Northern Powergrid Holdings Company

Annual Report and Consolidated Financial Statements

for the Year Ended 31 December 2019

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Northern Powergrid Holdings Company Company Information

Directors	W J Fehrman T E Fielden T H France P J Goodman P A Jones J N Reynolds
Company Secretary	J C Riley
Registered office	Lloyds Court 78 Grey Street Newcastle upon Tyne Tyne and Wear NE1 6AF
Registration number	03476201 (England and Wales)
Auditor	Deloitte LLP Statutory Auditor Newcastle upon Tyne Tyne and Wear United Kingdom

The directors present their annual report and audited consolidated financial statements for the year ended 31 December 2019 of Northern Powergrid Holdings Company (the "Company"), which have been drawn up and are presented in accordance with the Companies Act 2006.

Business model

The Company is the parent undertaking for the Northern Powergrid group of companies (the "Group") 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 ("NPg Metering").

NPg Northeast and NPg Yorkshire (together "Northern Powergrid") are distribution network operators ("DNOs") and hold electricity distribution licences granted by the Secretary of State. Northern Powergrid is regulated by the Office of Gas and Electricity Markets ("Ofgem"), which in turn, is governed by the Gas and Electricity Markets Authority ("GEMA"). Ofgem require the DNOs to operate within a regulatory framework known as a price control, the purpose of which is to protect the interests of end consumers by setting an upper limit on the amount the DNOs can charge for the use of their networks. The completion of the 2018/19 Regulatory Year (31 March 2019) represented the mid-point of the current RIIO-ED1 price control which became effective on 1 April 2015 and is due to end on 31 March 2023 (the "ED1 period").

During the year, Northern Powergrid distributed electricity to approximately 3.9 million customers connected to the 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).

The majority of revenue generated by Northern Powergrid is controlled by a distribution price control formula which is set out in the electricity distribution licence. The price control formula does not directly constrain profits from year to year, but is a control on revenue that operates independently of a significant portion of Northern Powergrid's costs. Allowed revenue is recovered from electricity suppliers via the application of Distribution use of System charges. These charges account for approximately 15% of the electricity end user's overall electricity bill. Northern Powergrid's opening base allowed revenue (excluding the effects of incentive schemes and any deferred revenues from the prior price control) has been set to remain constant for each Regulatory Year from 1 April 2016 through to 31 March 2023. Nominal opening base allowed revenues will increase in line with inflation (as measured by the United Kingdom's Retail Prices Index "RPI")).

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

As Northern Powergrid is the largest contributor to the Group in terms of revenue and profit, the Strategic Report predominantly concentrates on the performance and progress of those entities throughout the reporting year.

STRATEGY

The Group operates a strategy based on six core principles (the "Core Principles") which comprise Financial Strength, Customer Service, Operational Excellence, Employee Commitment, Environmental Respect and Regulatory Integrity. The Core Principles (which are applied by the Group's parent company, Berkshire Hathaway Energy Company ("Berkshire Hathaway Energy")), set out the basis on which the Company and Group generates shareholder value over the longer-term and defines the standards by which the Group holds itself accountable. Each Core Principle is defined by a strategic objective which is intrinsically linked to the commitments made in Northern Powergrid's 2015 to 2023 regulatory well-justified business plan ("Business Plan").

Submitted to Ofgem in March 2014, the Business Plan described the long term strategy and commitments that Northern Powergrid would achieve during the ED1 Period in order to deliver sustainable growth with regard to those with whom Northern Powergrid interacted and served. Developed after a period of consultation with stakeholders, the Business Plan focussed on a number of priorities (described throughout the Strategic Report) including minimising costs, improving flood defences, enhancing customer service, prioritising employee safety, supporting vulnerable customers, protecting the environment and transitioning to low carbon technologies.

The delivery of the Business Plan is supported by an annual business plan (the "Annual Plan") which is submitted to the Group's shareholder each year and is designed to phase progress towards the achievement of each commitment over the duration of the ED1 period. The phasing ensures that the deliverables in both plans can be measured effectively by using a mix of financial and non-financial Key Performance Indicators ("KPI").

The Strategic Report focuses on each Core Principle and the performance of each KPI throughout the year in order to provide a summary of the success in achieving each strategic objective, progress made against certain Business Plan commitments and performance in relation to the Annual Plan.

FINANCIAL STRENGTH

Strategic objective: Strong finances that enable improvement and growth.

KPI	2019	2018
Operating Profit	£ 367.1 million	£ 353.6 million
Cash from operating activities	£ 480.8 million	£ 483.1 million
Cash used in investing activities	£ 466.5 million	£ 420.8 million
Credit Rating (Standard & Poor's)	А	А

Business Plan commitment: To build on the efficiencies achieved to date and in doing so, reduce base costs by 3.1% in 2015 to 2023 compared to the previous price control period.

Performance during the year: The Group continued to maintain good control in respect of both its capital and operating costs by effectively managing the financial risks that could have had an adverse impact on its business. The ED1 price control has been set for eight years (1 April 2015 to 31 March 2023) and provides the Group with some stability in terms of its income until 31 March 2023.

Revenue: The Group's revenue at £849.7 million was £34.4 million higher than the prior year due to higher distribution system revenues, higher smart metering revenue, higher amortisation of deferred revenue and higher contracting volumes.

Operating profit and position at the year-end: The Group's operating profit of ± 367.1 million was ± 13.5 million higher than the previous year, primarily reflecting higher revenues offset by higher costs, the largest increase being depreciation and amortisation. The statement of financial position on pages 34 and 35 shows that, as at 31 December 2019, the Group had total equity of $\pm 2,749.1$ million (2018: $\pm 2,554.8$ million). The directors consider the Group to have a strong financial position which, when coupled with the preference of 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 £107.6 million were £3.1 million higher than the prior year due to higher borrowings.

Taxation: The effective tax rate in the year was 17.7%. Tax charge for the year was £46.5 million which was lower than the prior year of \pounds 50.2 million mainly due to adjustments to prior year and higher disallowed costs in 2018 offset by higher accounting profits. Details of the income tax expense are provided in Note 11 to the financial statements.

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

Cash flow: Movements in cash flows were as follows:

- **Operating activities:** Cash flow from operating activities at £480.8 million was £2.3 million lower than the previous year, mainly due to adverse working capital offset by higher earnings before depreciation and interest.
- **Investing activities:** Cash flow used in investing activities at £466.5million was £45.7 million higher than the previous year, mainly due to higher capital deployed.
- Financing activities: Cash flow from financing activities at £207.7 million was £279.9 million higher than the previous year outflow of £72.2 million, mainly due to higher net borrowing in the year part in advance of requirements to take advantage of favourable rates.

Pensions: The Company is a participating employer in the Group of the Electricity Supply Pension Scheme (the "DB Scheme"), a defined benefit scheme. Further details of the Group's commitments to the DB Scheme and the associated deficit repair payments are provided in Note 29 to the financial statements. The Group also participates 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 employees, 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.

CUSTOMER SERVICE

Strategic objective: Delivering exceptional customer service.

	NPg Northeast		NPg Yorkshire	
KPI	2019	2018	2019	2018
BMCS	90%	86.8%	87.7%	85.8%
BMCS Rank (out of 14)	10	11	13	13
BMCS Power Cuts	89.6%	87.7%	88.9%	87.1%
BMCS General Enquiries	92.3%	90.1%	87.6%	88.4%
BMCS Connections	89.4%	84.8%	87.1%	84.1%
	Northern Powergrid			
	2019		20	18
SECV Rank (out of 14)	3		2	2

Business Plan commitment: To provide a reliable, better communicated and faster customer service offering through a range of channels to suit stakeholder needs.

Performance during the year: Under the broad measure of customer satisfaction ("BMCS"), an independent market research company carried out telephone surveys with Northern Powergrid's customers to find out how satisfied they were with services related to unplanned or planned power cuts, quotations and subsequent connections, and general enquiries.

NPg Northeast recorded a significant improvement in overall satisfaction scores compared to the prior year (2019: 90.0% versus 2018: 86.8%) which had resulted in an overall BMCS rank of 10 out of 14 (2018: 11). This was attributed to an increase in performance across all BMCS KPIs, particularly in the area of Connections. However, as the other DNOs also demonstrated increased levels of performance, the rank achieved did not change materially. NPg Yorkshire recorded an improvement in overall satisfaction scores compared to the prior year (2019: 87.7% versus 2018: 85.8%) which had resulted in an overall BMCS rank of 13 out of 14 (2018: 13). The BMCS rank was maintained year-on-year.

To further enhance the service provided to customers, a number of initiatives from Northern Powergrid's customer service improvement plan were implemented during the year. This included the continued development of the customer relationship management ("CRM") system, the introduction of quote-on-site technology for connections small works and the rollout of a 'Customer First' training programme.

Activity scheduled to take place during 2020 is to focus on technology enablement including extending the CRM system to the areas of planned Power Cuts and General Enquiries, investing in a new contact centre telephony platform and upgrading the Group's external website. The programme of work will be supported by the appointment of regional Customer Service Managers and extending the Customer First training to include all employees and contractors.

Connections to the network

Business Plan commitment: To further implement customer service improvements in support of the commitment to reduce routine, small works end-to-end connections lead times by 30% during the ED1 period, actively facilitate the development of competition from independent connections providers ("ICPs") and deliver the major works service improvement plan as part of the Ofgem Incentive on Connections Engagement ("ICE").

Performance during the year: Reducing end-to-end connections lead times continued to pose a challenge and, as such, work to improve the level of customer service within the small works connections business (measured by the BMCS connections KPI) continued. In support of this, the process whereby one individual assumes responsibility throughout each connections process from creating a quotation on site (using the quote-on-site technology) to the final delivery of the connection itself was further embedded. By continuing to introduce further enhancements, Northern Powergrid remains confident that the 30% reduction in end-to-end lead times (currently at 26.7%) remains achievable by the end of the ED1 period.

Northern Powergrid continued to comply with the processes introduced by Standard Licence Condition 52 and the Competition in Connections Code of Practice. This included the provision of dual quotations, enabling ICPs to self-determine points of connection to the existing network and self-approve designs, and by facilitating the self-connection of new assets to Northern Powergrid's low and high voltage networks by suitably accredited ICP operatives as a contestable activity.

In relation to the Northern Powergrid's ICE commitments for the 2018/19 regulatory period, the 22 actions included in the service improvement plan were successfully delivered.

Corporate responsibility

Business Plan commitment: To build effective relationships with stakeholders whilst maximising the value of contact with customers, especially those who are vulnerable and hard to reach.

Performance during the year: Northern Powergrid continued to work closely with key partners such as local authorities, local enterprise partnerships, Members of Parliament and local resilience forums, particularly during periods of severe weather and when providing support to vulnerable customers. Collaboration with stakeholders regionally and in the wider energy industry included dissemination of Northern Powergrid's plans concerning the development of electric vehicles infrastructure, the transition to Distribution System Operator ("DSO") and delivery of the annual Stakeholder Summit which was designed to update senior stakeholders from government, the private sector and customer groups on Northern Powergrid's progress in delivering the Business Plan, specifically on the areas of sustainability and decarbonisation. In addition, a series of roundtable stakeholder discussions were held, the outputs of which will inform the annual strategic planning process and support emerging thinking for future business plans.

In April 2019, Northern Powergrid put forward its Stakeholder Engagement and Customer Vulnerability ("SECV") submission to Ofgem in respect of work undertaken during the previous Regulatory Year. The submission provided an overview of activities and case studies in areas such as safety, environment, customer service, reliability and availability. Following the submission to Ofgem's panel, Northern Powergrid achieved third place (of 14) in the context of the wider gas distribution, transmission owner and DNO group, a marginal step down from second place (of six DNO groups) in the prior year. In response, plans were developed to strengthen engagement in order to improve the position going forward.

Throughout the year, a number of tailored education and safety programmes were delivered. Now in its second year, the Community Partnering Fund (in collaboration with Northern Gas Networks) worked with a number of charity and community groups to support hard to reach stakeholders including traveller communities, refugees, individuals with learning difficulties and the elderly. The projects undertaken provided advice on topics such as energy saving, fuel poverty, educational and career opportunities in science, technology, engineering and mathematics subjects and the availability of priority services. In addition, the Energy Heroes initiative (used in conjunction with the capital investment scheme) resulted in interaction with 30 primary schools for the purpose of promoting energy efficiency.

OPERATIONAL EXCELLENCE

Strategic objective: High-quality, efficient operators running a smart reliable energy system.

	NPg Northeast				
	201	201	2017/18		
KPI	Actual	Target	Actual	Target	
Customer minutes lost	47.6	<59.1	44.6	<61.9	
Customer interruptions	54.3	<61.4	51.8	<62.1	
		NPg Yo	orkshire		
	201	8/19	201	2017/18	
KPI	Actual	Target	Actual	Target	
Customer minutes lost	38.8	<57.9	36.4	<60.2	
Customer interruptions	49.3	<65.2	48.1	<66.4	
	NPg No	ortheast	NPg Yorkshire		
KPI	2019	2018	2019	2018	
High voltage restoration time	57.0	61.0	53.2	54.0	
	Northern Powergrid				
KPI	2019		2018		
Network investment (million)	£441	1.9	£380	6.0	

Business Plan commitment: To enhance the reliability of the network in support of the commitment to achieve 8% fewer unplanned power cuts and reduce the average length of unplanned power cuts by 20% during the ED1 period.

Performance during the year: Customer minutes lost ("CML") and customer interruptions ("CI") are the KPIs set by Ofgem and used by Northern Powergrid to measure the quality of supply and system performance. Both CML and CI are measured on a regulatory year basis which commences on 1 April of any given year and concludes on 31 March of the following year. 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. Performance during the year was better than Ofgem's target for both CML and CI.

In respect of the Business Plan commitments, Northern Powergrid had achieved 25% fewer unplanned power cuts and a reduction of the average length of unplanned power cuts by 33% (relative to performance in April 2015). Given the original targets had been exceeded by a considerable margin and in order to pursue continued improvement, the commitments for unplanned power cuts were extended from 8% to 30% for the number incurred and 20% to 40% for the average duration.

Northern Powergrid invested £441.9 million during the year through its approved Network investment strategy (2018: £386.0 million), which has been designed to deliver improvements and increase the Network's resilience. Various major projects were undertaken to reinforce the primary Network, refurbish transformers, rebuild overhead lines, remove and replace oil-filled cables, change deteriorated poles, replace switchgear and install and commission new remote control points.

Further Network enhancements included the continued roll-out of the automatic power restoration system on the high voltage Network. This made the restoration of supply in under three minutes following an interruption available to a further 404,300 customers during 2019, taking the total to 1,528,000. At low voltage, in addition to the previous deployment of smart fuses to restore supplies in under three minutes to customers affected by intermittent faults, the implementation of next generation innovative low-voltage technology devices continued with the addition of low cost Network monitoring sensors. The devices enable the detection of developing faults so that they can be proactively managed whilst enabling the gathering of Network condition information.

In relation to high-voltage restoration, NPg Northeast's performance during the year averaged 57.0 minutes (2018: 61.0 minutes) and NPg Yorkshire's performance during the year averaged 53.2 minutes (2018: 54.0 minutes) after allowing for severe weather incidents and other exemptions.

EMPLOYEE COMMITMENT

Strategic objective: High-performing people doing rewarding jobs in a safe and secure workplace

	2019		2018	
KPI	Actual	Target	Actual	Target
Occupational safety and health administration rate	0.18	0.22	0.26	0.26
Preventable vehicle accidents	33	27	27	21
Lost time accidents	3	2	3	3
Restricted duty accidents	0	0	0	1
Medical treatment accidents	1	2	3	2
Operational incidents	11	10	8	10
КРІ	2019		2018	
Absence rate	3.5	5%	3.3	3%

Health and safety

Business Plan commitment: To deliver world class safety performance and half the accident rate during the ED1 period.

Performance during the year: In common with the Berkshire Hathaway Energy group, the Group measures its safety performance in terms of the Occupational Safety and Health Administration ("OSHA") rate, which is a measure used in the United States ("US") to capture safety incidents down to minor levels of medical treatment. The Group exceeded its target by achieving an OSHA rate of 0.18 (2018: 0.26), which equated to four recordable incidents against the goal of five or fewer. In relation to Northern Powergrid's performance, due to a number of relatively minor incidents (for which corrective action has been initiated), the Preventable Vehicle Accidents and Operational Incidents targets were both missed. In respect of the Business Plan commitment, at 31 March 2019, being half way through the ED1 Period, the accident rate had been reduced by 28%, which was marginally ahead of the target to achieve a 50% reduction by 31 March 2023.

Improving safety performance remains a priority and the way in which this is achieved is set out in Northern Powergrid's safety and health improvement plan ("SHIP"). The SHIP (which is approved by the Health and Safety Committee) focuses on leadership engagement, supervisory oversight, and workplace risk management. These three areas are supported by driver training, operational safety seminars, stand-down briefings and regular safety reports and newsflashes. One example of a newly developed operational safety seminar held during the year had focussed on corporate memory whereby recently qualified engineers were educated on significant historical safety events that had affected the Group and other DNOs in order to share best practice and lessons learnt.

The health and wellbeing of staff also forms an integral part of the SHIP. Existing support available to employees includes an independent employee assistance service, which is a confidential, self-referral counselling and information service to assist with personal or work-related problems and access to services including counselling and physiotherapy referrals. Supplementary activity undertaken during the year included a forum held for the Group's population of mental health first aiders in order to develop skills and knowledge, and to enhance the approach to protecting and promoting the mental health and wellbeing of employees.

Northern Powergrid's OHSAS 18001 health and safety management systems successfully transitioned to the new ISO 45001 accreditation scheme to retain external verification of the adequacy of the Group's Safety Management System.

Employees

Business Plan commitment: To emphasise the importance of leadership and high standards of performance by engaging, collaborating and working with employees and their trade union representatives.

Performance during the year: Following the externally facilitated employee survey conducted in 2018 to benchmark the level of employee engagement against top performing organisations, the Group continued to progress actions to improve communication and to enhance the quality and quantity of time spent discussing personal objectives and development. During 2019, the Group invested in various training programmes to enhance the employee experience. This included the introduction of an induction programme, the creation of management training modules on core leadership expectations (CLEs), the establishment of a formal leadership programme aimed at developing emerging talent and a range of Berkshire Hathaway Energy designed leadership modules which were rolled out to people managers.

The Group has adopted the Berkshire Hathaway Energy code of business conduct ("Code of 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. In support of this, a "speaking up" process is in place enabling all employees to raise concerns of unethical acts, malpractice or impropriety (including bribery or corruption), and an anonymous help line operated by an independent company is also available.

During the year, 92 new recruits (2018: 82) joined the Northern Powergrid's workforce renewal programme. At 31 December 2019, the Group had 2,448 employees (2018: 2,473).

ENVIRONMENTAL RESPECT

Strategic objective: Leaders in environmental respect and low carbon technologies.

	20	19	20	18
КРІ	Actual	Target	Actual	Target
Total oil/fluid lost (litres)	30,138	<30,300	35,167	<25,000
SF6 gas discharges (kg)	65.5	<60.0	59.7	<100.0
Environmental incidents	7	<8	13	<9
КРІ	2019		2018	
Carbon footprint (tonnes)	35,120		40,815	
Energy consumed (MWh)	47,:	591	50,	977

Business Plan commitment: Deliver Environmental "RESPECT" (Responsibility, Efficiency, Stewardship, Performance, Evaluation, Communication and Training) and in doing so reduce oil and fluid loss by 15% and our business carbon footprint by 10% during the ED1 period.

Performance during the year: Northern Powergrid and IUS both operate a United Kingdom Accreditation Service scheme for environmental management and is certified to the environmental management systems standard ISO 14001:2015. The ISO 14001 standard is designed to enhance environmental performance, fulfil compliance obligations and achieve environmental objectives, all of which contribute to the achievement of Northern Powergrid's KPIs. A full recertification assessment was carried out in March 2017 and surveillance audits are carried out twice per year, the last one being conducted in October 2019. Continued certification was confirmed following each audit.

Northern Powergrid's carbon footprint reporting framework is certified under the Certified Emissions Measurement and Reduction Scheme for compliance with ISO 14064-1:2006. The last full audit was undertaken in November 2019, where continued certification was confirmed. Initiatives including the introduction of electric vehicles and the implementation of telematics in all fleet vehicles led to a further improvement in reducing the Group's carbon footprint during the year to 35,120 tonnes (2018: 40,815 tonnes). This improvement demonstrated a carbon footprint reduction of 40% during the first half of the ED1 period, well ahead of the original 10% commitment and in line with the 40% stretch target applied for the 2018/19 Regulatory Year.

In support of the target to further reduce oil and fluid loss, the 2019 annual environmental improvement plan included replacing fluid-filled cables and locating cable fluid leaks more quickly which resulted in a total fluid loss of 30,138 litres (2018: 35,167). In relation to the Business Plan commitment, at 31 March 2019, Northern Powergrid had achieved a 36% reduction in oil and fluid loss (relative to 1 April 2015). As a consequence, a stretch target of achieving a 47% reduction by the end of the ED1 period was adopted.

To maintain its strict policy of environmental protection and legal compliance, the Group continues to assess environmental risks and mitigate threats through programmes of work such as fluid-filled cable replacement, undergrounding overhead lines in areas of outstanding natural beauty, installing flood defences, implementing secondary containment in high risk substations and removing equipment containing polychlorinated biphenyl from the network. Whilst prevention is paramount, in the event the Group's activity does result in a leak or spill, the services of an appointed 24-hour a day environmental response consultancy is used to minimise the effects of any incident. In addition to safeguarding the environment from its direct activity, the Group also operates a habitats programme which is aimed at protecting flora and fauna.

Sustainability

Business Plan commitment: To help facilitate the United Kingdom's transition to a low-carbon economy in the Group's capacity as a major participant in the United Kingdom energy industry and in terms of its own carbon footprint.

Performance during the year: As the country takes action to make significant reductions in its carbon emissions following the establishment of a net zero carbon emissions target by 2050, the way in which electricity is produced and used is expected to have a substantial impact on the Network over time. Northern Powergrid is actively exploring how best to contribute to the achievement of this target through decarbonisation of its own operations, including electrifying the fleet, as well as enabling the uptake of low-carbon technology installations such as photovoltaic solar panels, electric vehicles and heat pumps. The volume and total capacity of decentralised energy generation has also been growing steadily and, given the greater range of load and generation technologies now 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. In the past year Northern Powergrid has been market testing the provision of flexible solutions, whereby customers are able support the Network during faults by changing their energy usage or utilising their generation assets.

From an innovation perspective, Northern Powergrid is running a portfolio of projects in the priority areas of smart meters, digital-enabled customer service and affordability. A partnership with Nissan is facilitating new electric vehicle projects for the trialling of 'vehicle to grid' technology to enable car users to supply power to support the Network. In addition, a new project is developing mobile battery technology to expedite the restoration of the electricity supply following a power cut. Collaboration with Northern Gas Networks at the Integrel demonstrator site continues to assess the potential future benefits of integrating both gas and electricity energy systems. Northern Powergrid is also scoping the role of DSO through a project that explores the value of the transition for customers and to understand the business changes that are required to realise those benefits. In October 2019, Northern Powergrid published its latest thinking in the DSO v1.1 Development plan.

Northern Powergrid's climate change adaptation strategy recognises the impact that climate change is anticipated to have on the business, the risks this poses and the proposed actions to mitigate these risks including vegetation management, Network specifications for changing temperatures and improved weather prediction. The installation of flood defences is one such key activity that is already underway and the delivery of the committed programme in the ED1 period remains on track.

REGULATORY INTEGRITY

Strategic objective: Trustworthy, fair and balanced.

KPI: Completion of a quarterly regulatory compliance affirmation process.

Business Plan commitment: To manage the Group's business to the highest behavioural standards and adhere to a policy of strict compliance with all relevant standards, legislation and regulatory conditions.

Performance during the year: In order to ensure compliance with licence and other regulatory obligations, Northern Powergrid operates a regulatory compliance affirmation process, under which ownership of approximately 2,000 regulatory obligations are assigned to around 80 responsible managers. Those responsible managers are required to review compliance with the relevant obligations on a quarterly basis and report on any identified non-compliances or perceived risks which are then addressed by members of the senior management team. To minimise the risk of Northern Powergrid breaching its licence conditions and other statutory requirements (which could lead to financial penalties), the board review the outcomes of each exercise. Each quarterly regulatory compliance affirmation process was completed satisfactorily during the year.

Northern Powergrid submitted its annual Data Assurance Report to Ofgem in February 2019, which included risk assessments of the regulatory returns to be submitted in the Regulatory Year ahead (April 2019 - March 2020), together with a report detailing the assurance work actually carried out in the Regulatory Year just ended (April 2018 - March 2019), and the findings of that work.

In December 2019, GEMA published (in May 2019) a decision to apply the same broad methodology that it had developed for electricity transmission and gas distribution. During the year, the level of activity within the regulatory environment intensified as a result of GEMA initiating (in August 2019) the RIIO-ED2 price control review and therefore the process to determine the charges that DNOs are able to levy over the next price control period (1 April 2023 to 31 March 2028).

In support of the preparation for the RIIO-ED2 price control Northern Powergrid took part in a number of consultations concerning the framework methodology and established a Customer Engagement Group for the purpose of providing challenge to Northern Powergrid and to ensure that customers' interests are adequately reflected in the RIIO-ED2 business plan.

PRINCIPAL RISKS AND UNCERTAINTIES

The Group operates a structured and disciplined approach to the management of risk as part of its overall risk management policy and in support of its financial reporting practices. A robust system is in place to facilitate the identification of new opportunities and risks, including those associated with the achievement of the Group's strategic objectives and Core Principles. Once identified, key risks and their respective controls and mitigation plans are continually assessed and formally reviewed by the Risk Advisory Board ("RAB") in order that they are managed to an acceptable level in accordance with the Group's risk appetite. The RAB reports its findings to the board on a regular basis to ensure the directors are sufficiently appraised of the risk exposure associated with the pursuit of the Group's long-term strategy.

Supported by the internal audit function, the risk management programme includes regular reviews of the crisis management, disaster recovery and major incident plans. To determine the level of disaster preparedness and responsiveness against threats to business continuity, risk management plans and processes are periodically tested. This self-evaluation approach is reinforced by that of the Berkshire Hathaway Energy group, which benchmarks risk management activities across its business units and shares significant lessons learned.

Risks

Cyber security

Unauthorised access or compromise of the Information Technology or Operational Technology networks, resulting in loss of network control and availability. Unauthorised access or loss of large volumes of data or sensitive data.

Mitigations:

- Robust cyber security risk mitigation programme is in place.
- Accreditation under the ISO 27001 Information Security (process security) standard for certain discrete business areas.
- Compliance with the Centre for Internet Security Critical Security Controls.
- Monitored by the Information Security Executive Committee and the board.

Regulatory and policy positioning

Decisions taken resulting in negative impacts to our business model.

Mitigations:

- Northern Powergrid's policy position supporting the expanded role of DSO is being set out.
- Innovation projects in place to develop and demonstrate future technologies and commercial practices.
- The Company and Group engages in a robust regulatory and stakeholder engagement programme.
- The Group is actively involved in consultations on the RIIO-2 price controls.

Network resilience

Loss of the operational network due to significant weather events, targeted physical attack or catastrophic asset failure resulting in sustained or widespread loss of essential supply.

Mitigations:

- Major incident and crisis management policies, plans and governance arrangements are in place.
- An industry mutual aid agreement exists.
- Network investment ensures grid resilience.
- Grid resilience programme and audits.

Safety

Fatality or serious harm caused to an employee or a third party.

Mitigations:

- Overseen by the Health and Safety Committee.
- Clear policies and procedures exist that comply with legislation to ensure the safety of the employees and customers.
- Health and safety training is provided to employees on a continuous basis.
- Audit programme and inspection regimes are in place.
- ISO18001 safety management system in place.

Environment

Failure to prevent network assets from having a significant negative impact on the environment.

Mitigations:

- · Incident response process and robust policies and procedures in place
- Programme to reduce fluid loss and the Group's business carbon footprint.
- Investment in technology to minimise environmental incidents and 'self-heal' the network.
- Asset inspection programme.
- ISO14001 environmental management system in place.

Resource Availability

Access to and availability of skilled resource resulting in an inability to deliver work programmes during the ED1 period.

Mitigations:

- Mix of direct labour and contracted resource is used.
- Workforce renewal programmes in place to recruit and retain employees.
- Ongoing training and development builds internal capability.
- Employee engagement and health and well-being initiatives are in place.

Efficiency and output performance

Failure to maintain cost and output performance competiveness in the industry.

Mitigations:

- · Robust business planning process.
- Monthly financial controls in place including detailed review of actuals against budget, competitive tendering process, and capital expenditure approvals process.
- Monthly executive business performance review.
- Comprehensive "Efficient Output Delivery" programme.

Financial risks

The exposure to interest rate, tax, liquidity and treasury risks.

Mitigations:

- Monitored by the treasury department.
- The Group is financed by long-term borrowings at fixed and floating rates and has access to short-term borrowing facilities at floating rates of interest.
- As at 31 December 2019, 99% of the Group's long-term borrowings were at fixed rates and the average maturity for the long-term borrowings was 12 years. The Group uses interest rate swaps to mitigate exposure to uncertain future interest rates.
- Financial covenant monitoring is in place.

Brexit

Britain's departure from the European Union.

Mitigations:

• Brexit is not considered to be a principal risk to the Company or Group.

Coronavirus Pandemic

Infection rate leads to high staff absence.

Mitigations:

- Coronavirus Pandemic mitigation plan in place.
- · Geographical distribution of facilities and staff.
- Briefings and advice provided.

At the time of writing this report, the Group's response to the coronavirus pandemic is fully operational. As a provider of a key national infrastructure, the Group has robust policies and processes in place to minimise the effect of disruptions to service and has considerable experience of invoking its major incident procedures. The pandemic management plan has been developed to provide a dynamic approach to the way in which the Group is run so as to ensure essential operations are maintained whilst supporting the health and well-being of staff. The Group's response is aligned to UK Government advice and formulated with the oversight of the Department for Business, Energy & Industrial Strategy.

The Group's revenue derives principally from regulated electricity distribution and this is not expected to be materiality affected by the current pandemic. The regulatory regime allows for the recovery of allowed costs in full over the long term. In addition, the Group has reviewed its liquidity levels and has concluded that these remain sufficient. The Group has access to long-term financing from a range of sources, principally the sterling bond market, which has offered funding at rates commensurate with Group companies' strong credit ratings.

Internal control

A rigorous internal control environment exists within the Group to support the financial reporting process, the key features of which include regular reporting, a series of operational and financial policies, investigations undertaken by internal audit and a stringent process for ensuring the implementation of internal audit recommendations. In addition, the Group utilises comprehensive business planning procedures, regularly reviews KPIs to assess progress towards its goals, and has a strong internal audit function to provide independent scrutiny. Financial controls include a centralised treasury operations and established procedures for the planning, approving and monitoring of major capital expenditure. The RAB monitors the effectiveness of internal controls and reports on its findings to the board and Berkshire Hathaway Energy.

Controls which are applicable to financial decisions are governed via a schedule of delegations of authority which are approved by the board (and apply to the Group) for the purpose of enabling the senior management team to make decisions up to certain financial limits, above which point the decision making reverts to the directors. These limits reflect the board's level of risk appetite and are reviewed on an annual basis.

In accordance with Berkshire Hathaway Energy's requirements to comply with the US Sarbanes-Oxley Act, the Group undertakes a quarterly risk control assessment confirming that the effectiveness of the system of internal controls have 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.

The Group does not have a specific human rights policy. However, in accordance with the Core Principles, it remains fully committed to operating ethically and responsibly and with fairness and integrity. This is implemented through the policies and procedures it has in place which are applicable to all stakeholder groups and encompasses employees' health, safety and welfare, dealings with customers (particularly those who are vulnerable), the impact of the Group on the environment and the contribution to sustainability.

To ensure that the Group maintains the highest level of ethical standards in the conduct of its business, Berkshire Hathaway Energy's Code of Conduct has been adopted, further details of which can be found on page 8. The Group has robust procedures in place to meet the requirements of the Bribery Act 2010. Every employee must undertake training in respect of the Group's anti-corruption and anti-bribery policy each year.

Viability statement

The directors have chosen an eight-year period from 1 April 2015 for the purposes of making this statement as it equates to the ED1 period for which Northern Powergrid's income has been set. Various factors were contemplated when making an assessment of the Group's prospects including the general stability associated with the regulatory environment, the principal risks and uncertainties facing the Group, the Group's business model and strategy, the effect of the coronavirus pandemic upon the Group, the forecasts developed as part of the Annual Plan and the commitments made in the Business Plan. Consideration was also given to the obligations contained in Northern Powergrid's licence to provide Ofgem with annual certificates, confirming that the directors have a reasonable expectation that Northern Powergrid will have sufficient financial and operational resources available for the continuation of business for a period of at least 12 months. The board determined any material variations to the assumptions used when providing those certificates were unlikely. Based on the results of their review, the directors have a reasonable expectation that the Group in operation and meet its liabilities as they fall due over the ED1 Period.

Section 172(1) statement

The information pursuant to Section 414CZA of the Companies Act 2006 has been reported throughout the Strategic Report, Principal Risks and Uncertainties, Directors Report and Corporate Governance Statement. Consequently, the detail which describes how the directors have had regard to the matters set out in Section 172(1) (a) to (f) when performing their duty under Section 172 can be found on the pages referenced below:

- (a) the likely consequences of any decision in the long term; (Page 2)
- (b) the interests of the Company's employees; (Page 7 and 8)
- (c) the need to foster the Company's business relationships with suppliers, customers and others; (Pages 3-5 and 15)
- (d) the impact of the Company's operations on the community and the environment; (Pages 4-5 and 8)
- (e) the desirability of the Company maintaining a reputation for high standards of business conduct; and (Page 8)
- (f) the need to act fairly as between members of the Company. The Company has one class of ordinary shares which are all held by Berkshire Hathaway Energy U.K. Electric, Inc. (35%), Berkshire Hathaway Energy U.K. Power, Inc. (35%) and Berkshire Hathaway Energy U.K. Inc. (33%) all entities wholly owned by Berkshire Hathaway Energy.

Approved by the Board on 1 May 2020 and signed on its behalf by:

I W

T E Fielden Director

The directors present their annual report and the audited consolidated financial statements for the year ended 31 December 2019.

Dividends

During the year, an interim dividend of £0.6 million was paid (2018: £nil). The directors recommend that no final dividend be paid in respect of the year (2018: £nil).

The Company and Group 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 and Group 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

Northern Powergrid supports a programme of research that is expected to contribute to higher standards of performance and a more cost-effective operation of its business. The new projects initiated during the year have been detailed in the 'sustainability' section on page 9.

During the year, Northern Powergrid invested £4.1 million (2018: £5.6 million) (Note 6 to the financial statements) in its research and development activities.

Future developments and future outlook

The financial position of the Group, as at 31 December 2019, is shown in the consolidated statement of financial position on pages 34 and 35. 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 during the remainder of the ED1 price control and by delivering the strategic objectives linked to the Core Principles, Northern Powergrid will continue to develop its business by efficiently investing in the network and improving the quality of supply and service provided to customers.
- IUS will develop its business by concentrating on its core skills of engineering contracting thereby delivering a high standard of service to its existing clients and pursuing opportunities to increase its portfolio of clients.
- 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.

There are no plans to change the existing business model of any company within the Group.

Directors of the Company

The directors of the Company, who held office during the year and to the date of signing were as follows:

- W J Fehrman T E Fielden
- T H France
- P J Goodman
- P A Jones
- J N Reynolds

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.

Political donations

During the year, no contributions were made to political organisations (2018: £nil).

Financial instruments

Financial risk management

Details of financial risks are included in the Principal Risks and Uncertainties on page 10 to 12 of the Strategic Report and in Note 32 to the financial statements.

Financial derivatives

As at 31 December 2019 the Group held one derivative financial instrument (2018: one) to mitigate the interest rate risk on a floating interest rate loan. More details on derivative financial instruments are available in Note 33 to the financial statements.

Employment of disabled persons

The Group's 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 will make reasonable adjustments, wherever possible.

Employee involvement

A constitutional framework agreed with trade union representatives exists in respect of employee consultation. The board and senior management team keep employees and trade union representatives informed of and involved as appropriate in developments that may impact them now or in the future. This approach has been chosen as the most effective way of interacting with employees due to the combination of collectively bargained and personal contract holders and is managed by the Director of People and Customer Service.

Employee engagement continues to show improvement with local action plans augmented by routine communication channels including regular staff briefings, meetings with staff and their representatives, and utilising the Group's intranet.

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 regular electronic briefings. In addition, the executive directors routinely engaged with employees during operational site visits, by alternating their work location between regional offices, at employee events and conferences and meeting new starters through the induction programme.

In accordance with Section 414C of the Companies Act 2006 further disclosures detail concerning the Group's relationship with employees (including the principal decisions taken during the year) and information concerning greenhouse gas emissions can be found on page 7 to 8 of the Strategic Report.

Business relationships

As referenced throughout the Strategic Report, the Group's business model is predominantly to provide and maintain a reliable, safe and cost effective Network (whilst other subsidiaries rent meters, deliver engineering contracting services and explore hydrocarbon opportunities). To achieve these objectives, the Group delivers its service to fulfil the needs of the stakeholders with whom it interacts, a concept which underpinned the formulation of the Business Plan. Consequently, fostering business relationships is a prerequisite of the activity performed by the Group in the pursuit of its goals.

The Group's policy in respect of engaging with stakeholders is governed by the Core Principles and the Code of Conduct. The Core Principle of 'Regulatory Integrity' defines the Group's commitment to comply with all laws wherever it does business and the expectation that all employees (including directors) manage their activities in a manner that is compliant with all standards, regulations and corporate policies. In addition, the Code of Conduct requires adherence to the highest level of ethical conduct and fair dealings with all customers, suppliers and competitors.

Relations with suppliers is managed using a supplier registration system which supports a robust and transparent procurement process and ensures strict compliance with the prevention of slavery and human trafficking. As a consequence, the system allows the Group to make informed decisions which align with its values when awarding contracts. When considering suppliers, the board advocates prompt payment practices which are reviewed regularly by the internal audit function and the implementation of procedures to reduce the risk of modern slavery in supply chains - as set out in the Company's annual Modern Slavery Act statement.

Customers, whether they are domestic or commercial, are the primary stakeholder group served by the Group and therefore the services offered are all tailored to provide a benefit or enhance an experience. Further detail of the Group's relationship with customers, the support programmes provided and the decisions made during the year is discussed on pages 3 to 5.

As outlined on page 9, activity in respect of Regulatory Integrity and engagement with Ofgem was prevalent during the year and included participation in various consultations concerning the RIIO-ED2 price control review. Given the implications on Northern Powergrid's long term strategy, the relationship with Ofgem, the evolving RIIO-ED2 framework and the transition to DSO were regular items on the board agenda throughout the year.

Non-financial information statement

The non-financial reporting information pursuant to Section 414CB of the Companies Act 2006 has been reported throughout the Strategic Report and principal risks and uncertainties. Detail in respect of the relevant policies, risks and associated mitigations and non-financial KPIs can be found on the pages referenced below:

- Business model: page 2;
- Environmental: page 8;
- Employees: page 7 to 8;
- Social Matters: page 8 to 9;
- Respect for Human rights: page 12; and
- Anti-Corruption and Anti-bribery matters: page 12.

CORPORATE GOVERNANCE STATEMENT

The Company has sought to apply the UK Corporate Governance Code 2018 (the "Code") and report on the application of the Principles and supporting Provisions in so far as it considers them to be relevant to its ownership structure.

The directors confirm that the governance framework in place is appropriate to the circumstances of the Company and Group and where possible, the spirit of the Code has been applied. The framework is agreed with the Group's shareholder, Berkshire Hathaway Energy. The Company and Group has not complied with main Principle L or Provisions 17, 18 21, 22, 23, 26, 32, 33 and 41. In addition, Provisions 4, 9, 19, 20 and 35 are deemed not to be relevant to the Company's or Group's circumstances for the reasons explained in the pages that follow. A copy of the Code can be found at https://frc.org.uk/.

BOARD LEADERSHIP AND COMPANY EXPOSURE

Strategic Ownership

The board is collectively responsible for generating value for the Group's shareholder and wider society which is achieved through the delivery of a strategy which corresponds to Berkshire Hathaway Energy's six Core Principles. As discussed on page 2 of the Strategic Report, the strategy is set out in two forms of business plan (the Business Plan and Annual Plan), both of which are approved and monitored by the board and are designed to promote the long term sustainable success of the Company and Group whilst achieving the commitments developed to address stakeholder requirements.

For the purpose of scrutinising performance in respect of both business plans, the board review a range of financial and non-financial KPIs which correspond to the Core Principles and have been established to operate within a framework of internal controls. The deliverables set out in the business plans shape the allocation of both financial and operational resource for which the board delegates the responsibility to a single senior management team who have specific functional responsibilities in respect of operations, safety, health and environment, asset management, customer service, business development, policy and markets, regulation, human resources, organisation development, legal and finance.

Engagement and Values

The Group has an established relationship with its shareholder, reflected by the leadership structure, whereby the President and Chief Executive Officer of the Group reports directly to the President and Chief Executive Officer of Berkshire Hathaway Energy. Frequent interaction and dialogue with Berkshire Hathaway Energy (which is maintained through regular reporting and meetings with the Group's President and Chief Executive Officer and senior management team) ensures that strategic views are understood and aligned, and that appropriate values and standards are set. Demonstrated by the CLEs, required behaviour and standards include the delivery of quality and improvement (for which all employees are responsible) to developing individuals and teams, building stakeholder relationships and establishing strategic direction (predominantly responsibilities of the senior management team and the board).

As described on pages 7 and 8, employee engagement (and the investment therein) is implemented through consistent messaging which commences with the induction programme, during which colleagues are introduced to the Group, its business model, strategy and the CLEs; regular meetings with line management and communications from the President and Chief Executive Officer. A number of policies such as the Code of Conduct and Code of Practice and Business Ethics support the employee engagement programme and underpin the onward dissemination of the values and expected standards of behaviour to the wider employee population. As outlined on page 8, in the event employees have concerns regarding behaviour, ethics or compliance related matters, they are able to raise these confidentially via either internal or externally facilitated independent channels.

Composition

The board of the Company comprises five executive directors and one non-executive director. The Group's non-executive directors and Mr Knowles (a member of the Group's audit committee) are considered to be independent. The President and Chief Executive Officer combines the executive responsibility of running the Group's business with the responsibility for the leadership of the Company's board of directors, which includes directing the Company and Group and ensuring its effectiveness. The Group's shareholder supports the role undertaken by the President and Chief Executive Officer and, through the shareholder's regular interaction with the President and Chief Executive Officer and input into the principles governing to whom the board of the Company delegates its authority, ensures no one person has unfettered powers of decision. Chairmen and senior independent non-executive directors are not routinely appointed to the Group's boards.

Although the board does not include a balanced number of executive and non-executive directors, the board believes that the combination is appropriate and it possesses the requisite skills and experience necessary to provide effective leadership, stewardship and control of the Company and Group. The non-executive directors of the Company and Group constructively challenge the executive board and senior management team on the delivery of the Company's and Group's strategic objectives. In accordance with their individual areas of specialism, the non-executive directors chair a number of the Group's board sub-groups, which combined with the guidance and challenge they provide during routine board meetings, gives them additional opportunity to hold the senior management team to account.

Time Commitment and Resources

To facilitate the delivery of their duties, the directors continually update their knowledge of and familiarity with the operations of the Company and the Group. This is supported by robust reporting arrangements, access to the Group's operations and interaction with its staff. Under the direction of the President and Chief Executive Officer, information is provided to the board in a timely manner to enable directors to commit sufficient time to the preparation for and attendance at board meetings. In addition, updates and briefings are circulated during the course of the regular board meeting cycle. The directors are able to utilise the advice and services of the Company Secretary and her team. Upon request, the directors have access to independent professional advice. A register of situational conflicts is held centrally to ensure independent judgment is maintained and time commitment is not jeopardised. Conflicts of interests are declared as a matter of routine pursuant to individual director's duties.

The board meet on a quarterly basis to review business performance, strategic initiatives and operational and risk-related issues. Additional board meetings are held as required. Meetings of the board are chaired by the President and Chief Executive Officer.

Board committees and sub-groups

During the year, there were a number of committees and board sub-groups in operation, acting under delegated terms of reference which oversee the Group and report regularly on their activities. Attendance at meetings by the Company's board members and the senior management team during the year was as follows:

Name	Position	Board meeting	Audit Committee	Health and Safety Committee	Risk Advisory Board	Innovation Advisory Board
P A Jones	President and Chief Executive Officer	8/8 (Chair)		2/2 (Chair)		1/2
W J Fehman	President and Chief Executive Officer of Berkshire Hathaway Energy	0/0				
T E Fielden	Finance Director	8/8	1/1	2/2	4/4 (2 as Chair)	
T H France	General Counsel	8/8		2/2	2/4	
P J Goodman	Executive Vice-President and Chief Financial Officer, Berkshire Hathaway Energy	0/0				
J N Reynolds	Independent non-executive Director (Northem Powergrid Holdings Company)	7/8	1/1 (Chair)			
J C Riley	Company Secretary	8/8	1/1	2/2	2/2	2/2
A J Marshall	Independent non-executive Director (Northem Powergrid)			2/2	2/2 (Chair)	
P C Taylor	Independent non-executive Director (Northern Powergrid)					2/2 (Chair)
M Knowles	Independent member (Northem Powergrid Holdings Company audit committee)		1/1		2/3	·
N M Gill	Operations Director (resigned as a board director 30 April 2019)			1/2	4/4	
A Maclennan	Commercial Director			1/2	1/4	1/1
G M Earl	Director of Safety, Health and Environment			2/2	3/4	
N A Applebee	Director of People and Customer Service				4/4	
A E Bilclough	Director of Field Operations				2/4	1/2
M Drye	Director of Asset Management				4/4	2/2
P S Erwin	Policy and Markets Director				2/4	2/2
A P Jones	Director of Performance and Planning				3/4	1/2
A J Patterson	Director of Organisation Development		57 	8	2/4	

The executive directors who hold office at Berkshire Hathaway Energy do not routinely attend board meetings of the Company.

Health and Safety Committee

Role: Meets bi-annually to manage the health and safety policy and performance of the Group.

Duties:

- oversee the implementation and review the effectiveness of health and safety policy;
- develop the strategy for managing health and safety issues;
- monitor health and safety performance consider policy changes; and
- report to the board.

Audit committee

Role: To consider the application of corporate reporting, risk management and internal control principles.

Duties:

- carry out the functions required by DTR 7.1.3R;
- oversee the Governance and Risk Management Group;
- monitor internal audit plan;
- sub-delegate activities to another person or body as seen fit. At the December 2019 meeting, duties were sub-delegated to Berkshire Hathaway Energy's audit committee; and
- report to the board.

Risk Advisory Board (RAB) (formerly the Governance and Risk Management Group)

Role: Meets quarterly to ensure effective risk management and internal control processes are in place.

- contribute to the setting of Group's risk tolerance and appetite;
- keep under review current business risks and the effectiveness of internal controls;
- oversee the processes for the identification of future risks; and
- report to the board, Berkshire Hathaway Energy and the Audit Committee.

Innovation Advisory Board (IAB)

Role: Meets quarterly to monitor the effectiveness of the innovation programme in achieving its objectives.

Duties:

- contribute to the development, review and approval of the Group's innovation strategy;
- keep under review the current portfolio and pipeline of new innovation projects;
- monitor the level of risk associated with the programme; and
- report to the board.

SUCCESSION AND EVALUATION

The board of the Company (or of any other Group subsidiary) does not undertake an annual evaluation of its performance, as this is continually monitored and assessed by Berkshire Hathaway Energy through the delivery of the Annual Plan.

As a matter of routine, the committees and sub-groups that have been constituted on behalf of the Group have historically been evaluated through the activity delivered in accordance with their terms of reference. However, during 2019, a broader governance review was undertaken to revisit the scope, purpose, duties and membership of each committee or sub-group so as to ensure they remained effective and had the requisite level of skill and expertise.

Consequently, a number of changes were implemented including appointing Mrs Marshall to the position of chairman of the RAB (a role previously undertaken by Mr Fielden) so as to ensure the monitoring of risk and internal control was given additional independent scrutiny. Chaired by Professor Taylor, the IAB was constituted to further embed a culture of developing and applying innovative solutions to the Network and to support the strategic challenge and transition posed by the role of DSO. It was concluded that the Treasury Committee was surplus to requirements given all existing activity was undertaken by the Group's treasury department with delegated board oversight provided by Mr Fielden. And finally, the Pensions Committee was renamed to the Pensions Advisory Group and was transitioned to a consultative group, although continued to provide periodic reports to the board.

The review undertaken reaffirmed that the relationship between the Group and its shareholder continues to negate the necessity to establish a nominations committee for the purpose of identifying board appointments and a remuneration committee to consider directors' and senior managers' remuneration. Both of these functions are undertaken by the appropriate representative of Berkshire Hathaway Energy and the President and Chief Executive Officer of the Group. All board appointments are considered with due regard to the board's overall composition including the balance of skills and experience ahead of recommendations being put to the board. Succession plans are in place for board and senior management positions and are reviewed and agreed by the President and Chief Executive Officer of Berkshire Hathaway Energy.

Diversity policy

The Group has adopted a number of policies (including the policy on diversity at work and Code of Conduct) that collectively comprise the policy on diversity. Diversity is actively supported through recruitment, educational programmes, employee opportunities and the Global Days of Service charitable support programme. All appointments (which includes board, board committee, and senior management appointments) are based on merit with due regard for diversity, including gender. Further information concerning how the Group is supporting gender diversity in the energy industry can be found in the Group's gender pay gap report via the Group's corporate website.

AUDIT, RISK AND INTERNAL CONTROL

Each of the Company's and Group's directors is responsible for the management of risk and the internal control environment which is designed to address Berkshire Hathaway Energy's United States Sarbanes-Oxley Act requirement, the key features of which can be found on page 12 of the Strategic Report. As part of this responsibility, the board has established robust procedures and processes which ensure the effectiveness of both the internal and external audit functions.

The internal audit team operates in an independent and objective manner without interference from the Company or Group. This provides the flexibility to refocus the scope of the annual internal audit plan to align with changing priorities if required. Internal audit findings including the resilience of internal controls are reported to the board on a quarterly basis in order to keep the directors sufficiently apprised of areas of risk. An external assessment of the activity of the internal audit team confirmed it operates at the highest level in accordance with the Institute of Internal Audit standards.

An appropriate relationship is maintained with the Group's external auditor to ensure independence and rigour is preserved. The Audit Partner has regular interaction with the Finance Director and routinely attends two board meetings per year to present the audit plan for the forthcoming year and subsequently disseminate the findings. Deloitte LLP staff have full access to the Group's systems and premises for the purpose of conducting their audit work in a robust and efficient manner. In addition to a series of internal checks and comprehensive reviews, the external audit process supports the verification of the integrity of the annual reports and financial statements and the fair, balanced and understandable assessment of the Company's and Group's position and prospects being presented.

Further detail concerning the procedures to manage risk, oversee the internal framework, set the boards risk appetite and the Group's principal risks can be found on pages 10 to 12.

REMUNERATION

As outlined above, the board has not elected to establish a remuneration committee for the purpose of determining executive directors' and senior managers' compensation. However, this does not reflect a lack of policy or rigour given the process is instead managed by the Group's shareholder. As a consequence, remuneration is strictly aligned to both the Company's and the Group's long term strategy, the delivery of sustainable growth and Berkshire Hathaway Energy's values as defined by the Core Principles. No individual is involved in determining their own remuneration.

The Company's and Group's executive directors' and senior managers' remuneration is considered on an annual basis and is explicitly linked to the employee performance evaluation process. Each individual's effectiveness is measured against both personal and Berkshire Hathaway Energy goals with all resulting awards based on merit and linked to the delivery of stretching accountabilities.

Non-executive director remuneration is also reviewed on an annual basis and is reflective of time commitment and level of responsibility. Any increases are made in line with the wider Group's employee population and is subject to continued satisfactory performance. As the Articles of Association of the Company do not require the periodic retirement and re-election of directors, the letters of appointment in place for each of the Group's non-executive directors are reviewed regularly allowing for a mutual evaluation of the benefit of individuals remaining in post. The notice period for all board members is less than one year.

STATEMENT OF DIRECTORS' RESPONSIBILITIES

The directors are responsible for preparing the annual reports 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 (IFRSs) 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 Directors' Report and the appropriate notes to the financial statements.

When considering whether to continue to adopt the going concern basis in preparing the annual report and financial statements, 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 the Gas and Electricity Markets Authority ("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 short-term committed borrowing facilities of £192 million provided by Lloyds Bank plc, National Westminster Bank plc and Santander UK plc;
- The Northern Powergrid Group plans to issue long-term borrowings within the next 12 months and benefits from strong investment-grade credit ratings which allow access to a range of financing options. Recent successful bond issues by the Company and by other issuers suggest that the Company's bonds remain attractive to investors;
- The Group has prepared forecasts which taking into account reasonable possible changes in trading performance, show that the Group has sufficient resources to settle its liabilities as they fall due. The directors have had discussions with the bank who have indicated that they would continue to provide the short-term facilities to the Group for the foreseeable future on acceptable terms.

Consequently, after making enquiries, including detailed considerations of the impact of the coronavirus pandemic, 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 report and financial statements.

Directors' responsibility statement pursuant to DTR 4

Each of the directors as at the date of the annual report and consolidated financial statements, whose names and functions are set out on page 14 in the Directors' Report confirms that, to the best of their knowledge:

- the financial statements, 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;
- the management report (which is comprised of the Strategic Report and the Directors' Report) 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; and
- the annual report and financial statements, taken as a whole, are fair, balanced and understandable and provide the information necessary for shareholders.

Disclosure of information to the auditor

Each director has taken steps that they ought to have taken as a director in order to make themselves aware of any relevant audit information and to establish that the company's auditor is aware of that information. The directors confirm that there is no relevant information that they know of and of which they know the auditor is unaware.

Reappointment of 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.

Approved by the Board on 1 May 2020 and signed on its behalf by:

The the

T E Fielden Director

Opinion

In our opinion:

- the financial statements of Northern Powergrid Holdings Company (the 'parent company') and its subsidiaries (the 'group') give a true and fair view of the state of the group's and of the parent company's affairs as at 31 December 2019 and of the group's profit for the year then ended;
- the group financial statements have been properly prepared in accordance with International Financial Reporting Standards (IFRSs) as adopted by the European Union;
- the company financial statements 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; and
- the financial statements have been prepared in accordance with the requirements of the Companies Act 2006 and, as regards the group financial statements, Article 4 of the IAS Regulation.

We have audited the financial statements which comprise:

- the consolidated income statement;
- the consolidated statement of comprehensive income;
- the consolidated and company statement of financial position;
- the consolidated and company statements of changes in equity;
- the consolidated cash flow statement and;
- the related Notes 1 to 35.

The financial reporting framework that has been applied in their preparation is applicable law and IFRSs as adopted by the European Union and, as regards the parent company financial statements, as applied in accordance with the provisions of the Companies Act 2006.

Basis for opinion

We conducted our audit in accordance with International Standards on Auditing (UK) (ISAs (UK)) and applicable law. Our responsibilities under those standards are further described in the auditor's responsibilities for the audit of the financial statements section of our report.

We are independent of the group and the parent company in accordance with the ethical requirements that are relevant to our audit of the financial statements in the UK, including the Financial Reporting Council's (the 'FRC's') Ethical Standard as applied to listed public interest entities, and we have fulfilled our other ethical responsibilities in accordance with these requirements. We confirm that the non-audit services prohibited by the FRC's Ethical Standard were not provided to the group or the company.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Summary of our audit approach

The key audit matters that we identified in the current year were:

- Accounting for capital spend overhead allocation model;
- Goodwill impairment; and
- Valuation of defined benefit obligations; and
- Impact of Covid-19.

Materiality: The materiality that we used for the group financial statements was £13.3m which was determined on the basis of income before tax.

Scoping: Our scope provides full scope audit coverage of 89% of the Group's revenue, 100% profit before tax as well as 100% of net assets.

Significant changes in our approach: Given the rapid spread of Coronavirus ('Covid-19') and the ongoing uncertainty surrounding its impact after the balance sheet date. Due to the inherent management judgement in determining the appropriateness in the financial statement disclosures, particularly those relating to going concern, and the increased level of audit effort, we considered this to be a key audit matter.

Conclusions relating to going concern

We have nothing to report in respect of the following matters in relation to which the ISAs (UK) require us to report to you where:

- the directors' use of the going concern basis of accounting in the preparation of the financial statements is not appropriate; or
- the directors have not disclosed in the financial statements any identified material uncertainties that may cast significant doubt about the group's or the parent company's ability to continue to adopt the going concern basis of accounting for a period of at least twelve months from the date when the financial statements are authorised for issue.

Key audit matters

Key audit matters are those matters that, in our professional judgement, were of most significance in our audit of the financial statements of the current period and include the most significant assessed risks of material misstatement (whether or not due to fraud) that we identified. These matters included those which had the greatest effect on: the overall audit strategy, the allocation of resources in the audit; and directing the efforts of the engagement team.

These matters were addressed in the context of our audit of the financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

Accounting for capital spend - overhead allocation model

Key audit matter description

Total additions to property, plant and equipment in the year in Northern Powergrid (Northeast) Limited and Northern Powergrid (Yorkshire) Plc were £448m (2018: £388m) with the majority of the additions to the electricity distribution system as disclosed in note 12 to the financial statements. These additions include capitalised overheads. A portion of the overheads are capitalised to the extent that they are considered to relate to capital additions that have taken place during the year.

The calculation of capitalised overheads remains an area at risk of potential bias due to the level of subjectivity in the percentage of overheads capitalised, which also creates a potential fraud risk. In particular, the key risk is that management's judgement in the percentage amounts capitalised is not reflective of the capital spend, as disclosed in note 2 to the financial statements, including the note relating to critical judgements in applying accounting policies.

How the scope of our audit responded to the key audit matter

- We have evaluated the design and implementation of controls surrounding accounting for capital spend.
- We have analysed the capital spend and the overhead allocation percentages in the year and compared these to prior year to identify any unusual fluctuations. We have also analysed current policies in place and assessed their suitability in line with International Accounting Standard 16 Property, Plant and Equipment (IAS 16), along with reviewing the approach management takes towards assessing capitalised overheads and any changed introduced in the current year;
- We have obtained relevant industry benchmarks for the proportions for capitalisation, using these benchmarks to challenge management as to the appropriateness of their judgements; and
- We have performed testing of the total overheads included within the allocation model which are subsequently capitalised based on management's assessment of percentage allocation.

Key observations

Based on the work performed above, and the evidence obtained, We have therefore concluded that management's overhead capitalisation judgement is reasonable, with policies applied being approprite and consistent with prior year and the requirements of IAS 16.

Goodwill impairment

Key audit matter description

Goodwill associated with the Yorkshire distribution network cash generating unit is held at a group level, with an annual impairment review required by International Accounting Standard 36: Impairment of assets (IAS 36) to determine if the value in use of Northern Powergrid (Yorkshire) plc has fallen below the carrying value. The value multiple rate and discount rate applied within the goodwill value in use calculation represent the most complex estimates and key judgement areas in which management's impairment model relies upon. We identified this as a potential risk of fraud due to the level of management judgement involved.

Details regarding the goodwill value of £248.8m (2018: £248.8m) are shown in note 15 to the financial statements and on the face of the Consolidated Statement of Financial Position.

The impairment review carried out as part of the goodwill assessment is included as a 'key source of estimation uncertainty' in note 2 to the financial statements.

How the scope of our audit responded to the key audit matter

- We have obtained an understanding understanding of the relevant controls surrounding goodwill impairment calculations;
- We involved our internal fair value specialists to test the assumptions identified (in particular, discount rate and value multiple rates) against market indicators and other similar companies;
- We involved our specialists to perform a valuation calculation based on exit multiples identified within the industry and compared this to the carrying value of the CGU;
- Working with our specialists, we independently developed a range of reasonable values for the discount rate and assessed management's rate against this;
- We compared the valuation assumptions used by management in the current year to those used in the prior year and assessed the rationale for changes made; and
- We reviewed management's sensitivity analysis and performed an independent sensitivity analysis on the value multiple rate and discount rate assumptions used, and challenged the underlying cash flows.

Key observations

Based on the work performed above, and the evidence obtained, the assumptions supporting the carrying value of Northern Powergrid (Yorkshire) plc are in acceptable ranges. Whilst these are at the top end of our acceptable range, we concur with management's view that no impairment is required in the current year.

Valuation of defined benefit obligations

Key audit matter description

The group operates a defined benefit pension scheme, for which key judgements relate to the determination of the present value of the defined benefit obligation. Within this we also consider consistency with International Accounting Standard 19: Employee benefits (IAS 19). The present value of the funding asset is £93m (2018: £85m), with an underlying obligation of £1,553m (2018: £1,468m). The present value of the defined benefit obligation is derived and is subject to judgement in the assumption setting. Due to the continued settlements in the year for the scheme, there continues to be an additional risk around the valuation modelling of each settlement and the impact to the actuarial assumptions due to the change in the profile of the membership of the scheme. The accounting policy and disclosure is found in note 29 to the financial statements.

How the scope of our audit responded to the key audit matter

- We have obtained and understanding of the relevant controls involved in the review of the actuary report at the year end;
- We have obtained and tested the underlying data and assumptions utilised by management's actuary in the calculation of the pension obligation; and
- We challenged the settlement model utilised and tested the underlying data used in the model to derecognise the obligation;
- We considered the estimates of management's actuary and challenged management's assumptions and judgements for statutory reporting. We utilised our firm specialists to perform this work.

Key observations

Based on the work performed above, and the evidence obtained, we concluded that each of the assumptions used by management to estimate the defined benefit obligation are consistent with the requirements of IAS 19 and are in a reasonable range when compared to comparable schemes and our internal benchmarks, albeit slightly towards the optimisitc end.

Impact of Covid-19

Key audit matter description

Since the balance sheet date, there has been the emergence of a global pandemic of a new strain of Coronavirus. The virus, and responses taken by organisations and governments to manage its spread in markets to which the company and group are exposed have led to increased volatility and economic disruption. The matter is a non-adjusting event since it is indicative of conditions that arose after the reporting period.

Management have ensured that the measurement of assets and liabilities reflects only the conditions that existed at the reporting date. Subsequent to the year end, management have performed procedures to assess the financial and operational impacts of Covid-19, including:

•An assessment of operational resilience of the Northern Powergrid Holding Co group, challenging internal control and governance, critical business functions ensuring ongoing electricity supply throughout the crisis is maintained;

•Considerations of group solvency, and liquidity projections, including an assessment of the effects on short term and long term cash flow.

In order to fully assess the above, management have made a number of judgements and considered a range of factors. Management have also ran an extensive series of sensitivity analyses, taking into account a number of outcomes and the potential responses to these. Management have placed particular focus on the solvency and liquidity, as these are relevant to assessing the covenants in the group's financing arrangements.

From the considerations undertaken, management believes that the company and group continue to be a going concern due to having robust plans in place to manage liquidity in the short and longer term as well as the stable solvency position of the group. Additionally, the company and group have well-rehearsed business continuity plans which management believe will ensure that the delivery of all business services will continue throughout the crisis.

Management has made disclosures throughout the annual report and financial statements to reflect the results of its assessment, in line with applicable accounting standards, the company law and corporate governance code provisions. Due to the inherent management judgement in the financial statement disclosures, particularly those relating to going concern, and the increased level of audit effort, we considered these to be a key audit matter. Refer to management's disclosure on page 12 of the Strategic report.

How the scope of our audit responded to the key audit matter

We have evaluated management's approach to assessing the impact of Covid-19 on the company and group, challenging the financial statement disclosures through the performance of the following:

- Assessed management's projected cash flows, which include the impact of Covid-19, and have performed sensitivity anlaysis;
- Challenged management's estimations and judgements used in the forecasting of future cash flows used in the assessment of the company and group's liquidity;
- Assessed and challenged where new finance is required as part of projected cash flows the impact of not obtaining such finance on the assessment of the group and company and group's liquidity;
- Obtained an understanding of relevant controls implemented when forecasting cash flows;
- Assessed the operational impact of Covid-19 on the group and have analysed management's assessment of the ability of the group, and therefore the company, to continue as a going concern;
- Reviewed management's business continuity plans and subsequent changes to those plans as a consequence of a prolonged impact for the Covid-19 pandemic;
- Considered whether plans are in place to ensure the group's continued supply of electricity to customers throughout the impact of the pandemic, including any emergency repair works required;
- · Reviewed the most recent Board minutes and regulatory correspondence to identify items of interest;
- Evaluated management's assessment of the impact of the significant business developments that occurred after the year end, including the spread of Covid-19 and the resulting actions taken by the UK Government;

Northern Powergrid Holdings Company

Independent Auditor's Report to the Members of Northern Powergrid Holdings Company (continued)

- Challenged management's assessment of the impact of recent events on the carrying value of the group's assets and liabilities; and
- Assessed the disclosure made by management in the financial statements.

Key observations

Based on the procedures performed, we concluded the disclosures related to the potential impact of Covid-19 and going concern are appropriate.

Our application of materiality

We define materiality as the magnitude of misstatement in the financial statements that makes it probable that the economic decisions of a reasonably knowledgeable person would be changed or influenced. We use materiality both in planning the scope of our audit work and in evaluating the results of our work.

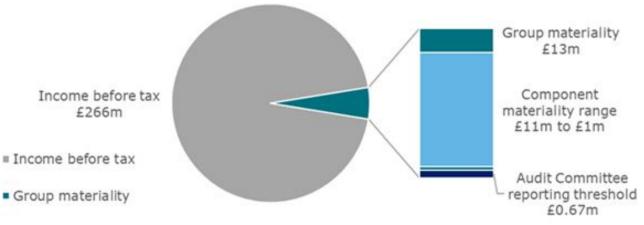
Based on our professional judgement, we determined materiality for the financial statements as a whole as follows:

Group financial statements

- Materiality: £13.3m (2018: £12.9m)
- **Basis for determining materiality:** 5% of income before tax (2018: 5% of income before tax)
- **Rationale for the benchmark applied:** The group contains large trading entities. The industry revenue is highly regulated, therefore, there is a focus on income before tax.

Parent company financial statements

- Materiality: £11.0m (2018: £12.5m)
- **Basis for determining materiality:** 3% of net assets (2018: 3% of net assets)
- **Rationale for the benchmark applied:** Total equity shows how much the value of shareholdings are in the company and as such investor value. The company is not trading as such incurs no revenue.



Performance materiality

We set performance materiality at a level lower than materiality to reduce the probability that, in aggregate, uncorrected and undetected misstatements exceed the materiality for the financial statements as a whole. Group performance materiality was set at 70% of group materiality for the 2019 audit (2018: 70%). In determining performance materiality, we considered the group's control environment and that we consider it appropriate to rely on controls over revenue and the low number of corrected and uncorrected misstatements in the prior periods.

Error reporting threshold

We agreed with the Board of Directors that we would report to the Board all audit differences in excess of £0.64m (2017: £0.25m), as well as differences below that threshold that, in our view, warranted reporting on qualitative grounds. We also report to the Board of Directors on disclosure matters that we identified when assessing the overall presentation of the financial statements.

An overview of the scope of our audit

Our group audit was scoped by obtaining an understanding of the Group and its environment, including internal controls, and assessing the risks of material misstatement at the Group level. The operations of the group are mainly focused on the United Kingdom in the electricity distribution business, with some overseas assets in the oil and gas industry.

The focus of our audit work was on the main regulated business, Northern Powergrid (Northeast) Limited and Northern Powergrid (Yorkshire) Plc, with work performed at a combination of the group's offices in the North East and Yorkshire regions, and we have audited the significant sub consolidations in the group. Other sizeable companies within the group include Integrated Utility Services Ltd, which provides contracting and maintenance services to the electricity, rail and water industries, and Northern Powergrid Metering Limited which leases smart meters to energy providers. Our audit scope provides full scope audit coverage of 89% of the Group's revenue, 100% of income before tax as well as 100% of net assets.

A component materiality was used to perform the audit work for all component entities and for FY19 this ranged from £1m to \pounds 11m. Component materiality is used to reduce to an appropriately low level the probability that the aggregate of uncorrected and undetected misstatements in the group financial statements exceeds materiality for the group financial statements as a whole.

At the group level, we have tested the consolidation process and carried out analytical procedures to confirm our conclusion that there were no risks of material misstatement of the aggregated financial information of the remaining components not subject to audit or audit of specific balances.

Audit work to respond to the risks of material misstatement was performed directly by the group audit engagement team

Our consideration of the control environment

We involved our IT specialists to assess relevant controls over the Group's IT systems and we relied on controls over the revenue business cycle. We have considered the control deficiencies of the prior year adjustment outlined within note 3, and discussed these with management.

Other information

The directors are responsible for the other information. The other information comprises the information included in the annual report other than the financial statements and our auditor's report thereon.

Our opinion on the financial statements does not cover the other information and, except to the extent otherwise explicitly stated in our report, we do not express any form of assurance conclusion thereon.

In connection with our audit of the financial statements, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the financial statements or our knowledge obtained in the audit or otherwise appears to be materially misstated.

If we identify such material inconsistencies or apparent material misstatements, we are required to determine whether there is a material misstatement in the financial statements or a material misstatement of the other information. If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact.

We have nothing to report in respect of these matters.

Responsibilities of directors

As explained more fully in the directors' responsibilities statement, the directors are responsible for the preparation of the financial statements and for being satisfied that they give a true and fair view, and for such internal control as the directors determine is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, the directors are responsible for assessing the group's and the company's ability to continue as a going concern, disclosing as applicable, matters related to going concern and using the going concern basis of accounting unless the directors either intend to liquidate the group or the company or to cease operations, or have no realistic alternative but to do so.

Auditor's responsibilities for the audit of the financial statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with ISAs (UK) will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

Details of the extent to which the audit was considered capable of detecting irregularities, including fraud and non-compliance with laws and regulations are set out below.

A further description of our responsibilities for the audit of the financial statements is located on the FRC's website at: www.frc.org.uk/auditorsresponsibilities. This description forms part of our auditor's report.

Extent to which the audit was considered capable of detecting irregularities, including fraud

We identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, and then design and perform audit procedures responsive to those risks, including obtaining audit evidence that is sufficient and appropriate to provide a basis for our opinion.

Identifying and assessing potential risks related to irregularities

In identifying and assessing risks of material misstatement in respect of irregularities, including fraud and non-compliance with laws and regulations, our procedures included the following:

- the nature of the industry and sector, control environment and business performance including the design of the group's remuneration policies, key drivers for directors' remuneration, bonus levels and performance targets;
- results of our enquiries of management, internal audit and the Board about their own identification and assessment of the risks of irregularities;
- any matters we identified having obtained and reviewed the group's documentation of their policies and procedures relating to:
 - identifying, evaluating and complying with laws and regulations and whether they were aware of any instances of non-compliance;
 - detecting and responding to the risks of fraud and whether they have knowledge of any actual, suspected or alleged fraud;
 - the internal controls established to mitigate risks related to fraud or non-compliance with laws and regulations;
- the matters discussed among the audit engagement team and involving relevant internal specialists, including tax, valuations, pensions, debt market specialists, IT, actuarial and industry specialists regarding how and where fraud might occur in the financial statements and any potential indicators of fraud.

As a result of these procedures, we considered the opportunities and incentives that may exist within the organisation for fraud and identified the greatest potential for fraud in the following areas: accounting for capital spend-overhead model, given that this involves key and complex judgement by management. In common with all audits under ISAs (UK), we are also required to perform specific procedures to respond to the risk of management override.

We also obtained an understanding of the legal and regulatory framework that the company operates in, focusing on provisions of those laws and regulations that had a direct effect on the determination of material amounts and disclosures in the financial statements. The key laws and regulations we considered in this context included the UK Companies Act, Listing Rules, pensions legislation and tax legislation.

In addition, we considered provisions of other laws and regulations that do not have a direct effect on the financial statements but compliance with which may be fundamental to the Group's ability to operate or to avoid a material penalty. These included the Group's operating licence regulated by the Gas and Electricity Markets Authority (GEMA).

Audit response to risks identified

As a result of performing the above, we identified the following key audit matters related to fraud:

- Accounting for capital spend overhead allocation model
- Impact of Covid-19

The key audit matters section of our report explains the matter in more detail and also describes the specific procedures we performed in response to that key audit matter.

In addition to the above, our procedures to respond to risks identified included the following:

- reviewing the financial statement disclosures and testing to supporting documentation to assess compliance with provisions of relevant laws and regulations described as having a direct effect on the financial statements;
- enquiring of management, the Board and legal counsel concerning actual and potential litigation and claims;
- performing analytical procedures to identify any unusual or unexpected relationships that may indicate risks of material misstatement due to fraud;
- reading minutes of meetings of those charged with governance, reviewing internal audit reports and reviewing correspondence with HMRC and Ofgem; and
- in addressing the risk of fraud through management override of controls, testing the appropriateness of journal entries and other adjustments; assessing whether the judgements made in making accounting estimates are indicative of a potential bias; and evaluating the business rationale of any significant transactions that are unusual or outside the normal course of business.

We also communicated relevant identified laws and regulations and potential fraud risks to all engagement team members including internal specialists, and remained alert to any indications of fraud or non-compliance with laws and regulations throughout the audit.

Report on other legal and regulatory requirements

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 directors' report for the financial year for which the financial statements are prepared is consistent with the financial statements; and
- the strategic report and the directors' report have been prepared in accordance with applicable legal requirements.

In the light of the knowledge and understanding of the group and of the parent company and their environment obtained in the course of the audit, we have not identified any material misstatements in the strategic report or the directors' report.

Matters on which we are required to report by exception

Adequacy of explanations received and accounting records

Under the Companies Act 2006 we are required to report to you if, in our opinion:

- we have not received all the information and explanations we require for our audit; or
- adequate accounting records have not been kept by the parent company, or returns adequate for our audit have not been received from branches not visited by us; or
- the company financial statements are not in agreement with the accounting records and returns.

We have nothing to report in respect of these matters.

Directors' remuneration

Under the Companies Act 2006 we are also required to report if in our opinion certain disclosures of directors' remuneration have not been made.

We have nothing to report in respect of this matter.

Other matters

Auditor tenure

Following the recommendation of the Board of Directors, we were appointed by the Board of Northern Powergrid Holdings Company in 1998 to audit the financial statements for the year ending 31 December 1998 and subsequent financial periods. The period of total uninterrupted engagement including previous renewals and reappointments of the firm is 22 years, covering the years ending 31 December 1998 to 31 December 2019.

Consistency of the audit report with the additional report to the audit committee

Our audit opinion is consistent with the additional report to the audit committee we are required to provide in accordance with ISAs (UK).

Use of our report

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 an auditor's report 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.

David M Johnson FCA (Senior Statutory Auditor) For and on behalf of Deloitte LLP, Statutory Auditor Newcastle upon Tyne Tyne and Wear United Kingdom

1 May 2020

Northern Powergrid Holdings Company Consolidated Income Statement for the Year Ended 31 December 2019

Restated (Note 3)

			. ,
	Note	2019 £ 000	2018 £ 000
Revenue	3, 4	849,695	815,307
Cost of sales		(50,779)	(46,315)
Gross profit		798,916	768,992
Distribution costs	3	(285,321)	(272,238)
Administrative expenses		(146,524)	(143,141)
Operating profit	6	367,071	353,613
Other gains	5	2,711	971
Finance income	7	1,363	888
Finance costs	7	(108,918)	(105,363)
Profit before tax		262,227	250,109
Income tax expense	11	(46,469)	(50,200)
Profit for the year		215,758	199,909
Profit attributable to:			
Owners of the Company		213,535	197,927
Non-controlling interests	23	2,223	1,982
		215,758	199,909

The above results were derived from continuing operations.

Northern Powergrid Holdings Company Consolidated Statement of Comprehensive Income for the Year Ended 31 December 2019

	Note	2019 £ 000	2018 £ 000
Profit for the year	_	215,758	199,909
Items that will not be reclassified subsequently to profit or loss Re-measurements of post-employment benefit obligations (net)	29	(19,795)	(49,566)
Items that may be reclassified subsequently to profit or loss			
Gain/(loss) on cash flow hedges (net)	22	(1,880)	1,076
Foreign currency gains/(losses)	22	804	(200)
	_	(1,076)	876
Total comprehensive income for the year	_	194,887	151,219
Total comprehensive income attributable to:			
Owners of the Company		192,664	149,237
Non-controlling interests	23	2,223	1,982
	_	194,887	151,219

Northern Powergrid Holdings Company (Registration number: 03476201) Consolidated Statement of Financial Position as at 31 December 2019

			Restated (Note 3)	Restated (Note 3)
	Note	31 December 2019 £ 000	31 December 2018 £ 000	31 December 2017 £ 000
Assets				
Non-current assets				
Property, plant and equipment	3, 12	6,374,612	6,096,063	5,860,568
Right of use assets	13	18,048	-	-
Intangible assets	3, 15	306,356	307,203	305,399
Equity accounted investments	16	29,253	24,379	22,671
Retirement benefit obligations	29	93,400	84,600	116,900
Deferred tax asset	11	577	615	617
Trade and other receivables Other non-current financial assets	18	7,730	6,877 837	8,979
		6,829,976	6,520,574	6,315,134
Current assets				
Inventories	17	20,692	14,359	14,128
Trade and other receivables	18	154,174	147,394	149,088
Tax receivable		101	62	94
Cash and cash equivalents	19	245,122	30,445	40,435
Restricted cash	20	13,873	13,809	2,182
Contract assets	4	8,132	6,005	9,721
Other current financial assets			114	
		442,094	212,188	215,648
Total assets		7,272,070	6,732,762	6,530,782
Equity and liabilities				
Equity				
Share capital	21	(354,550)	(354,550)	(354,550)
Share premium		810	810	810
Foreign currency translation reserve	22	1,549	2,353	2,153
Cash flow hedging reserve	22	1,091	(789)	287
Retained earnings		(2,361,515)	(2,167,775)	(2,019,414)
Equity attributable to owners of the Company		(2,712,615)	(2,519,951)	(2,370,714)
Non-controlling interests		(36,466)	(34,828)	(32,846)
Total equity		(2,749,081)	(2,554,779)	(2,403,560)

Northern Powergrid Holdings Company (Registration number: 03476201) Consolidated Statement of Financial Position as at 31 December 2019 (continued)

			Restated (Note 3)	Restated (Note 3)
	Note	31 December 2019 £ 000	31 December 2018 £ 000	31 December 2017 £ 000
Non-current liabilities				
Long term lease liabilities		(13,731)	-	-
Loans and borrowings	24	(2,089,401)	(2,016,492)	(2,042,865)
Provisions	26	(6,232)	(3,202)	(6,247)
Deferred revenue	28	(1,462,863)	(1,443,736)	(1,424,275)
Deferred tax liabilities	11	(225,537)	(239,025)	(243,553)
Other non-current financial liabilities	33	(1,131)	-	(327)
Trade and other payables	27	(2,693)		
		(3,801,588)	(3,702,455)	(3,717,267)
Current liabilities				
Current portion of long term lease liabilities		(4,508)	-	-
Trade and other payables	27	(210,418)	(218,098)	(223,841)
Loans and borrowings	24	(417,164)	(172,921)	(101,799)
Income tax liability		(23,701)	(21,093)	(24,557)
Deferred revenue	28	(61,273)	(59,342)	(57,689)
Provisions	26	(4,153)	(4,074)	(2,050)
Other current financial liabilities	33	(184)		(19)
		(721,401)	(475,528)	(409,955)
Total liabilities		(4,522,989)	(4,177,983)	(4,127,222)
Total equity and liabilities		(7,272,070)	(6,732,762)	(6,530,782)

Approved by the Board on 1 May 2020 and signed on its behalf by:

Theme the

T E Fielden Director

Northern Powergrid Holdings Company (Registration number: 03476201) Company Statement of Financial Position as at 31 December 2019

Note	31 December 2019 £ 000	31 December 2018 £ 000
Assets		
Non-current assets		
Investments in subsidiaries, joint ventures and associates 16	376,289	376,289
Trade and other receivables 18	190,000	150,000
	566,289	526,289
Current assets		
Trade and other receivables 18	12,398	105
Income tax asset	2,602	2,802
Cash and cash equivalents 19	115,803	112,849
	130,803	115,756
Total assets	697,092	642,045
Equity and liabilities		
Equity		
Share capital 21	(354,550)	(354,550)
Retained earnings	(129,036)	(75,592)
Total equity	(483,586)	(430,142)
Non-current liabilities		
Loans and borrowings 24	(197,716)	(197,083)
Current liabilities		
Trade and other payables 27	(15,146)	(14,476)
Loans and borrowings 24	(644)	(343)
Income tax liability		(1)
	(15,790)	(14,820)
Total liabilities	(213,506)	(211,903)
Total equity and liabilities	(697,092)	(642,045)

The Directors have taken the exemption offered under section 408 of the Act from publishing a separate statement of profit or loss. The Company reported a profit for the financial year ended 31 December 2019 of £53.4 million (2018: £13.7 million).

Approved by the Board on 1 May 2020 and signed on its behalf by:

Theme the -

T E Fielden Director

Northern Powergrid Holdings Company Consolidated Statement of Changes in Equity for the Year Ended 31 December 2019

	Share capital £ 000	Share premium £ 000	Foreign currency translation £ 000	Cash flow hedging reserve £ 000	Retained earnings £ 000	Total £ 000	Non- controlling interests £ 000	Total equity £ 000
At 1 January 2019	354,550	(810)	(2,353)	789	2,167,775	2,519,951	34,828	2,554,779
Profit for the year	-	-	-	-	213,535	213,535	2,223	215,758
Other comprehensive income			804	(1,880)	(19,795)	(20,871)		(20,871)
Total comprehensive income Dividends	-	- -	804	(1,880)	193,740	192,664	2,223 (585)	194,887 (585)
At 31 December 2019	354,550	(810)	(1,549)	(1,091)	2,361,515	2,712,615	36,466	2,749,081
	Share capital £ 000	Share premium £ 000	Foreign currency translation £ 000	Cash flow hedging reserve £ 000	Retained earnings £ 000	Total £ 000	Non- controlling interests £ 000	Total equity £ 000
At 1 January 2018	354,550	(810)	(2,153)	(287)	2,019,414	2,370,714	32,846	2,403,560
Profit for the year	-	-	-	-	197,927	197,927	1,982	199,909
Other comprehensive income			(200)	1,076	(49,566)	(48,690)		(48,690)
Total comprehensive income			(200)	1,076	148,361	149,237	1,982	151,219
At 31 December 2018	354,550	(810)	(2,353)	789	2,167,775	2,519,951	34,828	2,554,779

Northern Powergrid Holdings Company Company Statement of Changes in Equity for the Year Ended 31 December 2019

At 1 January 2019 Profit for the year	Share capital £ 000 354,550	Retained earnings £ 000 75,592 53,444	Total £ 000 430,142 53,444
Total comprehensive income		53,444	53,444
At 31 December 2019	354,550	129,036	483,586
	Share capital £ 000	Retained earnings £ 000	Total £ 000
At 1 January 2018	-	earnings	
At 1 January 2018 Profit for the year	£ 000	earnings £ 000	£ 000
•	£ 000	earnings £ 000 61,888	£ 000 416,438

Northern Powergrid Holdings Company Consolidated Statement of Cash Flows for the Year Ended 31 December 2019

Restated
(Note 3)

2019 Note2019 \pounds 0002018 \pounds 000Cash flows from operating activitiesProfit for the year215,758199,909Depreciation and amortisation3, 6257,738244,594Depreciation on right of use assets4,499-Amortisation of deferred revenue3(60,063)(57,897)Profit on disposal of property plant and equipment5 $(2,711)$ (971)Retirement benefit obligation(32,900)(27,700)Finance income7(1,363)(888)Finance costs7108,918105,363Income tax expense1146,46950,200Increase in inventories17(6,333)(231)(Increase)/decrease in trade and other receivables18(4,018)3,796(Decrease)/increase in contract assets4(2,127)3,716Increase/idecrease in operations263,109(1,021)Cash generated from operations263,109(1,021)Cash generated from operating activities480,791483,079
Profit for the year $215,758$ $199,909$ Depreciation and amortisation $3, 6$ $257,738$ $244,594$ Depreciation on right of use assets $4,499$ $-$ Amortisation of deferred revenue 3 $(60,063)$ $(57,897)$ Profit on disposal of property plant and equipment 5 $(2,711)$ (971) Retirement benefit obligation $(32,900)$ $(27,700)$ Finance income 7 $(1,363)$ (888) Finance costs 7 $108,918$ $105,363$ Income tax expense 11 $46,469$ $50,200$ $536,345$ $512,610$ $536,345$ $512,610$ Increase in inventories 17 $(6,333)$ (231) (Increase)/decrease in trade and other receivables 18 $(4,018)$ $3,796$ (Decrease)/increase in contract assets 4 $(2,127)$ $3,716$ Increase/(decrease) in provisions 26 $3,109$ $(1,021)$ Cash generated from operations $526,046$ $531,024$ Income taxes paid $(45,255)$ $(47,945)$
Depreciation and amortisation3, 6 $257,738$ $244,594$ Depreciation on right of use assets4,499-Amortisation of deferred revenue3(60,063)(57,897)Profit on disposal of property plant and equipment5 $(2,711)$ (971)Retirement benefit obligation(32,900)(27,700)Finance income7 $(1,363)$ (888)Finance costs7108,918105,363Income tax expense11 $46,469$ $50,200$ Increase in inventories17(6,333)(231)(Increase)/decrease in trade and other receivables18 $(4,018)$ $3,796$ (Decrease)/increase in contract assets4 $(2,127)$ $3,716$ Increase/(decrease) in provisions26 $3,109$ $(1,021)$ Cash generated from operations $526,046$ $531,024$ Income taxes paid $(45,255)$ $(47,945)$
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Retirement benefit obligation $(32,900)$ $(27,700)$ Finance income7 $(1,363)$ (888) Finance costs7 $108,918$ $105,363$ Income tax expense11 $46,469$ $50,200$ Increase in inventories17 $(6,333)$ (231) (Increase)/decrease in trade and other receivables18 $(4,018)$ $3,796$ (Decrease)/increase in trade and other payables27 (930) $12,154$ (Increase)/decrease in contract assets4 $(2,127)$ $3,716$ Increase/(decrease) in provisions26 $3,109$ $(1,021)$ Cash generated from operations $526,046$ $531,024$ Income taxes paid $(45,255)$ $(47,945)$
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Increase/(decrease) in provisions 26 3,109 (1,021) Cash generated from operations 526,046 531,024 Income taxes paid (45,255) (47,945)
Cash generated from operations 526,046 531,024 Income taxes paid (45,255) (47,945)
Income taxes paid (45,255) (47,945)
Net cash flow from operating activities480,791483,079
Cash flows used in investing activities
Acquisitions of property plant and equipment(530,024)(480,180)
Proceeds from sale of property plant and equipment 4,533 1,387
Acquisition of intangible assets15(11,176)(13,928)
Receipt of customer contributions 73,684 72,713
Interest received 576 48
Dividend income 7 830 825
Fixed asset investments 16 (4,917) (1,693)
Net cash flows used in investing activities(466,494)(420,828)
Cash flows used in financing activities
Proceeds from long-term borrowing draw downs 440,942 40,000
Repayment of long-term borrowing(65,047)(51,046)
Proceeds from short-term borrowing - 59,709
Repayment of short-term borrowing (59,910) -
Payments to finance lease creditors (4,307) -
Movement in restricted cash (64) (11,627)
Interest expense on leases (612) -
Interest paid (110,037) (109,277)
Minority interest paid
Net cash flows used in financing activities 200,380 (72,241) The notes on pages 42 to 111 form on integral part of these financial statements (72,241)

The notes on pages 42 to 111 form an integral part of these financial statements. Page 39

Northern Powergrid Holdings Company Consolidated Statement of Cash Flows for the Year Ended 31 December 2019 (continued)

			Restated (Note 3)
	Note	2019 £ 000	2018 £ 000
Net increase/(decrease) in cash and cash equivalents		214,677	(9,990)
Cash and cash equivalents at 1 January	-	30,445	40,435
Cash and cash equivalents at 31 December	=	245,122	30,445

Northern Powergrid Holdings Company Company Statement of Cash Flows for the Year Ended 31 December 2019

	Note	2019 £ 000	2018 £ 000
Cash flows (used in)/from operating activities			
Profit for the year		53,442	13,704
Finance income	7	(68,295)	(27,251)
Finance costs	7	15,133	15,198
Income tax expense	_	<u> </u>	(2,396)
		280	(745)
Increase in trade and other receivables	18	-	(4)
Increase in trade and other payables	27	670	3,265
Cash generated from operations		950	2,516
Income taxes received/(paid)	_	200	(3,477)
Net cash flow (used in)/from operating activities	_	1,150	(961)
Cash flows from investing activities			
Transfer of intercompany loans		-	(150,000)
Movement in intercompany loans		(52,034)	264,158
Interest received	_	68,037	27,251
Net cash flows from investing activities	_	16,003	141,409
Cash flows used in financing activities			
Movement in intercompany treasury account		301	(12,988)
Interest paid	_	(14,500)	(14,611)
Net cash flows used in financing activities	_	(14,199)	(27,599)
Net increase in cash and cash equivalents		2,954	112,849
Cash and cash equivalents at 1 January	_	112,849	<u> </u>
Cash and cash equivalents at 31 December	=	115,803	112,849

1 General information

The Company is a private Company limited by share capital, incorporated in England and Wales and domiciled in the United Kingdom.

The address of its registered office is:

Lloyds Court, 78 Grey Street, Newcastle upon Tyne, Tyne and Wear, NE1 6AF, United Kingdom

2 Accounting policies

Statement of compliance

The Group financial statements have been prepared in accordance with International Financial Reporting Standards and its interpretations adopted by the EU ("adopted IFRS's").

Summary of significant accounting policies and key accounting estimates

The principal accounting policies applied in the preparation of these financial statements are set out below. These policies have been consistently applied to all the years presented, unless otherwise stated.

Basis of preparation

The financial statements have been prepared under the historical cost convention as modified by financial instruments recognised at fair value.

The preparation of financial statements in conformity with IFRS requires the use of certain critical accounting estimates. It also requires management to exercise its judgement in the process of applying the group's accounting policies.

Basis of consolidation

The Group financial statements consolidate the financial statements of the company and its subsidiary undertakings drawn up to 31 December 2019.

A subsidiary is an entity controlled by the company. Control is achieved where the company has the power to govern the financial and operating policies of an entity so as to obtain benefits from its activities.

The results of subsidiaries acquired or disposed of during the year are included in the income statement from the effective date of acquisition or up to the effective date of disposal, as appropriate. Where necessary, adjustments are made to the financial statements of subsidiaries to bring their accounting policies into line with those used by the Group.

The purchase method of accounting is used to account for business combinations that result in the acquisition of subsidiaries by the Group. The cost of a business combination is measured as the fair value of the assets given, equity instruments issued and liabilities incurred or assumed at the date of exchange, plus costs directly attributable to the business combination. Identifiable assets acquired and liabilities and contingent liabilities assumed in a business combination are measured initially at their fair values at the acquisition date. Any excess of the cost of the business combination over the acquirer's interest in the net fair value of the identifiable assets, liabilities and contingent liabilities recognised is recorded as goodwill.

2 Accounting policies (continued)

Inter-company transactions, balances and unrealised gains on transactions between the company and its subsidiaries, which are related parties, are eliminated in full.

Intra-group losses are also eliminated but may indicate an impairment that requires recognition in the consolidated financial statements.

Accounting policies of subsidiaries have been changed where necessary to ensure consistency with the policies adopted by the Group. Non-controlling interests in the net assets of consolidated subsidiaries are identified separately from the group's equity therein. Non-controlling interests consist of the amount of those interests at the date of the original business combination and the non-controlling shareholder's share of changes in equity since the date of the combination. Total comprehensive income is attributed to non-controlling interests even if this results in the non-controlling interests having a deficit balance.

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:

• 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 the costs and their cost drivers which is reviewed on annual basis. The percentage allocation of overheads across the workstream categories are obtained from section managers who are asked to provide reasoning and supporting evidence for the allocation. Finance then undertake a financial impact assessment review and the rationale to ensure it complies with IFRS. The amount of overheads capitalised in the year was £90.0 million (2018: £86.2 million) which was an increase from 58.1% to 60%.

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 plans these assumptions and their possible impacts are disclosed in Note 29.
- Impairment of goodwill evaluation Determining whether goodwill is impaired requires an estimation of the value in use of cash generating units to which goodwill has been allocated. The carrying amount of goodwill at the Statement of Financial Position date was £248.8 million. The coronavirus pandemic does not have a material impact on the long-term cash flows used as the basis for the goodwill impairment calculations which are set out in Note 15.

Changes in accounting polciy

The following have been applied for the first time from 1 January 2019 and have had an effect on the financial statements:

Changes resulting from adoption of IFRS 16

IFRS 16 Leases became mandatorily effective on 1 January 2019. The Group has applied this for the first time in this accounting period which resulted in changes to the accounting policies.

The Group has applied IFRS 16 using the cumulative catch-up approach which:

a. Requires the Group to recognise the cumulative effect of initially applying IFRS 16 as an adjustment to opening balance of retained earnings at the date of initial application

b. Does not permit restatement of comparatives, which continue to be presented under IAS17 and IFRS4.

The date of initial application of IFRS16 is 1 January 2019. 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. In contrast to lessee accounting, the requirements for lessor accounting have remained largely unchanged. The Group has taken a practical expedient to not reassess whether a contract is/or contains lease.

2 Accounting policies (continued)

Measurement and Recognition

Applying IFRS 16, for all leases (except as noted below), the Group recognises right-of-use assets which include buildings and fleet vehicles. The Group has no lease incentives. The right-of-use assets are initially measured at the amount of lease liability plus any initial direct costs incurred by the lessee. Subsequently, the assets are measured under fair value method. The corresponding lease liability is initially measured at present value of all lease payments over lease term and can be restated if the terms or other criteria of contract change.

Applying IFRS16 the Company:

a. Recognises depreciation of right-of-use assets and interest on lease liabilities in the consolidated statement of profit and loss;
b. Separates the total amount of cash paid into a principal portion (presented with financial activities), interest (presented in financial activities) and capitalised interest (presented in investing activities) in the consolidated statement of cash flows.

The Group has taken practical expedients as per below:

• For short-term leases (lease term of 12 months or less) and leases of low-value assets, the Group has opted to recognise a lease expense on a straight-line basis as permitted by IFRS 16. This expense is presented within 'other expenses' in profit or loss;

- Applies single discount rate to a portfolio of leases;
- Uses hindsight to determine the lease term when contract contains options to extend or terminate the lease;
- Excludes indirect cost from the measurement of the right-of-use assets at the date of initial application;
- Adjusts right-of-use asset by provision for onerous leases as an alternative to performing an impairment review;

• The weighted average lessee's incremental borrowing rate applied to determine the present value of the lease liabilities on 1 January 2019 was 3.48%.

The Group recognised lease liabilities in relation to leases that were classified as 'operating leases' under the principles of IAS 17 - Leases. On transition, an additional \pounds Nil (2018 - \pounds Nil) of right-to-use assets and \pounds Nil (2018 - \pounds Nil) of lease liabilities were recognised with the difference allocated to retained earnings.

	Note	As originally reported 31 December 2018 £ 000
Operating lease commitments at 31 December 2018		26,188
Operating lease commitments discounted at the incremental borrowing rate Recognition exemption for short-term leases		21,220 (6,769)
Lease liabilities recognised at 1 January 2019		14,451

These liabilities were measured at the present value of the remaining lease payments, discounted using the lessee's incremental borrowing rate as of 1 January 2019. The weighted average rate applied was 3.48%.

Right-of-use assets are depreciated over the shorter of the lease contract or the useful life of the asset. For details on the depreciation charge and carrying value by class of asset please refer to Note 13. For details on interest expense on lease liabilities, please refer to Note 7. For details regarding total lease cash outflow, please see the Statement of Cash Flows.

Amendments to IFRS 9 and IFRS 7

In September 2019, the IASB issued Interest Rate Benchmark Reform - Amendments to IFRS 9 and IFRS 7. These amendments modify specific hedge accounting requirements to allow hedge accounting to continue for affected

hedges during the period of uncertainty before the hedged items or hedging instruments affected by the current interest rate benchmarks are amended as a result of the on- going interest rate benchmark reforms. The amendments are relevant to the Group given that it applies hedge accounting to its benchmark interest rate exposures.

2 Accounting policies (continued)

The application of the amendments impacts the Group's accounting in the following ways:

• The Group has £164 million sterling-denominated LIBOR linked floating rate debt outstanding at 31 December 2019 which is subject to an 86% floating-to-fixed interest rate swap. The Group currently accounts for the swap as a cash flow

hedge. The amendments permit continuation of hedge accounting even if in the future the hedged benchmark interest rate, GBP LIBOR, may no longer be separately identifiable. However, this relief does not extend to the

requirement that the designated interest rate risk component must continue to be reliably measurable. If the risk component is no longer reliably measurable, the hedging relationship is discontinued.

• The Group will retain the cumulative gain or loss in the cash flow hedge reserve for designated cash flow hedges that are subject to interest rate benchmark reforms even though there is uncertainty arising from the interest rate benchmark reform with respect to the timing and amount of the cash flows of the hedged items. Should the Group consider the hedged future cash flows are no longer expected to occur due to reasons other than interest rate benchmark reform, the cumulative gain or loss will be immediately reclassified to profit or loss.

• The Group has chosen to early apply the amendments to IFRS 9 for the reporting period ending 31 December 2019, which are mandatory for annual reporting periods beginning on or after 1 January 2020. Adopting these amendments allows the Group to continue hedge accounting during the period of uncertainty arising from interest rate benchmark reforms.hh

Amendments to IAS 28- Long-term interests in associates and joint ventures

The consequential amendments to IAS 28 have had no impact to the comparatives and therefore no restatement is required.

Amendments to IAS 19- Plan, amendment, curtailment or settlement

The consequential amendments to IAS 19 have had no impact to the comparatives and therefore no restatement is required.

Amendments to IFRIC 23- Uncertainty over income tax treatment

The consequential amendments to IFRIC 23 have had no impact to the comparatives and therefore no restatement is required.

None of the other standards, interpretations and amendments which are effective for periods beginning after 1 January 2019 and which have not been adopted early, are expected to have a material effect on the financial statements:

Effective for periods beginning or after 1 January 2020

- Amendments to IFRS 3 Definition of a business;
- Amendments to IAS 1 and IAS 8 Definition of material; and
- · Amendments to References to the Conceptual Framework in IFRS Standards; and
- Amendments to IFRS 9 Financial instruments- Hedging.

Revenue recognition

Recognition

The Company earns revenue from the provision of services relating to revenue from a contract to provide services is recognised by the following means:

- Distribution use of system income is recognised largely on a per GWh basis;
- Customer contributions for connections are amortised over the life of the corresponding asset;
- Contracting revenue is recognised in line with expenditure;
- Meter asset provision income is accounted for under lease accounting;
- Intercompany recharges for services provided are based on costs incurred; and

- Other revenue includes assessment and design fees and disconnections from the network and are recognised by reference to the proportion of total costs of providing the service.

. This revenue is recognised in the accounting period when the services are rendered at an amount that reflects the consideration to which the entity expects to be entitled in exchange for fulfilling its performance obligations to customers.

2 Accounting policies (continued)

The principles in IFRS are applied to revenue recognition criteria using the following 5 step model:

- 1. Identify the contracts with the customer
- 2. Identify the performance obligations in the contract
- 3. Determine the transaction price
- 4. Allocate the transaction price to the performance obligations in the contract
- 5. Recognise revenue when or as the entity satisfies its performance obligations

Fee arrangements

Below are details of fee arrangements and how these are measured and recognised, for revenue from the provision of services:

- For regulated use of system income the revenue for the service is recognised on the basis of agreed charging methodologies on a per GWh basis.
- For fixed price for contracted service revenue is recognised based on the stage of completion and performance obligations met for actual services provided as a proportion of the total fixed fee agreed in the contract.
- For stage payment on long-term contracts revenue is recognised by reference to stage of manufacture at the year-end date using contractual rates specified in the contract. Revenue on materials is measured at the actual amount of the material used on the contract at the price specified in the contract.

The performance obligations involved in engineering contracting work are accounted for as follows:

- Where the outcome of a 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, 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 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 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.

Other performance obligations include but are not limited to:

- Provision of vehicles over a specified period accounted for under lease accounting;
- Provisions of exploration equipment over a specified period; and
- Passage of milestones and completion of installation of equipment for engineering contracting.

2 Accounting policies (continued)

Contract modifications

The group's contracts are often amended for changes in contract specifications and requirements. Contract modification exists when the amendment either creates new or changes the existing enforceable rights and obligations. The effect of a contract modification on the transaction price and the group's measure of progress for the performance obligation to which it relates, is recognised as an adjustment to revenue in one of the following ways:

- a. Prospectively as an additional separate contract:
- b. Prospectively as a termination of the existing contract and creation of a new contract;
- c. As part of the original contract using a cumulative catch up; or
- d. As a combination of b) and c).

The facts and circumstances of any contract modification are considered individually as the types of modifications will vary contract by contract and may result in different accounting outcomes. Judgement is applied in relation to the accounting for such modifications where the final terms or legal contracts have not been agreed prior to the period end as management need to determine if a modification has been approved and if it either creates new or changes existing enforceable rights and obligations of the parties. Depending upon the outcome of such negotiations, the timing and amount of revenue recognised may be different in the relevant accounting periods. Modification and amendments to contracts are undertaken via an agreed formal process. For example, if a change in scope has been approved but the corresponding change in price is still being negotiated, management use their judgement to estimate the change to the total transaction price.

Tax

The tax expense for the period comprises current and deferred tax. Tax is recognised in profit or loss, except that a change attributable to an item of income or expense recognised as other comprehensive income is also recognised directly in other comprehensive income.

The current income tax charge is calculated on the basis of tax rates and laws that have been enacted or substantively enacted by the reporting date in the countries where the Group operates and generates taxable income.

Deferred income tax is recognised on temporary differences arising between the tax bases of assets and liabilities and their carrying amounts in the consolidated financial statements and on unused tax losses or tax credits in the Group. Deferred income tax is determined using tax rates and laws that have been enacted or substantively enacted by the reporting date.

The carrying amount of deferred tax assets are reviewed at each reporting date and a valuation allowance is set up against deferred tax assets so that the net carrying amount equals the highest amount that is more likely than not to be recovered based on current or future taxable profit.

Property, plant and equipment

Property, plant and equipment is stated in the statement of financial position at cost, less any subsequent accumulated depreciation and subsequent accumulated impairment losses.

The cost of property, plant and equipment includes directly attributable incremental costs incurred in their acquisition and installation.

2 Accounting policies (continued)

Depreciation

Depreciation is charged so as to write off the cost of assets, other than land and properties under construction over their estimated useful lives, as follows:

Asset class	Depreciation method and rate
Distribution system assets	45 years
Distribution generation assets included in distribution system assets	15 years
Information technology equipment included in distribution system assets	up to 10 years
Freehold land & buildings	up to 60 years
Leasehold land & buildings	lower of lease period or 60 years
Metering equipment	up to 15 years
Fixtures and equipment	up to 10 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 those estimates accounted for on a prospective basis. Due to the significance of the Groups'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. Assets are derecognised when they are disposed of profit or loss on disposal is recognised in other gains on the statement of profit or loss.

Goodwill

Goodwill arising on the acquisition of an entity represents the excess of the cost of acquisition over the Group's interest in the net fair value of the identifiable assets, liabilities and contingent liabilities of the entity recognised at the date of acquisition. Goodwill is initially recognised as an asset at cost and is subsequently measured at cost less any accumulated impairment losses. Goodwill is held in the currency of the acquired entity and revalued to the closing rate at each reporting period date.

Goodwill is not subject to amortisation but is tested for impairment.

Negative goodwill arising on an acquisition is recognised directly in the income statement. On disposal of a subsidiary or a jointly controlled entity, the attributable amount of goodwill is included in the determination of the profit or loss recognised in the income statement on disposal.

Intangible assets amortisation

Amortisation is provided on intangible assets so as to write off the cost, less any estimated residual value, over their expected useful economic life as follows:

Asset class

Software development

Amortisation method and rate

up to 15 years

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.

2 Accounting policies (continued)

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.

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.

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 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 subsidiaries

Investments in subsidiaries are account for at cost less impairment.

Cash and cash equivalents

Cash and cash equivalents comprise cash on hand and call deposits, and other short-term highly liquid investments that are readily convertible to a known amount of cash and are subject to an insignificant risk of changes in value.

2 Accounting policies (continued)

Trade receivables

Trade receivables are amounts due from customers for merchandise sold or services performed in the ordinary course of business. If collection is expected in one year or less (or in the normal operating cycle of the business if longer), they are classified as current assets. If not, they are presented as non-current assets.

Trade receivables are recognised initially at the transaction price. They are subsequently measured at amortised cost using the effective interest method, less provision for impairment. A provision for the impairment of trade receivables is established when there is objective evidence that the Group will not be able to collect all amounts due according to the original terms of the receivables.

Inventories

Inventories are stated at the lower of cost and net realisable value. Cost is determined using the average cost method.

The cost of finished goods and work in progress comprises direct materials and, where applicable, direct labour costs and those overheads that have been incurred in bringing the inventories to their present location and condition. At each reporting date, inventories are assessed for impairment. If inventory is impaired, the carrying amount is reduced to its selling price less costs to complete and sell; the impairment loss is recognised immediately in profit or loss.

Trade payables

Trade payables are obligations to pay for goods or services that have been acquired in the ordinary course of business from suppliers. Accounts payable are classified as current liabilities if payment is due within one year or less (or in the normal operating cycle of the business if longer). If not, they are presented as non-current liabilities.

Trade payables are recognised initially at the transaction price and subsequently measured at amortised cost using the effective interest method.

Borrowings

All borrowings are initially recorded at the amount of proceeds received, net of transaction costs. Borrowings are subsequently carried at amortised cost, with the difference between the proceeds, net of transaction costs, and the amount due on redemption being recognised as a charge to the income statement over the period of the relevant borrowing.

Interest expense is recognised on the basis of the effective interest method and is included in finance costs.

Borrowings are classified as current liabilities unless the Group has an unconditional right to defer settlement of the liability for at least 12 months after the reporting date.

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 that obligation and a reliable estimate can be made of the amount of the obligation.

Provisions are measured at the directors' best estimate of the expenditure required to settle the obligation at the reporting date and are discounted to present value where the effect is material.

Share capital

Ordinary shares are classified as equity. Equity instruments are measured at the fair value of the cash or other resources received or receivable, net of the direct costs of issuing the equity instruments. If payment is deferred and the time value of money is material, the initial measurement is on a present value basis.

2 Accounting policies (continued)

Dividends

Dividend distribution to the company's shareholders is recognised as a liability in the company's financial statements in the period in which the dividends are approved by the company's shareholders.

Financial instruments

Initial recognition

Financial assets and financial liabilities comprise all assets and liabilities reflected in the statement of financial position, although excluding property, plant and equipment, investment properties, intangible assets, deferred tax assets, prepayments, deferred tax liabilities and employee benefits plan.

The Group recognises financial assets and financial liabilities in the statement of financial position when, and only when, the Group becomes party to the contractual provisions of the financial instrument.

Financial assets are initially recognised at fair value. Financial liabilities are initially recognised at fair value, representing the proceeds received net of premiums, discounts and transaction costs that are directly attributable to the financial liability.

All regular way purchases and sales of financial assets and financial liabilities classified as fair value through profit or loss ("FVTPL") are recognised on the trade date, i.e. the date on which the Group commits to purchase or sell the financial assets or financial liabilities. All regular way purchases and sales of other financial assets and financial liabilities are recognised on the settlement date, i.e. the date on which the asset or liability is received from or delivered to the counterparty. Regular way purchases or sales are purchases or sales of financial assets that require delivery within the time frame generally established by regulation or convention in the market place.

Subsequent to initial measurement, financial assets and financial liabilities are measured at either amortised cost or fair value.

Classification and measurement

Financial instruments are classified at inception into one of the following categories, which then determine the subsequent measurement methodology:

Financial assets are classified into one of the following three categories:

- · financial assets at amortised cost;
- · financial assets at fair value through other comprehensive income (FVTOCI); or
- financial assets at fair value through the profit or loss (FVTPL).

Financial liabilities are classified into one of the following two categories:

- · financial liabilities at amortised cost; or
- \cdot financial liabilities at fair value through the profit or loss (FVTPL).

The classification and the basis for measurement are subject to the Group's business model for managing the financial assets and the contractual cash flow characteristics of the financial assets, as detailed below:

Financial assets at amortised cost

A financial asset is measured at amortised cost if it meets both of the following conditions and is not designated as at FVTPL:

· the assets are held within a business model whose objective is to hold assets in order to collect contractual cash flows; and

 \cdot the contractual terms of the financial assets give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding.

If either of the above two criteria is not met, the financial assets are classified and measured at fair value through the profit or loss (FVTPL).

If a financial asset meets the amortised cost criteria, the Group may choose to designate the financial asset at FVTPL. Such an election is irrevocable and applicable only if the FVTPL classification significantly reduces a measurement or recognition inconsistency.

2 Accounting policies (continued)

Financial assets at fair value through other comprehensive income

A financial asset is measured at FVTOCI only if it meets both of the following conditions and is not designated as at FVTPL:

 \cdot the asset is held within a business model whose objective is achieved by both collecting contractual cash flows and selling financial assets; and

 \cdot the contractual terms of the financial assets give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding.

On initial recognition of an equity investments that is not held for trading, the Group may irrevocably elect to present subsequent changes in fair value in OCI. This election is made on an investment-by-investment basis.

If an equity investment is designated as FVTOCI, all gains and losses, except for dividend income, are recognised in other comprehensive income and are not subsequently included in the statement of income.

Financial assets at fair value through the profit or loss

Financial assets not otherwise classified above are classified and measured as FVTPL.

Financial liabilities at amortised cost

All financial liabilities, other than those classified as financial liabilities at FVTPL, are measured at amortised cost using the effective interest rate method.

Financial liabilities at fair value through the profit or loss

Financial liabilities not measured at amortised cost are classified and measured at FVTPL. This classification includes derivative liabilities.

2 Accounting policies (continued)

Derecognition

Financial assets

The Group derecognises a financial asset when;

- the contractual rights to the cash flows from the financial asset expire,

- it transfers the right to receive the contractual cash flows in a transaction in which substantially all of the risks and rewards of ownership of the financial asset are transferred; or

- the Group neither transfers nor retains substantially all of the risks and rewards of ownership and it does not retain control of the financial asset.

On derecognition of a financial asset, the difference between the carrying amount of the asset and the sum of the consideration received is recognised as a gain or loss in the profit or loss.

Any cumulative gain or loss recognised in OCI in respect of equity investment securities designated as FVTOCI is not recognised in profit or loss on derecognition of such securities. Any interest in transferred financial assets that qualify for derecognition that is created or retained by the Group is recognised as a separate asset or liability.

The Group enters into transactions whereby it transfers assets recognised on its statement of financial position, but retains either all or substantially all of risks and rewards of the transferred assets or a portion of them. In such cases, the transferred assets are not derecognised.

When the Group derecognises transferred financial assets in their entirety, but has continuing involvement in them then the entity should disclose for each type of continuing involvement at the reporting date:

(a) The carrying amount of the assets and liabilities that are recognised in the entity's statement of financial position and represent the entity's continuing involvement in the derecognised financial assets, and the line items in which those assets and liabilities are recognised;

(b) The fair value of the assets and liabilities that represent the entity's continuing involvement in the derecognised financial assets;

(c) The amount that best represents the entity's maximum exposure to loss from its continuing involvement in the derecognised financial assets, and how the maximum exposure to loss is determined; and

(d) The undiscounted cash outflows that would or may be required to repurchase the derecognised financial assets or other amounts payable to the transferee for the transferred assets.

Financial liabilities

The Group derecognises a financial liability when its contractual obligations are discharged, cancelled, or expire.

Modification of financial assets and financial liabilities

Financial assets

If the terms of a financial asset are modified, the Group evaluates whether the cash flows of the modified asset are substantially different. If the cash flows are substantially different, then the contractual rights to the cash flows from the original financial asset are deemed to expire. In this case the original financial asset is derecognised and a new financial asset is recognised at either amortised cost or fair value.

If the cash flows are not substantially different, then the modification does not result in derecognition of the financial asset. In this case, the Group recalculates the gross carrying amount of the financial asset and recognises the amount arising from adjusting the gross carrying amount as a modification gain or loss in the statement of income.

2 Accounting policies (continued)

Financial liabilities

If the terms of a financial liabilities are modified, the Group evaluates whether the cash flows of the modified asset are substantially different. If the cash flows are substantially different, then the contractual obligations from the cash flows from the original financial liabilities are deemed to expire. In this case the original financial liabilities are derecognised and new financial liabilities are recognised at either amortised cost or fair value.

If the cash flows are not substantially different, then the modification does not result in derecognition of the financial liabilities. In this case, the Group recalculates the gross carrying amount of the financial liabilities and recognises the amount arising from adjusting the gross carrying amount as a modification gain or loss in the statement of income.

Impairment of financial assets

Measurement of Expected Credit Losses

The Group recognises loss allowances for expected credit losses (ECL) on financial instruments that are not measured at FVTPL, namely:

- Financial assets that are debt instruments;
- Accounts and other receivables;
- Financial guarantee contracts issued; and
- Loan commitments issued.

The Group classifies its financial instruments into stage 1, stage 2 and stage 3, based on the applied impairment methodology, as described below:

Stage 1: for financial instruments where there has not been a significant increase in credit risk since initial recognition and that are not credit-impaired on origination, the Group recognises an allowance based on the 12-month ECL.

Stage 2: for financial instruments where there has been a significant increase in credit risk since initial recognition but they are not credit-impaired, the Group recognises an allowance for the lifetime ECL.

Stage 3: for credit-impaired financial instruments, the Group recognises the lifetime ECL.

The Group measures loss allowances at an amount equal to the lifetime ECL, except for the following, for which they are measured as a 12-month ECL:

- debt securities that are determined to have a low credit risk (equivalent to investment grade rating) at the reporting date; and - other financial instruments on which the credit risk has not increased significantly since their initial recognition.

The Group considers a debt security to have low credit risk when their credit risk rating is equivalent to the globally understood definition of 'investment grade'.

A 12-month ECL is the portion of the ECL that results from default events on a financial instrument that are probable within 12 months from the reporting date.

Provisions for credit-impairment are recognised in the statement of income and are reflected in accumulated provision balances against each relevant financial instruments balance.

Evidence that the financial asset is credit-impaired include the following;

- Significant financial difficulties of the borrower or issuer;
- A breach of contract such as default or past due event;
- The restructuring of the loan or advance by the Group on terms that the Group would not consider otherwise;
- It is becoming probable that the borrower will enter bankruptcy or other financial reorganisation;
- The disappearance of an active market for the security because of financial difficulties; or

- There is other observable data relating to a group of assets such as adverse changes in the payment status of borrowers or issuers in the Group, or economic conditions that correlate with defaults in the Group.

2 Accounting policies (continued)

For trade receivables, the Group applies the simplified approach, which requires expected lifetime losses to be recognised from initial recognition of the receivables.

To measure the expected credit losses, trade receivables and contract assets have been grouped based on shared credit risk characteristics and the days past due. The contract assets relate to unbilled work in progress and have substantially the same risk characteristics as the trade receivables for the same types of contracts. The Group has therefore concluded that the expected loss rates for trade receivables are a reasonable approximation of the loss rates for the contract assets.

The expected loss rates are based on the payment profiles of sales over a period of 36 month before 31 December 2019 and the corresponding historical credit losses experienced within this period. The historical loss rates are adjusted to reflect current and forward-looking information on macroeconomic factors affecting the ability of the customers to settle the receivables. The Group has identified the GDP and the unemployment rate of the countries in which it sells its goods and services to be the most relevant factors, and accordingly adjusts the historical loss rates based on expected changes in these factors.

Derivative financial instruments

Derivative financial instruments are contracts, the value of which is derived from one or more underlying financial instruments or indices, and include futures, forwards, swaps and options in the interest rate, foreign exchange, equity and credit markets.

Derivative financial instruments are recognised in the statement of financial position at fair value. Fair values are derived from prevailing market prices, discounted cash flow models or option pricing models as appropriate.

In statement of financial position, derivative financial instruments with positive fair values (unrealised gains) are included as assets and derivative financial instruments with negative fair values (unrealised losses) are included as liabilities.

The changes in the fair values of derivative financial instruments entered into for trading purposes are included in trading income.

Hedge accounting

Derivatives held for risk management purposes include all derivative assets and liabilities that are not classified as trading assets and liabilities.

The Group designates certain derivatives held for risk management as well as certain non-derivative financial instruments as hedging instruments in qualifying hedging relationships. On initial designation of the hedge, the Group formally documents the relationship between the hedging instruments and hedge items, including the risk management objective and strategy in undertaking the hedge, together with the method that will be used to assess the effectiveness of the hedging relationship. The Group makes an assessment, both at inception of the hedge relationship and on an ongoing basis, of whether the hedging instruments are expected to be highly effective in offsetting that changes in the fair value or cash flows of the respective hedged items during the period for which the hedge is designated.

2 Accounting policies (continued)

These hedging relationships are discussed below.

Cash flow hedges

The Group makes an assessment for a cash flow hedge of a forecast transaction, of whether the forecast transaction is highly probable to occur and presents an exposure to variations in cash flows that could ultimately affect profit or loss.

When a derivative is designated as the hedging instrument in a hedge of the variability in cash flows attributable to a particular risk associated with a recognised asset or liability that could affect profit or loss, then the effective portion of changes in the fair value of the derivative is recognised in OCI and presented in the hedging reserve within equity. Any ineffective portion of changes in the fair value of the derivative is recognised immediately in profit or loss. The amount recognised in OCI is reclassified to profit or loss as a reclassification adjustment in the same period as the hedged cash flows affect profit or loss, and in the same line item in the statement of profit or loss and OCI.

If the hedging derivative expires or is sold, terminated or exercised, or the hedge no longer meets the criteria for cash flow hedge accounting, or the hedge designation is revoked, then hedge accounting is discontinued prospectively. However, if the derivative is novated to a central clearing counterparty by both parties as a consequence of laws or regulations without changes in its terms except for those that are necessary for the novation, then the derivative is not considered expired or terminated.

Accounting estimates and assumptions

The preparation of the financial statements requires management to make estimates and assumptions that affect the reported amounts of certain financial assets, liabilities, income and expenses.

The use of estimates and assumptions is principally limited to the determination of provisions for impairment, the valuation of financial instruments is explained in more detail below:

Provisions for impairment

In determining impairment of financial assets, judgement is required in the estimation of the amount and timing of future cash flows as well as an assessment of whether the credit risk on the financial asset has increased significantly since initial recognition and incorporation of forward-looking information in the measurement of ECL.

Fair value of financial assets and liabilities

Where the fair value of financial assets and liabilities cannot be derived from active markets, they are determined using a variety of valuation techniques that include the use of mathematical models. The input to these models is derived from observable markets where available, but where this is not feasible, a degree of judgement is required in determining assumptions used in the models. Changes in assumptions used in the models could affect the reported fair value of financial assets and liabilities.

• 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 the costs and their cost drivers which is reviewed on annual basis. The percentage allocation of overheads across the workstream categories are obtained from section managers who are asked to provide reasoning and supporting evidence for the allocation. Finance then undertake a financial impact assessment review and the rationale to ensure it complies with IFRS. The amount of overheads capitalised in the year was £86.2 million (2018: £90.9 million).

3 Prior period adjustments

Adopted Assets and intangible assets

The Financial Statements have been restated to incorporate the impact of under reporting of the value of distributions network assets adopted from other parties and the reclassification of IT software assets from property, plant and machinery to intangible assets.

Distribution network assets are on occasions constructed by other parties who then transfer them to the Group. At the date of transfer the value of property, plant and equipment is increased with an equal increase in the value of deferred revenue. The assets are depreciated in line with the depreciation policy for those assets with a similar amortisation of the deferred revenue. It was discovered during the year that not all adopted assets had been captured in the Financial Statements. A new process has been introduced during 2020.

In previous years certain operational IT software assets had been included in property plant and equipment rather than intangible assets.

These had no impact on prior years' profits or net assets, however impacts the constituent parts of the previously reported figures in the Consolidated Income Statement and Consolidated Statement of Financial Position. The impact on the Consolidated Income Statement and the Consolidated Statement of Financial Position is shown below:

Statement of Profit or Loss:

	2018 £ 000	2017 £ 000
Revenue	4,339	3,626
Distribution costs	(4,339)	(3,626)
Profit for the year		

Statement of Financial Position

	2018 £ 000	2017 £ 000
Property, plant and equipment	52,082	49,880
Intangible assets	2,153	4,364
Deferred revenue non-current	(49,809)	(49,905)
Deferred revenue current	(4,426)	(4,339)
Total equity and liabilities	<u> </u>	-

4 Revenue

The analysis of the Group's revenue for the year from continuing operations is as follows:

		Restated (Note 3)
	2019 £ 000	2018 £ 000
Distribution revenue	692,626	674,658
Amortisation of deferred revenue	60,063	57,897
Contracting revenue	22,891	20,116
Meter asset rental	70,109	58,579
Other revenue	4,006	4,057
	849,695	815,307

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.

Reportable segments are those that meet two or more of the following criteria under IFRS 8:

- Its reported revenue is 10% or more of the combined revenue of all segments;

- The absolute measure of its profit or loss is 10% or more of the combined reported profit; and

- Its assets are 10% or more of the combined assets of all segments.

Northern Powergrid (Northeast) Limited and Northern Powergrid (Yorkshire) plc are aggregated into a single operating segment, "Distribution", as they have similar characteristics and are similar in the nature of their products and services, their processes, and the type of customer that utilise their products and services. The distribution segment includes distribution revenue and amortisation of deferred revenue listed above, all other revenue is included in "other" in the segmental analysis.

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

2019 Revenue Inter-segment sales	Distribution £ 000 752,689 991	Other £ 000 97,006 (991)	Total £ 000 849,695
Total revenue	753,680	96,015	849,695
Operating profit Other gains Finance costs Finance income Profit before tax	319,984	47,087	<u>367,071</u> 2,711 (108,918) 1,363 <u>262,227</u>
Depreciation and amortisation Amortisation of deferred revenue	209,880 (60,063)	52,357	262,237 (60,063)
Segment assets Unallocated corporate assets Total assets	6,223,294	711,020	6,934,314 337,756 7,272,070

4 Revenue (continued)

Segment liabilities Unallocated corporate liabilities	(1,803,164)	(183,915)	(1,987,079) (2,535,910)
Total liabilities			(4,522,989)
Segment net assets Unallocated net corporate liabilities	4,420,130	527,105	4,947,235 (2,198,154)
Total net assets			2,749,081

4 Revenue (continued)

2018 (Restated Note 3) Revenue Inter-segment sales	Distribution £ 000 732,555 1,040	Other £ 000 82,752 (1,040)	Total £ 000 815,307
Total revenue	733,595	81,712	815,307
Operating profit Other gains Finance costs Finance income	319,346	34,267	353,613 971 (105,363) 888
Profit before tax			250,109
Depreciation and amortisation Amortisation of deferred revenue	199,521 (57,897)	45,073	244,594 (57,897)
Segment assets Unallocated corporate assets Total assets	5,963,168	656,175	6,619,343 113,419 6,732,762
Segment liabilities Unallocated corporate liabilities Total liabilities	(2,063,252)	(265,743)	(2,328,995) (1,848,988) (4,177,983)
Segment net assets Unallocated net corporate liabilities Total net assets	3,899,916	390,432	4,290,348 (1,735,569) 2,554,779

Sales to RWE Npower plc in 2019 of £128.1 million (2018: £153.2 million) and to British Gas plc in 2019 of £90.4 million (2018: £101.1 million) are included within the Distribution segment.

Contract assets arise where goods or services are transferred to the customer before the customer pays consideration, or before payment is due. All contract assets relate to engineering contracting work within Integrated Utility Services. Contracts in progress at statement of financial position date:

4 Revenue (continued)

Assets recognised from costs to fulfil a contract with customers

	31 December 2019 £ 000	31 December 2018 £ 000
Contract costs incurred plus recognised profit less recognised losses to date	28,208	30,117
Less: progress billings	(20,076) 8.132	(24,112) 6.005
	- , -	

At 31 December 2019, retentions held by customers for contract work amounted to £0.4 million (2018: £0.4 million). Advances received from customers for contract work amounted to £nil (2018: £nil).

The Company had no contract assets at 31 December 2019 (2018: £nil).

5 Other gains and losses

The analysis of the Group's other gains and losses for the year is as follows:

	2019	2018
	£ 000	£ 000
Gain on disposal of property, plant and equipment	2,711	971

6 Operating profit

Arrived at after charging/(crediting)

		Restated (Note 3)
	2019 £ 000	2018 £ 000
Depreciation expense	245,715	232,470
Depreciation on right of use assets	4,499	-
Amortisation expense	12,023	12,124
Research and development	4,072	5,599
Loss allowance Amortisation of deferred revenue	1,932 (60,063)	3,676 (57,897)

Amortisation expense is included in administration costs within the statement of profit or loss on page 32.

7 Finance income and costs

	2019 £ 000	2018 £ 000
Finance income		
Dividend income	134	134
Other finance income	1,229	754
Total finance income	1,363	888
Finance costs		
Interest on bank overdrafts and borrowings	(111,610)	(108,837)
Interest expense on leases	(612)	-
Borrowing costs included in cost of qualifying asset	3,304	3,474
Total finance costs	(108,918)	(105,363)
Net finance costs	(107,555)	(104,475)

Borrowing costs included in the costs of qualifying assets during the year arose on the general borrowing pool and are calculated by applying a capitalisation rate of 5.06% within NPg Northeast (2018: 5.33%) and 4.87% within NPg Yorkshire (2018: 4.79%) to expenditure on such assets.

8 Staff costs

	2019 £ 000	2018 £ 000
Salaries	126,713	119,814
Social security costs	14,615	13,808
Defined benefit pension cost	11,590	17,604
Defined contribution pension cost	7,166	6,023
Less charged to property plant and equipment	160,084 (87,957)	157,249 (88,630)
	72,127	68,619

A large proportion of the Group's employees are members of the DB Scheme, details of which are given in the Employee Benefit Obligations Note 29.

The monthly average number of persons employed by the Group (including directors) during the year was as follows:

	2019 No.	2018 No.
Distribution	2,277	2,282
Engineering contracting	157	163
Hydrocarbon exploration and development	16	15
Other	14	13
	2,464	2,473

The Company had no employees in the years ended 31 December 2019 and 31 December 2018.

9 Directors' remuneration

The directors' remuneration for the year was as follows:

	2019 £	2018 £
Highest paid		
Short-term employee benefits	810,865	792,350
Other long-term benefits	923,278	1,033,565
_	1,734,143	1,825,915
Total		
Short-term employee benefits	1,249,303	1,114,633
Post retirement benefits - defined contribution	14,318	13,712
Other long-term benefits	1,157,899	1,217,058
	2,421,520	2,345,403
Post retirement benefits		
Directors who are members of a defined contribution scheme	3	3
Directors who are members of a defined benefit scheme		-
	2019	2018
	£	£
Key personnel remuneration		
Short-term employee benefits	1,098,772	1,267,006
Post retirement benefits - defined benefit	57,447	117,103
Post retirement benefits - defined contribution	96,667	94,987
Other long-term benefits	504,001	665,828
_	1,756,887	2,144,924

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

10 Auditor's remuneration

The auditor's remuneration for the year was as follows:

	2019 £ 000	2018 £ 000
Fees payable to the auditor for audit of the Company's annual accounts	173	194
Fees payable to the auditor for audit of the Company's subsidiaries pursuant to legislation	414	404
Total audit fees	587	598
Audit of regulatory reporting	92	90
Other services	67	45
Total auditor's remuneration	746	733

Other services relate to non-statutory audit services including apprentice levy and pensions.

11 Income tax

Tax charged in the income statement

	2019 £ 000	2018 £ 000
Current taxation		
UK corporation tax	53,257	50,115
UK corporation tax adjustment to prior periods	815	(463)
Petroleum revenue tax	(64)	(68)
Foreign withholding tax		277
	54,008	49,861
Deferred taxation		
Arising from origination and reversal of temporary differences	(3,719)	1,215
Deferred tax expense/(credit) from unrecognised temporary difference from a prior period	(3,147)	348
Deferred tax expense/(credit) relating to changes in tax rates or laws	(673)	(1,224)
Total deferred taxation	(7,539)	339
Tax expense in the income statement	46,469	50,200

11 Income tax (continued)

The tax on profit before tax for the year is lower than the standard rate of corporation tax in the UK (2018 - higher than the standard rate of corporation tax in the UK) of 19.00% (2018 - 19.00%).

The differences are reconciled below:

	2019 £ 000	2018 £ 000
Profit before tax	262,227	250,109
Corporation tax at standard rate	49,823	47,521
Effect of difference between corporation and deferred tax rates	(673)	(1,224)
Tax effect of result of joint venture entities	(141)	(144)
(Decrease)/increase in current tax from adjustment for prior periods	815	(463)
Permanent differences (including non-taxable dividends)	(12)	(331)
Pension contributions recognised in other comprehensive income	199	234
Deferred tax over provision for prior years	(3,147)	348
Non-deductible interest	1,708	3,822
Overseas withholding tax	-	277
Tax losses not recognised for deferred tax	74	48
Recognition of ring-fenced supplement	(1,730)	107
Petroleum revenue tax	(59)	(50)
Overseas taxes- non taxable foreign exchange	(289)	-
Other	(99)	55
Total tax charge	46,469	50,200

Finance Bill 2016 included provisions to reduce the main rate of corporation tax to 17% from 1 April 2020. However, in the March 2020 Budget it was announced that the cut in the rate to 17% will now not occur and the Corporation Tax Rate will be held at 19%. As this has not been enacted by the balance sheet date, balances as at 31 December 2019 continue to be measured at 17%, the amended tax rate would cause an increase of £27.9 million to the deferred tax liability.

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Amounts recognised in other comprehensive income

	2019		
	Tax (expense)		
	Before tax	benefit	Net of tax
	£ 000	£ 000	£ 000
Gain/(loss) on cash flow hedges (net)	(2,264)	384	(1,880)
Foreign currency translation gains/(losses)	804	-	804
Remeasurements of post employment benefit obligations (net)	(24,100)	4,305	(19,795)
	(25,560)	4,689	(20,871)
		2018	
	Т	ax (expense)	
	Before tax	benefit	Net of tax
	£ 000	£ 000	£ 000
Gain/(loss) on cash flow hedges (net)	1,297	(221)	1,076
Foreign currency translation gains/(losses)	(200)	-	(200)
Remeasurements of post employment benefit obligations (net)	(60,000)	10,434	(49,566)
	(58,903)	10,213	(48,690)

11 Income tax (continued)

Deferred tax

Group

Deferred tax movement during the year:

			Recognised in other		At
	At 1 January 2019 £ 000	Recognised in income £ 000	comprehensive income £ 000	Recognised on acquisition £ 000	31 December 2019 £ 000
Accelerated tax depreciation	228,844	1,709	-	-	230,553
Rollover/holdover relief	6,147		-	-	6,147
Other items	(2,507)	394	(385)	-	(2,498)
Pension benefit obligations	7,794	(662)	1,946	-	9,078
Losses	(1,253)	(9,084))	(7,406)	(17,743)
Net tax assets/(liabilities)	239,025	(7,643)	1,561	(7,406)	225,536

Deferred tax movement during the prior year:

			Recognised in other	At
	At 1 January	Recognised in	comprehensive	31 December
	2018	income	income	2018
	£ 000	£ 000	£ 000	£ 000
Accelerated tax depreciation	228,456	388	-	228,844
Rollover/holdover relief	6,287	(140)		6,147
Other items	(3,464)	736	221	(2,507)
Pension benefit obligations	13,211	(329)	(5,088)	7,794
Losses	(936)	(317)		(1,253)
Net tax assets/(liabilities)	243,554	338	(4,867)	239,025

The other deferred tax asset of £2.5 million (2018:£2.5 million) includes the tax benefit on interest accrued on fair value adjustments on borrowings acquired on the acquisition of Yorkshire Power Group Limited, cash flow hedges and employee benefits which are deductible on a paid basis. Within pension benefit obligations the movement in the year represents deferred tax on the movement in retirement benefit obligation/asset. A proportion of the movement has been capitalised in property, plant and equipment.

The losses deferred tax asset of ± 17.7 million (2018: ± 1.2 million) includes a deferred tax asset of ± 0.2 million (2018: ± 0.2 million) in respect of site restoration provisions.

The Company had no deferred tax liability as at 31 December 2019 (2018: £nil).

12 Property, plant and equipment (Restated- Note 3)

Group

	Land and buildings £ 000	Distribution system £ 000	Metering equipment £ 000	Oil & gas assets £ 000	Furniture, fittings and equipment £ 000	Total £ 000
Cost or valuation At 1 January 2018 Prior period adjustment	8,229	7,291,431 42,412	443,084	22,871	87,793	7,853,408 42,412

12 Property, plant and equipment (Restated- Note 3) (continued)

	Land and buildings £ 000	Distribution system £ 000	Metering equipment £ 000	Oil & gas assets £ 000	Furniture, fittings and equipment £ 000	Total £ 000
At 1 January 2018 (Restated)	8,229	7,333,843	443,084	22,871	87,793	7,895,820
Additions (Restated)	-	386,031	78,288	43	4,460	468,822
Disposals	-	(19,918)	(8,498)	-	(620)	(29,036)
Foreign exchange movements			<u>-</u>	(438)	(3)	(441)
At 31 December 2018 (Restated)	8,229	7,699,956	512,874	22,476	91,630	8,335,165
At 1 January 2019	8,229	7,699,956	512,874	22,476	91,630	8,335,165
Additions		441,905	26,486	54,362	7,300	530,053
Disposals	-	(27,465)	(12,579)		(145)	(40,189)
Foreign exchange movements	-	(=·,····) -	(,,-)	(352)	-	(352)
At 31 December 2019	8,229	8,114,396	526,781	76,486	98,785	8,824,677
Depreciation At 1 January 2018 Prior period adjustment	4,580	1,777,423 (7,468)	178,866	12,530	69,321	2,042,720 (7,468)
At 1 January 2018 (Restated)	4,580	1,769,955	178,866	12,530	69,321	2,035,252
Charge for year (Restated)	280	183,938	39,680	1,027	7,545	232,470
Eliminated on disposal	-	(19,918)	(8,082)	- -	(620)	(28,620)
At 31 December 2018 (restated)	4,860	1,933,975	210,464	13,557	76,246	2,239,102
At 1 January 2019	4,860	1,933,975	210,464	13,557	76,246	2,239,102
Charge for the year	281	195,071	41,731	1,082	7,550	245,715
Eliminated on disposal		(27,490)	(7,117)	-	(145)	(34,752)
At 31 December 2019	5,141	2,101,556	245,078	14,639	83,651	2,450,065
Carrying amount						
At 1 January 2018 (Restated)	3,649	5,563,888	264,218	10,341	18,472	5,860,568
At 31 December 2018 (Restated)	3,369	5,765,981	302,410	8,919	15,384	6,096,063
At 31 December 2019	3,088	6,012,840	281,703	61,847	15,134	6,374,612

12 Property, plant and equipment (Restated- Note 3) (continued)

Expenditure recognised in the carrying amount of property, plant and equipment in the course of construction was as follows:

	31	31
	December	December
	2019	2018
	£ 000	£ 000
Distribution system	397,061	376,624

Contractual commitments for the acquisition of property, plant and equipment were as follows:

	31	31
	December	December
	2019	2018
	£ 000	£ 000
Distribution system	80,800	53,000

13 Right of use assets

Group			
	Fleet £ 000	Property £ 000	Total £ 000
Cost or valuation Additions	17,526	5,021	22,547
At 31 December 2019	17,526	5,021	22,547
Depreciation Charge for the year	3,594	905	4,499
At 31 December 2019	3,594	905	4,499
Carrying amount			
At 31 December 2019	13,932	4,116	18,048

14 Acquisition of Thames Pipeline Catchment Area Assets

On October 28, 2019, CalEnergy Resources Limited ("CER") acquired 100% of the share capital of Avalonia Energy Developments Limited from Avalonia Energy Limited (an Independent Oil & Gas plc ("IOG") group company) for an initial consideration of £41.5 million.

In addition, Avalonia Energy Developments Limited has an obligation to pay additional asset consideration of £3.6m upon certain trigger points of approval of Final Development Plans and first gas production. We expect that these payments will be made during 2020 and 2021. Whilst not guaranteed, all payments are deemed to be certain and are recognised in full as part of the opening balance sheet as reflecting value of the assets acquired because trigger points are very likely to materialise.

Avalonia Energy Developments Limited was created in May 2019 and had acquired 50% interest in several assets from IOG under a farm out agreement. The name was changed to CalEnergy Resources (UK) Limited ("CER (UK)") on October 28, 2019.

Applying IFRS3 "Business combinations" the Group determined the transaction as an asset purchase rather than a purchase of an entity (business combinations).

The opening balance sheet of CER (UK) is shown below:

	2019 £000
Property, plant and equipment	42,773
Intangible assets	674
Deferred tax	7,406
Total non-current assets	50,853
Current assets	1,350
Total assets	52,203
Trade and other payable	(2,768)
Borrowings	(42,275)
Total current liabilities	(45,043)
Abandonment provision	(4,467)
Trade and other payables	(2,693)
Total non-current liabilities	(7,160)
Total liabilities	(52,203)
Share capital	
Total share capital and liabilities	(52,203)

15 Intangible assets (Restated- Note 3)

Group

15 Intangible assets (Restated- Note 3) (continued)

Impairment

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:

	2019 £ m	2018 £ m
Northern Powergrid (Northeast) Ltd	2,024	1,922
Northern Powergrid (Yorkshire) plc (including Goodwill)	2,835	2,696
	4,859	4,618

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 (2018: £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 and terminal premium to RAV.

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. 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 4.2% (2018: 5.1%) 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 terminal premium to RAV used to determine the value of the operating unit at the end of the planning period is 40% (2018: 30%), this is determined with reference to recent market transactions.

The application of these assumptions did not give rise to an impairment charge in 2019 (2018: £nil). The following shows the rates required to impair each of the CGUs:

	Rate used in calculation		Rate to impair	
	Northeast	Yorkshire	Northeast	Yorkshire
WACC	4.2%	4.2%	6.53%	5.69%
Terminal premium	40.0%	40.0%	8.96%	19.86%

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

WACC sensitivity	Variable used	Value in use £ 000	Headroom/ (Impairment) £ 000
Northeast			
Value used in calculation	4.20%	2,445,000	421,000
Sensitivity 1	5.25%	2,241,000	217,000
Sensitivity 2	6.25%	2,068,000	44,000
Yorkshire			
Value used in calculation	4.20%	3,221,000	386,000
Sensitivity 1	5.25%	2,943,000	108,000
Sensitivity 2	6.25%	2,706,000	(129,000)

15 Intangible assets (Restated- Note 3) (continued)

WACC sensitivity	Variable used	Value in use £ 000	Headroom/ (Impairment) £ 000
Terminal premium sensitivity			
Value used in calculation	40%	-	-
Northeast	35%	2,377,000	353,000
Northeast	30%	2,309,000	285,000
Yorkshire	35%	3,125,000	290,000
Yorkshire	30%	3,029,000	194,000

WACC and Terminal premium sensitivity	Variable used	Value in use £ 000	Headroom/ (Impairment) £ 000
Value used in calculation	4.20%/40%	-	-
Northeast	5.25%/35%	2,180,000	156,000
Northeast	5.35%/30%	2,102,000	78,000
Yorkshire	5.25%/35%	2,856,000	21,000
Yorkshire	5.35%/30%	2,746,000	(89,000)

16 Investments

	Investment in joint ventures £ 000	Investment in associate £ 000	Share in other undertakings £ 000	Total £ 000
At 1 January 2018	3,407	19,243	21	22,671
Additions	-	1,693	-	1,693
Profit from investments	757	(51)	-	706
Dividends paid by investments	(691)			(691)
At 31 December 2018	3,473	20,885	21	24,379
Additions	-	4,917	-	4,917
Profit from investments	741	(88)	-	653
Dividends paid by investments	(696)			(696)
At 31 December 2019	3,518	25,714	21	29,253

Summary of the Company investments

	31 December 2019	31 December 2018
	£ 000	£ 000
Investments in subsidiaries	376,289	376,289

16 Investments (continued)

Group subsidiaries

Details of the Group subsidiaries as at 31 December 2019 are as follows:

Nome of autoidiam.	Duin sin al a stinita	Registered office and country	Proportion ownership and voting	interest
Name of subsidiary	Principal activity	of incorporation	held 2019	2018
Northern Powergrid UK Holdings*	Holding company	England and Wales	99%	99%
Yorkshire Power Group Limited	Holding Company	England and Wales	99%	99%
CalEnergy Gas Limited	Hydrocarbon exploration and development	3rd floor, 55 Drury Lane, London, WC2B 5SQ, England and Wales	100%	100%
CalEnergy Gas (Holdings) Limited*	Holding company	England and Wales	100%	100%
CalEnergy Resources Limited	Holding company	England and Wales	100%	100%
CalEnergy Resources Poland Sp. zo.o	Hydrocarbon exploration and development	AL. Wilanowska 206 app. 19, 02-765, Warsaw, Poland	100%	100%
CalEnergy Resources (Australia) Limited	Hydrocarbon exploration and development	3rd Floor, 55 Drury Lane, London, WC2B 5SQ, England and Wales	100%	100%
CE Electric Services Limited	Dormant	England and Wales	100%	100%
Central Powergrid Limited	Dormant	England and Wales	100%	100%
East PowerGrid Limited	Dormant	England and Wales	100%	100%
Eastern PowerGrid Limited	Dormant	England and Wales	100%	100%
Infastructure North Limited	Dormant	England and Wales	100%	100%
Integrated Utility Services Limited	Engineering contracting services	England and Wales	100%	100%
Integrated Utility Services Limited	Engineering contracting services	C11 Gateway, Rosemount Business Park, Ballycoolin, Dublin 15, Ireland	100%	100%
IUS Limited	Dormant	England and Wales	100%	100%
Midlands PowerGrid Limited	Dormant	England and Wales	100%	100%
NEDL Limited	Dormant	England and Wales	100%	100%
North East PowerGrid Limited	Dormant	England and Wales	100%	100%
North Eastern Powergrid Limited	Dormant	England and Wales	100%	100%

16 Investments (continued)

Name of subsidiary	Principal activity	Registered office and country of incorporation	Proportion ownership and voting held	interest
Traine of subsidiary	T incipal activity		2019	2018
North PowerGrid Limited	Dormant	England and Wales	100%	100%
North West PowerGrid Limited	Dormant	England and Wales	100%	100%
North Western PowerGrid Limited	Dormant	England and Wales	100%	100%
Northern Electric Distribution Limited	Dormant	England and Wales	100%	100%
Northern Electric Finance plc	Finance company	England and Wales	100%	100%
Northern Electric plc	Holding company	England and wales	100%	100%
Northern Electric Properties Limited*	Property holding and management company	England and Wales	100%	100%
Northern Electric Share Scheme Trustee Limited	Dormant	England and Wales	100%	100%
Northern Electricity (North East) Limited	Dormant	England and Wales	100%	100%
Northern Electricity (Yorkshire) Limited	Dormant	England and Wales	100%	100%
Northern Electricity Limited	Dormant	England and Wales	100%	100%
Northern Electricity Networks Company (North East) Limited	Dormant	England and Wales	100%	100%
Northern Electricity Networks Company (Yorkshire) Limited	Dormant	England and Wales	100%	100%
Northern Electricity Networks Company Limited	Dormant	England and Wales	100%	100%
Northern Electrics Limited	Dormant	England and Wales	100%	100%
Northern Energy Funding Company Limited	Dormant	England and Wales	100%	100%
Northern Metering Services Limited	Dormant	England and Wales	100%	100%
Northern Powergrid Gas Limited*	Holding company	England and Wales	100%	100%
Northern Powergrid Limited	Holding company	England and Wales	100%	100%
Northern Powergrid Metering Limited	Meter asset provider	England and Wales	100%	100%
Northern Powergrid (Northeast) Limited	Distribution of electricity	England and Wales	100%	100%
Northern PowerGrid (North West) Limited	Dormant	England and Wales	100%	100%
Northern Powergrid (Yorkshire) plc	Distribution of electricity	England and Wales	100%	100%

16 Investments (continued)

Nome of subsidious	Registered office and country			
Name of subsidiary	Principal activity	of incorporation	held 2019	2018
Northern Power Networks Company (North East) Limited	Dormant	England and Wales	100%	100%
NewGen Drilling Pty Limited	Hydrocarbon exploration and development	Level 1, 12 St Georges Terrace, Perth, W A 6000, Australia	100%	100%
Northern Power Networks Company (Yorkshire) Limited	Dormant	England and Wales	100%	100%
Northern Powergrid Networks Company Limited	Dormant	England and Wales	100%	100%
Northern Transport Finance Limited	Car finance company	England and Wales	100%	100%
Northern Utility Services Limited	Dormant	England and Wales	100%	100%
PowerGrid (Central) Limited	Dormant	England and wales	100%	100%
PowerGrid (East) Limited	Dormant	England and Wales	100%	100%
PowerGrid (Eastern) Limited	Dormant	England and Wales	100%	100%
PowerGrid (Midlands) Limited	Dormant	England and Wales	100%	100%
PowerGrid (North East) Limited	Dormant	England and Wales	100%	100%
PowerGrid (North Eastern) Limited	Dormant	England and Wales	100%	100%
PowerGrid (North West) Limited	Dormant	England and Wales	100%	100%
PowerGrid (North Western) Limited	Dormant	England and Wales	100%	100%
PowerGrid (North) Limited	Dormant	England and Wales	100%	100%
PowerGrid (Northern) Limited	Dormant	England and Wales	100%	100%
PowerGrid (South East) Limited	Dormant	England and Wales	100%	100%
PowerGrid (South Eastern) Limited	Dormant	England and Wales	100%	100%
PowerGrid (South West) Limited	Dormant	England and Wales	100%	100%
PowerGrid (South Western) Limited	Dormant	England and Wales	100%	100%
PowerGrid (South) Limited	Dormant	England and Wales	100%	100%
PowerGrid (Southern) Limited	Dormant	England and Wales	100%	100%
PowerGrid (West) Limited	Dormant	England and Wales	100%	100%
Powergrid (Western) Limited	Dormant	England and Wales	100%	100%

16 Investments (continued)

Norre of subsidious	Registered office and country			
Name of subsidiary	Principal activity	of incorporation	held 2019	2018
PowerGrid (Yorkshire) Limited	Dormant	England and Wales	100%	100%
South East PowerGrid Limited	Dormant	England and Wales	100%	100%
South Eastern PowerGrid Limited	Dormant	England and Wales	100%	100%
South PowerGrid Limited	Dormant	England and Wales	100%	100%
South West PowerGrid Limited	Dormant	England and Wales	100%	100%
South Western PowerGrid Limited	Dormant	England and Wales	100%	100%
Southern PowerGrid Limited	Dormant	England and Wales	100%	100%
West PowerGrid Limited	Dormant	England and Wales	100%	100%
Western Powergrid Limited	Dormant	England and Wales	100%	100%
YEDL Limited	Dormant	England and Wales	100%	100%
Yorkshire Cayman Holding Limited	Dormant	PO Box 309, Ugland House, South Church Street, George Town, Grand Cayman, Cayman Islands	100%	100%
Yorkshire Electricity Distribution Limited	Dormant	England and Wales	100%	100%
Yorkshire Electricity Group plc	Finance company	England and Wales	100%	100%
Yorkshire Power Finance Limited	Finance company	PO Box 309, Ugland House, SOuth Church Street, George Town, Grand Cayman, Cayman Islands	100%	100%
Yorkshire Powergrid Limited	Dormant	England and Wales	100%	100%
Avalonia Energy Developments Limited	Hydrocarbon exploration and development	England and Wales	100%	100%

*These companies have taken advantage of s449A Companies Act exemption from audit.

Unless otherwise stated the registered office of the above companies is: Lloyds Court, 78 Grey Street, Newcastle upon Tyne, Tyne and Wear, NE1 6AF.

Northern Powergrid UK Holdings is a direct subsidiary of the Group. All of the other above companies are indirect subsidiaries. The class of shares related to the above companies are ordinary shares.

16 Investments (continued)

Group associates

Details of the Group associates as at 31 December 2019 are as follows:

Name of associate	Principal activity	Registered office		ip interest and ghts held by
			2019	2018
Baltic Gas Sp. Z o.o	General partner in Baltci Gas project	ul. Stary Dwor 9, 80-758 Ddanksk, Poland	50%	50%
Baltic Gas Sp. Z o.o. i Wspolnicy Spolka Komandytowa	Hydrocarbon exploration and development	ul. Stary Dwor 9, 80-758 Gdansk, Poland	49%	49%

Group joint ventures

Details of the Group joint ventures as at 31 December 2019 are as follows:

Name of Joint-ventures	Principal activity	Registered office		ip interest and ghts held by
			2019	2018
Vehicle Lease and Service Limited	Transport services	Centre for Advanced Industry, 3rd floor, Coble Dene, North Shileds, NE29 6DE, England and Wales	50%	50%
VLS Limited	Dormant	Centre for Advanced Industry, 3rd Floor, COble Dene, North Shilds, NE29 6DE, England and Wales	50%	50%

Joint ventures and associates are not strategic to the Group's activities.

16 Investments (continued)

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

	31 December 2019 £ 000	31 December 2018 £ 000
Net assets	7,036	6,947
Group's share of net assets	3,518	3,473
Revenue	17,926	17,810
Profit for the year	1,482	1,514
Group's share of profit for the year	741	757

17 Inventories

	Group		Company	
	31 December 2019 £ 000	31 December 2018 £ 000	31 December 2019 £ 000	31 December 2018 £ 000
Raw materials and consumables	19,444	12,422	-	-
Work in progress	718	1,399	-	-
Vehicle inventory	530	538		
	20,692	14,359	-	-

18 Trade and other receivables

	Group		Company	
	31 December 2019 £ 000	31 December 2018 £ 000	31 December 2019 £ 000	31 December 2018 £ 000
Distribution use of system receivables	110,629	107,585	-	-
Engineering contracting receivables	4,117	4,527	-	-
Trade receivables	32,680	25,270	-	-
Finance lease receivable	5,103	6,021	-	-
Loss allowance	(7,132)	(5,289)		
Net trade receivables	145,397	138,114	-	-
Prepayments	8,777	9,280	-	-
Other receivables			12,398	105
	154,174	147,394	12,398	105
Non-current trade receivables	7,730	6,877	190,000	150,000
	161,904	154,271	202,398	150,105

The average credit period on receivables is 30 days. No interest is charged on outstanding trade receivables.

The Group always measures the loss allowance for trade receivables at an amount equal to lifetime expected credit loss. The expected credit losses on trade receivables are estimated using a provision matrix by reference to past default experience of the debtor and an analysis of the debtor's current financial position, adjusted for factors that are specific to the debtors, general economic conditions of the industry in which the debtors operate and an assessment of both the current as well as the forecast direction of conditions at the reporting date.

18 Trade and other receivables (continued)

There has been no change in the estimation techniques or significant assumptions made during the current reporting period.

The Group writes off a trade receivable when there is information indicating that the debtor is in severe financial difficulty and there is no realistic prospect of recovery, e.g. when the debtor has been placed under liquidation or has entered into bankruptcy proceedings. None of the trade receivables that have been written off is subject to enforcement activities.

As the Group's historical credit loss experience does shows significantly different loss patterns for different customer segments, the provision for loss allowance based on past due status is distinguished as follows:

- Distribution businesses: DUoS receivables, damages receivables, and other receivables;
- · Metering: contracted meters, contracted churn, and non-contracted churn; and
- Engineering contracting.

The movement in the loss allowance was as follows:

	31 December 2019 £ 000	31 December 2018 £ 000
At 1 January	5,290	1,868
Amounts utilised/written off in the year	(90)	(255)
Amounts recognised in the income statement	1,932	3,676
At 31 December	7,132	5,289

There has been no significant change in the gross amounts of trade receivables that has affected the estimation of loss allowance.

Significant increase in credit risk

In assessing whether the credit risk on a financial instrument has increased significantly since initial recognition, the Group compares the risk of a default occuring on a financial instrument at the reporting date with the risk of a default occuring on the financial instrument at the date of initial recognition. In making this assessment the Company considers historical experience as well as forward-looking information that is available without undue cost or effort. Forward-looking information includes the future prospects of the industries in which the Group's debtors operate obtained from economic expert reports, financial analysts, government bodies, relevant think-tanks and other similar organisations. In particular the following information is taken into account when assessing whether credit risk has increased significantly since initial recognition:

- existing or forecast adverse changes in business, financial or economic conditions that are expected to cause a significant decrease in the debtor's ability to meet its debt obligations;
- an actual or expected significant deterioration in the operating results of the debtor;
- · significant increases in credit risk on other financial instruments of the same debtor; and
- an actual or expected significant adverse change in the regulatory, economic, or technological environment of the debtor that results in a significant decrease in the debtor's ability to meet its debt obligations.

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 17% of distribution revenues in 2019 (2018: 19%) and British Gas plc accounting for approximately 12% of distribution revenues in 2019 (2018: 13%). 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.

Provided the Company 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 losses arising from supplier default will be recovered through an increase in future allowed income. Losses incurred to date have not been material therefore no ECL has been made on DUoS balances.

The following is the expected credit loss for receivables past due:

18 Trade and other receivables (continued)

2019	Not due £ 000	Current £ 000	1-3 months £ 000	3-6 months £ 000
Total balance	62,792	44,345	160	3,332
Less specific provisions	<u> </u>	(138)	(145)	(2,276)
Balance eligible for ECL	62,792	44,207	15	1,056
Lifetime ECL	0%	0%	0%	0%
Expected credit loss		<u> </u>	<u> </u>	-
2018	Not due £ 000	Current £ 000	1-3 months £ 000	3-6 months £ 000
Total balance	61,215	45,398	53	867
Less specific provisions	<u> </u>		(18)	(855)
Balance eligible for ECL	61,215	45,398	35	12
Lifetime ECL	0%	0%	0%	0%
Expected credit loss	-	-	-	-

Other distribution trade receivables

Sales of goods and services comprise all income streams which are not classified as DUoS income. Examples of non-DUoS income streams would be service alterations/disconnections, assessment and design fees, 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.

The following is the expected credit loss for receivables past due:

18 Trade and other receivables (continued)

Non-damages receivables

Non-damages receivables	Not due	Current	1-6 months	6-12 months	Over 1 year
2019	£ 000	£ 000	£ 000	£ 000	£ 000
Total balance	350	313	662	293	514
Less specific provisions	<u> </u>	<u> </u>	-		
Balance eligible for ECL	350	313	662	293	514
Lifetime ECL	0%	0%	0%	15%	20%
Expected credit loss			-	44	103
2018	Not due £ 000	Current £ 000	1-6 months £ 000	6-12 months £ 000	Over 1 year £ 000
Total balance	668	435	652	134	446
Less specific provisions			-		-
Balance eligible for ECL	668	435	652	134	446
Lifetime ECL	0%	0%	0%	15%	20%
Expected credit loss			-	20	89
Damages receivables					
2019	0-6 months £ 000	6-12 months £ 000	1-2 years £ 000	2-3 years £ 000	Over 3 year £ 000
Total balance	1,627	£ 000 1,076	1,273	£ 000 454	£ 000 282
Less specific provisions	(952)	(524)	(846)	(402)	(277)
Balance eligible for ECL	675	552	427	52	5
Lifetime ECL	10%	10%	15%	30%	60%
Expected credit loss	68	55	64	16	3
2018	0-6 months £ 000	6-12 months £ 000	1-2 years £ 000	2-3 years £ 000	Over 3 year £ 000
Total balance	2,060	1,826	1,461	690	56
Less specific provisions		(169)	(173)	(557)	
Balance eligible for ECL	2,060	1,657	1,288	133	56
Lifetime ECL	10%	10%	15%	30%	60%
Expected credit loss	206	166	193	40	34

Meter asset provision

Included in trade receivables are balances relating to the provision of meters through Northern Powergird Metering Limited. The average credit period on these receivables is 30 days. Interest is not generally charged on receivables paid after the due date.

The Group writes off a trade receivable when there is information indicating that the debtor is in severe financial difficulty and there is no realistic prospect of recovery, e.g. when the debtor has been placed under liquidation or has entered into bankruptcy proceedings, or when the debtor is over 1 year past due. None of the trade receivables that have been written off is subject to enforcement activities.

For receivables where there is no specific provisions, a provision is made for debts past their due date based on lifetime expected credit loss determined by reference to past default experience. The following is the expected credit loss for receivables past due:

18 Trade and other receivables (continued)

Contracted

2019 Total balance Less specific provisions	Current £ 000 3,848	1-3 months £ 000 2,883	3-6 months £ 000 74	6-12 months £ 000 612 (492)	Over 1 year £ 000 842 (842)
Balance eligible for ECL Lifetime ECL	3,848 0%	2,883 0%	74 10%	120 50%	
Expected credit loss	Current		7 3-6 months	60 6-12 months	- Over 1 year
2018 Total balance Less specific provisions	£ 000 4,270 (152)	£ 000 3,090 (360)	£ 000 195 -	£ 000 	£ 000
Balance eligible for ECL Lifetime ECL	4,118	2,730 <u>0%</u>	195 0%	50%	100%
Expected credit loss		-	-	-	
Contracted churn 2019 Total balance Less specific provisions	Current £ 000 1,862	1-3 months £ 000 716 (214)	3-6 months £ 000 123 (84)	6-12 months £ 000 63 (25)	Over 1 year £ 000 55 (55)
Balance eligible for ECL Lifetime ECL	1,862 0%	502 0%	39 10%	38 50%	100%
Expected credit loss 2018 Total balance Less specific provisions	Current £ 000 258 (108)		4 3-6 months £ 000 56 (53)	19 6-12 months £ 000 - -	Over 1 year £ 000 -
Balance eligible for ECL Lifetime ECL	150 0%	19 0%	3 10%	50%	100%
Expected credit loss					-

18 Trade and other receivables (continued)

Non-contracted churn

2019	Current £ 000	1-3 months £ 000	3-6 months £ 000	6-12 months £ 000	Over 1 year £ 000
Total balance	5,922	1,539	107	266	196
Less specific provisions	(1,268)	(43)	(48)	(176)	(187)
Balance eligible for ECL	4,654	1,496	59	90	9
Lifetime ECL	0%	0%	10%	50%	100%
Expected credit loss	-	-	6	45	9
2018	Current £ 000	1-3 months £ 000	3-6 months £ 000	6-12 months £ 000	Over 1 year £ 000
Total balance	1,713	318	4	-	-
Less specific provisions	<u> </u>	<u> </u>	<u> </u>	<u> </u>	-
Balance eligible for ECL	1,713	318	4	-	-
Lifetime ECL	0%	0%	10%	50%	100%
Expected credit loss				<u> </u>	-

Engineering contracting receivables

The average credit period on engineering contracting receivables is 30 days. Interest is not generally charged on receivables paid after the due date. Included in the Group's construction contracts balance are debtors with a carrying amount of £2.0 million (2018: $\pounds 1.2$ million), which are past due at the reporting date for which the Group has provided for an irrecoverable amount of $\pounds 0.1$ million (2018: $\pounds 0.2$ million) based on past experience. The Group does not hold any collateral over these balances. The average age of these receivables is 51 days (2018: 115 days).

Included in the Group's construction contracts balance are debtors with a carrying amount of £nil (2018: £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 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.

2019	Current £ 000	1-3 months £ 000	3-6 months £ 000	6-12 months £ 000	Over 1 year £ 000
Total balance	1,680	1,740	90	62	87
Less specific provisions	<u> </u>	<u> </u>	(1)	(33)	(87)
Balance eligible for ECL	1,680	1,740	89	29	-
Lifetime ECL	0%	1%	10%	50%	100%
Expected credit loss	<u> </u>	17	9	15	
2018	Current £ 000	1-3 months £ 000	3-6 months £ 000	6-12 months £ 000	Over 1 year £ 000
2018 Total balance					•
	£ 000	£ 000	£ 000	£ 000	£ 000
Total balance	£ 000	£ 000 1,068	£ 000 157	£ 000 76	£ 000 88
Total balance Less specific provisions	£ 000 1,932	£ 000 1,068 (58)	£ 000 157 (4)	£ 000 76 (35)	£ 000 88

18 Trade and other receivables (continued)

Finance lease receivables

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% (2018: 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.

2019	Minimum lease payments £ 000	Interest £ 000	Present value £ 000
Within one year	4,888	(198)	4,690
In two to five years	10,695	(3,294)	7,401
In over five years	1,526	(1,198)	328
	17,109	(4,690)	12,419
	Minimum lease payments	Interest	Present value
2018	£ 000	£ 000	£ 000
Within one year	6,241	(220)	6,021
In two to five years	9,272	(2,991)	6,281
In over five years	2,842	(2,246)	596
	18,355	(5,457)	12,898

Operating lease receivables

Operating leases relate to the metering assets owned by the Group with lease terms of 10 years, these are disclosed in Note. The lessee does not have an option to purchase the meters at the expiry of the lease period.

The total future value of minimum lease payments is as follows:

	31 December 2019 £ 000	31 December 2018 £ 000
Within one year	66,177	59,393
In two to five years	264,796	235,878
Over five years	148,227	188,359
	479,200	483,630

19 Cash and cash equivalents

	Gre	Group		oany
	31 December 2019 £ 000	31 December 2018 £ 000	31 December 2019 £ 000	31 December 2018 £ 000
Cash at bank	26,963	30,443	-	-
Other cash and cash equivalents	218,159	2	115,803	112,849
	245,122	30,445	115,803	112,849

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. Other cash and cash equivalents include short-term investments and intercompany loans that are highly liquid and repayable on demand.

20 Restricted cash

	Group		Company	
	31 December	31 December 31 December 31 December		31 December
	2019	2018	2019	2018
	£ 000	£ 000	£ 000	£ 000
Restricted cash	13,873	13,809		

Restricted cash are cash and cash equivalents that are restricted as to withdrawal or use under the terms of certain contractual agreements.

21 Share capital

Allotted, called up and fully paid shares

	31 Decen 2019		31 December 2018	
	No. 000	£ 000	No. 000	£ 000
Ordinary shares of £1 each	354,550	354,550	354,550	354,550

The Company has 400 million shares authorised for issue. 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 loans and borrowings Note 24.

22 Reserves

Group

The changes to each component of equity resulting from items of other comprehensive income for the current year were as follows:

	Foreign currency translation £ 000	Cash flow hedging reserve £ 000	Retained earnings £ 000	Total £ 000
Loss on cash flow hedges (net)	-	(1,880)	-	(1,880)
Foreign currency translation Gains	804	-	-	804
Remeasurements of post employment benefit obligations (net)	_	<u>-</u>	(19,795)	(19,795)
	804	(1,880)	(19,795)	(20,871)

The changes to each component of equity resulting from items of other comprehensive income for the prior year were as follows:

	Foreign currency translation £ 000	Cash flow hedging reserve £ 000	Retained earnings £ 000	Total £ 000
Gain on cash flow hedges (net)	-	1,076	-	1,076
Foreign currency translation losses	(200)	-	-	(200)
Remeasurements of post employment benefit obligations (net)	<u> </u>		(49,566)	(49,566)
	(200)	1,076	(49,566)	(48,690)

23 Non-controlling interests

At 1 January 2019 Profit for the year	Non- controlling interests £ 000 34,828 2,223
Total comprehensive income Dividends	2,223 (585)
At 31 December 2019	36,466
	Non- controlling interests £ 000
At 1 January 2018 Profit for the year	32,846 1,982
Total comprehensive income	1,982
At 31 December 2018	34,828

24 Loans and borrowings

	Group		Company	
	2019 £ 000	2018 £ 000	2019 £ 000	2018 £ 000
Non-current loans and borrowings	2,089,401	2,016,492	197,716	197,083
Current loans and borrowings	417,164	172,921	644	343
	2,506,565	2,189,413	198,360	197,426

Group

	Carrying value		Carrying value Fair value	
	2019 £ 000	2018 £ 000	2019 £ 000	2018 £ 000
Short-term loans	253	60,196	253	60,196
Bond 2020 - 8.875%	101,695	101,512	101,695	114,357
Bond 2020 - 9.25%	217,709	221,077	217,709	233,150
Bond 2022 - 7.25%	198,360	197,727	235,158	188,974
Bond 2025 - 2.50%	151,304	151,038	159,997	155,236
Amortising loan 2026 - 2.802%*	160,889	185,058	162,259	185,058
Bond 2028 - 7.25%	194,200	194,575	270,215	263,212
Bond 2032 - 4.375%	150,919	150,783	191,422	179,120
Bond 2035 - 5.125%	153,194	153,112	213,560	197,140
Bond 2035 - 5.125%	204,249	204,140	284,817	262,853
European Investment Bank 2019 - 4.241%	-	41,493	-	51,506
European Investment Bank 2020 - 4.386%	40,518	40,507	40,518	41,796
European Investment Bank 2022 - 4.133%	153,746	153,728	164,505	168,187
European Investment Bank 2027 - 2.564%	250,267	250,267	268,292	264,085
European Investment Bank loan due 2025 - 2.073%	50,086	50,086	51,690	49,616
Cumulative preference shares	34,114	34,114	48,786	47,579
2049 - 2.750% Northern Electric Finance plc	149,920	-	163,477	-
2059 - 2.250%- Northern Powergrid (Yorkshire) plc	295,142	<u> </u>	295,919	
	2,506,565	2,189,413	2,870,272	2,462,065

* Loan is 86% swapped at a fixed rate of 2.8182%, with the remaining 14% floating at 3 month LIBOR plus 1.75%

Company

	Carrying value		Fair value	
	2019 £ 000	2018 £ 000	2019 £ 000	2018 £ 000
2022- 7.25%	198,360	197,727	235,158	188,974
	198,360	197,727	235,158	188,974

Within the total financial liabilities, £2,506.3 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.

24 Loans and borrowings (continued)

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

- 2019: 4.077% 4.455%
- 2020: 4.227% 4.586%

The terms of the cumulative preference shares:

- 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;
- 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;
- 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
- 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 above.

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.

More details on the classification of loans and borrowings is available in Note 31.

The Group's capital management and exposure to market and liquidity risk, including maturity analysis, in respect of loans and borrowings is disclosed in financial risk review Note 32.

25 Obligations under leases and hire purchase contracts

Group

Lease commitments

Lease commitments relate to fleet vehicles from Vehicle Lease and Service Ltd, a joint venture, with terms of up to 7 years and operational and non-operational land and buildings with terms of up to 50 years.

The total future value of minimum lease payments is as follows:

	31 December 2019 £ 000	31 December 2018 £ 000
Within one year	5,056	6,769
In two to five years	14,194	17,043
In over five years	468	2,376
	19,718	26,188

The Company has no lease commitments

26 Other provisions

Group				
	Claims £ 000	Abandonment £ 000	Other £ 000	Total £ 000
At 1 January 2019	1,035	2,805	3,436	7,276
Additional provisions	2,473	3,427	910	6,810
Provisions used	(2,341)		(1,360)	(3,701)
At 31 December 2019	1,167	6,232	2,986	10,385
Non-current liabilities		6,232		6,232
Current liabilities	1,167		2,986	4,153

Claims: Provision has been made to cover costs arising from utility damage, public liability, and motoring third party claims, which are not externally insured. Settlement is expected substantially within 12 months.

Other: Relates primarily to 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. As at 31 December 2019 provision relating to unfunded pensions is £1.5 million (2018: £1.5 million). This is expected to be realised over the next 20 years.

Abandonment provision relates to the decommissioning of the Group's exploration and evaluation assets. The decommissioning is recorded at the Group's share of expected costs to be incurred. It is expected that these costs will be incurred over the next 12 months. The provision has been estimated using existing technology at current prices; due to the short-term utilisation in the next 12 months there has been no escalation and discounting of the cost estimate.

At 31 December 2019, the Company had no provisions for liabilities and charges (2018: £nil).

27 Trade and other payables

	Group		Company	
	31 December 2019 £ 000	31 December 2018 £ 000	31 December 2019 £ 000	31 December 2018 £ 000
Payments on account	85,539	92,976	-	-
Trade payables	5,139	3,983	-	-
Capital creditors	57,105	56,479	-	-
Accrued expenses	19,310	16,178	-	-
Amounts due to related parties	15,762	14,919	14,100	13,842
Social security and other taxes	11,606	15,562	-	-
Other payables	15,957	18,001	1,046	634
	210,418	218,098	15,146	14,476
Non-current capital creditors	2,693			
	213,111	218,098	15,146	14,476

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 on-going 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 standard payment term for trade payables is net monthly.

The Group's exposure to market and liquidity risks, including maturity analysis, related to trade and other payables is disclosed in the financial risk review Note 32.

28 Deferred revenue

	Gro	Group Restated (Note 3)		
	31 December 2019 £ 000	31 December 2018 £ 000	31 December 2019 £ 000	31 December 2018 £ 000
Current	61,273	59,342	-	-
Non-current	1,462,863	1,443,736		
	1,524,136	1,503,078	<u> </u>	

Deferred revenue relates to customer contributions towards distribution system assets. 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.

29 Pension and other schemes

Defined benefit pension schemes Electricity Supply Pension Scheme

The Company contributes to two pension schemes, which it operates on behalf of the participating companies within the 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 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 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.

Pension 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 where trustees and company fail to agree on appropriate contributions; and
- impose contributions where there has been a detrimental action against the 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.

29 Pension and other schemes (continued)

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 Trustee's actuarial advisors, Aon Hewitt, as at 31 March 2016. Such valuations are required by law to take place at intervals of no more than three years. Following each valuation, the Trustees and the Group must agree the contributions required (if any) such that the DB Scheme is fully funded over time on the basis of suitably prudent assumptions. The 31 March 2019 funding valuation is expected to be concluded by 30 June 2020.

The Trust Deed provides the Group with an unconditional right to a refund of surplus assets assuming the full settlement of plan liabilities in the event of a plan wind-up. Furthermore, in the ordinary course of business the Trustees have no rights to unilaterally wind up, or otherwise augment the benefits due to members of the DB Scheme. Based on these rights, any net surplus in the scheme is recognised in full.

Contributions payable to the pension scheme at the end of the year are £1.1m (2018: £1.3 million).

The expected contributions to the plan for the next reporting period are £42.9 million.

Agreement was reached during August 2017 with the Trustees to repair the funding deficit of £194.9 million as at 31 March 2016 over the 9 year period to 31 March 2025, subject to the actuarial assumptions adopted for the triennial valuation as at 31 March 2016 being borne out in practice. The agreement includes payments of £2.3 million per month to be made over the remaining 8 years and 3 months of the recovery plan. This amount is in 2017/18 prices and will be updated on 1 April 2018 and on each 1 April thereafter in line with annual changes in RPI.

The contributions payable by the Group to the DB Scheme in respect of future benefits which are accruing are 43.6% of pensionable pay. These contributions were determined as part of the 31 March 2016 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 Group as part of the 31 March 2019 valuation. In addition, the Group pays contributions to cover the expenses of running the DB Scheme at 5.0% of pensionable pay from 1 November 2018 (previous 3.6%).

The disclosures are on the assumption that the Company will be able to derive economic benefit from any future IAS 19 surplus that may arise

Profile of the 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 19 years based on the results of the 31 March 2016 funding valuation. This is the weighted-average time over which benefit payments are expected to be made.

As at 31 March 2016, broadly about 40% of the liabilities are attributable to current employees (duration about 24 years), 10% to former employees (duration about 25 years) and 50% to current pensioners (duration about 14 years).

Investment objectives for the DB Scheme

The Trustees aim to achieve the Scheme's investment objectives through investing partly in a diversified mix of growth assets which, over the long term, are expected to grow in value by more than low risk assets like cash and gilts. This is done with a broad liability driven investing framework that uses cash, gilts and other hedging instruments like swaps in a capital efficient way. In combination this efficiently captures the Trustees' risk tolerances and return objectives relative to the Scheme's liabilities.

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 75% (2018: 75%) of the DB Scheme's liabilities as measured on the basis used for the funding valuation.

The trustees insure certain benefits which are payable on death before retirement.

29 Pension and other schemes (continued)

Risks

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 (35%) 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.

Mitigation

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.

Mitigation

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.

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

Mitigation

The DB Scheme invests around 34% in LDI (included in the 65% above) which provides a hedge against higher-than-expected inflation increases on the DBO (rising inflation will increase both the DBO and the value of the LDI portfolio).

Life expectancy risk

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.

Mitigation

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 Trustees insure certain benefits payable on death before retirement.

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.

Mitigation

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.

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 of 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 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.

29 Pension and other schemes (continued)

On 26 October 2018, the High Court issued a judgement in a claim involving Lloyds Banking Group's defined benefit pension schemes. The judgement confirmed that the schemes should be amended to equalise benefits in relation to guaranteed minimum pensions (GMPs) for men and women.

The issues determined by the judgement arise in relation to many other occupational pension schemes. It is not yet agreed how benefits will be equalised in practice, however on the grounds that actual implementation will not lead to any further obligations, then we have estimated that equalising benefits will increase the liabilities of the DB Scheme by £5.7m. This has been reflected as a past service cost during 2018.

Reporting at 31 December 2019

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. The review has been based on the same membership and other data as at 31 March 2016. 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 2016 have been adjusted 31 December 2018. Those adjustments take account of experience over the period since 31 March 2016, 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.

29 Pension and other schemes (continued)

Principal actuarial assumptions

The significant actuarial assumptions used to determine the present value of the defined benefit obligation at the statement of financial position date are as follows:

	31 December 2019 %	31 December 2018 %
Discount rate	2.10	2.90
Future salary increases	3.30	3.55
Future pension increases	2.75	2.95
Inflation- CPI	1.80	1.95
Inflation	2.80	3.05
Proportion of pension exchanged for additional cash at retirement	10.00	10.00

Post retirement mortality assumptions

	31 December 2019	31 December 2018
	Years	Years
Life expectancy for male currently aged 60	26.00	26.60
Life expectancy for female currently aged 60	28.30	28.70
Life expectancy at 60 for male currently aged 45	27.30	27.90
Life expectancy at 60 for female currently aged 45	29.40	29.90

Reconciliation of scheme assets and liabilities to assets and liabilities recognised

The amounts recognised in the statement of financial position are as follows:

	31 December 2019 £ 000	31 December 2018 £ 000
Fair value of scheme assets	1,616,100	1,552,300
Present value of scheme liabilities	(1,522,700)	(1,467,700)
Defined benefit pension scheme surplus	93,400	84,600

Scheme assets

Changes in the fair value of scheme assets are as follows:

	31 December 2019 £ 000	31 December 2018 £ 000
Fair value at start of year	1,552,300	1,746,000
Interest income	41,500	45,900
Remeasurement (loss)/gains on scheme assets	112,800	(77,900)
Employer contributions	43,600	45,200
Contributions by scheme participants	600	700
Benefits paid	(133,400)	(206,300)
Administrative expenses paid	(1,300)	(1,300)
Fair value at end of year	1,616,100	1,552,300

29 Pension and other schemes (continued)

Analysis of assets

The major categories of scheme assets are as follows:

	31 December 2019 £ 000	31 December 2018 £ 000
Developed market equity	258,400	215,200
Emerging market equity	7,500	6,600
Property	176,600	181,100
Reinsurance	76,500	78,600
Listed infrastructure	102,100	79,500
Investment grade corporate bonds	178,200	144,600
Other debt (non-investment grade)	140,500	120,900
Fixed interest gilts	65,500	6,600
Index-linked gilts	15,000	9,100
Liability driven investments	471,500	453,900
Cash and cash equivalents including derivatives	124,300	256,200
	1,616,100	1,552,300

The pension scheme has not invested in any of the Company's own financial instruments or in properties or other assets used by the Company.

Scheme liabilities

Changes in the present value of scheme liabilities are as follows:

	31 December 2019 £ 000	31 December 2018 £ 000
Present value at start of year	(1,467,700)	(1,629,100)
Current service cost	(12,500)	(14,300)
Past service cost	-	(5,700)
Actuarial gains and losses arising from changes in demographic assumptions	33,200	9,700
Actuarial gains and losses arising from changes in financial assumptions	(168,600)	33,300
Actuarial gains and losses arising from experience adjustments	(1,500)	(25,100)
Interest cost	(38,400)	(42,100)
Benefits paid	133,400	206,300
Contributions by scheme participants	(600)	(700)
Present value at end of year	(1,522,700)	(1,467,700)

29 Pension and other schemes (continued)

Amounts recognised in the income statement

	31 December 2019 £ 000	31 December 2018 £ 000
Current service cost	12,500	14,300
Past service cost	-	5,700
Administrative expenses paid	1,300	1,300
Net interest	(3,100)	(3,800)
Total amount recognised	10,700	17,500
Costs included in cost of qualifying assets	(7,977)	(10,300)
Total amount recognised in income statement	2,723	7,200

Amounts taken to the Statement of Comprehensive Income

	31 December 2019 £ 000	31 December 2018 £ 000
Actuarial (gains) and losses arising from changes in demographic assumptions	(33,200)	(9,700)
Actuarial (gains) and losses arising from changes in financial assumptions	168,600	(33,300)
Actuarial (gains) and losses arising from experience adjustments	1,500	25,100
Return on plan assets (in excess of)/below that recognised in net interest	(112,800)	77,900
Amounts recognised in the Statement of Comprehensive Income	24,100	60,000

Sensitivity analysis

Significant actuarial assumptions for determination of the defined benefit obligation are discount rate, inflation, and mortality. The sensitivity analyses below have been determined based on reasonably possible changes of the respective assumptions occuring at the end of the reporting period, while holding all other assumptions constant:

	31 December 2019			31 December 2018		
Adjustment to discount rate	+ 0.1% £ 000	0.0% £ 000	- 0.1% £ 000	+ 0.1% £ 000	0.0% £ 000	- 0.1% £ 000
Present value of total obligation	1,496,100	1,522,700	1,549,700	1,442,900	1,467,700	1,493,800
		31 December 2019			31 December 2018	
Adjustment to rate of inflation	+ 0.1% £ 000	0.0% £ 000	- 0.1% £ 000	+ 0.1% £ 000	0.0% £ 000	- 0.1% £ 000
Present value of total obligation	1,548,500	1,522,700	1,498,000	1,490,800	1,467,700	1,446,100

29 Pension and other schemes (continued)

		31 December 2019			31 December 2018	
Adjustment to mortality age rating assumption	+ 1 Year £ 000	None £ 000	- 1 Year £ 000	+ 1 Year £ 000	None £ 000	- 1 Year £ 000
Present value of total obligation	1,588,800	1,522,700	1,457,100	1,525,700	1,467,700	1,410,500

The sensitivity analysis presented above may not be respresentative of the actual change in defined benefit obligation as it is unlikely that the changes in assumptions would occur in isolation of one another as some of the assumptions may be correlated.

30 Reconciliation of liabilities arising from financing activities

Net debt reconciliation

Group

2019

	At 1 January 2019 £ 000	Cash flows £ 000	New finance leases £ 000	Other changes £ 000	At 31 December 2019 £ 000
Cash and cash equivalents	30,445	214,677	-	-	245,122
Finance leases	-	-	(18,329)	-	(18,329)
Borrowings	(2,189,413)	(315,969)		(1,183)	(2,506,565)
	(2,158,968)	(101,292)	(18,329)	(1,183)	(2,279,772)

2018

	At 1 January 2018 £ 000	Cash flows £ 000	Other changes £ 000	At 31 December 2018 £ 000
Cash and cash equivalents	40,435	(9,990)	-	30,445
Borrowings	(2,144,664)	(47,749)	3,000	(2,189,413)
	(2,104,229)	(57,739)	3,000	(2,158,968)

30 Reconciliation of liabilities arising from financing activities (continued)

Company

2019

	At 1 January 2019 £ 000	Cash flows £ 000	Other changes £ 000	At 31 December 2019 £ 000
Cash and cash equivalents	112,849	2,954	-	115,803
Borrowings	(197,426)	-	(934)	(198,360)
Loans to the Group	150,000	40,000	<u> </u>	190,000
	65,423	42,954	(934)	107,443

2018

	At 1 January 2018 £ 000	Cash flows £ 000	Other changes £ 000	At 31 December 2018 £ 000
Cash and cash equivalents	-	112,849	-	112,849
Borrowings	(209,827)	12,988	(587)	(197,426)
Loans to the Group	264,158	(114,158)		150,000
	54,331	11,679	(587)	65,423

44.21

31 Classification of financial and non-financial assets and financial and non-financial liabilities

Group

The classification of financial assets and financial liabilities by accounting categorisation for the period ending 31 December 2019 was as follows:

	Financial assets at amortised cost £ 000	Financial assets & liabilities at FVTPL £ 000	Financial assets & liabilities at FVTOCI £ 000	Financial liabilities at amortised cost £ 000	Non-financial assets & liabilities £ 000
Assets					
Non-current assets					
Property, plant and equipment	-	-	-	-	6,374,612
Right of use assets	18,048	-	-	-	-
Intangible assets	-	-	-	-	306,356
Investments in subsidiaries,					
joint ventures and associates	-	29,253	-	-	-
Retirement benefit obligations	-	-	93,400	-	-
Tax receivable	577	-	-	-	-
Trade and other receivables	7,730				
	26,355	29,253	93,400		6,680,968
Current assets					
Inventories	-	-	-	-	20,692
Trade and other receivables	154,174	-	-	-	-
Income tax asset	101	-	-	-	-
Cash and cash equivalents	245,122	-	-	-	-
Restricted cash	13,873	-	-	-	-
Contract assets	8,132				
	421,402				20,692
Total assets	447,757	29,253	93,400		6,701,660
Liabilities					
Non-current liabilities					
Long term lease liabilities	-	-	-	(13,731)	-
Loans and borrowings	-	-	-	(2,089,401)	-
Provisions	-	-	-	-	(6,232)
Deferred revenue	-	-	-	(1,462,863)	-
Deferred tax liabilities	-	-	-	(225,537)	-
Other non-current financial					
liabilities	-	-	(1,131)	-	-
Capital creditors				(2,693)	
		<u> </u>	(1,131)	(3,794,225)	(6,232)

31 Classification of financial and non-financial assets and financial and non-financial liabilities (continued)

	Financial assets at amortised cost £ 000	Financial assets & liabilities at FVTPL £ 000	Financial assets & liabilities at FVTOCI £ 000	Financial liabilities at amortised cost £ 000	Non-financial assets & liabilities £ 000
Current liabilities					
Current portion of long term lease liabilities	-	-	-	(4,508)	-
Trade and other payables	-	-	-	(210,418)	-
Loans and borrowings	-	-	-	(417,164)	-
Income tax liability	-	-	-	(23,701)	-
Deferred revenue	-	-	-	(61,273)	-
Provisions	-	-	-	(1,464)	(2,689)
Other current financial					
liabilities	-		(184)		
			(184)	(718,528)	(2,689)
Total liabilities			(1,315)	(4,512,753)	(8,921)

31 Classification of financial and non-financial assets and financial and non-financial liabilities (continued)

The classification of financial assets and financial liabilities by accounting categorisation for the period ending 31 December 2018 was as follows:

		Financial Financial		Restated (Note 3)	Restated (Note 3)
	Financial assets at amortised cost £ 000	assets & liabilities at FVTPL £ 000	assets & liabilities at FVTOCI £ 000	Financial liabilities at amortised cost £ 000	Non-financial assets & liabilities £ 000
Assets					
Non-current assets					
Property, plant and equipment	-	-	-	-	6,096,063
Intangible assets	-	-	-	-	307,203
Investments in subsidiaries,					
joint ventures and associates	-	24,379	-	-	-
Retirement benefit obligations	-	-	84,600	-	-
Tax receivable	615	-	-	-	-
Trade and other receivables Other non-current financial	6,877	-	-	-	-
assets	-	-	837	-	_
	7,492	24,379	85,437		6,403,266
Current assets					
Inventories	-	-	_	_	14,359
Trade and other receivables	147,394	-	_	-	-
Income tax asset	62	-	-	-	_
Cash and cash equivalents	30,445	-	-	-	-
Restricted cash	13,809	-	-	-	-
Contract assets	6,005	-	-	-	-
Other current financial assets	<u> </u>		114		
	197,715		114		14,359
Total assets	205,207	24,379	85,551		6,417,625
Liabilities					
Non-current liabilities					
Loans and borrowings	-	-	-	(2,016,492)	-
Provisions	-	-	-	-	(3,202)
Deferred revenue	-	-	-	(1,443,736)	-
Deferred tax liabilities	<u> </u>			(239,025)	
				(3,699,253)	(3,202)

31 Classification of financial and non-financial assets and financial and non-financial liabilities (continued)

				Restated (Note 3)	Restated (Note 3)
	Financial assets at amortised cost £ 000	Financial assets & liabilities at FVTPL £ 000	Financial assets & liabilities at FVTOCI £ 000	Financial liabilities at amortised cost £ 000	Non-financial assets & liabilities £ 000
Current liabilities					
Trade and other payables	-	-	-	(218,098)	-
Loans and borrowings	-	-	-	(172,921)	-
Income tax liability	-	-	-	(21,093)	-
Deferred revenue	-	-	-	(59,342)	-
Provisions				(1,769)	(2,305)
				(473,223)	(2,305)
Total liabilities				(4,172,476)	(5,507)

Fair values are derived from level 1 inputs.

31 Classification of financial and non-financial assets and financial and non-financial liabilities (continued)

Company

The classification of financial assets and financial liabilities by accounting categorisation for the period ending 31 December 2019 was as follows:

	Financial assets at amortised cost £ 000	Financial assets & liabilities at FVTPL £ 000	Financial liabilities at amortised cost £ 000
Assets			
Non-current assets			
Investments in subsidiaries, joint ventures and associates	-	376,289	-
Trade and other receivables	190,000		
	190,000	376,289	
Current assets			
Trade and other receivables	12,398	-	-
Income tax asset	-	-	2,602
Cash and cash equivalents	115,803		
	128,201		2,602
Total assets	318,201	376,289	2,602
Liabilities			
Non-current liabilities			
Loans and borrowings	-	-	(197,716)
Current liabilities			
Trade and other payables	-	-	(15,146)
Loans and borrowings			(644)
			(15,790)
Total liabilities			(213,506)

31 Classification of financial and non-financial assets and financial and non-financial liabilities (continued)

The classification of financial assets and financial liabilities by accounting categorisation for the period ending 31 December 2018 was as follows:

	Financial assets at amortised cost £ 000	Financial assets & liabilities at FVTPL £ 000	Financial liabilities at amortised cost £ 000
Assets			
Non-current assets			
Investments in subsidiaries, joint ventures and associates	-	376,289	-
Trade and other receivables	150,000		
	150,000	376,289	<u>-</u>
Current assets			
Trade and other receivables	105	-	-
Income tax asset	2,802	-	-
Cash and cash equivalents	112,849		
	115,756		
Total assets	265,756	376,289	
Liabilities			
Non-current liabilities			
Loans and borrowings	-	-	(197,083)
Current liabilities			
Trade and other payables	-	-	(14,476)
Loans and borrowings	-	-	(343)
Income tax liability			(1)
			(14,820)
Total liabilities		<u> </u>	(211,903)

32 Financial risk review

Group

This note presents information about the Group's exposure to financial risks and the Group's management of capital.

Capital management

The Group manages its capital centrally to ensure that entities in the Group will be able to continue as going concerns while maximising the return to stakeholders through the optimisation of the debt and equity balance. The Group's overall strategy remains unchanged from 2018.

The capital structure of the Group consists of net debt (borrowings as detailed in Note 24 offset by equity of the Company (comprising issued capital, reserves and retained earnings as detailed in Notes 21 and 22)).

32 Financial risk review (continued)

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.

The Group's Senior Total Net Debt as at 31 December 2019 totalled £2,053.5 million (2018: £1,923.3 million). Using the RAV value as at March 2020, as outlined by Ofgem in its electricity distribution price control financial model published in November 2019, and adjusting for the effects of movements in the value of the Retail Price Index gives an approximation for the RAV value as at 31 March 2020 of £3,373.7 million (31 March 2019: 3,262.9 million). The Senior Total Net Debt to RAV ratio for the Group is therefore estimated at 60.9% (2018: 58.9%).

At 31 December 2019, the Group had available £190.0 million (2018: £132.0 million) of undrawn committed borrowing facilities in respect of which all conditions precedent had been met.

At 31 December 2019, 99% of the Group's long-term borrowings were at fixed rates (2018: 99%) and the average maturity for these borrowings was 12 years (2018: 8).

Credit risk

Credit risk refers to the risk that a counterparty will default on its contractual obligations resulting in financial loss to the Group. The Group has adopted a policy of only dealing with creditworthy counterparties. The Group's exposure and the credit ratings of its counterparties are continuously monitored and the aggregate value of transactions concluded is spread amongst approved counterparties. The carrying amount of financial assets recorded in the financial statements, which is net of impairment losses, represents the Group's maximum exposure to credit risk as no collateral or other credit enhancements are held.

The Group's income is primarily generated from use of system revenue from electricity suppliers; suppliers are credit checked by independent ratings agencies. Impaired income from DUoS will be recovered in future periods through system charges and is therefore of no material risk to the Group. The Company's receivables are subject to expected credit loss calculations disclosed further within the trade receivables (Note 18). The Group's credit risk exposure is shown below:

Group

2019	Notes	Gross carrying amount £ 000	Loss allowance £ 000	Net carrying amount £ 000
Trade and other receivables	18	169,036	(7,132)	161,904
Income tax asset		678	-	678
Cash and short-term deposits	19	245,122	-	245,122
Contract assets	4	8,132		8,132
	18	422,968	(7,132)	415,836
2018	Notes	Gross carrying amount £ 000	Loss allowance £ 000	Net carrying amount £ 000
2018 Trade and other receivables	Notes 18	amount		amount £ 000
		amount £ 000	£ 000	amount £ 000
Trade and other receivables		amount £ 000 159,560	£ 000 (5,289)	amount £ 000 154,271
Trade and other receivables Income tax asset	18	amount £ 000 159,560 677	£ 000 (5,289)	amount £ 000 154,271 677

For trade receivables the Group has applied the simplified approach in IFRS 9 to measure the loss allowance at lifetime ECL. The Group determines the expected credit losses on these items by using a provision matrix, estimated based on historical credit loss experience based on the past due status of the debtors, adjusted as appropriate to reflect current conditions and estimates of future economic conditions. Accordingly, the credit risk profile of these assets is presented based on their past due status in terms of the provision matrix. Note 18 includes further details on the loss allowance for these assets.

32 Financial risk review (continued)

The carrying amount of the Group's financial assets at FVTPL as disclosed in Note 31 best represents their respective maximum exposure to credit risk. The Group holds no collateral over any of these balances.

Company

2019	Notes	Gross carrying amount £ 000	Loss allowance £ 000	Net carrying amount £ 000
Amounts receivable from Group undertakings	18	202,398		202,398
2018	Notes	Gross carrying amount £ 000	Loss allowance £ 000	Net carrying amount £ 000
Trade and other receivables	18	105	-	105
Amounts due from Group undertakings	18	150,000	-	150,000

Amounts due from Group undertakings are regarded as low credit risk as the Group has a strong capacity to meet its contractual cash flow obligations and maintains an investment grade credit rating.

Liquidity risk

Ultimate responsibility of liquidity risk management rests with the board of directors, which has established an appropriate liquidity risk management framework for the management of the Company's short, medium, and long-term funding and liquidity management requirements. The Company manages liquidity by maintaining adequate reserves, banking facilities and reserve borrowing facilities, by continuously monitoring forecast and actual cash flows, and by matching the maturity profiles of financial assets and liabilities.

The Group has access to £150 million revolving credit facility provided by Lloyds Bank plc, National Westminster Bank plc, and Santander UK plc. This facility was amended and restated in October 2019 for a period of three years, with two 1 year extension options. In addition, the Group has access to a £42 million overdraft facility provided by Lloyds Bank plc, which is reviewed annually, these borrowings are repayable on demand. At 31 December 2019, the Company had available £192.0 million (2018: £132.0 million) of undrawn committed borrowing facilities in respect of which all conditions precedent had been met.

Maturity analysis for financial liabilities

The following table sets out the remaining contractual maturities of financial liabilities by type.

Group

2019	Less than 3 months £ 000	3 months - 1 year £ 000	1-5 years £ 000	More than 5 years £ 000	Total £ 000
Non-interest bearing	124,968	-	-	-	124,968
Long-term interest bearing	259,209	220,009	745,455	2,290,509	3,515,182
	384,177	220,009	745,455	2,290,509	3,640,150
2018	Less than 3 months £ 000	3 months - 1 year £ 000	1-5 years £ 000	More than 5 years £ 000	Total £ 000
Non-interest bearing	201,784	-	-	-	201,784
Short-term interest bearing	60,161	-	-	-	60,161
Long-term interest bearing	61,905	106,502	1,090,824	1,584,166	2,843,397
	323,850	106,502	1,090,824	1,584,166	3,105,342

32 Financial risk review (continued)

Company

2019	Less than 3 months £ 000	3 months - 1 year £ 000	1-5 years £ 000	More than 5 years £ 000	Total £ 000
Non-interest bearing	15,146	-	-	-	15,146
Long-term interest bearing	<u> </u>	14,500	229,000		243,500
	15,146	14,500	229,000		258,646
2018	Less than 3 months £ 000	3 months - 1 year £ 000	1-5 years £ 000	More than 5 years £ 000	Total £ 000
Non-interest bearing	14,476	-	-	-	14,476
Long-term interest bearing	<u> </u>	14,500	243,500		258,000
	14,476	14,500	243,500		272,476

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.

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 2019 the Group had 99% (2018: 99%) of long term debt at fixed rates. Short-term loans are charged at a floating rate of LIBOR plus 0.20%, thus exposing the Group to cash flow interest rate risk. A 1% movement in interest rates would subject the Group to an approximate change in interest costs of £0.6m per year. This is considered to be an acceptable level of risk. All other loans are at fixed interest rates and expose the Group to fair value interest rate risk. The 1% sensitivity is utilised as it is the sensitivity rate used when reporting interest rate risk internally to key management personnel and represents management's assessment of the reasonably possible change in interest rates and is applied to variable interest rate borrowings.

More information on the use of cash flow hedges to manage interest rate risk on is available in Note 33.

The Group is exposed to price risk on CE Resources' revenues. During the year there was no revenue relating to the sale of commodities therefore a 1% change in commodity prices would not have a material impact on the financial statements.

The Group is not subject to significant risk relating to foreign exchange. The Group has entities operating in Euros, Australian dollars, and polish złoty; a 1% change in exchange rates in these currencies would not have a material impact on the financial statements.

33 Derivatives held for risk management and hedge accounting

Derivatives held for risk management

Derivatives are financial instruments that derive their value from the price of an underlying item such as interest rates, foreign exchange rates, credit spreads, commodities, equity or other indices. In accordance with Board approved policies, derivatives are transacted to manage our exposure to fluctuations in interest rate. The Group uses derivatives to manage these risks from our financing portfolio to optimise the overall cost of accessing the debt capital markets.

The following table provides a reconciliation by risk category of components of equity and analysis of other comprehensive income items (net of tax) resulting from hedge accounting. All derivative financial instruments relate to cash flow hedges.

	2019		2018	
	Assets £ 000	Liabilities £ 000	Assets £ 000	Liabilities £ 000
Non-current	-	1,131	837	-
Current		184	114	
		1,315	951	
The maturity of financial instruments was as follows:				

	3 months to 1 year £ 000	1 to 5 years £ 000	More than 5 years £ 000	Total £ 000
2019				
Notional principal	19,799	86,021	35,553	141,373
Cash flow hedge	(184)	(800)	(331)	(1,315)
2018				
Notional principal	19,239	83,195	58,177	160,611
Cash flow hedge	114	493	344	951

Effectiveness testing

The Group is using regression analysis to assess the effectiveness of the interest rate swap on a retrospective and prospective basis throughout the term of the hedging relationship. The dollar offset method was also performed at inception, showing zero ineffectiveness.

Nature of the risk being hedged

The Group is hedging the risk of variability in cash flows indexed to 3-month LIBOR. Further details of the Group's risk management is available in the strategic report, pages 10 to 12, and in financial risk review, Note 32.

34 Related party transactions

Directors' advances, credits and guarantees

During the year, 2 directors (2018: 2) and 4 key personnel (2018: 5) utilised the services provided by Northern Transport Finance Limited. The amounts included in finance lease receivables owed by these directors and key personnel were £81,000 (2018:£ 117,000).

Company

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 2019 was $\pounds 8,668,000$ (2018: $\pounds 17,959,000$). Included in assets within the statement of financial position is $\pounds 318,201,000$ (2018: $\pounds 262,849,000$).

The Company has received loans from other companies in the Group in prior periods. The total interest included in finance costs in the statement of profit or loss for the year ended 31 December 2019 was £nil (2018: £111,000). Included in liabilities within the statement of financial position is £nil as at 31 December 2019 (2018: £nil).

Group

Income and receivables from related parties

2019		Joint ventures £ 000
Sale of goods		186
2018 Sale of goods		Joint ventures £ 000 180
Expenditure with and payables to related parties		
	Parent	Joint ventures
2019	£ 000	£ 000
Purchase of goods	-	9,736
Amounts payable to related party	15,762	36
	Parent	Joint ventures

£ 000

14,919

£ 000 9,027

70

2018

Purchase of goods	
Amounts payable to related party	

Joint venture in the tables above relate to Vehicle Lease and Services Limited.

35 Parent and ultimate parent undertaking

The Company's immediate parent is Berkshire Hathaway Energy Company.

The ultimate parent and controlling party is Berkshire Hathaway Inc.. These financial statements are available upon request from 3555 Farnam Street, Omaha, Nebraska 68131.

Relationship between entity and parents

The parent of the largest group in which these financial statements are consolidated is Berkshire Hathaway Inc., incorporated in United States of America.

The registered address of Berkshire Hathaway Inc. is: 3555 Farnam Street, Omaha, Nebraska 68131

The parent of the smallest group in which these financial statements are consolidated is Berkshire Hathaway Energy Company, incorporated in United States of America.

The registered address of Berkshire Hathaway Energy Company is: 3555 Farnam Street, Omaha, Nebraska 68131