	100%	Dormant
PowerGrid (West) Limited	1 at £1	100%	Dormant
PowerGrid (Western) Limited	1 at £1	100%	Dormant
PowerGrid (Yorkshire) Limited	1 at £1	100%	Dormant
South East PowerGrid Limited	1 at £1	100%	Dormant
South Eastern PowerGrid Limited	1 at £1	100%	Dormant
South PowerGrid Limited	1 at £1	100%	Dormant
South West PowerGrid Limited	1 at £1	100%	Dormant
South Western PowerGrid Limited	1 at £1	100%	Dormant
Southern PowerGrid Limited	1 at £1	100%	Dormant
West PowerGrid Limited	1 at £1	100%	Dormant
Western PowerGrid Limited	1 at £1	100%	Dormant
YEDL Limited	1 at £1	100%	Dormant
Yorkshire Cayman Holding Limited (registered office - PO Box 309, Ugland House, South Church Street, George Town, Grand Cayman, Cayman Islands)	2 at \$1	100%	Dormant
Yorkshire Electricity Distribution Limited	1 at £1	100%	Dormant
Yorkshire Electricity Group plc	159,270,954 at 68 2/11p	100%	Holding company
Yorkshire Power Finance Limited (registered office - PO Box 309, Ugland House, South Church Street, George Town, Grand Cayman, Cayman Islands)	2,000 at \$1	100%	Finance company
Yorkshire Power Group Limited	416,900,001 at £1	94.75%	Holding company
Yorkshire PowerGrid Limited	1 at £1	100%	Dormant
<b>Joint Venture Entity Held by Northern Powergrid UK Holdings and its subsidiaries:</b>			
Vehicle Lease and Service Limited (registered office - Centre for Advanced Industry, 3rd Floor, Coble Dene, North Shields, NE29 6DE)	950,000 at £1	50%	Transport services

**NORTHERN POWERGRID HOLDINGS COMPANY (REGISTERED NUMBER: 03476201)**

**NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS - continued  
FOR THE YEAR ENDED 31 DECEMBER 2016**

**14. INVESTMENTS – continued**

Name of company	Holding of shares	Proportion of voting rights and shares held	Nature of business
<b>Held by Joint Venture Entity Held by Northern Powergrid UK Holdings and its subsidiaries:</b>			
VLS Limited (registered office - Centre for Advanced Industry, 3rd Floor, Coble Dene, North Shields, NE29 6DE)	50% of 1 at £1	50%	Dormant
<b>Associate Entity Held by Northern Powergrid UK Holdings and its subsidiaries:</b>			
Baltic Gas Sp. z o.o. (registered office - ul. Stary Dwór 9, 80-758 Gdańsk, Poland)	50 at PLN50	50%	General partner in Baltic Gas project
<b>Held by Associate Entity Held by Northern Powergrid UK Holdings and its subsidiaries:</b>			
Baltic Gas Sp. z o.o. i Wspólnicy Spółka Komandytowa (registered office - ul. Stary Dwór 9, 80-758 Gdańsk, Poland)	Partnership with no share capital	49%	Hydrocarbon exploration and development

Except where indicated, the registered office address of the above companies is Lloyds Court, 78 Grey Street, Newcastle upon Tyne, NE1 6AF.

Summarised financial information in respect of the Group's joint venture is set out below:

	2016 £'000	2015 £'000
Long-term assets	16,192	16,849
Current assets	15,706	16,283
Long-term liabilities	(14,962)	(14,436)
Current liabilities	(10,340)	(11,626)
Net assets	<u>6,596</u>	<u>7,070</u>
Group's share of joint venture's net assets	<u>3,298</u>	<u>3,535</u>
Revenue	<u>18,417</u>	<u>17,515</u>
Profit for the year	<u>508</u>	<u>1,256</u>
Group's share of joint venture's profit for the year	<u>254</u>	<u>628</u>

**15. INVENTORIES**

	Group	
	2016 £'000	2015 £'000
Stocks	11,853	12,541
Work-in-progress	497	730
Assets held for sale	<u>751</u>	<u>646</u>
	<u>13,101</u>	<u>13,917</u>

The Company had no inventories at 31 December 2016 (2015: £nil).



NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS - continued  
FOR THE YEAR ENDED 31 DECEMBER 2016

## 16. TRADE AND OTHER RECEIVABLES

	Group		Company	
	2016	2015	2016	2015
	£'000	£'000	£'000	£'000
Current:				
Distribution use of system receivables	111,968	90,122	-	-
Construction contracts	1,974	3,901	-	-
Amounts due from customers for contract work	12,541	11,827	-	-
Amounts receivable in respect of finance leases	8,047	5,342	-	-
Amounts receivable for sale of goods and services	11,213	13,841	-	-
Prepayments and accrued income	7,644	6,475	101	101
	<u>153,387</u>	<u>131,508</u>	<u>101</u>	<u>101</u>
Non-current:				
Amounts receivable in respect of finance leases	8,406	8,769	-	-
Amounts due from group undertakings	-	-	264,158	264,158
	<u>8,406</u>	<u>8,769</u>	<u>264,158</u>	<u>264,158</u>
Aggregate amounts	<u>161,793</u>	<u>140,277</u>	<u>264,259</u>	<u>264,259</u>

The directors consider that the carrying amount of trade and other receivables approximates their fair value calculated by discounting the future cash flows at the market rate at the statement of financial position date. The valuation of assets set out above is based on Level 1 inputs. The maximum exposure to risk to the Group is the book value of these receivables less any provisions for impairment.

**Distribution use of system receivables**

The customers served by the Group's distribution networks are supplied predominantly by a small number of electricity supply businesses with RWE NPower plc accounting for approximately 22% of distribution revenues in 2016 (2015: 24%) and British Gas plc accounting for approximately 16% of distribution revenues in 2016 (2015: 17%). Ofgem has determined a framework which sets credit limits for each supply business based on its credit rating or payment history and requires them to provide credit cover if their value at risk (measured as being equivalent to 45 days usage) exceeds the credit limit. Acceptable credit typically is provided in the form of a parent company guarantee, letter of credit or an escrow account. Included within other payables are customer deposits of £0.8 million as at 31 December 2016 (2015: £0.8 million).

Ofgem has indicated that, provided the Group has implemented credit control, billing and collection processes in line with best practice guidelines and can demonstrate compliance with the guidelines or is able to satisfactorily explain departure from the guidelines, any bad debt losses arising from supplier default will be recovered through an increase in future allowed income. Losses incurred to date have not been material. Included in the Group's use of system ("UoS") receivables are debtors with a carrying value of £0.5, which have been placed into administration and have therefore been provided in full at the year-end (2015: £nil).

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS - continued  
FOR THE YEAR ENDED 31 DECEMBER 2016

16. TRADE AND OTHER RECEIVABLES - continued

**Construction contract customers**

The average credit period on construction contracts is 30 days. Interest is not generally charged on construction contracts paid after the due date. The Group has provided fully for all receivables over one year for UK Contracting debts and all receivables over six months for Multi-Utility debts. Trade receivables between 30 days and these predetermined provision dates are provided for based on estimated irrecoverable amounts, determined by reference to past default experience.

Included in the Group's construction contracts balance are debtors with a carrying amount of £3.3 million (2015: £2.5 million), which are past due at the reporting date for which the Group has provided for an irrecoverable amount of £0.3 million (2015: £0.2 million) based on past experience. The Group does not hold any collateral over these balances. The average age of these receivables is 91 days (2015: 66 days).

Included in the Group's construction contracts balance are debtors with a carrying amount of £nil (2015: £nil) which are past due at the reporting date for which the Group has not provided as there has not been a significant change in credit quality and the amounts are still considered recoverable. The Group does not hold any collateral over these balances. The average age of these receivables is 65 days (2015: 45 days).

**Amounts due from customers for contract work**

Contracts in progress at statement of financial position date:

	2016 £'000	2015 £'000
Contract costs incurred plus recognised profits less recognised losses to date	70,382	62,412
Less: progress billings	(57,841)	(50,585)
Amount due from customers	<u>12,541</u>	<u>11,827</u>

The amount of revenue from construction contracts recognised in the year was £29.8 million (2015: £32.9 million).

At 31 December 2016, retentions held by customers for contract work amounted to £0.3 million (2015: £0.4 million).

Advances received from customers for contract work amounted to £nil (2015: £nil)

The Company had no construction contracts at 31 December 2016 (2015: £nil).

**Finance lease receivables**

	Minimum lease payments		Present value	
	2016 £'000	2015 £'000	2016 £'000	2015 £'000
Amounts receivable under finance leases:				
Within one year	5,650	5,508	5,189	5,342
In the second to fifth years inclusive	12,913	10,384	10,522	8,769
More than five years	<u>4,962</u>	<u>-</u>	<u>742</u>	<u>-</u>
	23,525	15,892	16,453	14,111
Less: unearned finance income	<u>(7,072)</u>	<u>(1,781)</u>	<u>-</u>	<u>-</u>
	<u>16,453</u>	<u>14,111</u>	<u>16,453</u>	<u>14,111</u>

**NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS - continued**  
**FOR THE YEAR ENDED 31 DECEMBER 2016**

**16. TRADE AND OTHER RECEIVABLES - continued**

Northern Transport Finance Limited ("NTFL"), a wholly owned subsidiary, enters into credit finance arrangements for motor vehicles with employees in the Group. All agreements are denominated in sterling. The term of the finance agreements is predominantly three years.

The interest rate inherent in the agreements is fixed at the contract date for all of the term of the agreement. The average effective interest rate contracted is approximately 6.5% (2015: 6.5%) per annum. None of these debts are past due and there are no indicators of impairment.

Northern Powergrid Metering Limited, a wholly-owned subsidiary, enters into credit finance arrangements for smart meters with electricity supply companies. All agreements are denominated in sterling. The term of the finance agreements is predominantly ten years.

The interest rate inherent in the agreements is fixed at the contract date for all of the term of the agreement. None of these debts are past due and there are no indicators of impairment.

The directors consider the carrying value of finance lease receivables approximates their fair value. The maximum risk exposure is the book value of these receivables, less the residual value of the leased assets.

**Amounts receivable from sale of goods and services**

Sales of goods and services comprise all income streams which are not classified as UoS income. Examples of non-UoS income streams would be meter rental, service alterations/disconnections, and recovery of amounts for damage caused by third parties to the distribution system.

The average credit period on sales of goods and services is 30 days. Interest is not generally charged on the trade receivables paid after the due date. An allowance for doubtful debts is made for debts past their due date based on estimated irrecoverable amounts from the sale of goods and services, determined by reference to past default experience.

Included in the Group's amounts receivable for goods and services balance are debtors with a carrying amount of £3.3 million (2015: £3.0 million) which are past due at the reporting date and for which the Group has provided an irrecoverable amount of £1.7 million (2015: £0.8 million) based on past experience. The Group does not hold any collateral over these balances. The average age of these receivables is 254 days (2015: 252 days).

Included in the Group's amounts receivable for goods and services balance are debtors with a carrying amount of £0.5 million (2015: £1.0 million). These amounts are past due at the reporting date and the Group has not provided for any amounts as not being recoverable, because there has not been a significant change in credit quality and the amounts are still considered recoverable. The Group does not hold any collateral over these balances. The average age of these receivables is 69 days (2015: 81 days).

**Ageing of past due but not impaired receivables:**

	<b>2016</b>	<b>2015</b>
	<b>£'000</b>	<b>£'000</b>
30-60 days	<b>305</b>	<b>300</b>
60-120 days	<b>125</b>	<b>131</b>
120-210 days	<b>52</b>	<b>141</b>
<b>Total</b>	<b>482</b>	<b>572</b>

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS - continued  
FOR THE YEAR ENDED 31 DECEMBER 2016

## 16. TRADE AND OTHER RECEIVABLES - continued

## Movement in the allowance for doubtful debts

	2016	2015
	£'000	£'000
At 1 January	1,120	1,118
Amounts utilised/written off in the year	(358)	(579)
Amounts recognised in income statement	<u>1,461</u>	<u>581</u>
At 31 December	<u>2,223</u>	<u>1,120</u>

In determining the recoverability of the trade and other receivables, the Group considers any change in the credit quality of the trade and other receivable from the date credit was initially granted up to the reporting date. The concentration of credit risk, other than in relation to UoS receivables, is limited due to the customer base being large and unrelated. Accordingly, the directors believe that there is no further credit provision required in excess of the allowance for doubtful debts.

Included in the allowance for doubtful debts are specific trade receivables, with a balance of £1.3 million (2015: £0.5 million), which have been placed in administration. The impairment represents the difference between the carrying amount of the specific trade receivable and the present value of the expected liquidation dividend.

## Categories of financial assets

	2016	2015
	£'000	£'000
<b>Group:</b>		
Cash and bank balances	52,937	57,895
Designated as fair value through the profit and loss	21,155	15,698
Loans and receivables at amortised cost	<u>154,149</u>	<u>133,802</u>
Total financial assets	<u>228,241</u>	<u>207,395</u>
Non-current assets	5,769,408	5,452,456
Inventories	13,101	13,917
Other tax assets	1,384	2,911
Pension asset	31,500	88,100
Prepayments and accrued income	<u>7,644</u>	<u>6,475</u>
Total non-financial assets	<u>5,823,037</u>	<u>5,563,859</u>
Total assets	<u>6,051,278</u>	<u>5,771,254</u>

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS - continued  
FOR THE YEAR ENDED 31 DECEMBER 2016

16. TRADE AND OTHER RECEIVABLES - continued

	2016	2015
	£'000	£'000
Company:		
Receivables	101	101
Loans and receivables at amortised cost	<u>291,535</u>	<u>282,707</u>
Total financial assets	<u>291,636</u>	<u>282,808</u>
Investments held in subsidiaries and joint ventures	<u>376,289</u>	<u>376,289</u>
Total non-financial assets	<u>376,289</u>	<u>376,289</u>
Total assets	<u>667,925</u>	<u>659,097</u>

17. CASH AND CASH EQUIVALENTS

	Group		Company	
	2016	2015	2016	2015
	£'000	£'000	£'000	£'000
Short-term deposits	41,007	53,828	-	-
Cash at bank and in hand	<u>11,930</u>	<u>4,067</u>	<u>27,377</u>	<u>18,549</u>
	<u>52,937</u>	<u>57,895</u>	<u>27,377</u>	<u>18,549</u>

Cash and cash equivalents have a maturity of less than three months, are readily convertible to cash and are subject to an insignificant risk of changes in value. The carrying amount of these assets approximates their fair value.

18. NON-CONTROLLING INTERESTS

	2016	2015
	£'000	£'000
At 1 January	28,967	28,168
Share of profit on ordinary activities after tax	2,210	1,838
Dividend paid to minority interest	-	(1,057)
At 31 December	<u>31,177</u>	<u>28,967</u>

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS - continued  
FOR THE YEAR ENDED 31 DECEMBER 2016

19. CALLED UP SHARE CAPITAL

	2016 No.	2015 No.
Ordinary shares at £1 each		
Authorised	400,000,000	400,000,000
Allotted, called up and fully paid	<u>354,550,000</u>	<u>354,550,000</u>

	2016 £'000	2015 £'000
Ordinary shares at £1 each		
Authorised	400,000	400,000
Allotted, called up and fully paid	<u>354,550</u>	<u>354,550</u>

The Company has one class of ordinary shares which carries no right to fixed income.

Details of the cumulative non-equity preference shares are contained in the borrowings note.

20. RESERVES

Group

	Retained earnings £'000	Share premium £'000	Other reserves £'000	Totals £'000
At 1 January 2016	1,636,341	(810)	(6,709)	1,628,822
Profit for the year	252,137	-	-	252,137
Movements on pension reserve	<u>(70,503)</u>	<u>-</u>	<u>4,630</u>	<u>(65,873)</u>
At 31 December 2016	<u>1,817,975</u>	<u>(810)</u>	<u>(2,079)</u>	<u>1,815,086</u>
	Retained earnings £'000	Share premium £'000	Other reserves £'000	Totals £'000
At 1 January 2015	1,471,026	(810)	(4,771)	1,465,445
Profit for the year	267,814	-	-	267,814
Dividends	(100,000)	-	-	(100,000)
Movements on pension reserve	<u>(2,499)</u>	<u>-</u>	<u>(1,938)</u>	<u>(4,437)</u>
At 31 December 2015	<u>1,636,341</u>	<u>(810)</u>	<u>(6,709)</u>	<u>1,628,822</u>

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS - continued  
FOR THE YEAR ENDED 31 DECEMBER 2016

20. RESERVES - continued

Company

	Retained earnings £'000
At 1 January 2016	103,736
Profit for the year	4,847
At 31 December 2016	<u>108,583</u>
	Retained earnings £'000
At 1 January 2015	77,902
Profit for the year	125,834
Dividends	(100,000)
At 31 December 2015	<u>103,736</u>

21. TRADE AND OTHER PAYABLES

	Group		Company	
	2016 £'000	2015 £'000	2016 £'000	2015 £'000
Current:				
Payments on account	78,088	99,193	-	-
Trade creditors	12,976	15,428	-	-
Owed to group	686	939	-	-
Social security and other taxes	13,995	14,239	-	-
Other creditors	15,906	16,335	647	564
Owed to parent	7,748	4,993	7,387	3,904
Accruals and deferred income	50,622	47,585	-	-
Accrued expenses	79,508	70,924	-	-
	<u>259,529</u>	<u>269,636</u>	<u>8,034</u>	<u>4,468</u>
Non-current:				
Accruals and deferred income	1,337,735	1,271,612	-	-
	<u>1,337,735</u>	<u>1,271,612</u>	<u>-</u>	<u>-</u>
Aggregate amounts	<u>1,597,264</u>	<u>1,541,248</u>	<u>8,034</u>	<u>4,468</u>

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS - continued  
FOR THE YEAR ENDED 31 DECEMBER 2016

## 21. TRADE AND OTHER PAYABLES - continued

The directors consider that the carrying amount of other financial liabilities approximates their fair value, calculated by discounting future cash flows at market rate at the statement of financial position date. The valuation is based on Level 1 inputs. Trade creditors and accruals principally comprise amounts outstanding for trade purchases and ongoing costs. Invoices are paid at the end of the month following the date of the invoice. The Group has financial risk management policies in place to ensure that all payables are paid within the credit timeframe.

The following tables detail the remaining contractual maturities for the non-derivative financial liabilities. The tables have been drawn up based on the discounted cash flows of financial liabilities based on the earliest possible date on which the Group or the Company can be required to pay. The tables include both interest and principal cash flows.

**Group**

	Less than 3 months £'000	3 months to 1 year £'000	1 to 5 years £'000	5+ years £'000	Total £'000
<b>2016:</b>					
Non-interest bearing	128,930	-	-	-	128,930
Variable interest rate liability	11,060	-	-	-	11,060
Fixed interest rate liability	23,531	75,684	781,137	1,843,840	2,724,192
	<u>163,521</u>	<u>75,684</u>	<u>781,137</u>	<u>1,843,840</u>	<u>2,864,182</u>
<b>2015:</b>					
Non-interest bearing	122,429	-	-	-	122,429
Variable interest rate liability	1,832	-	-	-	1,832
Fixed interest rate liability	23,531	74,648	809,450	1,855,467	2,763,096
	<u>147,792</u>	<u>74,648</u>	<u>809,450</u>	<u>1,855,467</u>	<u>2,887,357</u>

**Company**

	Less than 3 months £'000	3 months to 1 year £'000	1 to 5 years £'000	5+ years £'000	Total £'000
<b>2016:</b>					
Non-interest bearing	8,034	-	-	-	8,034
Variable interest rate liability	-	-	-	-	-
Fixed interest rate liability	-	14,500	58,000	214,500	287,000
	<u>8,034</u>	<u>14,500</u>	<u>58,000</u>	<u>214,500</u>	<u>295,034</u>
<b>2015:</b>					
Non-interest bearing	4,468	-	-	-	4,468
Variable interest rate liability	-	-	-	-	-
Fixed interest rate liability	-	14,500	58,000	229,000	301,500
	<u>4,468</u>	<u>14,500</u>	<u>58,000</u>	<u>229,000</u>	<u>305,968</u>



NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS - continued  
FOR THE YEAR ENDED 31 DECEMBER 2016

21. TRADE AND OTHER PAYABLES - continued

Categories of financial liabilities

	2016	2015
Group	£'000	£'000
Loans and payables at amortised cost	<u>2,024,777</u>	<u>1,982,430</u>
Total financial liabilities	<u>2,024,777</u>	<u>1,982,430</u>
Payments received on account	78,088	99,193
Income tax liabilities	258,294	263,993
Other taxes and social security	13,995	14,239
Accruals	79,508	70,924
Deferred revenue	1,388,357	1,319,197
Provisions	<u>7,446</u>	<u>8,939</u>
Total non-financial liabilities	<u>1,825,688</u>	<u>1,776,485</u>
Total liabilities	<u>3,850,465</u>	<u>3,758,915</u>

	2016	2015
Company	£'000	£'000
Loans and payables at amortised cost	<u>204,631</u>	<u>200,560</u>
Total financial liabilities	<u>204,631</u>	<u>200,560</u>
Income tax liabilities	<u>161</u>	<u>251</u>
Total non-financial liabilities	<u>161</u>	<u>251</u>
Total liabilities	<u>204,792</u>	<u>200,811</u>

Deferred Revenue

	2016	2015
	£'000	£'000
At 1 January	1,319,197	1,266,221
Additions	116,324	101,182
Amortisation	<u>(47,165)</u>	<u>(48,206)</u>
At 31 December	<u>1,388,356</u>	<u>1,319,197</u>

Deferred revenue represents contributions from customers made in advance towards distribution system assets. This income is released to the statement of profit or loss up to 45 years on a straight line basis, in line with the useful economic life of the distribution system assets.

**NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS - continued**  
**FOR THE YEAR ENDED 31 DECEMBER 2016**

**21. TRADE AND OTHER PAYABLES - continued**

**Derivative Financial Instruments**

Exposure to liquidity, credit and market price risk arises as a result of the day to day business activities of the Group and the financing of those activities. Derivative financial instruments are used to hedge exposures to fluctuations in interest rates, foreign exchange rates and commodity prices.

**a) Funding and Liquidity Risk**

The Group operates a prudent approach to liquidity management using a mixture of long term debt and investments together with short term debt, cash and investments to meet its liabilities when due.

**b) Market Risk**

Market risk is the risk of loss arising from movements in market variables such as interest rates, exchange rates and commodity prices. Risks are mitigated by utilising appropriate risk management products.

**(i) Interest rate risk**

The Group's policy on interest rate risk is designed to limit the Group's exposure to floating interest rates.

Consistent with this policy, at 31 December 2016 the Group had 99% (2015: 99%) of net debt at fixed rates.

In 2009, the interest rate swaps were designated as ineffective cash flow hedges. As such, any movements in the fair value of these hedges now flow through the statement of profit or loss immediately.

**(ii) Foreign exchange risk**

The Group is no longer subject to significant risk relating to foreign exchange.

**(iii) Commodity Price Risk**

The Group is exposed to price risk on CE Resources' revenues.

The Company had no derivative financial instruments at 31 December 2016.

The directors believe that the risks identified above are mitigated by the high proportion of debt which is held at fixed rates and by the financial derivatives which are in place in order to hedge against movements in foreign exchange rates, interest rates and commodity prices. Therefore, any movement in these variables would not have a material effect on the results of the Group.

**22. BORROWINGS**

The directors' consideration of liquidity, interest rate and foreign currency risk are described in detail in the Strategic Report.

Group	Book Value		Fair Value	
	2016	2015	2016	2015
	£'000	£'000	£'000	£'000
Loans	1,956,434	1,908,895	2,396,051	2,185,316
Cumulative preference shares	34,114	34,114	51,801	50,509
Amounts owed to group undertakings	<u>2,528</u>	<u>1,726</u>	<u>2,528</u>	<u>1,726</u>
	<u>1,993,076</u>	<u>1,944,735</u>	<u>2,450,382</u>	<u>2,237,551</u>

**NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS - continued**  
**FOR THE YEAR ENDED 31 DECEMBER 2016**

**22. BORROWINGS - continued**

Group	Book Value		Fair Value	
	2016 £'000	2015 £'000	2016 £'000	2015 £'000
The borrowings are repayable as follows:				
On demand or within one year	54,162	53,279	54,162	53,279
Between one and five years	428,427	582,537	505,326	679,282
After five years	<u>1,510,487</u>	<u>1,308,919</u>	<u>1,890,894</u>	<u>1,504,990</u>
	<u>1,993,076</u>	<u>1,944,735</u>	<u>2,450,382</u>	<u>2,237,551</u>
Analysis of borrowings:				
Short-term loans	97	106	97	106
Inter-company short-term loan	2,528	1,726	2,528	1,726
Bond 2020 - 8.875% (Northern Electric Finance plc)	101,192	101,052	130,276	130,560
Bond 2020 - 9.25% (Northern Powergrid (Yorkshire) plc)	227,837	231,229	266,428	269,764
Bond 2022 - 7.25% (Northern Powergrid Holdings Company)	196,597	196,092	259,666	249,380
Bond 2025 - 2.50% (Northern Powergrid (Yorkshire) plc)	150,527	150,280	160,420	146,585
Bond 2028 - 7.25% (Yorkshire Power Finance Limited)	195,324	195,699	276,344	253,895
Bond 2032 4.375% (Northern Powergrid (Yorkshire) plc)	150,528	150,409	187,202	164,512
Bond 2035 - 5.125% (Northern Electric Finance plc)	152,959	152,883	207,505	180,462
Bond 2035 - 5.125% (Northern Powergrid (Yorkshire) plc)	203,933	203,834	276,674	240,312
European Investment Bank 2018 - 4.065%*	41,419	41,410	42,974	43,632
European Investment Bank 2019 - 4.241%*	41,481	41,472	44,655	44,683
European Investment Bank 2020 - 4.386%*	40,495	40,488	44,990	44,478
European Investment Bank 2022 - 4.133%	153,692	153,674	179,923	172,953
European Investment Bank 2027 - 2.564%	250,267	250,267	268,245	243,994
European Investment Bank Loan due 2025 - 2.073%	50,086		50,653	
Cumulative preference shares	<u>34,114</u>	<u>34,114</u>	<u>51,802</u>	<u>50,509</u>
	<u>1,948,076</u>	<u>1,944,735</u>	<u>2,450,382</u>	<u>2,237,551</u>

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS - continued  
FOR THE YEAR ENDED 31 DECEMBER 2016

## 22. BORROWINGS - continued

Company	Book Value		Fair Value	
	2016 £'000	2015 £'000	2016 £'000	2015 £'000
The borrowings are repayable as follows:				
On demand or within one year	644	644	644	644
After one year	<u>195,953</u>	<u>195,448</u>	<u>259,022</u>	<u>248,736</u>
	<u>196,597</u>	<u>205,747</u>	<u>259,666</u>	<u>249,380</u>
Analysis of borrowings:				
2028 - 7.25%	196,597	196,092	259,666	249,380
Amounts owed to Group undertakings	-	-	-	-
	<u>196,597</u>	<u>196,092</u>	<u>259,666</u>	<u>249,380</u>

Of the total financial liabilities of £1,693.0 million relates to external borrowings and preference shares whose fair value is determined with reference to quoted market prices. The directors' estimates of the fair value of internal borrowings are determined in accordance with generally accepted pricing models based on discounted cash flow analysis using prices from observable current market transactions or dealer quotes for similar instruments. The valuation of liabilities set out above is based on Level 1 inputs.

The borrowings from the European Investment Bank were drawn down in twelve tranches, repayable in 2018, 2019, and 2020. The interest rates shown are average rates for those repayment dates. The spread of interest rates is as follows:

2018: 3.901% - 4.283%  
2019: 4.077% - 4.455%  
2020: 4.227% - 4.586%

As at 31 December 2016, 34,473,672 Northern Electric plc preference shares were held by non-Group undertakings (2015: 34,473,672).

The terms of the cumulative preference shares:

- i) entitle holders, in priority to holders of all other classes of shares, to a fixed cumulative preferential dividend of 8.061p (net) per share per annum payable half-yearly in equal amounts on 31 March and 30 September;
- ii) on a return of capital on a winding up, or otherwise, will carry the right to repayment of capital together with a premium of 99p per share and a sum equal to any arrears or accruals of dividend. This right is in priority to the rights of ordinary shareholders;
- iii) carry the right to attend a general meeting of Northern Electric plc and vote if, at the date of the notice convening the meeting, payment of the dividend to which they are entitled is six months or more in arrears, or if a resolution is to be considered at the meeting for the winding-up of Northern Electric plc or abrogating, varying or modifying any of the special rights attaching to them; and
- iv) are redeemable in the event of the revocation by the Secretary of State of Northern Electric plc's Public Electricity Supply Licence at the value given in (ii) above.

**NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS - continued**  
**FOR THE YEAR ENDED 31 DECEMBER 2016**

**22. BORROWINGS - continued**

During the year ended 31 December 2001, under the terms of the Northern Electric plc's transfer scheme, as approved by the Secretary of State in accordance with the provisions of the Utilities Act 2000, the Northern Electric plc's Public Electricity Supply Licence was converted into an Electricity Distribution Licence and an Electricity Supply Licence.

At 31 December 2016, the Group had available £192.0 million (2015: £192.0 million) of undrawn committed borrowing facilities in respect of which all conditions precedent had been met.

The covenants associated with some of the Group's bonds include restrictions on the issuance of new indebtedness and the making of distributions dependent on the scale of the ratio of Senior Total Net Debt to Regulatory Asset Value ("RAV"). The definition of Senior Total Net Debt excludes any subordinated debt and any debt incurred on a non-recourse basis. In addition, it excludes any fair value and accounting adjustments.

As at 31 December 2016, the Group's Senior Total Net Debt, as defined by the covenants, totalled £1,852.6 million (2015: £1,797.6 million).

Using the RAV value as at March 2016 as outlined by Ofgem in its Final Determinations for Distribution Prices published in November 2014 and up rating for the effects of movements in the value of the Retail Prices Index ("RPI") gives an approximation for the RAV value as at December 2016 of £2,996.6 million (2015: £2,889.1 million). The Senior Total Net Debt to RAV ratio for the Group is therefore estimated at 62% (2015: 62%).

All other loans provided to the Group are unsecured.

**23. LEASING AGREEMENTS**

**Group**

Minimum lease payments under non-cancellable operating leases fall due as follows:

	2016	2015
	£'000	£'000
Within one year	8,115	8,772
Between one and five years	19,396	23,293
In more than five years	<u>4,351</u>	<u>9,234</u>
	<u>31,862</u>	<u>41,299</u>
Minimum lease payments made under operating leases recognised in the year	<u>9,961</u>	<u>8,928</u>

**24. PROVISIONS**

	Group	
	2016	2015
	£'000	£'000
Other provisions	<u>7,446</u>	<u>8,939</u>
Analysed as follows:		
Current	2,683	3,661
Non-current	<u>4,763</u>	<u>5,278</u>
	<u>7,446</u>	<u>8,939</u>

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS - continued  
FOR THE YEAR ENDED 31 DECEMBER 2016

24. PROVISIONS - continued

	Abandonment	Claims	Onerous contracts	Other	Total
	£'000	£'000	£'000	£'000	£'000
At 1 January 2016	3,948	1,272	10	3,709	8,939
Utilised/paid in the year	(1,301)	(1,684)	(14)	(1,367)	(4,366)
Charged to the income statement	-	1,418	69	1,315	2,802
Unwinding of discount	71	-	-	-	71
At 31 December 2016	<u>2,718</u>	<u>1,006</u>	<u>65</u>	<u>3,657</u>	<u>7,446</u>

Abandonment: A provision and corresponding asset have been created for the costs of site restoration.

Claims: Provision has been made to cover costs arising from actual claims, which are not externally insured. Settlement is expected substantially within the next 12 months.

Onerous contacts: Related to former retail business property leases. Settlement is expected substantially within the next 12 months.

Other: Relates primarily to deferred income associated with CE Resources' hydrocarbon exploration and development business, environmental liabilities, wayleave disputes, provision for future safe disposal of transformers which contain oil-contaminated with Polychlorinated Biphenyls (PCBs) and holidays in suspense. Settlement is expected substantially after the next 12 months.

Also included in 'Other' is a provision to cover the actuarial assessment of the costs of unfunded pension arrangements in respect of former employees. Further details can be found in the Employee Benefits Obligation note.

At 31 December 2016, the Company had no provisions for liabilities and charges (2015: £nil).

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS - continued  
FOR THE YEAR ENDED 31 DECEMBER 2016

## 25. DEFERRED TAX

	Accelerated tax depreciation	Rollover/ holdover relief	Retirement benefit (obligations) / assets	Other	Total
Group;	£'000	£'000	£'000	£'000	£'000
At 1 January 2016	239,485	11,888	9,295	(5,748)	254,920
(Credit)/charge to statement of profit or loss	(12,866)	(2,491)	(1,932)	1,372	(15,917)
Foreign exchange translation	(6)	-	-	-	(6)
Credit to other comprehensive income	-	-	(8,577)	-	(8,577)
At 31 December 2016	<u>226,613</u>	<u>9,397</u>	<u>(1,214)</u>	<u>(4,376)</u>	<u>230,420</u>

	Accelerated tax depreciation	Rollover/ holdover relief	Retirement benefit (obligations)/ assets	Other	Total
Group;	£'000	£'000	£'000	£'000	£'000
At 1 January 2015	271,385	13,141	(2,516)	(10,286)	271,724
(Credit)/charge to statement of profit or loss	(31,459)	(1,253)	2,503	4,538	(25,671)
Foreign exchange translation	(441)	-	-	-	(441)
Charge to other comprehensive income	-	-	9,308	-	9,308
At 31 December 2015	<u>239,485</u>	<u>11,888</u>	<u>9,295</u>	<u>(5,748)</u>	<u>254,920</u>

The other deferred tax asset primarily represents the tax benefit on interest accrued on loans from parent undertakings, fair value adjustments on borrowings acquired on the acquisition of Yorkshire Power Group Limited and cash flow hedges.

The Company had no deferred tax liability as at 31 December 2016 (2015: £nil).

**NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS - continued  
FOR THE YEAR ENDED 31 DECEMBER 2016**

**26. EMPLOYEE BENEFIT OBLIGATIONS**

**Introduction**

The Company contributes to two pension schemes, which it operates on behalf of the participating companies within the Northern Powergrid Group. Those pension schemes are:

- The Northern Powergrid Group of the ESPS (the "DB Scheme"); and
- The Northern Powergrid Pension Scheme.

The Northern Powergrid Pension Scheme was introduced for new employees of the Northern Powergrid Group from July 1997 and is a money purchase arrangement accounted for as a defined contribution scheme.

The DB Scheme is a defined benefit scheme for directors and employees, which provides pension and other related retirement benefits based on final pensionable pay. The DB Scheme closed to staff commencing employment with the Northern Powergrid Group on or after 23 July 1997. Members who joined before this date, including some Protected Persons under The Electricity (Protected Persons) (England and Wales) Pension Regulations 1990, continue to build up future pension benefits.

Under the DB Scheme, employees are typically entitled to annual pensions on retirement at age 63 of one-eightieth of final pensionable salary for each year of service plus an additional tax-free cash lump sum at retirement of three times pension. Benefits are also payable on death and following other events such as withdrawing from active service.

No other post-retirement benefits are provided to members of the DB Scheme.

**Role of Trustees**

The DB Scheme is administered by a board of Trustees which is legally separate from the Company. The assets of the DB Scheme are held in a separate trustee-administered fund. The board of Trustees is made up of Trustees appointed by the Company, as the Principal Employer of the DB Scheme, Trustees elected by the membership and an independent trustee. The Trustees are required by law to act in the interests of all relevant beneficiaries and are responsible in particular for the asset investment strategy plus the day-to-day administration of the benefits payable. They also are responsible for jointly agreeing with the Principal Employer the level of contributions due to the DB Scheme.

**Funding requirements**

UK legislation requires that pension schemes are funded prudently (i.e. to a level in excess of the current expected cost of providing benefits). The last actuarial valuation of the DB scheme was carried out by the Trustees' actuarial advisors, Aon Hewitt, as at 31 March 2013. Such valuations are required by law to take place at intervals of no more than three years. Following each valuation, the Trustees and the Northern Powergrid Group must agree the contributions required (if any) to ensure the DB Scheme is fully funded over time on the basis of suitable, prudent assumptions. Contributions agreed in this manner constitute a minimum funding requirement. The next funding valuation is due no later than 31 March 2016 at which progress towards full-funding will be reviewed.

Agreement was reached during October 2014 with the Trustees to repair the funding deficit of £286.4m as at 31 March 2014 over the 11 year period to 31 March 2025, subject to the actuarial assumptions adopted for the triennial valuation as at 31 March 2013 being borne out in practice. The agreement includes cash payments of £34.9m per annum over the period to 31 March 2015, made on a monthly basis, followed by an agreed profile of payments to be made over the remaining ten years of the recovery plan, as set out below:

1 April 2015 to 31 March 2016	£28.6m p.a.
1 April 2016 to 31 March 2025	£18.4m p.a.

All contributions set out above are in 2014/15 prices and will be increased each year in line with increases in RPI over the period until they fall due.



**NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS - continued**  
**FOR THE YEAR ENDED 31 DECEMBER 2016**

**26. EMPLOYEE BENEFIT OBLIGATIONS - continued**

The contributions payable by the Northern Powergrid Group to the DB Scheme in respect of future benefits, which are accruing, are 34.2% of pensionable pay. These contributions were determined as part of the 31 March 2013 actuarial valuation and are payable in addition to the deficit repair contributions mentioned above. These rates will remain in place until such a time as a new schedule of contributions is agreed between the Trustees and the Company as part of the 31 March 2016. In addition, the Northern Powergrid Group pays 3.0% of pensionable pay to the DB Scheme to cover the expenses of running the DB Scheme.

The Northern Powergrid Group's total contributions to the DB Scheme for the next financial year are expected to be £36.7 million.

Under the rules of the DB Scheme, any future surplus in the DB Scheme may, following consultation with the Group Trustees, be allocated for the benefit of the members of the DB Scheme and/or the Principal and Participating Employers.

**Pensions' Regulation**

The UK pensions market is regulated by the Pensions Regulator whose key statutory objectives in relation to UK defined benefit plans are to:

- protect the benefits of members;
- promote and to improve understanding of good administration;
- reduce the risk of situations arising which may lead to compensation being payable from the Pension Protection Fund ("PPF"); and
- minimise any adverse impact on the sustainable growth of an employer.

The Pensions Regulator has various powers including the power to:

- wind up a scheme where winding up is necessary to protect members' interests;
- appoint or remove a trustee;
- impose a schedule of company contributions or the calculation of the technical provisions where trustees and company fail to agree on appropriate contributions; and
- impose contributions where there has been a detrimental action against the scheme.

**Profile of the DB Scheme**

The Defined Benefit Obligation ("DBO") includes benefits for current employees, former employees and current pensioners. The overall duration of the DB Scheme's obligation was assessed to be about 17 years based on the results of the 31 March 2013 funding valuation. This is the weighted-average time over which benefit payments are expected to be made.

Broadly, about 40% of the liabilities are attributable to current employees (duration about 23 years), 10% to former employees (duration about 24 years) and 50% to current pensioners (duration about 12 years).

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS - continued  
FOR THE YEAR ENDED 31 DECEMBER 2016

26. EMPLOYEE BENEFIT OBLIGATIONS - continued

**Risks associated with the DB Scheme**

The DB Scheme exposes the Northern Powergrid Group to a number of risks, the most significant of which are:

Risk	Description	Mitigation
Volatile asset returns	The DBO is calculated using a discount rate set with reference to corporate bond yields. If assets underperform this discount rate, this will create an element of deficit. The DB Scheme aims to hold a significant proportion (48%) of its assets in return-seeking assets (such as equities) which, although expected to outperform corporate bonds in the long-term, create volatility and risk in the short-term.	The allocation to return-seeking assets is monitored to ensure it remains appropriate given the DB Scheme's long-term objectives. The Trustees regularly review the strategy from return-seeking assets and have diversified some return-seeking assets from equities into Reinsurance and Listed Infrastructure to reduce overall risk. To avoid concentration risk, the allocation to UK equity is restricted to 35% of the total equity allocation.
Changes in bond yields	A decrease in corporate bond yields will increase the value placed on the DBO for accounting purposes, although this will be partially offset by an increase in the value of the DB Scheme's bond holdings.	The DB Scheme also holds a substantial proportion of its assets (61%) as bonds, which provide a hedge against falling bond yields (falling yields which increase the DBO will also increase the value of the bond assets). There are some differences in the credit quality of bonds held by the DB Scheme and the bonds analysed to decide the DBO discount rate, such that there remains some risk should yields on different quality bond/swap assets diverge.
Inflation risk	A significant proportion of the DBO is indexed in line with price inflation (specifically in line with RPI) and higher inflation will lead to higher liabilities	The DB Scheme holds around 30% in UK government index-linked bonds which provide a hedge against higher than expected inflation increases of the DBO (rising inflation will increase both the DBO and the value of the index-linked bond portfolio).
Currency risk	To increase diversification, the DB Scheme invests in overseas assets. This leads to a risk that foreign currency movements negatively impact the value of assets in Sterling terms.	The DB Scheme hedges a proportion of the overseas investments currency risk for those overseas currencies that can be hedged efficiently. The DB Scheme's currency hedging ratio is currently 50% in respect of overseas developed market currencies.
Life expectancy	The majority of the DB Scheme's obligations are to provide benefits for the pensionable lifetime of the member, so increases in life expectancy will result in an increase in the liabilities.	The DB Scheme regularly reviews actual experience of its membership against the actuarial assumptions underlying the future benefit projections and carries out detailed analysis when setting an appropriate scheme specific mortality assumption.

The Company and Trustees have agreed a long-term strategy for reducing investment risk as and when appropriate. This includes the use of Liability Driven Investment (LDI) from October 2016 to more closely match the nature and duration of the DB Scheme's liabilities through the use of derivatives such as swaps and repurchase agreements. The portfolio is designed to hedge a proportion of the interest rate and inflation risk inherent in the Scheme's liabilities. The target hedging level is currently 60% of the DB Scheme's liabilities as measured on the basis used for the funding valuation.

The Trustees insure certain benefits payable on death before retirement.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS - continued  
FOR THE YEAR ENDED 31 DECEMBER 2016

26. EMPLOYEE BENEFIT OBLIGATIONS - continued

**Other risks**

There are a number of other risks associated with the DB Scheme including operational risks (such as paying out the wrong benefits), legislative risks (such as the government increasing the burden on pension schemes through new legislation) and other demographic risks (such as a higher proportion members dying than assumed with a dependant eligible to receive a survivor's pension from the DB Scheme).

A particular legislative risk exists in relation to the equalisation of the Guaranteed Minimum Pension ("GMP"), a quasi-state benefit accrued by many UK plans over the period 1978 to 1997 as a result of a UK government programme allowing pension plans to "contract out" of the State Second Pension. The UK Government has announced its intention to ensure that these benefits, which currently pay out at different levels for men and women, are gender-equalised in accordance with sex-discrimination legislation. This would increase the DBO but it is not possible to fully quantify the impact of this change at this stage. However, it could lead to an increase in the order of 2% to the DBO for a typical scheme.

**Reporting at 31 December 2016**

For the purposes of this disclosure, the current and future pension costs of the Northern Powergrid Group have been assessed by Aon Hewitt, a qualified independent actuary, using the assumptions set out below, which the actuary has confirmed represent a reasonable best estimate of those costs. This review has been based on the same membership and other data as at 31 March 2013. The board of Northern Powergrid Holdings Company has accepted the advice of the actuary and formally approved the use of these assumptions for the purpose of calculating the pension cost of the Northern Powergrid Group.

The results of the latest funding valuation at 31 March 2013 have been adjusted to 31 December 2016. Those adjustments take account of experience over the period since 31 March 2013, changes in market conditions, and differences in the financial and demographic assumptions. The present value of the DBO and the related current service cost were measured using the Projected Unit Credit Method.

For schemes closed to new members, such as the DB Scheme, the current service cost calculated under the Projected Unit Credit Method is expected to increase as the members of the DB Scheme approach retirement.

The principal assumptions used to calculate the liabilities under IAS 19 are set out below:

<b>Main financial assumptions</b>	<b>2016 % p.a.</b>	<b>2015 % p.a.</b>
RPI Inflation	3.00	2.90
Rate of long-term increase in salaries	3.00	2.90
Pension increases	2.90	2.80
Discount rate for scheme liabilities	2.70	3.70

The financial assumptions reflect the nature and term of the DB Scheme's liabilities.

<b>Main demographic assumptions</b>	<b>2016</b>	<b>2015</b>
Life expectancy for a male currently aged 60	27.1	27.0
Life expectancy for a female currently aged 60	28.8	28.7
Life expectancy at 60 for a male currently aged 45	28.6	28.5
Life expectancy at 60 for a female currently aged 45	30.6	30.4
Proportion of pension exchanged for additional cash at retirement	10%	10%

The mortality assumptions are based on recent actual mortality experience of DB Scheme members and allow for expected future improvements in mortality rates.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS - continued  
FOR THE YEAR ENDED 31 DECEMBER 2016

26. EMPLOYEE BENEFIT OBLIGATIONS - continued

The DB Scheme's funds are invested in the following assets:

Asset allocation	2016 £m	2015 £m
Developed market equity	338.6	311.0
Emerging market equity	12.9	11.2
Property	91.4	146.0
Reinsurance	71.3	68.2
Listed infrastructure	99.2	90.1
Investment grade corporate bonds	366.9	375.5
Other debt	30.3	38.7
Fixed interest gilts	52.4	24.9
Index-linked gilts	3.1	453.7
Liability driven investments	581.2	-
Cash	107.1	22.0
Total	<u>1,754.4</u>	<u>1,541.3</u>

The fair values of the above equity and debt instruments are determined based on quoted market prices in active markets whereas the fair values of properties are not based on quoted prices in active markets.

As at 31 December 2016, the fair value of the DB Scheme's assets, which related to self-investment, amounted to nil% (2015: nil%).

Changes to the present value of the DBO during the year	2016 £m	2015 £m
Opening DBO	1,453.2	1,463.2
Current service cost	14.9	15.9
Interest expense on defined benefit obligation	53.0	52.0
Contributions by DB Scheme participants	1.0	1.5
Actuarial gains on DB Scheme liabilities arising from changes in demographic assumptions	-	(12.4)
Actuarial losses/(gains) on DB Scheme liabilities arising from changes in financial assumptions	311.5	(1.9)
Actuarial (gains)/losses on DB Scheme liabilities arising from experience	(25.9)	(5.6)
Net benefits paid out	<u>(84.8)</u>	<u>(59.5)</u>
Closing DBO	<u>1,722.9</u>	<u>1,453.2</u>

Changes in the fair value of DB Scheme assets during the year	2016 £m	2015 £m
Opening fair value of DB Scheme assets	1,541.3	1,516.1
Interest income on DB Scheme assets	56.7	54.5
Re-measurement gains/(losses) on DB Scheme assets	200.9	(20.3)
Contributions by the employer	40.5	50.2
Contributions by DB Scheme participants	1.0	1.5
Net benefits paid out	(84.8)	(59.5)
Administration costs incurred	<u>(1.2)</u>	<u>(1.2)</u>
Closing fair value of DB Scheme assets	<u>1,754.4</u>	<u>1,541.3</u>

**NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS - continued**  
**FOR THE YEAR ENDED 31 DECEMBER 2016**

**26. EMPLOYEE BENEFIT OBLIGATIONS - continued**

<b>Actual return on DB Scheme assets</b>	<b>2016</b>	<b>2015</b>
	<b>£m</b>	<b>£m</b>
Interest income on DB Scheme assets	56.7	54.5
Re-measurement (loss)/gain on DB Scheme assets	<u>200.9</u>	<u>(20.3)</u>
<b>Actual return on DB Scheme assets</b>	<b><u>257.6</u></b>	<b><u>34.2</u></b>
 <b>Re-measurement in OCI</b>	 <b>2016</b>	 <b>2015</b>
	<b>£m</b>	<b>£m</b>
Return on plan assets (in excess)/below of that recognised in net interest	(200.9)	20.3
Actuarial (gains)/losses due to changes in financial assumptions	311.5	(1.9)
Actuarial gains due to changes in demographic assumptions	-	(12.4)
Actuarial (gains)/losses due to liability experience	<u>(25.9)</u>	<u>(5.6)</u>
<b>Total amount recognised in OCI</b>	<b><u>84.7</u></b>	<b><u>0.4</u></b>
 <b>Reconciliation of funded status to balance sheet</b>	 <b>2016</b>	 <b>2015</b>
	<b>£m</b>	<b>£m</b>
Fair value of scheme assets	1,754.4	1,541.3
Present value of funded defined benefit obligations	<u>(1,722.9)</u>	<u>(1,453.2)</u>
<b>Asset/(liability) recognised on the balance sheet</b>	<b><u>31.5</u></b>	<b><u>88.1</u></b>

**Sensitivity to key assumptions**

The key assumptions used for IAS 19 are discount rate, inflation and mortality. If different assumptions were used, it could have a material effect on the results of the Group. The sensitivity of the results to these assumptions is as follows.

	<b>Changes in DBO</b>	<b>Revised DBO</b>
	<b>£m</b>	<b>£m</b>
Current Figures	1,722.9	
Following a 10 bps decrease in the discount rate	33.8	1,756.7
Following a 10 bps increase in the discount rate	(33.2)	1,689.7
Following a 10 bps increase in the inflation assumption	30.0	1,752.9
Following a 10 bps decrease in the inflation assumption	(29.6)	1,693.3
Following a 1 year increase in life expectancy	67.1	1,790.0
Following a 1 year decrease in life expectancy	(67.0)	1,655.9

The sensitivity information shown above has been prepared using the same method as adopted when adjusting the results of the latest funding valuation to the statement of financial position date. This is the same approach as has been adopted in previous periods.

**27. DIRECTORS' ADVANCES, CREDITS AND GUARANTEES**

During the year, 2 directors (2015: 2) and 6 key personnel (2015: 7) utilised the services provided by NTFI. The amounts included in finance lease receivables owed by these directors and key personnel total £56,000 (2015: £151,000) in respect of non-current and £33,000 (2015: £nil) in respect of current receivables.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS - continued  
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28. RELATED PARTY DISCLOSURES

**GROUP**

Details of transactions between the Group and other related parties are disclosed below.

**Trading transactions**

During the year, Group entities entered into the following transactions with related parties that are not members of the Group:

Related Party	Sales to related parties £'000	Purchases from related parties £'000	Amounts owed to related parties £'000
<b>2016:</b>			
Berkshire Hathaway Energy	-	-	7,748
Vehicle Lease and Service Limited	<u>238</u>	<u>8,420</u>	<u>686</u>
<b>2015</b>			
Berkshire Hathaway Energy	-	-	4,993
Northern Powergrid Insurance Service Limited	-	1,109	-
Vehicle Lease and Service Limited	<u>307</u>	<u>7,632</u>	<u>939</u>

**COMPANY**

Details of transactions between the Company and other related parties are disclosed below.

**Loans**

The Company has advanced loans to other companies in the Group. The total interest included in investment income in the statement of profit or loss for the year ended 31 December 2016 was £18,584,000 (2015: £18,491,000). Included within long-term/short-term securities is £289,039,000 as at 31 December 2016 (2015: £264,158,000).

The Company has received loans from other companies in the Group. The total interest included in finance costs in the statement of profit or loss for the year ended 31 December 2016 was £nil (2015: £275,000). Included within borrowings is £nil as at 31 December 2016 (2015: £nil).

**NORTHERN POWERGRID HOLDINGS COMPANY (REGISTERED NUMBER: 03476201)**

**NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS - continued  
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**29. RECONCILIATION OF PROFIT BEFORE INCOME TAX TO CASH GENERATED FROM OPERATIONS**

**Group**

	2016	2015
	£'000	£'000
Profit before income tax	260,194	294,042
Depreciation charges	209,092	184,331
Profit on disposal of fixed assets	(1,005)	(738)
Amortisation of deferred revenue	(47,165)	(48,206)
Retirement benefit obligations	(28,753)	(38,514)
Movement in provisions	(1,495)	1,329
Finance costs	97,734	91,373
Finance income	(1,258)	(884)
	<u>487,344</u>	<u>482,733</u>
Decrease/(increase) in inventories	816	(1,329)
(Increase)/decrease in trade and other receivables	(20,518)	11,084
Increase/(decrease) in trade and other payables	<u>11,933</u>	<u>(13,352)</u>
<b>Cash generated from operations</b>	<u><b>479,575</b></u>	<u><b>479,136</b></u>

**Company**

	2016	2015
	£'000	£'000
Profit before income tax	5,364	126,424
Finance costs	15,005	15,243
Finance income	(20,946)	(142,414)
	<u>(577)</u>	<u>(747)</u>
Decrease in trade and other receivables	505	-
Increase in trade and other payables	<u>3,566</u>	<u>2,537</u>
<b>Cash generated from operations</b>	<u><b>3,494</b></u>	<u><b>1,790</b></u>

**30. ULTIMATE CONTROLLING PARTY**

The ultimate controlling party and ultimate parent undertaking of Northern Powergrid Holdings Company is Berkshire Hathaway, Inc., a company incorporated in the United States of America.

Copies of the group accounts of Berkshire Hathaway, Inc., which include Northern Powergrid Holdings Company, can be obtained from the Company Secretary, Northern Powergrid Holdings Company, Lloyds Court, 78 Grey Street, Newcastle upon Tyne, NE1 6AF.