Electricity System Provider

Annual Report

2019/20

nationalgridESO

Navigation

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Page navigation explained

Back a page

Forward a page

Return to contents

From here you can navigate to any part of this publication - for example, this will allow you to find your place quickly and easily after you have followed an internal link

www

Click on orange text to go to the appropriate webpage.

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Contents

2019/20

1 Key successes and statistics

Coal

An **18-day coal-free** run across May and June 2019 was a new record at the time, it was broken a year later in April 2020 in what would become a **67-day period with no coal use.**

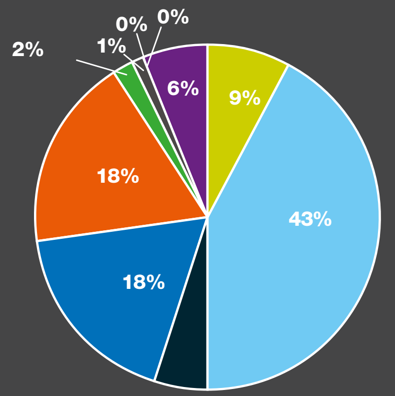
Carbon intensity

Later in summer – on 17 August 2019 – we saw the lowest ever carbon intensity in a half hour period on the electricity system at **57 gCO2/kWh** (the record was lowered again in May 2020 **46 gCO2/kWh**).

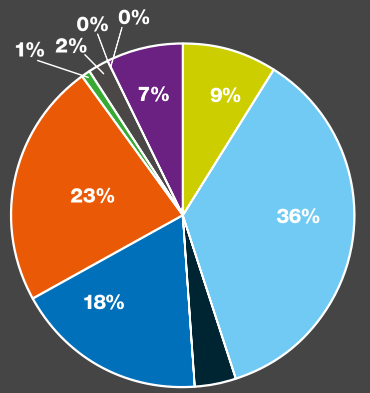
Zero carbon

Winter 2019/20 was the lowest carbon intensity winter on record for electricity at **206 gCO2/kWh** – a 14% decrease on the previous year – driven by high winds and low coal use.

Percentage energy provided by each fuel type over **winter 2018/19** (transmission connected)

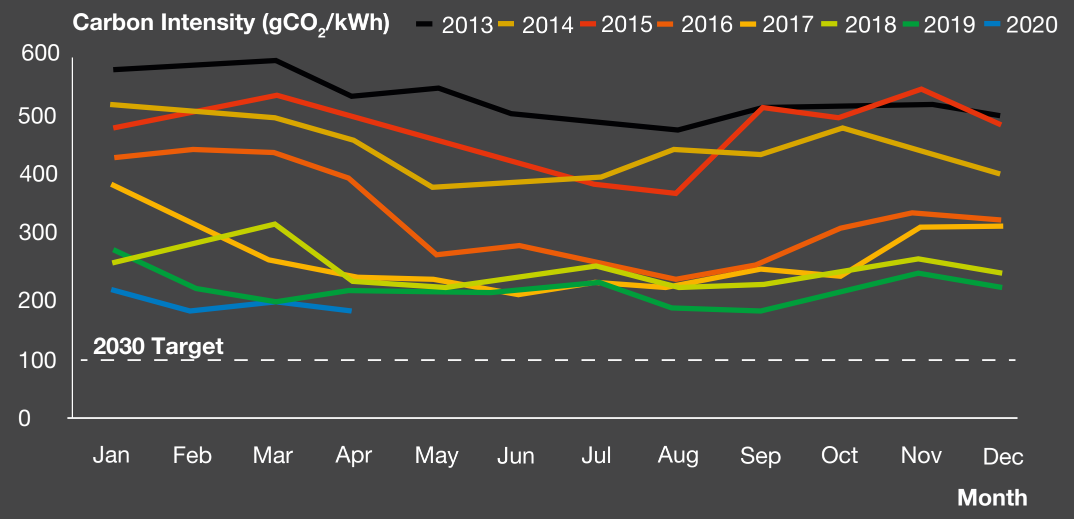


Percentage energy provided by each fuel type over **winter 2019/20** (transmission connected)



- Gas
- Nuclear
- Pumped storage
- Biomass
- Coal
- Wind
- Hydro
- Other
- Interconnector imports

We saw the greenest ever start to the year, with February 2020 recording the lowest average monthly carbon intensity before year-end at 177 gCO2/kWh (it was lowered again in May).



59.4% decrease from 2013 to 2019

2013 **529** gCO_2/kWh
2014 **477** gCO_2/kWh
2015 **443** gCO_2/kWh
2016 **330** gCO_2/kWh
2017 **266** gCO_2/kWh
2018 **248** gCO_2/kWh
2019 **215** gCO_2/kWh
2020 **189** gCO_2/kWh*

*year to date

Sunny spells in April 2020 brought us the highest ever level of solar powered electricity generation in Britain, with output in one half hour period peaking at **9.68 GW.**

Annual coal-free hours illustrate Britain's dramatically reducing dependency on coal.

2016 **233 hours**
2017 **624 hours**
2018 **1,856 hours**
2019 **3,666 hours**
2020 **3,763+ hours***

*as at 7 September 2020.

Foreword from our Executive Director

Welcome to the Annual Report and Accounts 2019/20 for National Grid's Electricity System Operator (ESO). This is our first annual report since the ESO became a legally separate business within the National Grid Group in April 2019.

The rationale behind the separation was to provide our customers and stakeholders with transparency. It distances us from potential or perceived conflicts of interest with National Grid's other roles such as Electricity Transmission Owner and gives confidence that everything we do will promote competition for the wider benefit of consumers.

Fintan Slye
Executive Director,
Electricity System Operator,
Chair, ESO Board

It also provides us with a fantastic opportunity to shape the future. The world of energy is rapidly transforming, and we are at the heart of delivering this transformation.

We have set ourselves an ambitious goal: that the electricity system will be able to operate at zero carbon by 2025. This means that in five years' time we will be ready to operate the system safely and securely with 100% zero carbon generation – whenever it is available – including wind, solar, hydro and other renewable sources. We believe we could be the first system in the world to achieve that.

We have already made great progress. In May and June 2019, Great Britain ran for 18 days without using coal-fired generation for the first time since the pre-industrial period. Since the end of the last financial year, this record has been extended to more than nine weeks of coal-free generation.
A fantastic achievement.

These are giant strides on our journey to a sustainable energy system. But there is still plenty more to achieve in the transition to net-zero as a society and economy.

Over the next financial year, we will continue to focus on our Pathfinder projects, identifying how we can replace the services provided by fossil fuel generation with services from renewable generation, demand side response, and other innovative technologies. Inside, you can read more about our people and our business plans, the investments we'll make and how we'll innovate for the future along with the performance outcomes on which we'll be measured.

Other events that have marked our first 12 months as a stand-alone business were totally unforeseen.

On 9 August 2019, a rare major incident where two power stations suddenly disconnected from the network meant we had to invoke our back-up procedures which in turn led to a brief loss of power for parts of the country. Subsequent investigations have shown our response was robust and proper, but we will continue to work with Ofgem and other industry partners to learn from the incident and try to avoid a repeat.

And, of course, we have witnessed the arrival of the Covid-19 pandemic that has swept the globe and put the UK into lockdown. The virus has fundamentally changed our lives and with it has come a significant reduction in demand for electricity, as businesses and factories have closed.

While this unprecedented situation has presented us with challenges, we have well-developed procedures in place to manage the effect of a pandemic and we swiftly implemented our business continuity plans which allowed us to maintain safe working environments for our people. You can read more about our response inside the report.

This is a unique challenge and a test of the resilience of our planning and our systems. I am proud that our people have risen to the challenge to make sure Great Britain can continue to rely on reliable, safe and secure electricity – the life blood of our society and economy.

Foreword from our Executive Director / 5

About National Grid Electricity System Operator

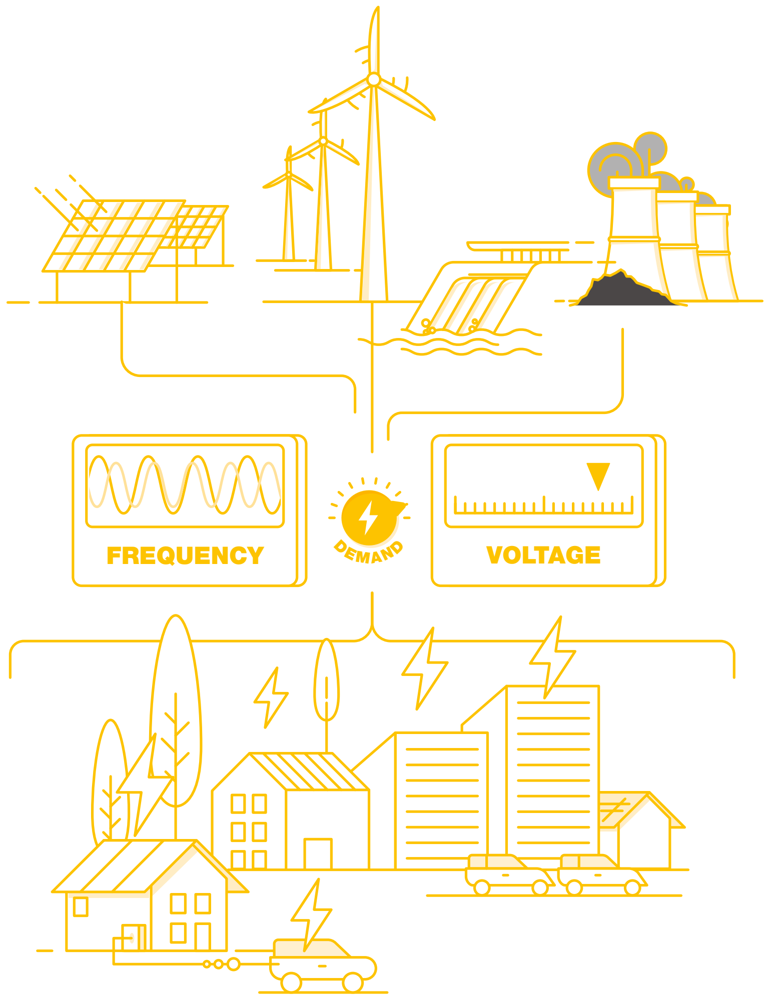
3

What we do

Our role

Electricity is the life blood of modern society. When someone flicks a light switch in their home or office, they know the light will always come on.

That, in a nutshell, sums up our role. We run the UK's network high voltage electricity wires that keep the UK's homes and businesses supplied with the electricity they rely on day in, day out. We make sure that Great Britain has the essential energy it needs by making sure supply meets demand every second of every day.



April 2019 was a proud moment in our history – when the ESO became a legally separate business as part of the National Grid Group.

This was agreed by the Office of Gas and Electricity Markets (Ofgem), the industry regulator, in recognition of our critical role in transforming the energy industry to deliver a low carbon future for Great Britain's homes and businesses.

Ofgem identified the core activities – called roles – that underpin everything we do. They set clear expectations for us to be a world-class operator, with an emphasis on innovation to deliver the full benefits of low cost, low carbon energy to consumers:

About National Grid Electricity System Operator / What we do 6

- **Managing system balance and operability.**
  This is effectively about our key day-to-day role of running the electricity networks safely and securely and making sure that demand is always balanced by supply and energy is always where it is needed when it is needed.
- **Facilitating competition in markets.**
  We want to get the best deal we can for consumers in buying in the services we need to run our networks. That means competition is crucial. Many new businesses are emerging who wish to bid to supply these services, so removing barriers and improving access to the electricity markets we operate will be vital.
- **Facilitating whole system outcomes.**
  Although we run the electricity networks, to achieve the government's aim of net-zero by 2050, we must co-ordinate and plan the future of energy together, across the whole energy system. Working closely with our colleagues across the National Grid Group, our stakeholders across the industry, as well as consumers and their representatives is key to success.
- **Facilitating competition in networks.**
  Our goal is to provide fair energy competition across vital services like energy balancing, to keep costs for consumers as low as possible and provide society with reliable, affordable and clean electricity today and in the future.

These critical roles drive our thinking and our actions each and every single day.

About National Grid Electricity System Operator / What we do 7

Who we are - Board

Fintan Slye
Chair of the National Grid Electricity System Operator Board

Fintan is currently the Executive Director of the UK Electricity System Operator at National Grid. Prior to that he was Chief Executive of the EirGrid Group, the electricity system and market operator in Ireland and Northern Ireland.

Hannah Nixon
Independent Non Executive Director

Hannah has extensive experience in economic regulation, most recently as Chief Executive of the Payment Systems Regulator. She was also a Senior Partner at Ofgem, where she had responsibility for the networks division.

Hannah currently sits on the board of the Jersey Competition and Regulatory Authority and is an advisor to Curve, an innovative fintech company.

Gillian Merron
Independent Non Executive Director

Gillian is CEO of the Board of Deputies of British Jews, a role she has held since 2014.

She was MP for Lincoln between 1997 and 2010, and Government Minister between 2006 and 2010 in the Health, International Development, and Transport departments as well as in the Cabinet and Foreign Offices.

Paul Plummer
Independent Non Executive Director

Paul is CEO of the Rail Delivery Group (RDG) and Association of Train Operating Companies. He has had a career spanning regulated utilities as an economist, consultant and senior executive, the last 15 years of which he has spent in the rail industry.

At the Office of Rail Regulation and then Network Rail he was Group Strategy Director, before taking up his current position.

Regina Moran
Independent Non-Executive Director

Regina is an experienced CEO and Non-Executive Director. Formerly CEO of Fujitsu UK and Ireland, she has extensive experience in digital transformation across a number of different sectors.

She has served as President of Engineers Ireland and as a Non-Executive director of EirGrid.

John Linwood
Independent Non-Executive Director

John has extensive experience in digital transformations, delivering large scale software and IT infrastructure projects from his time at Microsoft, Yahoo, the BBC and Wood Mackenzie among others.

Kayte O’Neill
Head of Markets

Kayte is Head of Markets for National Grid Electricity System Operator, having joined as a graduate in 2002. She has previously held positions in Corporate Strategy and Regulation in the US for National Grid.

Roisin Quinn
Head of National Control and ESO Chief Engineer

Roisin is Head of National Control and Chief Engineer for National Grid Electricity System Operator, having joined as a graduate in 2004. She has previously held positions in Strategy & Regulation and Electricity Market Reform in the UK for National Grid.

Gregg Smith
Finance Director

Gregg is Finance Director for National Grid Electricity System Operator, having joined in 2020 after 21years with IMI plc. He is a qualified Chartered Management Accountant (ACMA and CGMA) and has held several global roles across all three IMI divisions throughout his career.

About National Grid Electricity System Operator / Who we are 8

Who we are - Executive

Fintan Slye
Executive Director

Kayte O'Neill
Head of Markets

Craig Dyke
Head of Strategy and Regulation

Craig is Head of Strategy and Regulations for National Grid Electricity System Operator, having joined in 2000. He previously held positions as Head of Networks, Gas Network Development and Strategy Development. Craig is a Chartered Engineer in electricity and gas.

Janet Morrow
Head of Corporate Affairs

Janet is the Head of Corporate Affairs for National Grid Electricity System Operator, having joined in 2018. Prior to that she worked in communications management in Sainsbury's and the utility sector. Janet is a member of the Chartered Institute of Public Relations practitioners (CIPR).

Julian Leslie
Head of Networks

Julian is Head of Networks for National Grid Electricity System Operator. He previously held position as Head of National Control for National Grid UK. He is a chartered Engineer and a fellow of Institute of Engineering and Technology (MIET).

Roisin Quinn
Head of National Control and ESO Chief Engineer

Gregg Smith
Finance Director

Zoe Morrisey
Legal Business Partner

Zoe is the Legal Business Partner for National Grid Electricity System Operator, having joined in 2012. Prior to that, she worked at Ofwat and practiced privately.

Huma Ali
Senior HR Business Partner

Huma is the Senior HR Business Partner for National Grid Electricity System Operator, having joined in 1990. She is a Member of the Chartered Institute of Personnel and Development (MCIPD).

Nikki Jamieson
IT Business Partner

Nikki is the IT Business Partner for National Grid Electricity System Operator. She joined National Grid in 1995 and has held roles both with the System Operator business and IT. She is an IT professional, with various qualifications in: Business Analysis, Project and Programme Management and Change Management.

About National Grid Electricity System Operator / Who we are 9

Our purpose, vision and values, and our mission

Our purpose is to bring energy to life.

This means getting power that customers rely on to their homes and businesses each and every day. But it also means supporting the communities we are a part of to further the economic growth and sustainability of wider society. It makes us proud of what we do.

Our vision is to exceed the expectations of our customers, shareholders and communities today and make possible the energy systems of tomorrow.

We aim to create value – not just today, but for future generations, because the needs of our customers, shareholders and communities are at the heart of everything we do.

Every day we do the right thing and find a better way. How we deliver is as important as what we deliver. If our purpose is the ‘why’, our values are the ‘how’. They shape our spirit, attitude and what guides us in our day-to-day work.

Our values align with the expectations of our customers and communities, without losing sight of our vision and our purpose.

‘Do the right thing’ pulls together our values: keeping each other and the public safe; complying with all the relevant rules and regulations; respecting our colleagues, customers and communities; and never being afraid to challenge when we believe something is wrong.

‘Find a better way’ focuses us continuous improvement for our customers, our shareholders and communities.

Our mission

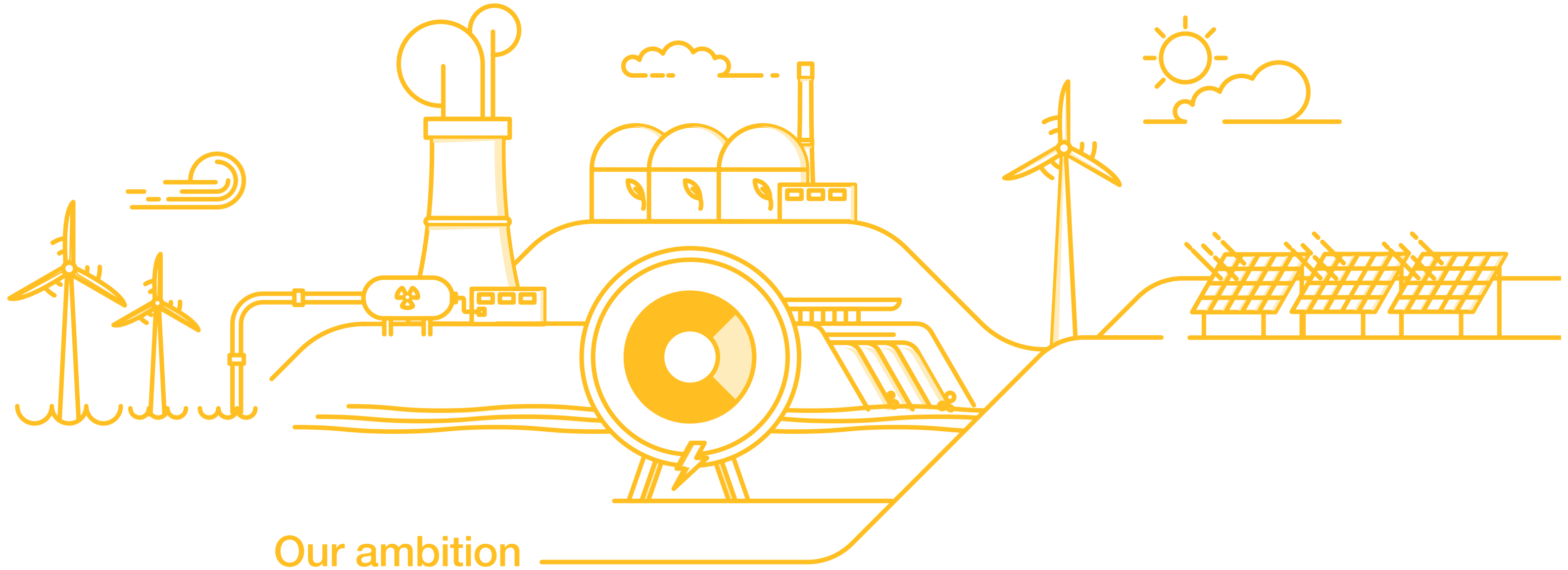
We enable the transformation to a sustainable energy system and make sure that reliable, affordable energy is delivered for all consumers.

Success in 2025 looks like

- An electricity system that can operate carbon free
- A whole system strategy that supports net-zero by 2050
- Competition everywhere[1]
- A world where we are a trusted partner

[1] www.nationalgrideso.com/news/increasing-competition-markets-we-operate

About National Grid Electricity System Operator / Our purpose, vision and values, and our mission 10



Our ambition

Our ambition is to be able to run a zero-carbon electricity system by 2025, which will be crucial in helping the UK meet its wider net-zero target. Achieving this will make us the first system operator to transition away from a system dependent on fossil fuels, to one that can be operated safely using only zero-carbon generation sources – this will be a world leading achievement.

We have shown what is possible – starting in April 2020 we ran for nine weeks without needing to call on coal-fired power stations to provide electricity. Throughout this period, we were able to make sure the network operated normally, continuing to balance demand with supply minute by minute to transport electricity safely and securely to its destination.

That was a ground-breaking achievement for Great Britain – but it’s only the start. As we continue to innovate and transform how we operate the electricity networks, situations like this will become the norm until continuous zero carbon energy becomes a reality.

Our RIIO-2 business plan is designed to deliver our ambition. The RIIO-2 Challenge Group, a panel appointed by Ofgem to help energy companies shape their regulated business plans, noted that the ESO business plan is genuinely proactive in shaping the path to net-zero.

About National Grid Electricity System Operator / Our ambition 11

System operations

Great Britain's electricity system is one of the most sophisticated in the world; it's a complex machine with many moving parts.

We run the high voltage transmission networks, but we don't own them. The physical infrastructure, like the pylons and cables needed to move high voltage electricity around, is built and maintained by the licenced Electricity Transmission Owners. National Grid Electricity Transmission owns the whole high voltage transmission network in England and Wales, while Scottish Hydro Electric and SP Energy Networks own the high voltage network in Scotland.

Using their infrastructure, we transport high voltage electricity to one of the nine Distribution Network Operators (DNOs) across the country. They own the local networks and convert the high voltage electricity into a lower, more manageable, voltage which it then feeds through to Great Britain's millions of homes and businesses.

We do not make or sell the electricity that flows across the system. That's the job of other companies, such as the power station and wind farms owners, and suppliers. Our role is to make sure they can connect to our network so we can transport their electricity securely and safely 24/7, 365 days a year.

To make sure we can tackle these challenges we too are evolving. Our core roles set out by Ofgem place innovation is at the heart of everything we do as we transform our networks to be sure they continue to deliver the electricity our society needs.

Our ambition is to be able to run a zero-carbon electricity system by 2025, which will be crucial in helping the UK meet its wider net-zero target. Essentially, if the market presents us with 100% mix of renewable-generated electricity we need to be ready to handle it.

We are already making progress. In May and June 2019 Great Britain recorded its first fortnight without coal-fired generation since the industrial revolution. Throughout this period, we were able to make sure the network operated normally, continuing to balance demand with supply minute by minute to transport electricity safely and securely to its destination.

About National Grid Electricity System Operator / System operations 12

Market development

Developing a world leading energy system to meet the challenge of net-zero will require fundamental changes to both our domestic and European energy markets.

We are at the heart of leading this transition. We play a fundamental role in leading the development of our balancing services markets and we will also deliver strategic change projects across both the wholesale and capacity markets.

Ancillary services market & the Balancing Mechanism

As we are accountable for these markets, they are our biggest area of focus. Reserve and Response market reform continues to be our key focus and will enable procuring products for these markets closer to real time (day ahead) and via auction arrangements.

For response markets, we are also looking to launch new, faster-acting products for a more intermittent energy system.

The Balancing Mechanism will undergo further enhancements to allow for both smaller and distributed connected participants to trade efficiently. This will be achieved through strengthening operational intelligence (such as Power Available signals for wind) and upgrades to our core IT systems for smarter dispatch.

We will unlock new market opportunities that will include stability, voltage, thermal and restoration services.

Wholesale Market

Having appropriate charging and investment signals remains a key focus for the transition to newer technologies.

We will lead on supporting three key elements in the industry Charging & Access review. The first is the methodology on how the residual element of the network charge is recovered - around £2.6bn of industry charges are collected using this element. Secondly, we will also put forward proposals for achieving a more consistent access product across transmission and distribution. Thirdly, we will lead on finalising the fundamental review of Balancing Services Use of System charges (BSUoS). This will cover both how we charge for it and who will pay.

Capacity Market

As the EMR Delivery Body we will continue to implement changes to the market rules as approved by BEIS and Ofgem. We will also develop proposals on how foreign participants can be incorporated in different domestic Capacity Markets across Europe - the first step to a more integrated European capacity market.

Finally, we will also develop enhanced modelling projects to deliver improved modelling outcomes for future auction volume recommendations.

About National Grid Electricity System Operator / Market development 13

System insight and planning

Our priorities are very much grounded in the constant, day-to-day business of running the high voltage networks safety and securely. But there is another, equally important aspect to what we do: planning for the future.

The world of energy is undergoing a fundamental transformation. Driven by the rapid pace of innovation and the move to a low carbon society, a new landscape is emerging that is radically different from what has gone before.

Traditionally, the bulk of our electricity has been provided by a relatively small number of large fossil fuel power stations, each able to produce enough energy for two or three million people. These plants could be turned up or down in response to how much electricity was needed across the whole of Great Britain.

Today, that is no longer the case. These plants have largely been replaced by cleaner forms of energy like wind and solar. But they can only produce power under certain conditions, making it challenging for us to balance supply with demand across the high voltage network.

To make sure we can tackle these challenges we too are evolving. Innovation is at the heart of everything we do as we transform our networks to make sure they remain fit for purpose and can continue to deliver the electricity our society relies on every minute of every day.

About National Grid Electricity System Operator / System insight and planning 14

Innovation

Our position at the heart of the energy system means we are playing a central role in overcoming the challenges facing the industry and our customers. Innovation is critical to help us meet these challenges, allowing us to explore new technologies and approaches that will play a role in shaping the energy system of the future.

Throughout 2019/20 we have delivered a diverse portfolio of innovation projects and activities that supports the ESO's role in keeping electricity supplies safe, reliable and efficient whilst pushing the boundaries to enable a net-zero energy future.

We undertook our most extensive stakeholder consultation exercise to date in 2019/20 to shape our Innovation Strategy for the final year of RIIO-1, our current price control period. Engaging our stakeholders, internally and externally, has resulted in refreshed priorities for the year ahead, ensuring our portfolio remains balanced and focused on the issues our stakeholders are facing.

We continued to collaborate with industry, hosting a successful Open Innovation Event in November 2019 which attracted 87 idea submissions and resulted in £2m of funding granted across seven new projects. We also continued working closely with the Electricity Innovation Managers and Gas Innovation Governance Group, alongside the Energy Networks Association (ENA), to develop a Benefit Measurement Framework. This framework will enable network companies to adopt a standardised method to measure and communicate our innovation activities.

We want to continue driving innovation that will help us to operate the system of the future, and to play our part in supporting the Government's net-zero target. We will be working closely with our stakeholders to undertake a detailed review of our innovation strategy, to make sure it aligns with our 2025 ambitions and RIIO-2 Business Plan, as well as the network industry innovation strategies.

As we develop our plans for RIIO-2, innovation remains central to what we do. We are committed to driving real change in our business, delivering value to customers, and enabling a net-zero energy future.

For more information on our innovation activities throughout 2019/20, read our **Network Innovation Allowance (NIA) annual summary** on our website.

About National Grid Electricity System Operator / Innovation 15

The Year in review

4

The year in review

Legal separation

In 2017 Ofgem, the Department for Business, Energy and Industrial Strategy (BEIS) and National Grid plc agreed to create a legally separate business – National Grid Electricity System Operator (ESO) – within the National Grid Group. We, the ESO, became a separate entity within the Group on 1 April 2019, heralding the start of our journey as a standalone system operator and a significant step forward in the evolution of the energy industry in Great Britain.

Separating the ESO business from National Grid Electricity Transmission (NGET) provides transparency in our decision-making and gives confidence that everything we do will promote competition and is ultimately for the benefit of consumers and industry stakeholders. To make sure there is appropriate ring-fencing between the ESO and the rest of the National Grid Group, we are governed by our own board of Directors, including independent Directors.

The move was the result of a considerable amount of planning and preparation since 2017, including devising and implementing new ways of working. That meant creating the training, systems, processes and physical environment that has enabled us to deliver a balanced and impartial ESO – one that can capitalise on the opportunities of a more decentralised electricity system and realise the potential in our transition towards zero carbon.

2020 brought some further changes to our operating model. At the point of legal separation, we adopted a 'One SO' model, which saw the Electricity and Gas System Operator (GSO) belong to the same system operator business. On 1 January 2020, GSO merged with the Gas Transmission (GT) entity of National Grid, marking a departure from the 'One SO' model and providing greater transparency and clarity around the ESO's role and the management of Great Britain's gas and electricity networks.

The year in review / Legal separation 16

August power cuts

Just before 5pm on 9 August 2019, around one million consumers across England and Wales lost power following a rare and unprecedented series of events on the electricity system.

This was the first major incident on the transmission system in over 10 years and led to us launching two full internal investigations, each looking at different aspects of the incident, along with supporting Ofgem and the Energy Emergencies Executive Committee (E3C) in their investigation.

Our investigation found that the combined loss of two large generators, as well as the smaller loss of generation at a local level, together triggered the subsequent disconnection, loss of power and disruption to more than one million consumers. Two large power stations, Hornsea One Ltd offshore wind farm and Little Barford gas-fired power station did not remain connected after a lightning strike.

The year in review / August power cuts 17

The graph illustrates the five-minute sequence of events between the incident occurring and the transmission system returning to normal operation, and the impact the events had on the frequency of the system.

We were pleased the Ofgem and E3C reports published in January 2020 confirmed that our systems performed as they should during the incident, and there was no link between what we did and the power cut.

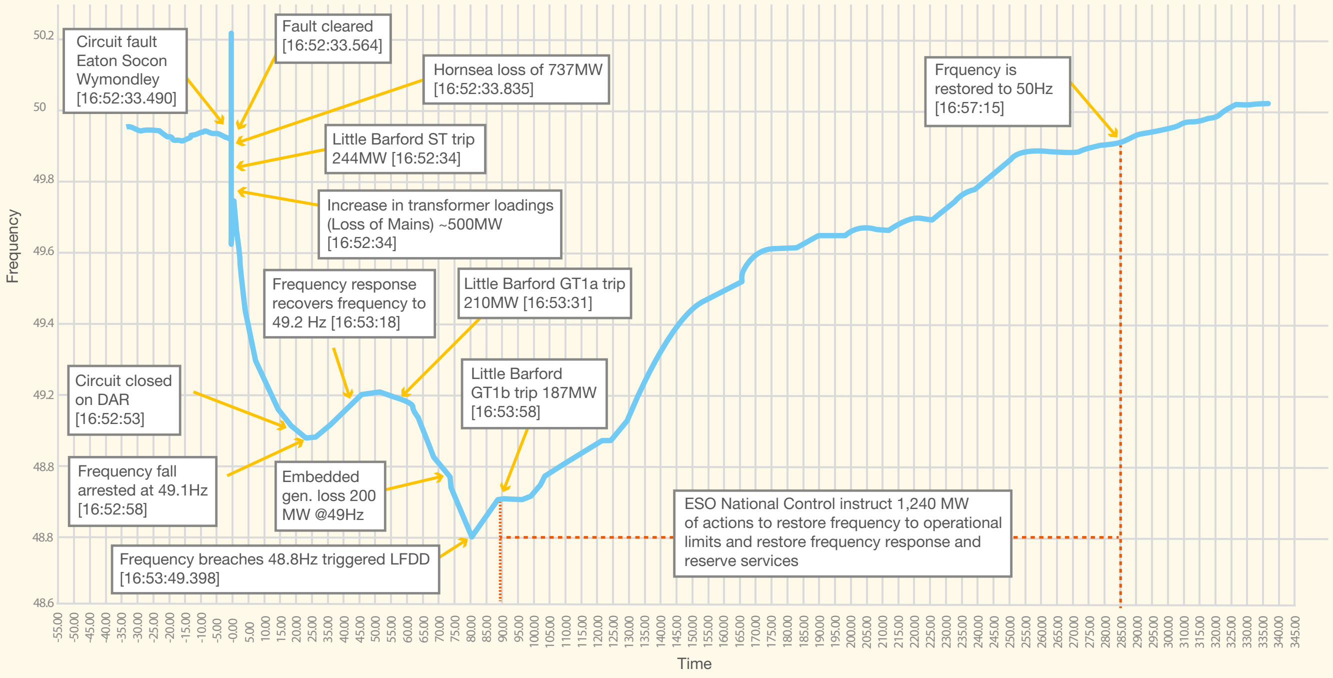
The recommendations included in the Ofgem and E3C reports, many of which we had already made as part of our own final technical report, included five that we took ownership for completion by 20 April this year.

We quickly agreed a plan with Ofgem and kept them informed of our progress at all stages. These actions have now been completed, although some will not be finalised and implemented until the end of 2020 as they must go through the usual industry code governance processes.

A further action around the performance monitoring of service providers requires us to regularly update Ofgem on progress. We have worked closely with Ofgem over the last three months to make sure we are aligned on what we are doing and are now finalising a comprehensive report on this for Ofgem to formally close out the action.

The work we have undertaken addresses both the key operability challenges and embeds the lessons learned from 9 August into our operations and practices. We have also engaged an external consultant to review and provide assurance in all of our work.

To engage with industry, a regular drumbeat of communications has been established, to allow customers and stakeholders access to the information they want and need. This includes working closely with Ofgem and BEIS, a weekly webinar for all stakeholders and focused efforts to call customers.



The year in review / August power cuts 18

Covid-19 – keeping Great Britain's lights on

As we continue to face the unprecedented challenge of the Covid-19 pandemic, National Grid and the ESO remain committed to doing the right thing for our colleagues, our customers, our suppliers and our communities.

Great Britain relies on us to keep the lights on and we have robust plans in place to keep our system working throughout the coronavirus outbreak.

Our priority throughout this period continues to be keeping our critical workers safe. We have well developed procedures in place to manage the effect of a pandemic, which allowed us to maintain safe working environments for our people.

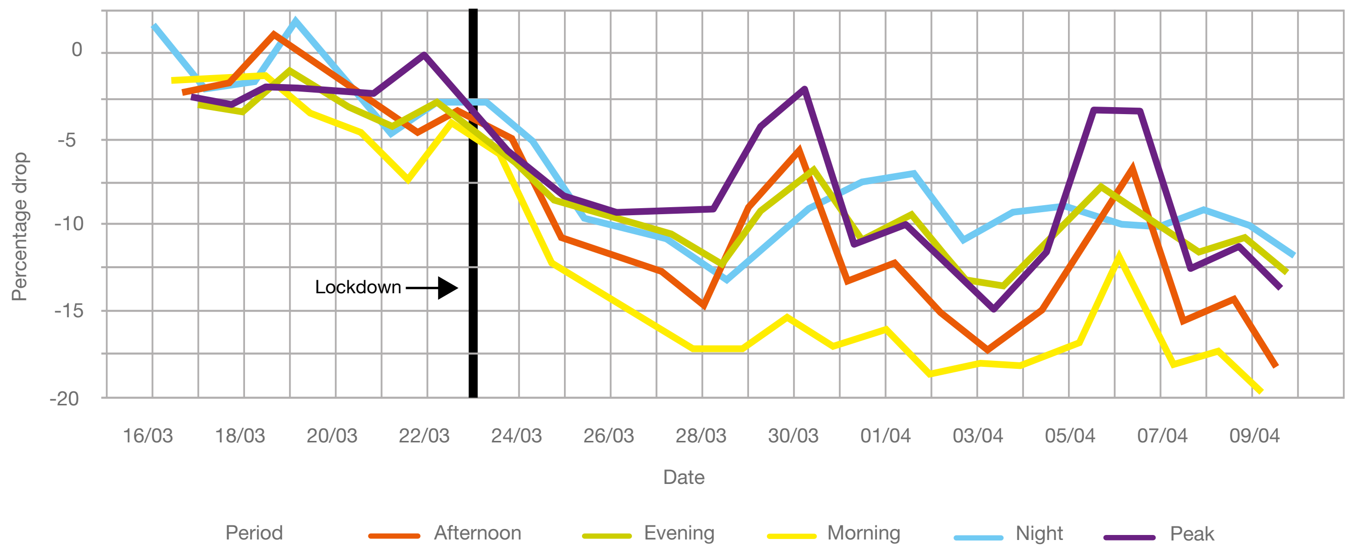
That makes sure they can play their part in this time of global crisis by keeping our networks running and making sure the energy keeps flowing to hospitals, care homes, businesses and homes.

We are keeping different possible scenarios under regular review. We are also communicating regularly with key stakeholders in the energy industry to coordinate our emergency plans and hosting weekly webinars to work through key issues.

Covid-19 impact

Great Britain relies on us to keep the lights on and we have robust plans in place to keep our system working throughout the coronavirus outbreak.

The year in review / Covid-19 - keeping Great Britain's lights on 19



Despite more people staying at home and using energy, electricity demand is significantly lower than usual, due to a decrease in energy use from large industrial consumers. The graph illustrates national demand before and after lockdown relative to what we would normally have expected – and clearly shows the drop in demand immediately after lockdown measures were imposed.

While this brings its own challenges in balancing the system and maintaining its operability, it is a set of challenges that we plan for and are used to dealing with.

We are working with the network owners to maintain the flow of energy, while also allowing vital network maintenance and construction work continue.

Although we are limiting discretionary external spend, we have not implemented pay reductions, furlough or compulsory redundancy schemes, nor applied for any financial support from the various Covid-19 related schemes that the government has put in place.

Alongside our core work of keeping power flowing, we've also been supporting a number of charitable and volunteer initiatives through a new ESO community fund. The fund can be used by colleagues who are involved in local community-based organisations during the pandemic, and has supported 17 charities and other organisations in the Warwickshire, London and Berkshire areas.

We know Great Britain is relying on us through these uncertain times, and we're proud to be part of both national and local efforts to help. We will not let you down.

We know Great Britain is relying on us through these uncertain times, and we're proud to be part of both national and local efforts to help. We will not let you down.

The year in review / Covid-19 - keeping Great Britain's lights on 20

Progress against objectives – KPIs

National Grid ESO has a range of metrics against which overall performance is measured. The metrics in this section are aligned to our strategy and are reported to the Board periodically.

Safety

The safety of our employees is of paramount importance.

Each year we undertake a safety survey with our employees to gauge attitudes to safety, how effective our safety culture is and where employees believe we can improve.

We also measure safety using the Lost Time Injury Frequency Rate metric. This industry standard approach measures the number of lost time injuries occurring for every 100,000 hours worked.

Target:

Lost Time Injury Frequency Rate 0.10

Progress in 2019/20

This year's result was positive, with fewer injuries than target.

In addition, key insights from the survey have highlighted areas for further work, including a need for a better focus on demonstrating action from information provided by our employees; ensuring safety targets drive value that can be recognised by all; and ensuring that safety is not seen as a 'priority' but 'the way we do things'.

The ESO in conjunction with the Safety, Health and Sustainability team (SHS) and our local Safety, Health and Wellbeing champions are developing targeted plans to address the areas of concern and build on the work done to date.

Performance:

0.08

About national grid electricity system operator / Progress against objectives - KPIs 21

Balancing costs

Electricity can't be efficiently stored in large quantities in a cost effective way, so we need to find ways to match supply with demand – that's part of the ESO's role. We call it "balancing", and we do it minute by minute. To help us with balancing, we buy in services from suppliers. These are "balancing services". We use them to keep the transmission system running reliably and economically. And that means everyone can get a steady flow of electricity.

The target is based on a rolling average of the past five years (and with adjustments for significant cost drivers).

Target:
£1,101m

Performance:
£1,268m

2018/19:
£1,139m

Progress in 2019/20

Balancing costs during 2019/20 were higher than expected owing to a number of factors – including weather events and the Covid-19 pandemic – which created a challenging environment for system operations. Frequency control and the management of voltage, stability and thermal constraints were the key operational challenges and the main areas driving balancing expenditure.

Several factors influenced the higher cost of balancing the system in 2019/20. Major storms and the associated high levels of wind generation in the first few months of the year led to higher constraint costs – which are paid to some wind farms for reducing output when the network isn't able to carry all of the power they're generating.

More broadly, the growth of renewable generation and consequent changes to the generation mix have also increased the volume of balancing services we've needed to use – since the higher volume of renewable generation on the system is less predictable and controllable than conventional generation.

While the effect of the Covid-19 pandemic and lockdown on the electricity system were largely seen later in spring, it did lead to considerable demand uncertainty in the second half of March. This, in turn, meant we took more action in securing the system, which increased costs.

While higher balancing costs are a feature of a system with higher volumes of renewable generation, our work to transform the system, so that it can be safely operated using only zero-carbon generation, will give us the tools to utilise more renewables rather than pay constraint costs.

Foreword from our Executive Director / 22

Financial performance

The financial results set out on pages 64 - 94 represent the first year of legally separate operation following our establishment as a legally separate company within the National Grid Group.

Progress in 2019/20

Financial performance was in line with expectations for a strong first year of trading. Revenues were boosted in the year by £104m from one-off allowances associated with the costs of legal separation incurred partly in prior years and the reopeners on cyber and data centres. Controllable costs were maintained in line with efficiency targets set out for the year.

Further information on our financial performance is set out within the financial review later in this report.

Performance:

Revenue:	£1,651m
Profit:	£136m

Employee engagement

Our employees are our biggest asset and the best advocates for our business and what we aim to achieve. They are at the heart of everything we do, so it is vital for us to be aware of their thinking on a wide range of issues about our business; what it's like to work for us; things we do well; things we could do better; and much more.

Progress in 2019/20

Our employee engagement and enablement scores exceeded the target for the year and demonstrate a substantial improvement on 2018/19.

Target

Enablement:	62%
Engagement:	69%

Performance:

Enablement:	67%
Engagement:	71%

About national grid electricity system operator / Progress against objectives - KPIs 23

Customer satisfaction

It is vital that we understand what customers think about our business and how well we are carrying out our operations to best serve their needs. That is why we regularly survey our customers to find our how satisfied they are with our service.

Target

Customer:	8.15
Stakeholder:	8.15

Progress in 2019/20

Both the customer and stakeholder satisfaction scores are based on responses from more than 300 of our customers. The results are below our target for the year. We are introducing measures to address this, including a short-term project examining our end-to-end stakeholder engagement process.

Performance:

Customer:	7.61
Stakeholder:	7.78

About national grid electricity system operator / Progress against objectives - KPIs 24

Strategic Report

5

The Directors present their Strategic Report on the Company for the year ended 31 March 2020. This includes an overview of the ESO's structure, 2019 performance and strategic outlook, including risks and uncertainties.

Our people

Our most important resources are undoubtedly our people. Without the right people with the right skills and passion to succeed, our ambition of being at the heart of the energy transformation by delivering a net-zero energy system will simply not happen. Our success is built on our continued ability to attract, retain, train, motivate and engage our people. We aim to have an engaged and diverse workforce to stimulate innovation, reflect the communities where we work, and deliver great customer service.

To attract and retain the best employees we offer a remuneration package that is both fair and competitive. We also carry out an annual employee survey to measure engagement levels and to help us address areas where employees believe we need to improve.

We equip our employees with the skills they need to achieve our vision, live our values, respond to the needs of our stakeholders and help create customer value. Our success will be delivered by inspired, engaged and talented teams that share our excitement and sense of purpose.

There has never been a more exciting time to work in the energy industry and we want to encourage the brightest young people to join us. There's a growing need for a skilled workforce to develop, deliver and use new technologies within the energy sector, according to the EU Skills Workforce Strategy. Science, Technology, Engineering and Maths (STEM) skills are crucial to our business, so we promote STEM as an exciting career path for young people through education outreach initiatives such as the Big Bang Fair, work experience opportunities and hosting school visits to our sites.

Strategic Report / Our people 25

Employee engagement

We engage and consult regularly with employees though a variety of channels, including regular team meetings and employee briefings, annual leadership and employee conferences. Combined with regular newsletters, social media and intranet updates, this provides up-to-date briefings on the Company's performance, plans and future outlook and allows individuals to raise questions and concerns.

We also conduct annual employee engagement surveys, providing an opportunity for all our employees to share their views on the employee experience at the ESO. This year the response rate was high at 89%.

The survey highlights opportunities for improvement in communication of our purpose. The Board considers the results of the surveys a barometer of the workforce's confidence in the strategic direction, optimism for the future, overall engagement and pride in the organisation.

Together the Executive Team and the Board have overseen initiatives to remove frustrations, improve employee relations and make working life better for our workforce. Examples include improving IT connectivity, encouraging more flexible working practices, wellbeing initiatives, and ideas to improve communication, such as the regular all-ESO calls, leadership calls and visibility sessions.

Training

We have a continuing commitment to training and personal development for our employees. Our priorities include compliance, technical and leadership training. Across the ESO staff undertook 2,360 days worth of training in 2019/20. In addition, our engineers in the control room undertake frequent training as a core part of their highly specialised roles.

> Our most important resources are undoubtedly our people.

Strategic Report / Our people 26

Inclusion and diversity

Building a diverse workforce and creating an inclusive workplace are vitally important to achieving our purpose, vision and values.

- Our inclusion and diversity policies demonstrate our commitment to providing an inclusive, equal and fair working environment by:
- Driving inclusion and promoting equal opportunities for all;
- Ensuring the workforce, whether part-time, full-time or temporary, will be treated fairly and with respect; and

Eliminating discrimination; and ensuring that selection for employment, promotion, training, development, benefit and reward, is based on merit and in line with relevant legislation.

27% of our total workforce have declared themselves to be of 'minority' racial or ethnic heritage. We recognise the value a diverse workforce and inclusive culture bring to our business. We have many initiatives to encourage and promote diversity and inclusion.

Our policy is that people with disabilities should be given fair consideration for all vacancies against the requirements for the role. Where possible, we make reasonable adjustments in job design and provide appropriate training for existing employees who become disabled. We are committed to equal opportunity in recruitment, promotion and career development for all employees, including those with disabilities. Our policy recognises the right for all people to work in an environment that is free from discrimination.

We are committed to being an inclusive and diverse employer, employing people at all levels of the organisation who reflect the communities and customers we serve. We aim to create an inclusive culture where everyone can reach their full potential. The Board regularly engage with employees interested in creating and supporting an inclusive workforce. Diversity and inclusivity is an integrated part of the Board agenda.

This is at the heart of our inclusion & diversity strategy and vision "Our workforce will be more representative of the communities we serve in all aspects of diversity".

We support the Employee Resource Groups (ERGs) who drive initiatives to increase inclusion and diversity in our Company. Having such interest and support at a wider level through the business is a really positive step in continuing our inclusion journey. The ERGs understand the challenges faced by employees across the Group and provide the Directors with an understanding of how the Board could better support them. The work the ERGs are doing is at the forefront of our Inclusion and Diversity agenda and all work is done on a voluntary basis.

The Board is consulting with the workforce, using diversity and inclusion sessions, on actual or perceived barriers to progression within the ESO. Following this, the Board will create an action plan to increase diversity and inclusivity. Furthermore, the ESO has committed to only participating in public engagements and speaking opportunities where there is an appropriate gender balance.

Rewards and benefits

By developing our people and providing a wider programme of benefits, we aim to have an engaged and productive workforce. To attract and retain employees we make sure our remuneration package is both fair and competitive.

Strategic Report / Our people 27

Health and safety

The safety of our employees is of paramount importance. This includes the mental and physical health and wellbeing of our employees as they travel, work shifts and operate in a more rapidly changing and challenging industry.

The Board reviews the annual safety culture survey results and maintain oversight of the resulting actions. We are working to make sure that safety is not seen as a 'priority' but 'the way we do things'.

Priority is given to putting in place processes to avoid, mitigate or reduce the likelihood of a major incident or accident injuring the public or damaging assets, caused either directly or indirectly as part of our normal operations.

Each year we undertake a safety survey with our employees to gauge attitudes to safety, how effective is our safety culture and gaps where employees believe we can improve.

This year's results were positive, with key insights, including a need for a better focus on demonstrating action from information provided by our employees; ensuring safety targets drive value that can be recognised by all; and finally ensuring that safety is not seen as a 'priority' but 'the way we do things'.

The ESO in conjunction with the Safety, Health and Sustainability team (SHS) and our local Safety Health and Wellbeing champions are developing targeted plans to address the areas of concern and build on the work done to date.

Employee regulation

The National Grid values of 'Do the right thing' and 'Find a better way' help to shape our approach and guide our strategy, decisions, processes and culture. These values are well-defined in the National Grid 'Code of ethical business conduct' and outline' the behaviour we expect all of our employees, from the Board down, in the workplace. The Executive Team strive to embed these values into the culture of the business and decision-making at all levels of management.

The Board has adopted the National Grid standards and policies for governance, human resources, finance, digital risk & security, safety, health & environmental, procurement, anti-slavery & human trafficking, and anti-fraud & bribery. All employees undertake training to align and embed the principles into our culture and values.

Senior management submit an annual declaration confirming the steps they have taken during the year to promote a positive ethical culture in line with the requirements of the Ethics Business Management System and that all employees are aware of the 'Code of Ethical Business Conduct' and complete its e-learning module.

If any employee wishes to highlight any potential breaches to the Code of Conduct, they can contact the independent whistleblowing services provider and a formal investigation follows, with anonymous reporting to the Audit Committee.

Strategic Report / Our people 28

Our business environment

Our actions influence investment decisions and markets worth billions of pounds. Our ambitious business plan outlines how we will invest to deliver an electricity system that will help the UK meet its net-zero carbon commitment by 2050. The ESO RIIO-2 Business Plan 2021/23 sets out the transition to a flexible, low carbon energy system. Ofgem have recently published their draft determination, endorsing the majority of our business plan and challenging us to be more ambitious in some areas.

The energy industry is changing at an ever-greater pace, as traditional fossil fuel and nuclear power are increasingly replaced by renewables and storage; and the changes we're seeing make running our system more challenging than ever.

We are rising to this challenge and have a clear vision for how we and the industry must change, developing new capabilities and a different culture within our business.

Our business plans

Our business plan is key to delivering our ambition to operate the network using only zero-carbon generation by 2025. We developed our RIIO-2 business plan with this in mind, and incorporated feedback from more than 900 stakeholders. The overall plan reflects their ambitions for us, and how we need to drive the transformation to a low carbon energy system to deliver benefits for consumers.

Our Business Plan includes ambitious new proposals:

- Investment in new control systems, training and simulation, to operate the system in a low carbon energy landscape;
- Transformation of markets to be more inclusive, creating a wide mix of service providers;
- Creating industry-wide competition, by extending the Network Options Assessment process and reviewing the Security and Quality of Supply Standard; and
- Taking a whole system view to drive value for consumers and lead the debate on energy decarbonisation.

Alongside these new proposals, we will continue to deliver our core role ensuring a reliable, safe supply of electricity to society and the economy. We will also continue to be at the centre of the transformation of the energy industry.

Delivering our ambitions means we must ourselves transform. Cutting-edge IT and innovation will sit at the heart of our business, alongside advanced analytics and data management. Our culture must evolve as we become an organisation at the cutting-edge of technology, trusted by the industry, consumers and citizens to facilitate the energy transition.

With an annual investment of £257m, we estimate our proposals will generate net benefits of around £2bn for consumers over the five-year RIIO-2 period. Industry costs will fall through lower balancing costs, avoided network investment, and industry efficiencies. And, in RIIO-2 we will deliver a net annual saving to consumers of around £3 per bill.

[2]www.nationalgrideso.com/news/increasing-competition-markets-we-operate

Delivering our proposals will help us to achieve our 2025 success measures:

- An electricity system that can operate carbon free;
- A whole system strategy that supports net-zero by 2050;
- Competition everywhere[2]; and
- A world where we are a trusted partner.

More information on the ESO RIIO-2 Business Plan and supporting documents can be found on the ESO website: www.nationalgrideso.com/about-us/business-planning-riio/riio-2-final-business-plan

Strategic Report / Our business environment 29

2020/21 and beyond

This timeline shows which deliverables we will prioritise during 2020/21, and how these deliverables will set us up to deliver the ambitious plan we have proposed for RIIO-2. Our activities over the coming years will pave the way for us to deliver our ESO mission: the right hand side of this diagram shows how we will define success in 2025.

Role 1: Control Centre Operations

Role 2: Market development and transactions

Role 3: System insight, planning and network development

2020/21	2021/22	2022/23	2023/24	2024/25	2025/26
Minimise balancing costs	Scoping work for new tools for Network Control and Network Monitoring Engage with academia and universities on new system operation training courses	Start design and development of new tools Run new training courses	Integrate network modelling tool with enhanced balancing tool	Deliver new network control tool Deliver enhanced training and simulation capability	Further iterations based on priority needs
Improve forecasting accuracy	Enhance forecasts with more granular weather data				
Give more clarity of operational decision making	Start data platform foundation work for increased transparency Data platform requirements and design work	Deliver data platform foundation Integrate data platform with digital engagement platform and single markets platform	Integrate data platform with enhanced balancing tool	Integrate data platform with new network control tool	Continued data platform expansion
Expand dispatch facility to handle a large number of small Balancing Mechanism Units (BMUs)	Engage with Design Authority on requirements and design for enhanced balancing tool Finalise project scope and procurement options for balancing tool	Agile build of modular design	Deliver new enhanced balancing tool Integrate interconnector tools and ASDP	Further iterations based on priority needs	Further iterations based on priority needs

An electricity system that can operate carbon free

A whole system strategy that supports net-zero by 2050

Strategic Report / Our business environment 30

Role 1: Control Centre Operations

Role 2: Market development and transactions

Role 3: System insight, planning and network development

2020/21 — 2021/22 — 2022/23 — 2023/24 — 2024/25 — 2025/26

Competition everywhere

- **Product roadmaps for response and reserve implementation**
  - Trial day ahead frequency response market
  - Day-ahead response market integrated with single markets platform
  - Design and implement reformed reserve products
  - Reserve products integrated with single markets platform
  - Single integrated platform for ESO markets
  - Enhancing provider support with interactive guidance for each balancing service
  - Single day-ahead response and reserve market
  - Single integrated platform for ESO markets
  - Start balancing and wholesale market review
- **Product roadmap for reactive implementation**
  - Communicate next steps on reactive procurement
  - Single integrated platform for ESO markets
- **Improving the way we facilitate code change**
  - Stakeholder engagement and consultation on the process to amend our codes
  - Create and consult with stakeholders on plan to deliver the transformed codes process
  - Licence change to support transforming the process to amend our codes
  - Transform the process to amend our codes – go live
  - Implement change to codes required to create whole system Grid Code
  - Digitalised whole system grid code

The ESO is a trusted partner

- **Pathfinders**
  - New areas of need identified for tendering e.g. voltage, stability, congestion
  - Tenders prepared and run
  - Stability market outcome decision
  - Improved tender approaches that enable more participants to enter the market
- **Early competition**
  - Adapt processes to accommodate any new funding arrangements
  - Work with industry to implement any other framework changes that may be needed
  - Support Ofgem to consider ED2 funding implications
- **Network options assessment**
  - Full stability assessment tool development
  - Extend NOA approach to end of life asset replacement decisions and connections wider works
  - Connections Wider Works proposals implemented in NOA
- **Loss of mains protection**
  - Accelerated Loss of Mains Protection changes
  - Loss of Mains Protection works must be completed

Strategic Report / Our business environment 31

External stakeholders

The ESO has a diverse range of external stakeholders, including its shareholder, Government, regulators, generators, Transmission Owners, Distribution Network Owners, consumers, service providers, public interest groups and suppliers. A sustainable ESO will benefit wider society and therefore we have a responsibility to create long-term value for our shareholder and stakeholders.
The Board promotes meaningful engagement and transparency with the external stakeholders to gain a wider perspective of the environment in which we operate and has regard to these views when taking decisions.

Many of our business initiatives require detailed stakeholder input, such as our Future Energy Scenarios 2020 publication and our Network Options Assessment. The RIIO-2 business plan development process involved around 1,500 stakeholder interactions and the establishment of the ESO RIIO-2 Stakeholder Group to give stakeholders and consumers a formal voice as we developed our business plan for the next RIIO regulatory price control period.

We engage with the wider stakeholder community via our core channels, which include website, CRM (customer relationship management), social media, live events, webinars to knowledge shares and newsletters. We also run a UK and European public affairs engagement programme to engage with and inform key industry stakeholders and are members of industry collectives such as ENTSO-E and Powering Past Coal Alliance. Our website (www.nationalgrideso.com), intranet and social media channels provide extensive and up-to date-news on recent developments.

Our licence to operate is dictated by the way our stakeholders perceive us and we understand the importance of maintaining a reputation for high standards of business conduct.

We have a customer experience strategy to help us achieve our 2025 goal of being a Trusted Partner. To measure progress against this goal, we run an insights programme which is based on an improved customer segmentation and stakeholder mapping process.

Historically we have used predominantly customer and stakeholder satisfaction surveys (run by an external company to guarantee independence) to drive our improvement activities and customer action plans. This will be expanded to also include ESO-specific NPS surveys for executive leaders in key customer organisations; online questionnaires about our day-to-day and operational activities; and on-the-day feedback at workshops and events. The performance will be reported to the Board on a regular basis and the findings used to improve customer engagement with the knowledge shared across our business.

Strategic Report / Our business environment 32

Our role in the community

A sustainable ESO will benefit wider society and that the Company has a responsibility to create and sustain long-term value for our shareholder and stakeholders.

As a legally separate, independent system operator, our role at the heart of the electricity system requires constant industry engagement to achieve the best value for consumers.

The Board is committed to social responsibility, community engagement and environmental sustainability. It achieves this in part through its commitment to: ensuring the safety, health and wellbeing of everyone who works with us; being an employer of choice where everyone is valued and respected; and seeking to transform to a sustainable energy system that delivers reliable, affordable energy for all consumers and helps the UK meet its net-zero commitments by 2050.

We always aim to exceed the expectations of our communities as we bring energy to life. We do this by setting the highest standards of safety and reliability and helping communities to thrive. We realise that, from time-to-time, our operations can have a negative impact on communities, so we work closely with them to reduce this impact and to help support their social or economic needs.

Safe, reliable energy

We pride ourselves on providing consumers with a safe, reliable energy service at an affordable price going the extra mile to exceed their expectations.

We have policies, procedures and training in place to set the high standards of safety performance we and our stakeholders expect.

The reliability of our networks is world class, running at more than 99.9999% availability. You can read more about how we manage our operational risks on page 39.

Supporting communities to thrive

We believe all companies should act responsibly by playing an active role in the communities where they operate and where employees live. We work hard to help communities by supporting initiatives that are important to them and that will help deliver long-term benefits.

Improving social mobility is a challenge in the UK, and opportunities are still not readily available to everyone regardless of their background. We are committed to improving social mobility so opportunities are available to all.

We support the Government's Inclusive Economy Partnership, whose membership is drawn from the business sector, and civil society. We are supporting two of the Partnership's flagship challenges: mental health, and equipping people to transition successfully to the world of work.

During the Covid-19 pandemic we set up an ESO community fund to support a raft of charitable and volunteer initiatives. The fund supported 17 charities and other organisations and other organisations in the Warwickshire, London and Berkshire areas.

Strategic Report / Our business environment 33

Our commitment to being a responsible business

In today's world, business needs to be a positive force for good. This belief is central to the way we work and why we do what we do.

Businesses are a key part of their communities and we believe they should leave a positive legacy for future generations. At the ESO, we work hard to exceed the expectations of our customers, shareholders and communities.

We are passionate about operating our business in an environmentally responsible way. It is the right thing to do – for society and for us. Sustainability shapes our thinking and decision-making. It means we run our business as efficiently as we can, provide value for our customers, and protect the environment.

For us, being a responsible business means being a good citizen and driving social change, which covers every aspect of our work. What we do helps to underpin the prosperity and wellbeing of communities.

Strategic Report / Our commitment to being a responsible business 34

Environmental sustainability

The biggest impact we can have on the environment is by enabling the transition to a low-carbon future. We also know we can impact the environment directly, both positively and negatively, through our operations.

Our approach to environmental sustainability is to manage the impact of our operations, whether short-term issues, such as air quality and pollution, or long-term through our greenhouse gas emissions and resource use. At the same time, we look for opportunities to have a positive impact. We measure this with an evaluation approach based on the UK Government's methodology.

We developed our environmental strategy, called Our Contribution, in 2012 after talking with a wide range of internal and external stakeholders. Over the years, we have refined our strategy to reflect changing priorities. It focuses on three main areas: climate change, resources, and caring for the natural environment.

Our strategy is delivered through our environmental policies. We focus on:

- Reducing our carbon footprint;
- Maximising the value of resources through re-use and recycling, so we can reduce our impact on the environment; and
- Using the land we own to benefit our business, the environment and our communities.

These efforts are underpinned by maintaining high environmental management standards. In 2018 we developed an internal Environmental Sustainability Business Management Standard (BMS) that brings together the commitments from Our Contribution and our Environmental Policy. This gives clarity to all our employees and also puts sustainability at the heart of our environmental management systems.

We support climate change science. Reducing greenhouse gas emissions is important for us you can find details of National Grid plc carbon emissions, and greenhouse gas reduction targets, in the Group's annual report and accounts.

The Task Force on Climate-related Financial Disclosures (TCFD) voluntary framework for disclosure of climate-related information in financial filings is structured around four themes: governance, strategy, risk management, and metrics and targets. We have committed to implementing the TCFD's recommendations, demonstrating how climate change risk and opportunities are central to our thinking, with clear targets to measure progress.

Strategic Report / Our commitment to being a responsible business 35

Good business conduct

Human rights

Respect for human rights is incorporated into our employment practices and our values, which are integral to our Code of Ethical Business Conduct – the way in which we conduct ourselves.

We earn the trust of our employees and stakeholders by doing things in the right way, building our reputation as an ethical company that our stakeholders want to do business with, and that our employees want to work for.

Our Global Supplier Code of Conduct (GSCoC) integrates human rights into the way we do business throughout our supply chain, alongside other areas of sustainability so that we create value, preserve natural resources and respect the communities we serve and from which we procure goods and services.

Through our GSCoC, we expect our suppliers to comply with all legislation relating to their business, as well as adhering to the principles of the United Nations Global Compact, the ILO (International Labour Organisation) minimum standards, the ETI (Ethical Trading Initiative) Base Code, the UK Modern Slavery Act 2015 and for our UK suppliers, the requirements of the Living Wage Foundation.

Preventing modern slavery

We strive to prevent modern slavery anywhere in our business or in our supply chain. We expect all our suppliers to be compliant with the Modern Slavery Act and to publish a Modern Slavery Statement if required.

Each year, we update our own Modern Slavery statement and publish this on our company website in line with the Act's requirements. Our Statement is independently reviewed by the Business & Human Rights Resource Centre.

In 2019, National Grid plc were positioned 12th of the FTSE 100 companies and recognised as 'one of a small cluster of leaders standing out in this space'.

We work closely with our suppliers and peers to promote best practice in the industry to combat modern slavery. During 2018, this included engaging with suppliers we had identified as being within potentially high-risk categories. Through this engagement, which included a workshop facilitated by the Supply Chain Sustainability School, we encouraged our suppliers to conduct similar risk assessments with their own supply chain. We have also joined the Construction Protocol to better understand the approach to mitigating and resolving modern slavery issues.

National Grid plc is a member of the United Nations Global Compact Working Group, focusing on Modern Slavery, and is working with Achilles to develop a community approach to the issue. We are also revising our procurement process, so that modern slavery criteria and identifying risks forms part of our sourcing process.

Anti-bribery and corruption

We have policies and governance in place that set out our approach to preventing bribery and corruption, including our Code of Ethical Business Conduct. We have a Company-wide framework of controls to prevent and detect bribery.

We thoroughly investigate all allegations of ethical misconduct and, where appropriate, take corrective action and share learnings. We also record trends and metrics– only a small percentage of these relate to bribery or corrupt practices, so we do not consider them to be material for reporting purposes.

Strategic Report / Our commitment to being a responsible business 36

Governance and oversight

We regularly review and update our framework to be sure our procedures remain proportionate to the principal risks.

Our Ethics and Compliance Committee (ECC) oversees the Code of Ethical Business Conduct and associated awareness programmes. Any cases alleging bribery are referred immediately to the ECC so its members can satisfy themselves that cases are investigated promptly and where appropriate, acted on, including ensuring any lessons learnt are communicated across the business.

Anti-bribery policy

The National Grid Group Policy Statement – Anti Fraud and Bribery sets out our zero-tolerance approach to bribery. It applies to all permanent employees, temporary agency staff and contractors. To make sure of compliance with the UK Bribery Act 2010, we carried out a risk assessment across our business so we could highlight higher risk areas and make sure adequate procedures were in place to address them. In addition, we established a methodology for conducting annual fraud and bribery risk assessments. As part of our training strategy, we introduced an e-learning course for all employees to understand our zero-tolerance approach to fraud, bribery or corruption of any kind.

Whistleblowing

We have confidential external whistleblowing helplines available 24/7 to all employees so any concerns can be reported anonymously. These are publicised internally and on the National Grid external website. Our policies make it clear that we will support and protect 'whistle-blowers' and any form of retaliation will not be tolerated.

Ethical business conduct

National Grid's Code of Ethical Business Conduct sets out the standards and behaviours we expect from all employees to meet our values of 'Do the right thing' and 'Find a better way'. The document is issued to all employees and is supported by a global communication and training programme to promote a strong ethical culture. Additionally, we provide briefings for high risk areas of the business.

Suppliers

Our Supplier Code of Conduct is issued to our suppliers and sets out our requirements that they have in place procedures to prevent and detect bribery and corruption, in accordance with all applicable local, state, federal or national laws or regulations, including the UK Bribery Act 2010.

We provide guidance and briefings for high risk areas, so contractors, agents and others who are acting on behalf of National Grid Electricity System Operator do not engage in any illegal or improper conduct.

Our Global Procurement team carries out regular supplier screening to identify any requirements for prosecutions or sanctions within our supplier base.

Compliance framework

Each of our business areas is required to consider its specific risks and maintain a compliance framework, setting out its controls to detect and prevent bribery. As part of our compliance procedure, each business is asked to self-assess its controls and provide evidence that supports its compliance.

Each year, all function heads certify compliance in their area, and to provide details of any exceptions. This culminates in presentation of a Certificate of Assurance from the National Grid plc CEO to the National Grid Board (following consideration by the National Grid Audit Committee).

Strategic Report / Our commitment to being a responsible business 37

Internal control and risk management

The ESO Board is committed to protecting and enhancing our reputation and assets, while safeguarding the interests of our stakeholders. It has overall responsibility for our risk management and internal control.

Managing our risks

The ESO are exposed to uncertainties that could impact our financial situation, our operational results, and our reputation.

The ESO Board oversees the risk management and control of our operations.
It assesses risks and monitors the risk management process through risk review and challenge sessions. Our risk management process identifies, assesses and prioritises, manages, monitors and reports risks. The process supports the delivery of our vision and strategy, described on pages 10 - 15.

Our risk profile is presented to the Board biannually, this contains the most critical risks currently facing the business and our strategic objectives. We identify these risks through our top-down and bottom-up risk management process. Senior leaders and the ESO Board also considered the principal risk framework in more detail, including critical national infrastructure (CNI) systems, operability, regulatory outcomes and cashflow.

We use our Principle Risk Framework to identify risks in addition to a broad range of factors. In 2019/20, external events played a large part in the assessment of issues – for example, following the 9 August 2019 power outage, we reviewed our Significant Energy Disruption risk against both internal and external report findings.

We support the National Grid Group principal risk profile. This is tested annually to establish the impact on the company’s ability to continue operating and to meet its liabilities over a specified period. Together with the National Grid Group, we test the impact of key risks on a reasonable worst-case basis, alone and in clusters. The results are used to develop our viability statement.

Changes during the year

At the start of the year the ESO became a legally separate, independent business within the National Grid Group. As part of this, we have carried out significant work to redefine our principal risks and risk profile. We have identified 11 principal risk focus areas (see below). We have reviewed and updated the businesses Risk Appetite to make sure its relevance and have incorporated risk appetite into our risk reporting and governance processes. We have also identified Key Risk Indicators (KRIs), to provide an additional source of management information to assess risks.

Generally, the KRIs have been taken from our business performance metrics and used to provide visibility to specific risk issues.
The KRIs may be modified as we fully assess their effectiveness throughout the year.

Strategic Report / Internal control and risk management 38

Our principal risks and uncertainties

We accept that it is not possible to identify, anticipate or eliminate every risk and that taking appropriate risks is an inherent part of doing business. Our risk management process provides assurance that we understand, monitor and manage the main uncertainties we face in delivering our objectives. This includes consideration of risks, inherent in the nature of our business and its day-to-day operations including financial risks. The table below summarises our principal risks management and mitigation actions.

Operational risks

Operational risks are the risk of losses resulting from inadequate or failed internal processes, human error and systems or due to external events. We normally have low appetite for such risks, as there is no strategic benefit from risks which are not in line with our vision and values.

Our operational risks have a low likelihood of occurring but a high level of impact without effective prevention and mitigation controls. The risk owners, executive leaders, and their teams develop and monitor actions to control the risks. We manage operational risks through policy, standards, and procedure-based controls, active prevention and monitoring. The operational risks link to our strategic priority of, ‘Find new ways of optimising our operational performance’.

Risks

IT, Systems & Data Support
Risk trend: Increasing[3]

Safety & Wellbeing Compliance
Risk trend: Neutral

Trading, Incentive & Contract Management
Risk trend: Neutral

Network Development & Customer Connections
Risk trend: Neutral

Real Time Planning & Network Operations
Risk trend: Neutral

Actions

We continue to commit significant resources and financial investment to maintaining the integrity and security of our assets and data. This year, we have continued to focus on reducing risk and meeting our business objectives. Monitoring has been incorporated into business processes and senior leadership meetings.

Examples of actions include:

- We continually invest in strategies that take account of the changing security landscape. This includes working with the Centre for Protection of National Infrastructure (CPNI) on key cyber risks, as well as development of an enhanced CNI security strategy.
- Business continuity and emergency plans are practised to make sure we quickly and effectively respond to a variety of incidents – storms, physical and cyber-related attacks, environmental incidents and asset failures.
- We have developed safety plans to identify key risks and put in place mitigation actions.
- We monitor key performance indicators to make sure we meet our transmission performance expectations.
- We have assurance procedures to meet our policies, technical standards and procedures.
- We continually monitor and future proof our systems through on-going system upgrade and replacement strategy to guarantee their availability.
- Energy forecasting and related system planning are in place both daily and longer term to predict and respond to any significant disruption of energy.
- We have recently implemented new Business Management Standards covering key areas such as data management and health & safety to promote consistent best practice.

3 The ESO is a new business, but the majority of risks it faces are not new. The trend against our risks represents their development over the course of the financial year measured against previous years when the ESO was an integrated part of National Grid with risks managed at a Group level.

Strategic Report / Internal control and risk management 39

Strategic and regulatory risks

Strategic risk is failing to achieve our overall strategic business plans and objectives as well as failing to have the 'right' strategic plan.

Management of strategic risks focuses on reducing the probability that any assumed risk would happen and improving our ability to effectively respond to the risk should it occur. The risk owners, executive leaders, and their teams develop and monitor actions to control the risks. The political climate and policy decisions of our regulators this past year were key considerations.

Risks

Strategy, Regulation and Customers
Risk trend: Increasing

Market Facilitation
Risk trend: Neutral

Innovation & Business Transformation
Risk trend: Neutral

Legal and License Obligations
Risk trend: Neutral

Financial
Risk trend: Increasing

Actions taken by management

- We maintain a good understanding of the regulatory agenda and emerging issues, so we can respond in an appropriate and timely. Our reputation as a competent operator of important national infrastructure is critical to this. We have plans and governance structures to address specific issues such as RIIO-2 and continuously work to foster open and effective relationships with our regulators and other stakeholders.
- We undertake mapping exercises, regularly update roles and responsibilities, and provide monthly and quarterly compliance reporting. We also have action plans to mitigate non-compliance and control weaknesses.
- We regularly review threats and opportunities from external and political pressure with both internal and external stakeholders ensuring our knowledge and communication channels remain current and any actions arising are promptly completed.
- We monitor technology trends as well as new inventions and prototypes to anticipate, respond and take advantage of new technologies and innovation.
- Our transformation programme action plan manages potential risks of change through wellbeing programmes, comprehensive communications across the business and knowledge transfer plans.

Strategic Report / Internal control and risk management 40

People

People risks are the risks resulting from failing to attract and retain the right talent and not building the right culture within the organisation.

Risks

People and Culture
Risk trend: Neutral

Actions taken by management

- Strategic workforce planning is embedded in our organisation. This informs financial and business planning as well as human resourcing needs.
- Our entry level talent development schemes (e.g. apprenticeships) provide a competitive advantage in the market place. We are involved in several initiatives to help secure the future engineering talent required, including an annual programme of work experience.
- We maintain a clear strategic focus on talent through aligned talent plans with agreed metrics.
- Our award-winning careers site further supports attraction of people, with strong brand recognition and regular benchmarking of our reward packages.
- We maintain strong focus on our purpose, vision and values to help drive the right behaviours and performance.
- We provide strategic talent focus through our quarterly talent reviews, accelerated development plans with ongoing business learning plans.

Strategic Report / Internal control and risk management 41

Our internal control processes

We have processes to support our internal control environment. These are managed either directly via our ESO Assurance team or via dedicated specialist teams within the National Grid Group. These include risk management, business conduct and compliance management, corporate audit and internal controls, safety, environment and health.

Oversight of these activities is provided through regular review and reporting to the ESO Board and appropriate Board committees as outlined in the Corporate Governance section on pages 52 - 60.

We monitor internal control through boards and committees at different levels of our parent organisation. Policies and practices flow through to us for implementation and action. Deficiencies are reported and corrected at individual business level.

The most significant risk and internal controls issues are monitored at the Senior Executive and ESO Board level. The ESO Audit Committee is responsible for reviewing and reporting to the ESO Board on effectiveness of reporting, internal control policies, Bribery Act legislation, appropriateness of financial disclosures and procedures for risk and compliance management, business conduct and internal audit.

Reviewing the effectiveness of our internal control and risk management

Our Board continually monitors and assesses the robustness of our internal control systems and risk management processes covering all systems, including financial, operational and compliance controls.

The latest review covered the financial year to 31 March 2020 and through to the approval of this Annual Report and Accounts. In this review, the Board considered areas such as the control environment, risk management and internal control activities.

Fostering a culture of integrity is an important element of our risk management and internal controls system. National Grid's values: **'Do the right thing'** and **'Find a better way'** provide a framework for reporting business conduct issues, educating employees and promoting a culture of integrity at all levels of the business. We have policies and procedures to communicate the behaviour expected from employees and third parties, and to prevent and investigate fraud and bribery and other business conduct issues. We monitor and address business conduct issues through several means, including a bi-annual review by the ESO Audit Committee.

Overall compliance strategy, policy and frameworks are set at Group level with implementation owned by us. We are responsible for identifying compliance issues, continuous monitoring, and actions to improve compliance performance. We monitor and address compliance issues through several means including leadership meetings and bi-annual reviews by the ESO Audit Committee.

Strategic Report / Internal control and risk management 42

A feature of our internal controls system is our three lines of defence model. This explains the relationship between functions and how responsibilities for risk and controls are allocated and monitored. Each business function owns and manages its own particular risk and controls (the first line of defence). Business assurance teams (the second line of defence) are an advisory function on implementing the key risk assessments and actions to mitigate and manage those risks. Our Corporate audit function then audits selected controls to provide independent assessments of our risk management and internal control systems (the third line of defence).

Internal control over financial reporting

We have internal mechanisms that govern the financial reporting process and the preparation of the Annual Report and Accounts. Financial control guidance provides the basis for internal control over financial reporting, which is applied across the business.

Our financial processes include system, transactional and management oversight controls. In addition, we prepare monthly management reports that include analysis of results, along with comparisons to relevant budgets, forecasts and prior year results which are reviewed by senior management and finance. These reviews are supplemented by regular ESO Board reporting and review by the Audit Committee. The reviews consider historical results and expected future performance and involve senior management from both operational and financial areas of the business.

Periodic Sarbanes- Oxley (SOX) reports regarding Management's opinion on the effectiveness of internal control over financial reporting are received by the Board in advance of the half and full year results. Reports conclude on the ESO's compliance with the requirements of s404 of the Sarbanes- Oxley Act, and are received directly from our Controls Team; and through the Executive and Audit Committees.

Strategic Report / Internal control and risk management 43

Financial review

The following financial results represent the first year of legally separate operation. For the financial period 2018/19, National Grid Electricity System Operator Limited (ESO) was a dormant company consisting of a single £1 share. As such, for 2020/21, there are no prior year comparative figures.

Revenue for the year was £1,651m with an operating profit £136m, which was in line with expectations for a strong first year of trading. Revenues were boosted in the year by £104m from one-off allowances associated with the costs of legal separation incurred partly in prior periods and the reopeners on cyber and data centres. Controllable costs were maintained in line with efficiency targets set out for the year.

Assessment of Covid-19 on financial results

Covid-19 has presented unprecedented economic circumstances globally and the extent of the impact of Covid-19 on the UK economy is uncertain. The ESO reacted to the situation quickly, adopting appropriate measures to protect our workforce, balance the electricity system and keep the lights on.

Covid-19 had a negligible impact on the ESO in the 2019/20 financial results. The ESO is however not immune to the impacts on the wider economy and we expect to see a reduction in electricity demand in 2020/21 given the national lockdown and closure of businesses. We are also monitoring any potential increase in bad debt costs from Suppliers.

Our funding position continues to be strong and we are carefully monitoring our liquidity and working capital. Our balance sheet at 31 March 2020 showed cash, cash equivalents and financial investments of £365m and we had undrawn external facilities amounting to £550m.

Our position and that of the market will continue to be monitored closely throughout the duration of the pandemic.

In our role as revenue collection agent for Transmission Network Use of System (‘TNUoS’) revenues on behalf of the Great Britain Transmission Owners we are exposed to potential under-collection of revenue as consumer usage reduces. This is expected to impact our cash flow for 2020/21 as we collect revenue based on actual consumer usage whist being billed based on fixed Transmission Owner forecasts. This relates to timing differences which are explained in greater detail within Note 2.

Strategic Report / Financial review 44

Ofgem's RIIO-2 Draft Determination published on 9 July 2020 will reallocate the TNUoS cash flow risk to the onshore Transmission Owner's. This will be effective from 1 April 2021 as part of RIIO-2. As such the impact of Covid-19 on cash flow will continue to be monitored for 2020/21.

We also expect, as a result of the reduction in electricity demand, increased balancing costs. The impact will be reflected in increased Balancing Service Use of System ('BSUoS') costs in 2020/21 and equivalent revenue recharging.

We have been working with industry and Ofgem on financial support packages relating to both revenue streams, to support the industry through these unforeseen circumstances.

For TNUoS, we are working with the Transmission Owners to provide targeted financial support to Suppliers in the industry over the Summer period. This is to be fully funded by participating Transmission Owners but transacted through the ESO.

For BSUoS, we are providing temporary support to Suppliers and Generators to defer the payment of an element of the Summer excess BSUoS costs as a result of Covid-19 which would be recovered in the following financial year.

We do not expect any material impact on our capex expenditure as a result of measures taken in response to the pandemic, most of our IT projects were able to continue with minimal impact.

Brexit

Brexit is not considered a key risk for the ESO. Progress during the Brexit transition phase and trade negotiations will continue to be monitored and the risks and uncertainties will be managed through our existing risk processes, particularly regarding our access to energy markets.

Use of adjusted profit measures

In considering the financial performance of our business, we analyse each of our primary financial measures of operating profit, profit before tax and profit for the year attributable to equity shareholders, into two components.

The first of these components is referred to as an adjusted profit measure, also known as 'underlying' or a 'business performance' measure. This is the measure used by management that forms part of the incentive target set annually for remunerating our employees and Executive Directors. Adjusted results exclude exceptional items and re-measurements. These items are reported collectively as the second component of the financial measures.

We believe that by presenting our financial performance in two components it is easier to read and interpret financial performance between periods, as adjusted profit measures are more comparable having removed the distorting effect of the excluded items. Those items are more clearly understood when separately identified and analysed.

The presentation of these two components of financial performance is in addition to, and not a substitute for, the comparable total profit measures presented.

Management uses adjusted profit measures as the basis for monitoring financial performance. These measures are also used by National Grid Group in communicating financial performance to its investors in external presentations and announcements of financial results.

Strategic Report / Financial review 45

Reconciliation of adjusted profit measures

Reconciliation of adjusted operating profit to total operating profit.

There were no exceptional items or remeasurements included within operating profit for the year ended 31 March 2020. Accordingly, there is no difference between the reported operating profit and the adjusted profit measure.

	Years ended 31 March 2020 £m
Actual and adjusted operating profit	136

Under the regulatory arrangements the level of actual revenues collected from customers can differ to the allowed regulatory revenues. This can give rise to timing differences.

As detailed in Note 2, for TNUoS revenues we act as agent for the GB Transmission Owners and for certain revenues relating to the Interconnector Interconnexion France-Angleterre ('IFA'). As agent we recognise an asset or liability for such timing differences.

BSUoS revenues are based on daily calculated tariffs allowing revenues collected to be in-line with the regulatory allowed revenues.

Accordingly, there are no timing differences in the reported operating profit for 2019/20.

Consolidated income statement commentary

	Years ended 31 March 2020 £m
Revenue	1,651
Operating costs	(1,515)
Adjusted/Total operating profit	136
Finance income	3
Finance costs	(4)
Profit before tax	135
Taxation	(27)
Profit after tax	108

Revenue

The ESO acts as the system operator for Great Britain, which involves the procurement of services to balance the electricity transmission network. For this activity the company applies a BSUoS charge, which is payable by generators and suppliers of electricity. The ESO also holds the role as revenue collection agent for charges to customers on behalf of the owners of the transmission network. These TNUoS revenues are collected in accordance with IFRS 15 and revenues are shown on a net basis. Further details relating to the collection of revenues can be found in Note 2.

Revenue for the year ended 31 March 2020 was £1,651m. Through the application of IFRS15, the collection of revenue by the ESO on behalf of National Grid Electricity Transmission, Scottish Power Transmission Limited, Scottish Hydro Electric Transmission plc and, Offshore Transmission Operator's (TO) is netted off within revenues as an agent relationship.

The significant majority of revenue, £1,609m, is earned though the operation and balancing of the electricity system. This includes recovery of costs directly incurred to balance the electricity system on a 'pass-through basis,' recovery of incentive revenue and amounts allowed under our regulatory deal to cover the internal costs of our operations. The ESO Forward Plan incentive scheme was awarded an outcome of £1m within the financial year. The scheme rewards performance on progress against an ambitious plan to meet the ESO commitments and targets in relation to the future energy transformation. This represents an improved reward from the previous year (£0.9m). The scheme is highly evaluative with the outcome determined by Ofgem following the release of recommendations of a performance panel including industry stakeholders.

Strategic Report / Financial review 46

TNUoS revenues of £42m reflect the recovery of costs we directly incur through the regulatory arrangement, including Ofgem licence fees and property rates. This includes £9m directly recovered from Interconnectors. Further detail on this can be found in Note 2 of these financial statements.

Operating costs

Operating costs for the year ended 31 March 2020 were £1,515m. Of this, £1,317m relates directly to balancing system costs which have increased due to record levels of renewable energy generation being brought onto the transmission network, which requires additional balancing work. Internal costs of our operations were £160m including payroll, pensions deficit and external costs such licence payments, IT costs and other running costs. Depreciation and amortisation totalled £38m for 2019/20, driven substantially by intangible assets.

Under the separation agreement, and in accordance of the regulatory requirements set by Ofgem, the company paid £12m of pension deficit contributions into the National Grid Electricity Group of the Electricity Supply Pension Scheme (NGEG of ESPS).

Net finance costs

For the year ended 31 March 2020, net finance costs before exceptional items and re-measurement were £1m. This includes interest paid on the fixed term loan to National Grid plc offset by interest received on centrally managed treasury banking arrangements. The Company also pays fees to external providers working capital facilities. Interest is also charged on balances owed from or to external customers during the normal course of business.

Taxation

The tax charge on profits before exceptional items and re-measurements was £27m at a rate marginally higher than the standard UK tax rate of 19% due to movements in deferred tax.

Consolidated statement of financial position

Commentary	Years ended 31 March 2020 £m
Non-current assets	336
Current assets	732
Total assets	1,068
Current liabilities	(666)
Non-current liabilities	(104)
Total liabilities	(770)
Net assets	297

Strategic Report / Financial review 47

Property, plant and equipment

The total net book value (NBV) of Property, plant and equipment was £128m as at 31 March 2020. This included £95m of assets acquired on the purchase of the business and in year capital additions of £39m.

Intangible assets

The total NBV of intangible assets was £208m as at 31 March 2020. This included additions of £53m in year relating to software projects, offset by £30m of in year amortisation. The NBV of intangibles acquired on the purchase of the business on 1 April 2019 was £187m.

Trade and other receivables

Trade and other receivables totalled £367m at 31 March 2020. This is predominantly accrued income of £253m. This consisted of TNUoS billing accruals of £121m; TNUoS revenues are accrued in month and billed on the 1st of the following month. The remaining balance included BSUoS accruals for £96m and, other accruals combined totalling £37m.

Trade receivables of £68m were held as at 31 March 2020 net of £31m of bad debt provision. The bad debt provision comprised £30m relating to balances inherited on the acquisition of the business on 1 April 2019. These balances originated from major terminations occurring within 2018/19 which are yet to be settled.

Trade and other payables

Trade and other payables as at 31 March 2020 were £534m this includes £174m in trade payables and other accruals; this has been mainly generated by £125m of BSUoS cost accruals at the year end.

Deferred income as at 31 March 2020 of £128m was generated through the deferral of TNUoS revenues. This is caused by differences in our forecast TNUoS usage for billing and actual customer usage.

Social security and other taxes as at 31 March 2020 of £161m related predominantly to £160m of quarterly VAT payable. The Company is part of the National Grid Group VAT group and settles VAT quarterly. This leads to the large VAT liability reflecting the TNUoS and other charges from National Grid Electricity Transmission not being subject to VAT.

Capital contributions as at the 31 March 2020 were £58m. These relate to revenues collected on behalf of the Transmission Owners for construction projects which the ESO have not yet been invoiced for.

Deferred tax liabilities

The net deferred tax liability as at 31 March 2020 is £13m.

Net debt

The net debt position was cash positive at £244m as at 31 March 2020, this is detailed further below.

Provisions

On 1 April 2019 provisions of £18m were inherited. In year total provisions decreased by £6m, driven by the restructuring provision utilisation. The final balance of provisions for the year was £12m relating solely to restructuring.

Other non-current liabilities

Other non-current liabilities totalled £90m as at 31 March 2020. This consisted of deferred income of £73m relating to TNUoS revenue, further details of these timing differences can be found in Note 2. The remaining balance of £17m related to deferred TNUoS application fee income.

Strategic Report / Financial review 48

Cash flow statement commentary

Cash inflows and outflows are presented to allow users to understand how they relate to the day-to-day operations of the business (operating activities); the money that has been spent or earned on assets in the year, including acquisitions of physical assets or other businesses (investing activities); and the cash raised from debt or share issues and other loan borrowings or repayments (financing activities).

Reconciliation of cash flow to net debt

	2020 £m
Cash generated from operations	301
Net capital expenditure	(89)
Business net cash flow	212
Net interest paid	(3)
Tax paid	(27)
Net proceeds from loans	134
Acquisition of business	(302)
Proceeds from share issue	330
Increase in cash and cash equivalents	344
Increase in borrowings and related derivatives	(121)
Net interest received on the components of net debt	3
Increases in financial assets	18
Net debt decrease	244
Opening net debt	0
Closing net debt	244

Cash flows from our operations are largely stable when viewed over the longer term. Our electricity system operations are subject to a multi-year regulatory agreement.

For the year ended 31 March 2020 cash flow from operations was £301m. This was driven by operating profit adjusted for depreciation, amortisation, and provisions of £168m and, £133m of improved working capital, largely reflecting the increase in quarterly VAT liability; the business was acquired with no VAT liability on 1 April 2019 resulting in a large first year increase in payables.

Net capital cash expenditure

Net capital investment was £89m in the year to date 31 March 2020. This is mostly software and computer hardware within IT system development projects.

Net interest paid

The net interest paid was £1m.

Dividends paid

No dividend was declared for the year end 31 March 2020, as a result, no dividend amount has been included within the financial statements.

Regulated financial position up 8%

Ofgem's regulatory regime for the energy industry is titled RIIO, which stands for Revenue = Incentives + Innovation + Outputs. This title reflects the policy purpose of the regime. It is designed to encourage companies to invest in efficiency and innovation, creating value that is shared, through the regulatory mechanisms, between the company (and hence creating the incentive) and the customer.

A component of Ofgem's regulatory regime known as Slow Money is linked to the Regulated Asset Value (RAV). Slow money is where costs are added to RAV and, therefore, revenues are recovered slowly (e.g. over the life of the asset) from both current and future consumers. Each year we are allowed to recover a portion of the RAV (regulatory depreciation) and a return on the outstanding RAV balance.

In the year, RAV grew by 8% driven by increases in slow money expenditure and inflation adjustments in-line with RPI, this was partly offset by depreciation.

	2020 £m
Opening Regulated Asset Value (RAV)[1]	195
Asset additions (aka slow money) (actual)	62
Performance RAV or assets created	(3)
Inflation adjustment (actual RPI)	5
Depreciation	(48)
Closing RAV	211

[1]April 2019 opening balances include amounts acquired as part of the ESO business.

Strategic Report / Financial review 49

Strategic Report / Section 172 statement 50

Section 172 statement

The Board believes that individually and together, they have acted in the way they consider, in good faith, would be most likely to promote the success of the Company for the benefit of its members, as a whole, having regard to the stakeholders and matters set out in section 172(1)(a) to (f) of the Companies Act 2006, the ("s172 factors").

Delivery of the ESO's strategy requires the business to operate in a manner which benefits stakeholders into the long-term, balancing costs against the prudent management of risks inherent in the operation of the electricity system. Key decisions and matters of strategic importance are informed by s172 factors, as the Directors govern the Company through the ESO Board. Through ongoing open and transparent dialogue with our key stakeholders, we develop a clear understanding of their needs and monitor their impact on our ambition and culture.

Illustrations of how the s172 factors have been applied by the Board can be found below and throughout the Strategic Report:

s172 factor	Key examples	Page
Consequence of any decision in the long term	Each year, the Board approves the ESO's annual plan and monitors implementation through regular reporting and presentations at its meetings. In the current financial year, the Board has also approved the 2025 Strategy and 2050 Mission. The Board has also overseen the development of the RIIO-2 business plan which will underpin the future of the ESO.	29-31
Interests of employees	The Board receives regular updates on the levels of employee engagement and satisfaction. The Board and committees consider how decisions will impact ESO employees and monitors initiatives to promote inclusion and diversity. The ESO prioritises the safety of its employees and the Board receive regular updates on LTIFR.	25-28
Fostering business relationships with suppliers, customers and others	As part of its decision-making process, the Board and its committees consider the potential impact of decisions on relevant stakeholders as well as broader factors, such as the pace of change within the energy industry, and the evolving economic, political and market conditions. There are often trade-offs between different stakeholders over the longer-term and the Directors consider this as they evaluate decisions.	32
Impact of operations on the community and the environment	Proper stakeholder engagement takes place both at an operational and board level. The Directors are supported in considering stakeholders through the inclusion of stakeholder considerations gained at an operational level in board papers, which are carefully reviewed and considered by all Directors. The Board also regularly invite representatives of key stakeholders to meet with the Board to discuss matters under consideration and listen to their concerns. Most significantly in the year, the RIIO-2 business plan development process involved around 1,500 stakeholder interactions and the establishment of the ESO RIIO-2 Stakeholder Group to give stakeholders and consumers a formal voice as we developed our business plan for the next RIIO regulatory price control period.	33-35

s172 factor	Key examples	Page
Maintaining high standard of business conduct	The ESO is proud of its reputation for operating one of the most reliable electricity systems in the world. Our licence to operate is dictated by the way we are perceived by stakeholders, so the Board gives high priority to maintaining a reputation for high standards of business conduct. It identifies and monitors external developments likely to impact on our reputation and ability to run our business as a good corporate citizen.	36-37
Acting fairly between members	National Grid Electricity System Operator Limited is a wholly owned subsidiary of National Grid Holdings One plc. Our ultimate parent company is National Grid plc. National Grid plc, has established a committee, the ESO Committee, to provide shareholder oversight of the business and respect the ESO's licence restrictions on sharing of System Operator Function Information (SOFI). Regular monthly and quarterly reports provide effective shareholder oversight of the Company as a legally separate entity, whilst remaining a valued part of the National Grid Group. Non-executive Directors hold an annual meeting with the Chief Executive Officer of National Grid plc, to strengthen their, and the Board's, engagement and understanding of the views of our shareholder. They also hold an annual meeting with the Chair of the National Grid plc Audit Committee, creating a formal information flow between the independent Directors of the two committees.	57-60

Strategic Report / Section 172 statement 51

Corporate governance statement

The ESO aims to achieve high standards of leadership and governance. For the year ended 31 March 2020, we are required under The Companies (Miscellaneous Reporting) Regulations 2018, to share our Corporate Governance arrangements. We have adopted the Wates Corporate Governance Principles for Large Private Companies and set out below how these principles have been applied over the last year.

1 Purpose and leadership

The Board has a crucial role in overseeing the Electricity System Operator as it evolves and engages in the transformation of the energy market. Day-to-day operations are the responsibility of the Executive Committee, leaving the Board to focus on key areas including setting out and delivering the long-term business strategy, objectives and plan.

The focus of the Board has been to drive NGESO towards the goal of preparing Great Britain's electricity system to be able to run on purely zero carbon electricity by 2025, whilst at the same time, supplying homes and businesses with affordable energy 24/7, 365 days a year and ultimately delivery of an electricity system that helps the UK meet its net-zero commitments by 2050.

> In the current financial year, the Board have approved the Company's ambitious RIIO-2 Business Plan, designed to meet the future need of the energy market, together with the ESO's 2020 Business Plan, 2025 Strategy and 2050 Mission.

Strategic Report / Corporate governance statement 52

2 Board composition

As of 1 August 2020, the Board comprises four executive Directors and five Non-Executive Directors (“NEDs”) who between them provide a broad and diverse range of experience and technical skills from both within and external to the organisation, from the energy sector, other regulated industries and external bodies. Further information is included on pages 57 - 60.

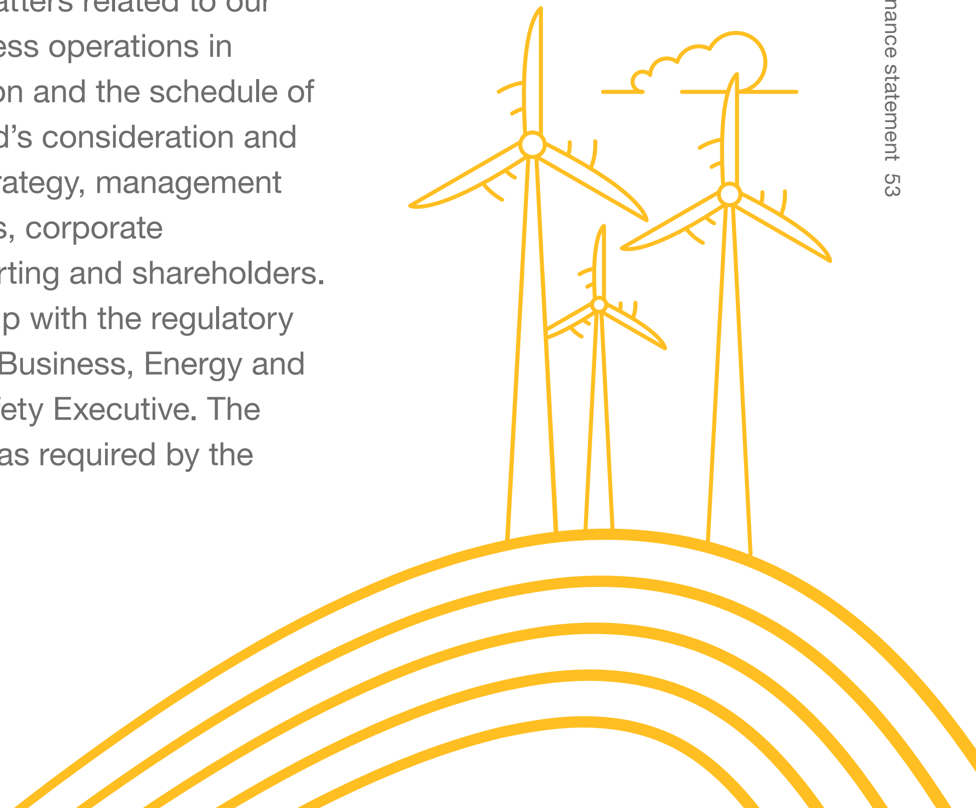
All Board appointments are made in consultation with our shareholder and in accordance with National Grid’s Procedure for the Appointment of Directors to Subsidiary Companies.

3 Director responsibilities

Accountability

The Board is collectively responsible for governance and oversight of the company and its business, and compliance with all relevant laws and regulations, including compliance with its obligations under its Electricity System Operator Licence. To facilitate this, we have established a comprehensive governance framework, which forms part of the wider National Grid plc governance framework and is aligned, as required and is applicable, to the company.

We have autonomy in decision-making matters related to our licenced duties and our day-to-day business operations in accordance with our Articles of Association and the schedule of matters specifically reserved for the Board’s consideration and decision. The matters covered include: strategy, management and finance, director and employee issues, corporate governance, financial and regulatory reporting and shareholders. It also includes oversight of the relationship with the regulatory bodies, including Ofgem, Department for Business, Energy and Industrial Strategy and the Health and Safety Executive. The Board also has additional responsibilities as required by the ESO’s licence obligations.



Strategic Report / Corporate governance statement 53

The Board has responsibility for the annual regulatory accounts to which it applies the same rigorous governance processes as that of the statutory accounts, and it involves the Audit Committee. The Company has been given a derogation for this in 2020.

Regular Board meetings are scheduled a minimum of one year in advance providing all Directors with sufficient notice to attend. Agenda items fulfil the Board's responsibilities in line with its statutory duties, licence obligations, and its authority under the Group Delegations of Authority from National Grid plc.

The Board maintains a schedule of matters specifically reserved for its consideration and decision including strategy, management and finance, director and employee issues, corporate governance and financial and regulatory reporting. Supervision of the Company's operations is fulfilled through standing agenda items on safety matters, business overviews and financial performance. It also receives management reports on different aspects of the business.

Integrity of information

We have established set procedures to enable the Board to be effective and efficient: papers supporting each agenda item are distributed in advance, typically a week before the meeting; training and briefings on specific matters are scheduled outside of board meetings; and, where necessary, the Chair holds a short meeting with the NEDs to discuss areas of focus for the business. After each meeting, the Directors share feedback, enabling a process of continuous improvement for future board meetings.

The Board receives regular and timely information, at least monthly, on all key aspects of the business including health and safety, risks and opportunities, the financial performance, strategy, operational matters, market conditions and regulatory matters, all supported by Key Performance Indicators (KPIs).

Key financial information is collated from our accounting systems. Our finance function, supported by National Grid Group's UK Shared Services, is qualified to guarantee the integrity of this information and is provided with the necessary training to keep up to date with regulatory changes. Financial information is currently annually externally audited by Deloitte LLP, and financial controls are reviewed by the corporate audit functions. Other key information is prepared by the relevant internal function. Processes for collecting and reporting data are reviewed on a cyclical basis by the Company's and National Grid Group's UK Shared Service corporate audit functions with quarterly reporting provided to the Audit Committee.

Strategic Report / Corporate governance statement 54

4 Opportunity and risk

The Board promotes our long-term sustainable success by identifying opportunities to create and preserve value and establishing oversight for the identification and mitigation of risks.

Opportunity

Our role is evolving as the GB energy system transforms. There are opportunities for us to undertake new roles that could deliver value to consumers as the energy system decarbonises.

We are currently exploring opportunities in early competition for onshore transmission, and in coordinating offshore development of generation and transmission infrastructure. These support our mission and 2025 ambitions, feature in Ofgem's decarbonisation action plan, and support the energy system transformation towards the UK net-zero decarbonisation target.

Risk

Effective risk management is fundamental to our long-term success so a separate section of the Strategic Report describes our internal controls and risk management, see pages 38-43

The ESO Board has spent a considerable amount of time considering our risk profile since legal separation. Our risk appetite framework was approved by the ESO Board in January 2020. A programme of works is under way to embed risk appetite into business-as-usual activities.

The ESO's Risk Register is maintained by our Executive Team, ensuring that inherent and emerging risks are identified and managed appropriately and in a timely manner. The Risk Register, together with a report on the performance and effectiveness of the risk mitigation and the risk landscape, is presented to the Board on a regular basis by the ESO Assurance team, allowing the Board oversight of risks, how they are managed, and ensuring accountability to stakeholders.

Strategic Report / Corporate governance statement 55

5 Remuneration

The Directors are not separately remunerated for that role, with the exception of the NEDs. Directors' remuneration is determined in accordance with National Grid's remuneration policies for employees. See the Annual Report and Accounts of National Grid plc for further information. As required by Section 42c of the Electricity Act 1989, we have provided to Ofgem details of the link between Directors' remuneration and service standards. In particular, in accordance with the requirements of the ESO licence, incentivisation of the executive Directors is linked to the performance of NGESO only.

To attract and retain a balanced skillset and provide strong stewardship and governance, NEDs are paid an annual fee.

Fees take into account the anticipated amount of time commitment and comparative rates paid by other comparable companies.

The NEDs do not participate in share option awards, performance bonuses or pension arrangements. Legitimately incurred costs of attending Board and associated meetings are reimbursed.

6 Stakeholder relationships and engagement

The Board promotes meaningful engagement and transparency with employees, customers and external stakeholders and has regard to their views when taking decisions. For further details refer to the Stakeholder Engagement section of the Strategic Report on page 32.

Strategic Report / Corporate governance statement 56

Board

As of 1 August 2020, the Board comprises five Non-Executive Directors ("NEDs") and four Executive Directors.

The Chair of the Board, Fintan Slye, is also Executive Director of the ESO – this is considered appropriate as the ESO is a subsidiary company of a large group. The size and composition is appropriate to our business and complies with the requirements of our licence.

This depth and breadth of experience, and the independence brought by the NEDs, enables the Board to engage in constructive and challenging discussions, considering the interests not only of our shareholder but our wider range of stakeholders.

Women represent 56% of the ESO Board and 60% of our Executive Team. Overall, women make up 33% of our workforce. The Board recognises that diversity is a challenge for the energy sector and makes diversity an integral part of its agenda. We are committed to being an inclusive and diverse employer, striving to employ people at all levels of the organisation who reflect the communities and customers we serve and aim to create an inclusive culture where everyone can reach their full potential.

The Chair is responsible for promoting open debate and facilitating constructive discussion. The Directors have equal voting rights when making decisions. Where there is a tie the Chair has a casting vote. All Directors have access to the advice and services of the Company Secretary and may also take professional advice at the Company's expense.

The duties of the Board are executed partially through committees. The NEDs attend and act as chair to relevant committees so that they are able to challenge and influence a broad range of areas.

Training on the statutory duties and responsibilities of Directors is available to new and existing Directors with reference material also available in our online document library.

Director training and development is delivered both within and outside of the boardroom. A programme of head office and operational site visits, briefings and internal conferences and events aims to strengthen and refresh the Board's knowledge and understanding of our operations, the external business and regulatory environment.

Strategic Report / Corporate governance statement 57

Specific technical briefings support the Directors in fulfilling their roles on both the Board and committees. The visits and briefings provide an opportunity for the Directors to support and reinforce our culture, values and ethics and promote a culture of openness between Board members and employees and add depth and knowledge to discussions in the boardroom.

Directors receive updates and presentations on operational matters and specific initiatives within the business and the wider operating environment. These provide an opportunity for individual executive Directors to benefit from the input of other Board members on matters within their area of the business.

The Board will conduct an internally facilitated evaluation process during the current financial year, led by the Chair. This will cover the period since Legal Separation of the ESO on 1 April 2019 and will focus on three key topics: overall effectiveness of the Board; the coverage of the Board at its meetings; and the identification of key areas for future improvements.

Non-Executive Directors

The Board comprises a majority of NED's, who bring to the Board a wealth of experience and knowledge from other businesses in the utility sector, government and regulatory organisations and other businesses and organisations outside of the energy sector. They have provided an independent voice in the Boardroom since day one. Their constructive, independent challenge and input supports the Board in considering the wider range of stakeholders to the business. The NEDs hold an annual meeting with the Chief Executive Officer of National Grid plc, enabling them to strengthen their, and the Board's, engagement and understanding of the views of the shareholder. Additionally, the NEDs hold an annual meeting with the Chair of the National Grid plc Audit Committee creating a formal information flow between the independent Directors of the two committees. The NEDs have input into our evolving governance framework, demonstrated through their leadership of three Board committees: Audit Committee, Nomination Committee and Business Separation Compliance Committee.

After the reporting period the Board welcomed John Linwood and Regina Moran as new NEDs with effect from 16 June and 1 August 2020. John has extensive experience in digital transformations, delivering large scale software and IT infrastructure projects, and helping businesses adopt new technologies. Regina brings her wealth of engineering experience to the Board and also has a background in digital transformation. These skills and experiences continue to strengthen the Board.

Executive Directors

For the reporting period, the executive director membership of the Board consisted of Senior Executives from the ESO and the ESO Finance Director.

Strategic Report / Corporate governance statement 58

Board Meetings

Seven principal board meetings were held during the last financial year. Board membership and attendance is set out below. Attendance is expressed as the number of meetings attended out of the number possible or applicable for the individual director during the year to 31 March 2020.

		Attendance
Duncan Burt	Operations Director	6 of 6
Gillian Merron	Non-Executive Director	7 of 7
Hannah Nixon	Non-Executive Director	7 of 7
Kayte O'Neill	Head of Markets - ESO	7 of 7
Paul Plummer	Non-Executive Director	7 of 7
Roisin Quinn	Chief Engineer and Head of National Control	1 of 1
Fintan Slye (Chair)	Executive Director of UK System Operator	7 of 7
Claire Tuckman	Finance Director - ESO	6 of 7

Additional Board meetings were scheduled to allow the Board to focus on key strategic or urgent matters impacting the Company. It convened two extraordinary meetings to consider and approve elements of the Company's RIIO-2 Business Plan, including the financeability and allocation of capital to support the plan.

All Directors were either present or provided feedback to the Chair for consideration prior to the meeting.

Committees

The Board has established committees which operate within agreed terms of reference and a framework of delegations of authority. The committees of the Board are:

- Electricity System Operator Executive Team;
- Business Separation Compliance Committee;
- Nomination Committee;
- Sanction Committee; and
- Audit Committee

Certain governance responsibilities are delegated to these Board committees. The Nomination, Audit and Business Separation Compliance Committees are chaired by NEDs and include both NED and executive Directors to support effective decision-making and independent challenge. At each Board meeting, Directors receive reports from the Chairs of the Audit, Nomination and Business Separation Compliance Committees on activities and recommendations.

We do not have a Remuneration Committee; this function is provided by National Grid plc. See the Annual Report and Accounts of National Grid plc for further information.

Strategic Report / Corporate governance statement 59

Electricity System Operator Executive Team

The Electricity System Operator Executive Team (ESOET) provides oversight for the daily operations and strategic direction of Great Britain's Electricity System Operator activities, under the leadership of the Director of UK Electricity System Operator. Authority to ESOET is delegated on behalf of the ESO Board.

The ESOET meets at least weekly and comprises individuals responsible for strategic business units and key functions; duties include formulating strategy proposals for Board approval and ensuring the strategy is implemented in a timely and effective manner. The Committee receives reports from its two sub-committees: ESO Investment Committee and Incentive Performance Committee.

ESOET make sure that the values, strategy and culture align, are implemented and are communicated consistently to our employees; for example, through conferences, regular leadership team updates, team briefings and webinars.

Business Separation Compliance Committee

The Business Separation Compliance Committee of the Board is responsible for overseeing the duties and tasks of the ESO Business Separation & EMR Compliance Officer and for overseeing our compliance with the business separation licence conditions.

Committee members are appointed by the Board. Membership comprises three Board Directors: two NEDs (Paul Plummer and Gillian Merron) and an executive director, Roisin Quinn. For the reporting period, the Committee was chaired by Paul Plummer, NED, providing independent leadership. The Business Separation & EMR Compliance Officer reports on their duties, activities and compliance with the licence obligations.

Three Committee meetings were held during the year, with additional meetings between the Chair of the Committee and the Business Separation & EMR Compliance Officer.

Nominations Committee

The Board operates a Nominations Committee to make sure it remains balanced and effective, that succession plans are in place, and that its structure, composition and skills remain appropriate, with due regard for diversity in its broadest sense. The Committee's primary objective is to identify and evaluate candidates for future NED appointments and in doing so, it takes advice from independent external recruitment consultants.

Committee members are appointed by the Board. Membership of this Committee comprises three Board Directors: two NEDs, Gillian Merron and Hannah Nixon and an executive director, Fintan Slye. The Committee is chaired by Gillian Merron, NED, providing independent leadership. The Committee meets as required, but at least once a year. In 2020, the Committee led the process that resulted in the new NEDs', John Linwood and Regina Moran, appointment to the Board.

Sanction Committee

The Sanction Committee was established to drive efficiencies in the decision-making process across National Grid UK. The Committee has delegated authority to consider and sanction investments impacting multiple business units across the Group.

Audit Committee

The Audit Committee's role is to monitor the integrity of our financial statements; provide oversight of financial reporting and internal controls and their effectiveness; and review our risk management processes. It also appraises the external audit plan and reviews the external auditor's findings.

Committee members are appointed by the Board. Membership comprises three Board Directors: two NEDs (Hannah Nixon and Paul Plummer) and an executive director, Kayte O'Neill. The Committee is chaired by Hannah Nixon, NED, providing independent leadership and financial experience. Other individuals such as representatives of the external auditors, Head of UK Audit, representatives of the ESO Assurance function, ESO Finance Director and other representatives of the finance function and the ESO Legal Business Partner and Company Secretary normally attend each meeting. Other Directors, representatives of the business and external advisers may be invited to attend as and when considered appropriate.

The Audit Committee provides assurance to the Board on matters within its authority. The Chair provides an update on matters considered at the meeting to the Board and makes recommendations.

The Strategic Report was approved by the Board of Directors on 15 September 2020 and signed on its behalf by:

Fintan Slye
Executive Director
15 September 2020

Strategic Report / Corporate governance statement 60

Directors' report

6

For the purposes of the UK Companies Act 2006, the Directors present their report along with the audited consolidated financial statements of the Company for the year ended 31 March 2020, which comprises of the Corporate governance statement on pages 52 - 60 and the Statement of Directors' responsibilities on page 65.

The Strategic Report sets out those matters required to be disclosed in the Directors' Report which are considered to be of strategic importance. Further details of matters required to be included in the Directors' Report are incorporated by reference into this report, as detailed below.

Directors

The Directors of the Company who were in office during the year and up to the date of signing the financial statements were:

Megan Barnes	Resigned 1 April 2019
Clive Burns	Resigned 1 April 2019
Duncan Burt	Appointed 1 April 2019; Resigned 17 February 2020
John Linwood (NED*)	Appointed 16 June 2020
Gillian Merron (NED*)	Appointed 1 April 2019
Regina Moran (NED*)	Appointed 1 August 2020
Hannah Nixon (NED*)	Appointed 1 April 2019
Kayte O'Neill	Appointed 1 April 2019
Paul Plummer (NED*)	Appointed 1 April 2019
Roisin Quinn	Appointed 9 March 2020
Fintan Slye	**
Gregg Smith	Appointed 4 May 2020
Claire Tuckman	Appointed 1 April 2019; Resigned 4 May 2020

*Non-Executive Director
**Appointed pre-April 2019

Directors' report / 61

Directors' indemnities and insurance

The Company has arranged, in accordance with the Companies Act 2006 and the Company's Articles of Association, qualifying third party indemnities against financial exposure that Directors may incur in the course of their professional duties.

Equivalent qualifying third-party indemnities were, and remain, in force for the benefit of those Directors who stood down from the Board during the year ended 31 March 2020. Alongside these indemnities, the Company places Directors' and Officers' liability insurance cover for each Director and the Company Secretary.

Principal activities and business review

A full description of our principal activities, business, key performance indicators and principal risks and uncertainties is contained in Section 3 on pages 10 - 15 and Section 4 on pages 21 - 24 and 39 - 43 which are incorporated by reference into this report.

Material interests in shares

National Grid Electricity System Operator Limited is a wholly owned subsidiary undertaking of National Grid Holdings One plc. The ultimate parent company of National Grid Electricity System Operator Limited is National Grid plc.

Dividends

No dividends were declared in respect of the Accounts to 31 March 2020.

Share capital

The share capital of the Company remains unchanged. See Note 17 to the consolidated financial statement for further details.

Articles of Association

The Company's Articles of Association may be amended by a special resolution of the Company's shareholders. The current Articles were adopted by shareholders on 16 October 2017.

Conflicts of Interest

The Company's Articles permit the Board to consider and, if deemed fit, authorise situations where a Director has an interest that conflicts, or may possibly conflict, with the interests of the Company. If a Director becomes aware that they have an interest that may arise in a conflict, they are required to notify the Board. Internal controls are in place to make sure that any related party transactions involving Directors are conducted on an arm's length basis. Directors have a duty to update changes to these conflicts. The Board considers the procedures in place for reporting and considering conflicts of interest are effective.

Donations

During the year, the Company made no political or charitable donations in 2020.

Directors' report / 62

Research and development

Expenditure on research and development was £2.7m during the year. Further information about our innovation activities are contained in Section 3 on page 15 which is incorporated by reference into this report.

Future developments

Details of future developments are contained in the Strategic Report.

Business relationships

Details of how the Directors have had regard to the need to foster our business relationships with suppliers, customers and other stakeholders and their effect on the decisions taken by the Company during the financial year are contained in the Strategic Report on page 32 which is incorporated by reference into this report.

Employee engagement

Details of how the Directors have engaged with employees and have had regard to employee interests in their decision-making is contained in the Strategic Report on page 26 which is incorporated by reference into this report.

Energy and Carbon

Details of the Company's energy use and carbon emissions are contained in the National Grid plc Annual Report and Accounts which is incorporated by reference into this report.

Disclosure of information to the auditors

Having made the requisite enquiries, so far as the Directors in office at the date of the signing of this report are aware, there is no relevant audit information of which the auditors are unaware and each Director has taken all reasonable steps to make themselves aware of any relevant audit information and to establish that the auditors are aware of that information.

Post balance sheet events

There were no post balance sheet events requiring disclosure.

This confirmation is given and should be interpreted in accordance with the provisions of s418 of the Companies Act 2006.

Going concern

Having made enquiries and reviewed management's assessment of the going concern assumption, the Directors consider it appropriate to prepare the financial statements on a going concern basis. As at the date of approving these financial statements the impact of Covid-19 on the Company's operations is continually being assessed and subject to rapid change. The Directors have assessed the principal risks including by modelling a reasonable worst case scenario. This scenario covers the cash flow impact associated with an extended lockdown for a period of twelve months across the UK. Having considered the reasonable worst-scenario and further levers at the Board's discretion, the ESO continues to have headroom against its committed external facilities identified in Note 13 to the financial statements. More detail on our financial risks, including liquidity and solvency, is provided in Note 1b to the consolidated financial statements. There have been no major changes to the liquidity and solvency risks in the year. Although not assessed over the same period, the viability of National Grid Electricity System Operator Limited has been assessed on page 71.

Fintan Slye
Executive Director

15 September 2020

National Grid Electricity System Operator Limited 1-3 Strand, London WC2N 5EH Registered in England and Wales Number: 11014226

Directors' report / 63

Introduction to the financial statements

Throughout these financial statements, we have provided explanations of the disclosures and why they are important to the understanding of our financial performance and position.

Notes

Notes to the financial statements provide additional information required by statute, accounting standards or other regulations to assist in a more detailed understanding of the primary financial statements. In many notes, we have included an accounting policy that describes how the transactions or balance in that note have been measured, recognised and disclosed. The basis of preparation section provides details of accounting policies that apply to transactions and balances in general.

Financial Statements / Introduction 64

Statement of Directors' responsibilities

The Directors are responsible for preparing the Annual Report and the financial statements in accordance with applicable law and regulation.

Company law requires the Directors to prepare financial statements for each financial year. Under that law the Directors have elected to prepare the company financial statements in accordance with International Financial Reporting Standards (IFRSs) as adopted by the European Union and, FRS 101. 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 of the profit or loss of the company for that period.

In preparing the company financial statements, the Directors are required to:

- Select suitable accounting policies and then apply them consistently;
- Make judgements and accounting estimates that are reasonable and prudent;
- State whether applicable UK Accounting Standards have been followed, subject to any material departures disclosed and explained in the financial statements; and
- Prepare the financial statements on the going concern basis unless it is inappropriate to presume that the company will continue in business.

In preparing the financial statements, International Accounting Standard 1 requires that Directors:

- 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 entity's financial position and financial performance; and
- Make an assessment of the company'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 transactions and disclose with reasonable accuracy at any time the financial position of the company and enable them to make sure that the financial statements comply with Companies Act 2006. They are also responsible for safeguarding the assets of the company 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 National Grid ESO website. Legislation in the United Kingdom governing the preparation and dissemination of financial statements may differ from legislation in other jurisdictions.

On behalf of the Board

Gregg Smith Finance Director
15 September 2020

Financial Statements / Statement of Directors' responsibilities 65

Independent Auditor's report to the members of National Grid Electricity System Operator Limited

Report on the audit of the financial statements.

Opinion

In our opinion the financial statements of National Grid Electricity System Operator Limited (the 'company'):

- Give a true and fair view of the state of the company's affairs as at 31 March 2020 and of its income statement for the year then ended;
- Have been properly prepared in accordance with United Kingdom Generally Accepted Accounting Practice, including Financial Reporting Standard 101 "Reduced Disclosure Framework"; and
- Have been prepared in accordance with the requirements of the Companies Act 2006.

We have audited the financial statements which comprise:

- the income statement;
- the statement of comprehensive income;
- the statement of changes in equity;
- the statement of financial position;
- the cash flow statement; and
- the related Notes 1 to 23 of the financial statements.

The financial reporting framework that has been applied in their preparation is applicable law and United Kingdom Accounting Standards, including Financial Reporting Standard 101 "Reduced Disclosure Framework" (United Kingdom Generally Accepted Accounting Practice).

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 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, and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Conclusions relating to going concern

We are required by ISAs (UK) to report in respect of the following matters where:

- The Directors' use of the going concern basis of accounting in 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 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.

We have nothing to report in respect of these matters.

Financial Statements / Independent Auditor's report 66

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 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 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.

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.

Report on other legal and regulatory requirements Opinions on other matters 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 company and its environment obtained in the course of the audit, we have not identified any material misstatements in the strategic report or the Directors' report.

Financial Statements / Independent Auditor's report 67

Matters on which we are required to report by exception

Under the Companies Act 2006 we are required to report in respect of the following matters if, in our opinion:

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

We have nothing to report in respect of these matters.

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.

Jane Whitlock ACA (Senior Statutory Auditor)
For and on behalf of Deloitte LLP
Statutory Auditor
Birmingham, United Kingdom

15 September 2020

Statement of profit or loss and other comprehensive income

for the year ended 31 March

	Notes	2020 £m
Revenue	2	1,651
Operating costs	3	(1,515)
Operating Profit		**136**
Finance income	4	3
Finance costs	4	(4)
Total profit before tax		**135**
Tax	5	(27)
Profit after tax/Profit for the year attributable to owners of the parent		**108**
Total comprehensive income for the year attributable to owners of the parent		**108**

Statement of changes in equity

	Notes	Called up share capital[1] £m	Share premium account £m	Retained earnings £m	Merger Reserve[2] £m	Total equity £m
At 31 March 2019		—	—	—	—	—
Profit for the year		—	—	108	—	108
Issue of share capital	17	3	327	—	—	330
Acquisition of investments	18	—	—	—	(142)	(142)
Share-based payments		—	—	1	—	1
At 31 March 2020		**3**	**327**	**109**	**(142)**	**297**

Statement of financial position

as at 31 March

	Notes	2020 £m
Non-current assets		
Intangible assets	8	208
Property, plant and equipment	9	128
Total non-current assets		336
Current assets		
Trade and other receivables	11	367
Financial assets and other investments	10	364
Cash and cash equivalents	12	1
Total current assets		732
Total assets		1,068

[1]Before 1 of April 2019, National Grid Electricity System Operator Limited was dormant and held a single £1 share.
[2]Analysis of merger reserve has been provided within Note 18.

Statement of financial position

as at 31 March

	Notes	2020 £m
Current liabilities		
Borrowings	13	(121)
Trade and other payables	14	(534)
Provisions	16	(11)
Total current liabilities		(666)
Non-current liabilities		
Other non-current liabilities	15	(90)
Deferred tax liabilities	5	(13)
Provisions	16	(1)
Total non-current liabilities		(104)
Total liabilities		(770)
Net assets		297
Equity		
Share capital	17	3
Share premium account		327
Retained earnings		109
Merger Reserve	18	(142)
Total equity		297

The consolidated financial statements set out on pages 76 - 101 were approved by the Board of Directors and authorised for issue on 15 September 2020. They were signed on its behalf by:

Fintan Slye Executive Director

Gregg Smith Finance Director

National Grid Electricity System Operator Limited Registered number: 11014226

Statement of cash flow

for the year ended 31 March

	Notes	2020 £m
Cash flows from operating activities		
Operating profit		136
Adjustments for:		
Depreciation, amortisation & impairment		38
Share-based payment charge		1
Changes in working capital		146
Changes in provisions		(6)
Loss on disposal of property, plant and equipment		(1)
Cash generated from operations		314
Tax paid		(27)
Net cash inflow from operating activities		287

	Notes	2020 £m
Cash flows from investing activities		
Purchases of intangible assets		(53)
Purchases of property, plant and equipment		(37)
Disposals of property, plant and equipment		1
Interest received		3
Acquisition of business		(302)
Net cash flow used in investing activities		(388)
Cash flows from financing activities		
Proceeds from loans received		121
Payments of loans issued to ultimate parent		(346)
Proceeds from share issue		330
Interest paid		(3)
Net cash flow from financing activities		102
Net increase in cash and cash equivalents		1
Cash and cash equivalents at the start of the year		-
Net cash and cash equivalents at the end of the year	12	1

Financial Statements / Statement of cash flow 70

Notes to the financial statements - analysis of items in the primary statements

1. Basis of preparation and recent accounting developments

Accounting policies describe our approach to recognising and measuring transactions and balances in the year. The accounting policies applicable across the financial statements are shown below, whereas accounting policies that are specific to a component of the financial statements have been incorporated into the relevant note.

This section also shows areas of judgement and key sources of estimation uncertainty in these financial statements. In addition, we have summarised new International Accounting Standards Board (IASB) and EU endorsed accounting standards, amendments and interpretations and whether these are effective for this year end or in later years, explaining how significant changes are expected to affect our reported results.

National Grid Electricity System Operator's principal activities involve the operation of the electricity transmission system in Great Britain. The Company is a limited liability company incorporated and domiciled in England and Wales, with its registered office at 1-3 Strand, London WC2N 5EH.

These financial statements were approved for issue by the Board of Directors on 28 August 2020. The company meets the definition of a qualifying entity under FRS 100 Application of Financial Reporting Requirements. Accordingly, the company has elected to apply FRS 101 Reduced Disclosure Framework.
The recognition and measurements requirements of EU adopted IFRS have therefore been applied within these financial statements, with amendments where necessary in order to comply with the Companies Act 2006.

The financial statements have been prepared on a historical cost basis. These financial statements are presented in pounds sterling, which is also the functional currency of the Company. The notes to the financial statements have been prepared on a continuing basis unless otherwise stated.

Financial Statements / Notes to the financial statements 71

a) FRS 101 exemptions

As permitted by FRS 101, the company has taken advantage of exemptions from the requirements of IFRS in relation to the following elements:

- Disclosures in respect of share-based payment;
- Disclosures in respect of capital management;
- Disclosures required by IFRS 13 'Fair Value Measurement';
- Disclosures required by IFRS 7 'Financial Instruments: Disclosures';
- Presentation of comparative information in respect of certain assets;
- The effect of standards not yet effective; and
- Related party transactions.

Where required, equivalent disclosures are given in the Group financial statements of National Grid plc, which are available to the public as set out in Note 22.

b) Going concern

As at the date of approving these financial statements the impact of Covid-19 on the Company's operations is continually being assessed and subject to rapid change. The Directors have assessed the principal risks including by modelling a reasonable worst case scenario. This scenario covers the cash flow impact associated with an extended lockdown for a period of twelve months across the UK. The main cash flow impacts identified in the reasonable worst-case scenario are:

- Additional working capital required to fund the BSUoS revenue modification directed by Ofgem capping charges over the summer months, reduction in TNUoS cash collections driven by lower electricity demand and customer forecasts and increased bad debts; and
- One-off increases in other costs such as cleaning, safety equipment and IT; offset by a reduction in discretionary spend across all areas (e.g. recruitment, travel and consultancy spend)
- As part of their analysis, the Board also considered the following potential levers at their discretion to improve the position identified by the reasonable worst-case scenario in the event that new sources of debt funding are not accessible:
- Deferral of TNUoS payments to the on-shore transmission owners; review of the BSUoS modification if the impact is more than £100m; and
- Seeking Ofgem's approval to adjust TNUoS tariffs to limit the impact of reduced demand.

Having considered the reasonable worst-scenario and further levers at the Board's discretion, the ESO continues to have headroom against its committed external facilities identified in Note 13 to the financial statements.

Other factors considered by the Board as part of their Going Concern assessment included the on-going price control determinations, inherent uncertainties in cash flow forecasts and the potential impact of Brexit trade talks. Based on the above, the Directors have concluded the Company is well placed to manage its financing and other business risks satisfactorily, and have reasonable expectation that the Company will have adequate resources to continue in operation for at least 12 months form the signing date of these consolidated financial statements. They therefore consider it appropriate to adopt the going concern basis of accounting in preparing the financial statements.

Financial Statements / Notes to the financial statements 72

c) Foreign currencies

Transactions in currencies other than the functional currency of the Company are recorded at the rates of exchange prevailing on the dates of the transactions. At each reporting date, monetary assets and liabilities that are denominated in foreign currencies are retranslated at closing exchange rates. Non-monetary assets are not retranslated unless they are carried at fair value.

Gains and losses arising on the retranslation of monetary assets and liabilities are included in the income statement.

d) Areas of judgement and key sources of estimation uncertainty

Key sources of estimation uncertainty that have significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial year are as follows:

- Review of residual lives, carrying values and impairment charges for other intangible assets and property, plant and equipment – Notes 8 and 9
- Agency relationship in respect of certain TNUoS revenues, principally those collected on behalf of the Scottish and Offshore transmission operators under IFRS 15 - Note 2• provisions – Note 16
- Considering the current ongoing impact of the Covid-19 pandemic, levels of impact on bad debt allowances are more uncertain.

e) Accounting policy choices

The preparation of financial statements requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, disclosures of contingent assets and liabilities and the reported amounts of revenue and expenses during the reporting period. Actual results could differ from these estimates. Information about such judgements and estimations is contained in the notes to the financial statements, and the key areas are summarised below.

The IFRS framework provides certain options available within accounting standards. Choices we have made, and continue to make, include the following:

- Presentational formats: we use the nature of expense method for our income statement and aggregate our statement of financial position to net assets and total equity. In the income statement, we present subtotals of total operating profit, profit before tax and profit from continuing operations, together with additional subtotals excluding exceptional items and re-measurements. Exceptional items and re-measurements are presented separately on the face of the income statement where applicable.

Financial Statements / Notes to the financial statements 73

f) New IFRS accounting standards effective for the year ended 31 March 2020

The ESO adopted IFRS 16 'Leases' with effect from 1 April 2019. We have applied the modified retrospective approach permitted in the standard whereby prior year comparatives would not been restated although as this is the first year of operation for the ESO there are no applicable comparatives. There are no adjustments needed to the accounts of the ESO as this standard has been applicable since the company entered operation on the 1 April 2019.

National Grid plc has also adopted the following amendments to standards, these have been applied to the ESOs accounts since commencement of operations on 1 April 2019.

- IFRIC 23 'Uncertainty over Income Tax Treatments';
- Amendments to IAS 28 'Investments in Associates Long-term Interests in Associates and Joint Ventures';
- Annual Improvements to IFRS Standards 2015/17 Cycle;
- Amendments to IAS 19 'Employee Benefits'; and
- The UK's Financial Conduct Authority announced that LIBOR will cease to exist by the end of 2021 and will be replaced by alternative reference rates. This change does not affect the ESO as there are no hedging relationships currently in place.

g) New IFRS accounting standards and interpretations not yet adopted

The following new accounting standards and amendments to existing standards have been issued but are not yet effective or have not yet been endorsed by the EU:

- IFRS 17 'Insurance Contracts';
- Amendments to IFRS 3 Business Combinations';
- Amendments to the References to the Conceptual Framework;
- Amendments to IAS 1 and IAS 8: Definition of material; and
- Amendments to IAS 1 'Presentation of Financial Statements.'

Effective dates remain subject to the EU endorsement process. The Company is currently assessing the impact of the above standards, but they are not expected to have a material impact. The Company has not adopted any other standard, amendment or interpretation that has been issued but is not yet effective.

Financial Statements / Notes to the financial statements 74

2. Revenue

Revenue arises in the course of the ordinary activities of the company and principally comprises transmission services. Transmission services fall within the scope of IFRS 15, 'Revenue from Contracts with Customers'.
The company's role in transmission services is as the system operator for Great Britain, which involves the procurement of services to balance the electricity transmission network and ensuring security and quality of electricity supply across the transmission network. For this activity the company applies a Balancing Service Use of System ('BSUoS') charge, which is payable by generators and suppliers of electricity.

The ESO also earns revenue through rewards for progress against an ambitious plan to meet its commitments and targets in relation to the future energy transformation. The scheme is highly evaluative with the outcome determined by Ofgem following the release of recommendations of a performance panel including industry stakeholders. Ofgem's review process takes place in the months after the financial year end, the results presented in these accounts have been adjusted to reflect the final determination.
The Forward Plan incentive scheme was awarded an outcome of £1m for the financial year.

In its role as system operator, the company is also responsible for the administration of charges to customers on behalf of the owners of the transmission network; National Grid Electricity Transmission plc, Scottish Power Transmission plc, Scottish Hydro Electric Transmission plc and various Offshore Transmission Owners. Under IFRS 15, this arrangement is considered to result in the company acting as an agent on behalf of the transmission network owners. Accordingly, revenues are presented on a net basis (amounts collected from customers and consideration paid to transmission network owners). This comprises the entire billing cycle (invoicing and cash collection) and our performance obligation is deemed satisfied when funds have been remunerated to transmission network owners.

These charges are termed TNUoS charges and relate to use of the transmission network. Use of the transmission network involves the supply of high-voltage electricity. Revenue is billed based on capacity and volumes and where the customer pays upfront, revenues are deferred and released when the relevant transmission network owner has provided their services to the customer.

The company also administrates other charges on behalf of transmission network owners principally for construction work they have completed for customer connections. Electricity transmission in the UK is regulated by Ofgem, which establishes price control mechanisms that set the amount of annual allowed returns for companies operating in the sector. With respect to TNUoS charges, where revenue received differs to the amount of allowable revenue permitted by regulatory agreement, adjustments will be made to future prices to factor in these amounts. Where such differences arise, we recognise either an asset or liability, depending on whether the difference between revenue received is less than or greater than allowable revenue respectively. As part of our regulatory agreements we are entitled to recover certain costs directly from customers (pass-through costs).
These amounts are included in the overall calculation of allowed revenue as stipulated by regulatory agreements. As system operator, we also act as intermediary for the electricity interconnector Interconnexion France-Angleterre ('IFA') in satisfying its regulatory obligations. IFA has a cap on the amount of revenue they are allowed to earn during any financial year (1 April to 31 March).

Financial Statements / Notes to the financial statements 75

Where actual revenues exceed this cap, the excess must be passed onto consumers. We invoice and recover this amount from IFA and in turn reduce the TNUoS charges recoverable from customers. We recognise an asset for the amounts payable from IFA, and corresponding liability for the requirement to reduce customer bills, which occurs two financial years after the measurement period.

The following table reconciles disaggregated revenue within the ESO's reportable segments (see Note 1).

	UK Electricity System Operation
Revenue for the year ended 31 March 2020	£m
Revenue under IFRS 15:	
BSUoS	1,609
TNUoS[1]	42
Total revenue from continuing operations	**1,651**

1 TNUoS revenues of £42m are reported net of £3,083m consideration paid to transmission network owners. These revenues reflect the recovery of costs borne by the system operator in relation to TNUoS operations.

Total revenue from continuing operations are generated from operations based in the UK.

Analysis of revenue by major customer, greater than 10% revenue contribution:

	2020 £m
Customer A	408
Customer B	307
Customer C	281

No other single customer contributed 10% or more to the ESO's revenue in 2020.

3. Operating costs

Below we have presented separately certain items included in our operating costs. These include a breakdown of payroll costs and fees paid to our auditors.

	2020 £m
Depreciation and amortisation	38
Payroll costs	57
Pensions deficit payments	12
System balancing costs	1,317
Other[1]	91
Continuing operations	**1,515**

1 Included within Other costs is £3m of other income relating to compensation payments received from a supplier, these settlement payments relate to written off work on a prior period's capital programme.

Financial Statements / Notes to the financial statements 76

3. Operating costs (continued)

(a) Payroll costs

	2020 £m
Wages and salaries	41
Social security costs	6
Pension scheme costs	9
Share-based payments	1
Total payroll costs	57

(b) Directors' Emoluments

Key management comprises the Board of Directors of the Company who have managerial responsibility for National Grid Electricity System Operator limited.

	2020 £k
Aggregate Emoluments	773

Post-employment benefits are accruing to two Directors under a Group defined benefit scheme. During the year, there were three Directors who exercised share options in or received ordinary shares as part of long term incentive plans of the ultimate parent company, National Grid plc.

The aggregate emoluments for the highest paid Director were £181k for 2020; and total accrued annual defined benefit pension at 31 March 2020 for the highest paid Director was £34k with a lump sum of £103k.

(c) Number of employees, including Directors

	31 March 2020 Number	Monthly average 2020 Number
Electricity System Operator	688	648

(d) Auditors' remuneration

	2020 £m
Audit services	
Audit of the parent Company's individual and consolidated financial statements	0.1
Other services supplied	
Fees payable to the Company's auditor for audit related assurance services	–
Other non-audit fees[1]	0.2

4. Finance income and costs

This note details the interest income generated by our financial assets and interest expense incurred on our financial liabilities.

	2020 £m
Finance income	
Interest income and financial instruments:	3
Bank deposits and other financial assets	
Finance costs	
Interest expense on financial liabilities held at amortised cost:	(4)
Other borrowings	
Net finance costs from operations	(1)

1 Other services supplied represent fees payables for audit services which are required to be carried out by auditors in relation to the Group's reporting requirements to NG plc. In particular, this includes fees for reports under section 404 of the US Public Company Accounting Reform and Investor Protection Act of 2002 (Sarbanes-Oxley), and assurance fees in relation to regulatory returns.

Financial Statements / Notes to the financial statements 77

5. Tax

This note gives further details of the total tax charge and tax liabilities, including current and deferred tax. The current tax charge is the tax payable on this year's taxable profits. Deferred tax is an accounting adjustment to provide for tax that is expected to arise in the future due to differences in accounting and tax bases of profit.

The tax charge for the period is recognised in the income statement, the statement of comprehensive income or directly in equity, according to the accounting treatment of the related transaction. The tax charge comprises both current and deferred tax.

Current tax assets and liabilities are measured at the amounts expected to be recovered from, or paid to, the taxation authorities. The tax rates and tax laws used to compute the amounts are those that are enacted or substantively enacted by the reporting date.

The calculation of the ESO's total tax charge involves a degree of estimation and judgement. Management periodically evaluates positions taken in tax returns with respect to situations in which applicable tax regulation is subject to interpretation. Judgement is made for each position having regard to particular circumstances and advice obtained.

Deferred tax is provided for using the balance sheet liability method and is recognised on temporary differences between the carrying amount of assets and liabilities in the financial statements and the corresponding tax bases used in the computation of taxable profit.

Deferred tax liabilities are generally recognised on all taxable temporary differences and deferred tax assets are recognised to the extent that it is probable that taxable profits will be available against which deductible temporary differences can be utilised. However, deferred tax assets and liabilities are not recognised if the temporary differences arise from the initial recognition of goodwill or from the initial recognition of other assets and liabilities in a transaction (other than a business combination) that affects neither the accounting nor taxable profit or loss.

Deferred tax is calculated at the tax rates that are expected to apply in the period when the liability is settled or the asset is realised, based on the tax rates and tax laws that have been enacted or substantively enacted by the reporting date.

Financial Statements / Notes to the financial statements 78

The carrying amount of deferred tax assets is reviewed at each reporting date and reduced to the extent that it is no longer probable that sufficient taxable profits will be available to allow all or part of the deferred tax asset to be recovered. Unrecognised deferred tax assets are reassessed at each reporting date and are recognised to the extent that it has become probable that future taxable profits will allow the deferred tax asset to be recovered.

Deferred tax assets and liabilities are offset when there is a legally enforceable right to set off current tax assets against current tax liabilities and when they relate to income taxes levied by the same taxation authority and the ESO intends to settle its current tax assets and liabilities on a net basis.

Tax charged to the income statement.

	2020 £m
Total tax charge[1]	27

[1] Includes £1m relating to tax rate changes, this Is detailed in the table on the following page.

The tax charge for the year can be analysed as follows:

	2020 £m
Corporation tax at 19%	23
Deferred tax	4
Total tax charge	27

Tax charged/(credited) to equity and other comprehensive income:

The tax charge for the year is higher than the standard rate of corporation tax in the UK of 19%:

	2020 £m
Profit before tax from continuing operations	136
Profit before tax multiplied by UK corporation tax rate of 19%	26
Effect of: Deferred tax impact of change in UK tax rate	1
Total tax charge	27
	%
Effective tax rate	20.1

Financial Statements / Notes to the financial statements 79

Factors that may affect future tax charges

The Provisional Collection of Taxes Act 1968, substantively enacted on 17 March 2020, reversed the reduction in the main UK corporation tax rate to 17% with effect from 1 April 2020. The main UK corporation tax rate therefore remains at 19%. Deferred tax balances have been calculated at this rate.

The Directors will continue to monitor the developments driven by Brexit, the OECD's Base Erosion and Profit Shifting (BEPS) project and European Commission initiatives including fiscal aid investigations. At this time the Directors do not expect this to cause any material impact on future tax charges.

Governments across the world including the UK have introduced various stimulus / reliefs for businesses to cope with the impact of Covid-19 pandemic. The Directors will monitor as the details become available for any that may materially impact our future tax charges.

Tax included within the statement of financial position

The following are the major deferred tax assets and liabilities recognised, and the movements thereon, during the current and prior reporting periods:

	Accelerated tax depreciation £m	Other net temporary differences £m	Total £m
At 1 April 2019	—	—	—
Acquisition of business	(12)	3	(9)
Charged/(credited) to income statement	(3)	(1)	(4)
At 31 March 2020	(15)	2	(13)
Deferred tax assets at 31 March 2020	—	3	3
Deferred tax liabilities at 31 March 2020	(15)	(1)	(16)
At 31 March 2020	(15)	2	**(13)**

Deferred tax assets and liabilities are only offset where there is a legally enforceable right of offset and there is intention to settle the balances net. The deferred tax balances (after offset) for statement of financial position purposes consist solely of deferred tax liabilities of £13m.

Financial Statements / Notes to the financial statements 80

6. Dividends

Dividends represent the return of profits to shareholders. Dividends are paid as an amount per ordinary share held. We retain part of the profits generated in the year to meet future growth plans and meet our gearing target and pay out the remainder per our dividend policy.

Interim dividends are recognised when they become payable to the Company's shareholders. Final dividends are recognised when they are approved by shareholders.

On 14 July 2020 the Board of Directors decided not to propose dividend for the year ended 31 March 2020.

7. Acquisition of the Electricity System Operator ('ESO') business

On 1 April 2019 the Company acquired the licence, assets and liabilities required to operate Great Britain's electricity transmission system from a fellow National Grid subsidiary undertaking, National Grid Electricity Transmission plc ('NGET'), at an enterprise valuation of £450m. The acquisition is considered to be a common control transaction, and therefore is not within the scope of IFRS 3 Business Combinations. Assets and liabilities have thus been transferred at net book value.

Purchase consideration and book value of assets acquired

The acquisition of the ESO Business was undertaken at an arm's length enterprise valuation. The final book values of the assets and liabilities acquired from NGET are as follows:

	£m
Intangible computer software	187
Property, plant and equipment	95
Financial assets	13
Trade and other receivables	344
Trade and other payables	(429)
Provisions	(18)
Deferred tax liabilities	(9)
Other non-current liabilities	(23)
Net assets acquired	160
Merger reserve	142
Normal working capital adjustments	148
Arm's length enterprise valuation	450

As a result of the required working capital adjustments (noted above), the net consideration paid to NGET in respect of the ESO Business was £302m.

Financial Statements / Notes to the financial statements 81

8. Intangible assets

Intangible assets relate to software, which is written down (amortised) over the period we expect to receive a benefit from the asset.

Identifiable intangible assets are recorded at cost less accumulated amortisation and any provision for impairment. Intangible assets are tested for impairment only if there is some indication that the carrying value of the assets may have been impaired.

Impairments of assets are calculated as the difference between the carrying value of the asset and the recoverable amount, if lower. Where such an asset does not generate cash flows that are independent from other assets, the recoverable amount of the cash-generating unit to which that asset belongs is estimated. Impairments are recognised in the income statement and are disclosed separately. Any assets which suffered impairment in a previous period are reviewed for possible reversal of the impairment at each reporting date.

Internally generated intangible assets, such as software, are recognised only if: an asset is created that can be identified; it is probable that the asset created will generate future economic benefits; and that the development cost of the asset can be measured reliably. Where no internally generated intangible asset can be recognised, development expenditure is recorded as an expense in the period in which it is incurred.

	Software £m
Acquisition of business[1]	187
Additions	53
Reclassifications[2]	(2)
Cost at 31 March 2020	238
Amortisation charge for the year	(30)
Accumulated amortisation at 31 March 2020	(30)
Net book value at 31 March 2020	**208**

[1] For additional information see Note 7.
[2] Reclassification represents amounts transferred to property, plant and equipment (see Note 9).

Intangible assets under development are not amortised. Other non-current intangible assets are amortised on a straight-line basis over their estimated useful economic lives. The amortisation period for software is usually between five to seven years but can be up to ten years.

Financial Statements / Notes to the financial statements 82

9. Property, plant and equipment

The following note shows the physical assets controlled by us. The cost of these assets primarily represents the amount initially paid for them. This includes both their purchase price and the construction and other costs associated with getting them ready for operation. A depreciation expense is charged to the income statement to reflect annual wear and tear and the reduced value of the asset over time. Depreciation is calculated by estimating the number of years we expect the asset to be used (useful economic life) and charging the cost of the asset to the income statement equally over this period.

Property, plant and equipment is recorded at cost, less accumulated depreciation and any impairment losses. Cost includes the purchase price of the asset, any payroll and finance costs incurred which are directly attributable to the construction of property, plant and equipment as well as the cost of any associated asset retirement obligations.

Property, plant and equipment includes assets in which the ESO's interest comprises legally protected statutory or contractual rights of use. Additions represent the purchase or construction of new assets, including capital expenditure for safety and environmental assets, and extensions to, enhancements to, or replacement of existing assets. All costs associated with projects or activities which have not been fully commissioned at the period end are classified within assets in the course of construction.

No depreciation is provided on freehold land or assets in the course of construction.

Other items of property, plant and equipment are depreciated, on a straight-line basis, at rates estimated to write off their book values over their estimated useful economic lives. In assessing estimated useful economic lives, consideration is given to any contractual arrangements and operational requirements relating to particular assets. The assessments of estimated useful economic lives and residual values of assets are performed annually.

With effect from 1 April 2019, new lease arrangements entered into are recognised as a right-of-use asset and a corresponding liability at the date at which the leased asset is available for use by the company. The right-of-use asset and associated lease liability arising from a lease are initially measured at the present value of the lease payments expected over the lease term. The discount rate applied is the rate implicit in the lease or if that is not available, then the incremental rate of borrowing for a similar term. The lease term takes account of exercising any extension options that are at our option if we are reasonably certain to exercise the option and any lease termination options unless we are reasonably certain not to exercise the option. The lease term does not include any lease extension options at the option of the lessor but does include lease termination options unless we are reasonably certain that the lessor will not exercise them. Each lease payment is allocated between the liability and finance cost. The finance cost is charged to the income statement over the lease period using the effective interest rate method. The right-of-use asset is depreciated over the shorter of the asset's useful life and the lease term on a straight-line basis. For short-term leases (lease term of 12 months or less) and leases of low value assets (such as computers), the Group continues to recognise a lease expense on a straight-line basis.

Unless otherwise determined by operational requirements, the depreciation periods for the principal categories of property, plant and equipment are, in general, as shown in the table below:

	Years
Freehold and leasehold buildings	10 to 50
Motor vehicles and office equipment	3 to 10

Financial Statements / Notes to the financial statements 83

Gains and losses on disposals are determined by comparing the proceeds with the carrying amount and are recognised within operating profit in the income statement.

Items within property, plant and equipment are tested for impairment only if there is some indication that the carrying value of the assets may have been impaired.

Impairments of assets are calculated as the difference between the carrying value of the asset and the recoverable amount, if lower. Where such an asset does not generate cash flows that are independent from other assets, the recoverable amount of the cash-generating unit to which that asset belongs is estimated.

Impairments are recognised in the income statement and if immaterial are included within depreciation charge for the year.

Any assets which suffered impairment in a previous period are reviewed for possible reversal of the impairment at each reporting date.

	Land and buildings £m	Plant and machinery £m	Assets in the course of construction £m	Motor vehicles and office equipment £m	Total £m
Acquisition of business[1]	29	1	56	9	95
Additions	2	—	30	7	39
Reclassifications[2]	—	16	(14)	—	2
Cost at 31 March 2020	31	17	72	16	136
Depreciation charge for the year	(5)	—	—	(3)	(8)
Accumulated depreciation at 31 March 2020	(5)	—	—	(3)	(8)
Net book value at 31 March 2020	**26**	**17**	**72**	**13**	**128**

1 For additional details see Note 7.
2 Included within reclassifications are assets transferred from Intangibles (see Note 8) to the value of £2m.

Right-of-use assets are included within the net book value of property, plant and equipment at 31 March 2020. The total value of these assets was negligible at £44,000 net book value for the year end in respect of the motor vehicles and office equipment category.

Financial Statements / Notes to the financial statements 84

10. Financial assets and other investments

The financial assets and other Investments balance of £364m comprises current loans to the ultimate parent company and restricted cash balances in relation to Network Innovation Competition (NIC) projects.

Debt instruments that have contractual cash flows that are solely payments of principal and interest, and which are held within a business model whose objective is to collect contractual cash flows, are held at amortised cost.

They are initially recognised on trade date at fair value less transaction costs and expected losses. In the current year, the transaction value equals fair value.

Interest income is recognised using the effective interest method. Interest income, together with gains and losses when the loans and receivables are derecognised or impaired, is recognised in the income statement.

	2020 £m
Current	
Restricted cash	18
Loans and receivables	346
	364
Financial assets and other investments comprise the following:	
NIC restricted cash deposits	18
Loans and receivables - amount due from the ultimate parent company	346

The carrying value of current financial assets at amortised cost approximates their fair values, primarily due to short dated maturities. The exposure to credit risk at the reporting date is the fair value of the financial investments.

11. Trade and other receivables

Trade and other receivables are amounts which are due from our customers for services we have provided.

Trade and other receivables are initially recognised at fair value and subsequently measured at amortised cost, less any appropriate allowances for estimated irrecoverable amounts.

Trade receivables are non-interest-bearing and generally have a 30-day term. Due to their short maturities, the fair value of trade and other receivables approximates their book value. All other receivables are recorded at amortised cost. The provision as at 31 March 2020 was £31m

	2020 £m
Current	
Trade receivables	68
Accrued income	253
Prepayments	2
Other receivables	44
	367

Provision for impairment of receivables

A provision matrix is not used to assess expected loss rates as an assessment is performed on individual debtors.

In determining the provision for bad and doubtful debts as at 31 March 2020, we have considered the evolving financial impact of the restrictions put in place as a result of Covid-19 on our ability to collect amounts. After consideration, there were no adjustments made.

	2020 £m
At 1 April	–
Acquisition of business	30
Charge for the year, net of recoveries	2
Amounts recovered in the year	(1)
At 31 March	31

£25m of the impairment provision relates to the termination of two significant insolvent Connections in FY19 and we expect to fully write-off these balances within FY21 utilising the provision.

12. Cash and cash equivalents

Cash and cash equivalents include cash balances, together with short-term investments with an original maturity of less than three months that are readily convertible to cash.

Net cash and cash equivalents reflected in the cash flow statement are net of bank overdrafts, which are reported in borrowings. The carrying amounts of cash and cash equivalents and bank overdrafts approximate their fair values.

Cash at bank earns interest at floating rates based on daily bank deposit rates. Short-term deposits are made for periods varying between one day and three months, depending on the immediate cash requirements, and earn interest at the respective short-term deposit rates.

Net cash and cash equivalents held in currencies other than sterling have been converted into sterling at year-end exchange rates.

	2020 £m
Cash at bank and short-term deposits	1

Financial Statements / Notes to the financial statements 86

13. Borrowings

We borrow money primarily in the form of borrowings from our ultimate parent company. These are for a fixed term and have floating interest rates.

Our price controls and rate plans lead to an optimal ratio of debt to equity and, as a result, we have issued debt to maintain this balance.

Borrowings are initially recorded at fair value this normally reflects the proceeds received (net of direct issue costs for liabilities measured at amortised cost).

Subsequently these are stated at amortised cost. Any difference between the proceeds after direct issue costs and the redemption value is recognised over the term of the borrowing in the income statement using the effective interest method.

Information on our net debt is presented in Note 19.

	2020 £m
Current	
Borrowings from the ultimate parent company	121
Total borrowings	121

Total borrowings are repayable as follows:

At 31 March 2020, we had committed external credit facilities of £550m of which £550m was undrawn. We also have £550m of intercompany credit facilities with our ultimate parent, National Grid plc of which £550m was undrawn. All the unused facilities at 31 March 2020 are available for liquidity purposes.

None of the ESO's borrowings are secured by charges over assets of the Company.

Lease liabilities

Lease liabilities are initially measured at the present value of the lease payments expected over the lease term. The discount rate applied is the rate implicit in the lease or if that is not available, then the incremental rate of borrowing for a similar term. The lease term takes account of exercising any extension options that are at our option if we are reasonably certain to exercise the option and any lease termination options unless we are reasonably certain not to exercise the option. Each lease payment is allocated between the liability and finance cost. The finance cost is charged to the income statement over the lease period using the effective interest rate method.

Right-of-use assets were included within property, plant and equipment (see Note 9) at 31 March 2020 with outstanding leases to the value of £144,000 relating to motor vehicles.

Financial Statements / Notes to the financial statements 87

14. Trade and other payables

Trade and other payables include amounts owed to suppliers, tax authorities and other parties which are due to be settled within 12 months. The total also includes deferred amounts, some of which represents monies received from customers but for which we have not yet delivered the associated service. These amounts are recognised as revenue when the service is provided.

Trade payables are initially recognised at fair value and subsequently measured at amortised cost.

	2020 £m
Trade payables	174
Social security and other taxes	161
Deferred income	128
Amounts owed to fellow subsidiaries of National Grid plc	22
Other payables	49
	534

Due to their short maturities, the fair value of trade payables approximates their book value.

15. Other non-current liabilities

Other non-current liabilities include deferred income which will not be recognised as income until after 31 March 2021.

Non-current liabilities are initially recognised at fair value and subsequently measured at amortised cost. There is no material difference between the fair value and the carrying value of other payables.

	2020 £m
Deferred income[1]	73
Other payables[2]	17
	90

[1] Includes £61m relating to TNUoS charges caused by timing differences between amounts charged to customers and that passed through to the GB Transmission Owners, this includes regulatory term 'K'.
[2] Balances held in relation to application fees collected on behalf of GB Transmission Owners.

Financial Statements / Notes to the financial statements 88

16. Provisions

We make provisions when an obligation exists, resulting from a past event and it is probable that cash will be paid to settle it, but the exact amount of cash required can only be estimated.

The main estimates relate to provisions for restructuring plans. The evaluation of the likelihood of the contingent events has required best judgement by management regarding the probability of exposure to potential loss. Should circumstances change following unforeseeable developments, the likelihood could alter.

Provisions are recognised where a legal or constructive obligation exists at the reporting date, as a result of a past event, where the amount of the obligation can be reliably estimated and where the outflow of economic benefit is probable.

Changes in the provision arising from revised estimates or discount rates or changes in the expected timing of expenditures are recognised in the income statement.

	Restructuring £m
At 31 March 2019	–
Acquisition of business	18
Utilised	(6)
At 31 March 2020	12

	2020 £m
Current	11
Non-current	1
	12

Restructuring provision

During the year, a cost efficiency and restructuring programme continued, the provision and obligation associated with the restructuring were acquired with the business on 1 April 2019. This resulted in the adoption of a £18m provision. We expect the majority of the remaining provision to be utilised within one year.

Financial Statements / Notes to the financial statements 89

17. Share capital and share premium

Ordinary share capital represents the total number of shares issued.

Share capital is accounted for as an equity instrument. An equity instrument is any contract that includes a residual interest in the consolidated assets of the Company after deducting all its liabilities and is recorded at the proceeds received, net of direct issue costs, with an amount equal to the nominal amount of the shares issued included in the share capital account and the balance recorded in the share premium account.

	Number of shares 2020 millions	Number of shares 2019 millions	2020 £m	2019 £m
At 31 March 2019 and 2020 - ordinary shares of 1p each Allotted, called-up and fully paid	330	–	3	–

	Number of shares 2020 millions	Par value £m	Share premium £m	Total £m
At 31 March 2019	–	–	–	–
Equity arising on issue of ordinary shares	330	3	327	330
At 31 March 2020	330	3	327	330

The company held a single £1 share in the prior year during which time the company was dormant. On 1 April 2019, the company raised £330m of equity, which it used to fund its acquisition of the Electricity System Operator Business.

18. Other equity - merger reserve

Other equity reserves are different categories of equity as required by accounting standards and represent the impact of a number of our historical transactions.

At 31 March 2020, the ESO held one form of other equity, being a merger reserve. The merger reserve arose on the acquisition of the ESO business on 1 April 2019. This acquisition did not fall within the scope of IFRS 3 Business Combinations, thus, assets and liabilities were transferred at their net book value. The difference between the net book value and fair value of the assets and liabilities acquired resides within this reserve.

As the amounts included in other equity reserves are not attributable to any of the other classes of equity presented, they have been disclosed as a separate classification of equity.

	Merger reserve £m
At 1 April 2019	–
Acquisition of business	(142)
At 31 March 2020	(142)

The merger reserve is principally attributable to the ESO business's exclusive licence and profitability.

Of the merger reserve balance of £142m at 31 March 2020, £40m is considered realised for the purposes of assessing the company's distributable profits and £102m is considered unrealised. Accordingly, at 31 March 2020 the profits available for distribution by the company were £68m, comprising the whole of the company's retained earnings less the realised element of the merger reserve.

Financial Statements / Notes to the financial statements 90

19. Net debt

Net debt represents the amount of borrowings and overdrafts less cash, current financial investments and related financing derivatives.

Funding and liquidity risk management is carried out by the National Grid plc treasury function under policies and guidelines approved by the Finance Committee of the National Grid plc Board; these policies have been deemed applicable at the ESO by their respective board of Directors. The Finance Committee is responsible for the regular review and monitoring of treasury activity and for the approval of specific transactions, the authority for which fall outside the delegation of authority to management.

The ESO apply the National Grid plc Group policy and utilise the Group treasury function. The primary objective of the treasury function is to manage our funding and liquidity requirements. A further important objective is to manage the associated financial risks, in the form of interest rate risk and foreign exchange risk, to within pre-authorised parameters. Further details can be found in the National Grid plc accounts available publicly, details on how to access this can be found in Note 22.

Investment of surplus funds, usually in short-term fixed deposits or placements with money market funds that invest in highly liquid instruments of high credit quality, is subject to our counterparty risk management policy.

(a) Reconciliation of net cash flow to movement in net debt

	2020 £m
Increase in cash and cash equivalents	1
Increase in financial investments	364
Increase in borrowings and related derivatives	(120)
Net interest paid on the components of net debt	(1)
Change in net debt resulting from cash flows	244
Movement in net debt in the year	244
Net debt at the start of the year	–
Net debt at the end of the year	244

Composition of net debt

Net debt as follows:	2020 £m
Cash, cash equivalents and financial investments	365
Borrowings and bank overdrafts	(121)
	244

(b) Analysis of changes in net debt

	Cash and cash equivalents £m	Financial investments £m	Borrowings £m	Total debt £m
Cash flow	1	364	(120)	245
Interest income/(charges)			(1)	(1)
At 31 March 2020	1	364	(121)	244
Balances at 31 March 2020 comprise:				
Current assets	1	364	-	365
Current liabilities	-	-	(121)	(121)
Non-current liabilities	-	-	-	-
	1	364	(121)	244

Financial Statements / Notes to the financial statements 91

20. Commitments and contingencies

Commitments are those amounts that we are contractually required to pay in the future as long as the other party meets its obligations. These commitments primarily relate to contracts for the purchase of assets which, in many cases, extend over a long period of time. We also disclose any contingencies, which include guarantees that companies have given, where we pledge assets against current obligations that will remain for a specific period.

Future capital expenditure	2020 £m
Contracted for but not provided	25
Balances as at 31 March 2020 comprise:	
Amounts due: Less than 1 year	20
More than 1 year	5
	25

Pension Scheme Contributions

The ESO is a participating employer in the National Grid ESPS defined benefit pension scheme. Following completion of the March 2019 valuation (in June this year), we are responsible for making contributions into the scheme equivalent to 44% (average) of remaining active employee's pensionable salaries.

In 2019/20, we also contributed additional amounts into the scheme relating to deficit payments to the value of £12m. These additional payments are made in line with the regulatory treatment determined by Ofgem. The newly agreed recovery plan for the scheme runs until FY24. As the ESO is not the sponsoring employer of the scheme, there is no contractual obligation or requirement to make a provision for scheme costs.

Ofgem investigation

5 May 2018, Ofgem opened an investigation into the Company (when it still formed part of National Grid Electricity Transmission plc) pertaining to an alleged breach of its licence condition to operate the system in an economic and efficient manner, including the production and publication of forecasts of demand on the electricity transmission network. The investigation is ongoing.

Financial Statements / Notes to the financial statements 92

21. Related party transactions

A related party is a company or individual who also has an interest in us, for example a company that provides a service to us with a director who holds a controlling stake in that company and who is also a Director of National Grid Electricity System Operator Limited. The related parties identified include fellow subsidiaries, joint ventures, associated undertakings, investments and key management personnel.

The following significant transactions with related parties were in the normal course of business. Amounts receivable from and payable to related parties are due on normal commercial terms:

	2020 £m
Income Goods and services supplied	1
Expenditure: Services received[1]	(1,900)
Balance Sheet as at 31 March: Lending to ultimate parent (amounts due within one year)	346
Borrowings from ultimate parent (amounts due after more than one year)	(121)
Amounts payable as 31 March	(22)

[1] Balances of expenditure relate to TNUoS revenue collection, additional information can be found in Note 2.

Amounts receivable from or payable to related parties in respect of income and expenditure are ordinarily settled one month in arrears. Advances to and borrowings from fellow subsidiary undertakings are repayable on demand and bear interest at commercial rates.

Expenditure balances relates to the collections of TNUoS revenues on behalf of National Grid Electricity Transmission plc. Under IFRS15 we act as an agent and theses balances are shown net within our revenue figure. Further details of this relationship have been provided in Note 2.

Information relating to pension fund arrangements is disclosed in Note 15.

22. Ultimate parent company

This note shows the immediate and ultimate parent companies for these consolidated financial statements.National Grid Electricity System Operator Limited’s immediate parent company is National Grid Holdings Limited. The ultimate parent company, and controlling party, is National Grid plc. Both companies are incorporated in Great Britain and are registered in England and Wales. National Grid plc consolidates the financial statements of National Grid Electricity System Operator Limited.

Copies of the consolidated financial statements of National Grid plc may be obtained from the Company Secretary, 1-3 Strand, London WC2N 5EH, or on our company website.
investors.nationalgrid.com

Financial Statements / Notes to the financial statements 93

23. Subsidiaries and associates

The ESO holds investments in subsidiaries and associates, the company includes contributions from associates which are detailed in the below table.

Subsidiary undertakings

The list below contains all subsidiaries held by National Grid Electricity System Operator Limited.

	Principal activity	Holding
Elexon Limited[1] 4th Floor 350 Euston Road, London, NW1 3AW	Electricity market Balancing and Settlement Code company for Great Britain	100%

All subsidiaries are incorporated in England and Wales.

The Elexon Limited shares were inherited on 1 April 2019 as part of the purchase of the ESO business from NGET plc.

Associates

The list below contains all associates included within the National Grid Electricity System Operator Limited.

	Principal activity	Holding
Coreso SA (incorporated in Belgium) 71 Avenue de Cortnbergh, 1000 Bruxelles, Belgium	Associate in relation to a European regional transmission operations coordination centre	16%

The Coreso SA shares were inherited on 3 May 2019 as part of the purchase of the ESO business from NGET plc.

[1] National Grid Electricity System Operator does not consolidate its wholly owned subsidiary Elexon Limited, as it has no control over Elexon.

Financial Statements / Notes to the financial statements 94

Glossary and definitions

References to the ‘Company’, ‘we’, ‘our’ and ‘us’ refer to National Grid Electricity System Operator Limited itself.

Carbon intensity
The measure of CO^2 emissions produced per kilowatt hour of electricity consumed.

EMR Delivery Body
Provides independent evidence and analysis to the UK Government to inform its decisions on the key rules and parameters to achieve the Government’s policy objectives under EMR, administers key elements of the capacity mechanism and contracts for difference regime and reports to the Government annually on performance against the Government’s delivery plan.

Electricity Market Reform (EMR)
A government policy to incentivise delivery of low carbon energy supplies whilst maintaining security of supply and minimising the cost to the consumer.

EU
European Union.

FRS
Financial Reporting Standard.

GAAP
Generally Accepted Accounting Principles.

GHG
Greenhouse gas.

GW
Gigawatt, 109 watts.

GWh
Gigawatt hours.

HSE
Health and Safety Executive.

IAS
International Accounting Standard.

IASB
International Accounting Standards Board.

IFRIC
The International Financial Reporting Interpretations Committee, which provides guidance on how to apply accounting standards.

IRFS
International Financial Reporting Standard.

KPI
Key Performance Indicator.

Lost time injury
A work-related injury which causes a person to be away from work for at least one normal shift after the shift on which the injury occurs, because the person is unfit to perform his or her duties.

National Grid
National Grid plc, the ultimate parent company of National Grid Electricity System Operator Limited and its controlling party.

Ofgem
The Office of Gas and Electricity Markets.

Regulatory asset value (RAV)
The value ascribed by Ofgem to the capital employed in the licensed business. It is an estimate of the initial market value of the regulated asset base at privatisation, plus subsequent allowed additions at historic costs, less the deduction of annual regulatory depreciation. Deductions are also made to reflect the value realised from the disposal of certain assets that formed part of the regulatory asset base. It is also indexed to the RPI to allow for effects to inflation.

Regulated controllable operating costs
Total operating costs under IFRS less depreciation and certain regulatory costs where, under our regulatory agreements, mechanisms are in place to recover such costs in current or future periods

RIIO
The revised regulatory framework issued by Ofgem which was implemented in the eight-year price controls which started on 1 April 2013.

RoE
A performance metric measuring returns from the investment of shareholders’ funds.
UK regulated return on equity is a measure of how a business is performing operationally against the assumptions used by Ofgem. These returns are calculated using the assumption that the businesses are financed in line with the regulatory adjudicated capital structure, at the assumed cost of debt and that UK taxation paid is at the level assumed by Ofgem.

RPI
UK Retail Price Index.

Tonnes CO2 equivalent
Measure of greenhouse gas emissions in relation to the impact of carbon dioxide.

TW
Terawatt, 1012 watts.

TWh
Terawatt hours.

Glossary and definitions 95

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