

# Doing Right Now

## Keynote address

### John Pettigrew

Chief Executive

My intention for today is that you'll take away the following 4 key messages:

1. Our pivot to electricity brings visibility and certainty of growth, right now and out to 2050;
2. Our scale magnifies our vital role at the heart of the energy transition;
3. We have a strong track record of delivering growth; and
4. With green capex making up £13bn of our investment over the next 5 years – we are The Energy Transition Company.

So, hello everyone, and welcome to our 2021 investor event.

It's great that so many of you have joined us today. Whether you're here live or watching remotely, I hope that both will be really positive experiences.

I'm delighted to be joined by my senior management team, who you'll have a chance to meet through the course of the event.

My team, has a combined more than 300 years of experience in the energy industry, across multiple geographies, and each of them has a track record of delivery, are purpose-driven, and lead through our values.

So we have a lot to share with you today, as we focus on our regulated businesses, which will deliver over 90% of our investment over the next five years, and where we see significant opportunities over the decades to come, as National Grid enables the energy transition.

So let me start today by laying out my vision for our energy networks.

National Grid will be a leader in pioneering smarter, low carbon energy networks which at their core are made of resilient transmission and distribution grids.

These grids will integrate multiple energy sources – from massive nuclear power stations, to offshore wind farms, to small distributed solar generation – ensuring reliable power for all.

Our networks will enhance the flexibility of power supply, through cutting edge demand response, by enabling:

- Smart homes to sense grid conditions and automatically modify their consumption; and
- Vehicle to grid technology, that allows electric vehicle batteries to store energy and sell it back to the network, when it's most needed.

### My vision for our energy networks

National Grid will be a leader in pioneering smarter, low carbon energy networks which at their core are made of resilient transmission and distribution grids.

Our existing gas networks, in time, will be used to support a move to hydrogen and decarbonised natural gas – utilising existing infrastructure, to ensure affordability for consumers.

Ultimately my aim is for our networks to power the technologies of tomorrow, enable greater choice and flexibility of supply, improve resilience, and importantly, maintain the affordability of delivered energy.

This vision for our future energy networks, aligns with the global push towards net zero, and demonstrates the vital role we play.

And with that vision, as I look to the decades ahead, I believe the scale of opportunity across our businesses is significant.

The regions we work across have very ambitious climate goals:

- The UK, New York, and Massachusetts all have net zero by 2050 targets. - So do we.
- They all have ambitious 2030 and 2040 goals. - So do we.

Meeting these targets, will require a step change in infrastructure investment, to deliver the onshore and offshore clean energy, that will enable the decarbonisation of power, electrification of transport and decarbonisation of heat.

To put this into context:

- In 2020, the International Energy Agency forecast \$400 billion of annual global network investment by 2030.
- In the US, the Infrastructure Bill includes over \$70 billion for power infrastructure and another \$7.5bn to build out a national EV charging network.
- And Princeton’s “Net Zero America report”, suggests Massachusetts and New York will have the 4th and 5th highest network investment needs across the nation.

And in the UK, the Climate Change Committee’s, 6th carbon budget, forecasts a doubling of electricity demand by 2050, and a sharp increase in network capex to meet 2030 targets.

These are big numbers... and I saw first-hand at COP26, the strong commitment to them from governments and industry, but now it’s critical that we turn these commitments into action.

We believe that our track record, along with the changes we’re making inside the Group, will put us in a strong position to take advantage of these opportunities.

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Just looking over the last 5 years:

- We've consistently delivered world-class safety performance
- We've operated some of the most reliable electricity and gas networks in the world,
- We've turned around our US performance,
- We've outperformed our UK regulatory contracts;
- And we've built a world-leading interconnector business, a business focused on enhancing our role in the energy transition.

In addition, we've also made significant progress in reducing emissions in our own businesses and across our geographies.

Since 2000, across the UK, carbon emissions are down more than 35%, and down nearly 20% in the US North East.

National Grid is playing its part, with emissions from our own operations, known as Scope 1 and 2 emissions, down by nearly 70% since 1990.

This exceeded our original goal, and we remain committed to further reducing our Scope 1 and 2 emissions by 80% by 2030, 90% by 2040 and to net zero by 2050.

But our contribution is so much greater than this.

We're also tackling Scope 3 emissions, and are targeting a reduction of 37.5% by 2034.

Across our regulated businesses, right now, we're enabling cleaner electricity, with 22GW of renewables now connected to our UK and US electricity transmission and distribution networks.

We're also enabling the take up of electric vehicles. In our electricity transmission business, we're helping to deliver ultra-fast charging infrastructure as part of the UK government's Rapid Charging Fund.

And in our US jurisdictions, we're supporting the installation of more than 20,000 EV charging points by 2025, and have recently filed for an additional 32,000 in Massachusetts.

And, we're also, working on ways to decarbonise our gas networks. For example, we're testing the impact of blending hydrogen on our gas networks through the "FutureGrid pilot" in the UK, and the Department of Energy's Hyblend initiative in the US.

But our focus is not just on our regulated networks; National Grid Ventures, is also playing its part. For example, I'm particularly delighted with the recent [early] commissioning of our 5th interconnector, the 720km North Sea Link connection to Norway. This 1.4GW link will enable the flow of zero carbon electricity, avoiding 23 million tonnes of carbon emissions by 2030.

And in the US, our onshore renewables business continues to add capacity, having secured over 2GW of "power offtake agreements" with household names such as Walmart and Home Depot.

And since its inception 3 years ago, National Grid Partners has invested \$290m in 35 companies whose transformational technologies are helping to make grids greener and more resilient.

So I hope this gives you a flavour of the many things we've been doing across our businesses, to support the energy transition, and we'll share more examples, as we go through the day.

Reducing  
Scope 1 and 2 emissions by

<b>80%</b> by 2030	<b>90%</b> by 2040	<b>Net zero</b> by 2050
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Targeting reduction in  
Scope 3 emissions

**37.5%**  
by 2034 vs 2019 aligned to the  
Science Based targets initiative

However, you'll be pleased to hear, we're not just relying on our performance and environmental track record. We're also making some big changes to ensure we're positioned to deliver on the opportunities ahead.

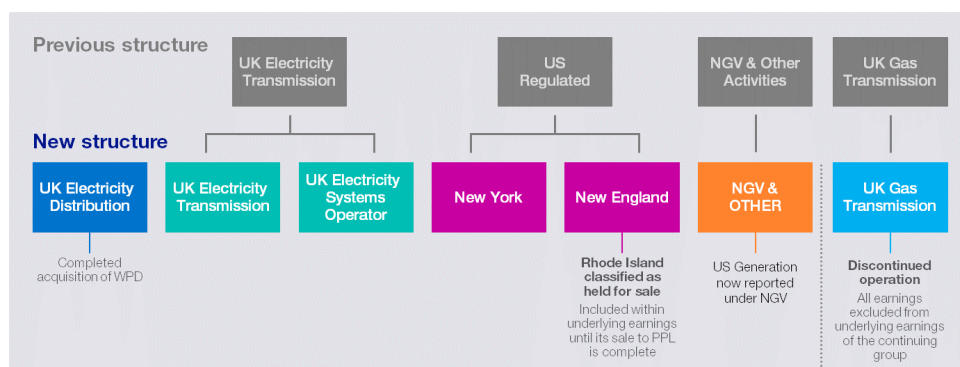
As many of you know, we announced a significant strategic pivot in our portfolio in March, and this is now taking shape.

Our acquisition of WPD, the UK's largest electricity distribution business, is now complete and I'm pleased to be able to welcome our new colleagues to National Grid.

As part of our repositioning, we'll shortly be saying goodbye to colleagues in our Rhode Island business, when we complete the sale, in the first quarter of 2022.

We've also just launched the sale process for a majority stake in our Gas Transmission business here in the UK, and expect to complete the sale by summer next year.

These moves will increase our exposure to electricity, and enhance the long-term growth profile of the group, whilst cementing our position at the heart of the energy transition on both sides of the Atlantic.



And as we've positioned the group strategically for the opportunities ahead, we've also implemented a new organisational structure, which enables us to:

- Be closer to our customers, regulators, and communities, with a focus on best in class service;
- Drive decision making down to the local level, making us a more agile business; and
- Developing new processes and digital solutions to drive efficiencies.

And this last point is key.

As we advance along the path to our clean energy future, we need to consider customer affordability, to make sure no one is left behind on this journey.

In this respect, we're no different to any other business; we need to deliver our outputs at the most competitive price, with a focus on efficiency, and drive for innovation, in the way we build, operate, and maintain our networks.

And of course, we have a track record of doing just that.

For example, through RIIO-T1 we generated over £850 million of savings for our customers, largely through capex outperformance. And going forward we need to do more.

Which is why, in addition to our continued focus on outperforming our capital allowances, we're committing to a significant cost efficiency program – to deliver over £400 million of savings over three years.

**>£400m**  
Cost efficiency programme  
by the end of three years

This will translate into a flat controllable cost base in our regulated businesses, which we're confident of being able to achieve, despite expected growth of over 20% in our asset base.

And a key contributor to these savings will be through process improvements, for example: In the UK we've seen demand for new connections to the electricity transmission network increase 4-fold in the last 5 years. To address this, we've developed digital self-service tools that help customers connect faster and easier, whilst reducing costs.

You'll see more great examples like this today, all of which help to underpin our target of EPS growth of 5-7% per year.

So as you can see, we've a track record that gives us confidence in the future, and we've reshaped the portfolio and organisation for the opportunities ahead.

However to be successful, we recognise we must also use our voice to help shape the policy and regulatory reforms that are needed to deliver net zero and minimise the impact on customer bills.

In the US, for example:

- We've developed new rate case mechanisms which allows greater visibility for investment, creating opportunities for further efficiencies, whilst helping us to align our environmental aims with the states we operate within; and
- we're also agreeing plans, that can deliver step changes in behaviour, whether it's our award-winning energy efficiency programs, or investment in EV charging, to deliver more ports and reduce range anxiety.

But there is so much more to be done.

We're working with policy makers in the US to develop cost effective routes to net zero.

This work is helping to educate all stakeholders and underpin the importance of investment across our gas and electricity infrastructure, in order to meet climate change goals.

For example:

In New York City, we've recently published a joint report with the Mayor's office, looking at fully costed decarbonisation pathways to 2050.

It considers three pathways, from electrification to a more diversified energy mix, with all three showing the importance that the gas network will play for decades to come.

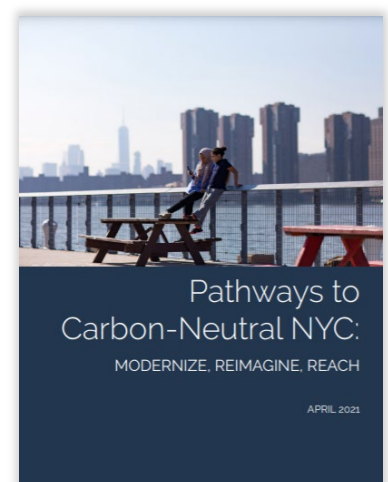
In the UK, we're also working closely with policymakers.

Alongside our work on the Rapid Charging Fund, we're heavily engaged with Regulators and Government on enabling 40GW of offshore wind by 2030, and are working with the Electricity System Operator on building an understanding of the 15 projects required to deliver this target.

And in National Grid Ventures, we're working with Regulators and partners across Europe, to think through future models to deliver offshore infrastructure requirements efficiently.

As you'll see in the breakouts, our teams are setting out a North Sea Vision, to enable these goals to be met.

We're also looking beyond RIIO-T2, and the upcoming ED2 price control, and thinking about what changes are needed to ensure there is a framework that will continue to attract investment and meet the UK Government's ambitious climate targets.



And so, we're engaging key decision makers, thought leaders and industry experts with our ideas... to reform institutional governance, regulatory frameworks and market mechanisms ... in a way that looks across the intersections between renewable energy, a hydrogen economy, and a decarbonised transport sector...

And we're doing all of this to increase the probability of successfully delivering the energy transition affordably and at pace.

And alongside evolving the regulatory and policy frameworks, we also need to bring all our customers on this journey.

Electricity will deliver much more of society's energy needs in future, from broadly 20% today to potentially 60% by 2050.

We know customers want a reliable, resilient, and safe energy network. And we know they're passionate about net zero. Which is why we'll continue to engage widely. And why we've set up:

- An Independent User Group, which will run throughout RIIO T2 in the UK; and
- Likewise, in New York and Massachusetts through the formation of our Advisory Groups.

So, there's no time to lose if we want to help our regions meet their ambitious climate goals.

With the work we're doing both inside and outside of National Grid, we're ready to play our part by delivering our ambitious growth plans.

Over the next 5 years we'll invest up to £35 billion - our highest level of capex to date.

This is investment that we're doing right now, to deliver safe, reliable, and low carbon energy networks.

For example in the UK

- We're enabling 6 million homes and businesses to access low carbon electricity through the Hinkley Connection transmission project.

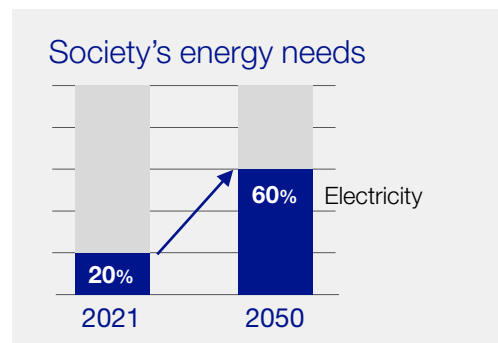
And in the US:

- We're unlocking renewable generation capacity, with a 100 miles of transmission rebuild with the Smart Path Connect Project; and
- We're making our gas networks cleaner through our pipeline replacement programme and investment in renewable natural gas and hydrogen projects.

We are the Energy Transition company.

We're investing £13bn over the next 5 years directly into decarbonising energy networks, right now. That proportion will only increase over time.

And this is measured using the conservative definitions in our Green Financing Framework, which is closely aligned with the EU Taxonomy, and excludes "clean" spend in areas like connecting nuclear power and lowering methane emissions through gas pipeline replacement.



**£30-35 billion**  
Capex investment  
over the next five years

The Energy Transition Company  
**c.£13 billion**  
investment into  
decarbonising energy networks  
over the next five years

There are many companies investing in clean energy, but few are investing at this level.

What differentiates us further, is our stability and risk profile. National Grid has attractive growth that delivers a resilient, progressive dividend.

And we do this, without needing to take on significant merchant exposure, at either end of the energy value chain.

We know, that as the energy landscape undergoes dramatic change, our regulated networks will become even more important.

Over 90% of this investment, over the next 5 years is within our regulated businesses.

Now, I know, the words “regulated businesses” may not always generate huge excitement outside of the National Grid board room, but it delivers a compelling investor proposition:

Over the past 20 years, we’ve delivered sustainable growth, enabling us to be, one of only a handful of FTSE-100 companies that’s maintained a growing dividend.

Which of course has been a key driver to delivering strong shareholder returns, with an annualised total shareholder return of nearly [10]% over the past 10 years.

And the high degree of regulatory certainty that we have over the next 5 years gives us the stability, and visibility we need

- to deliver asset growth of 6-8% per year,
- and earnings growth of 5-7%
- whilst maintaining a resilient balance sheet
- and continuing our track record of execution excellence and outperformance

And we’re doing this, of course, to ensure we can continue to deliver attractive shareholder returns into the future.

But growth does not stop after 5 years.

Indeed, in the UK and US it’s likely to continue with further waves of investment.

In the second half of this decade and into the decades beyond, additional investment is going to be needed,

- to meet offshore wind targets and unlock renewable onshore capacity,
- to deliver ambitious EV targets,
- and to empower consumers with technology, like advanced metering infrastructure, enabling them to engage with energy networks in real time.

In the breakouts, you’ll have the chance to see what our teams are working on today, such as the new transmission routes that will come into New York, as well as our Grid Modernisation program in Massachusetts.

Looking even further out, additional waves of investment are needed to meet 2035, 2040, and 2050 commitments across our UK and US regions, as electrification continues to grow.

#### We have the stability and visibility to:

- Deliver asset growth of 6-8% per year
- Earnings growth of 5-7%
- Maintain a resilient balance sheet
- Continue our track record of execution excellence and outperformance

#### Additional investment needed to:

- Meet offshore wind targets and unlock renewable onshore capacity
- Deliver ambitious EV targets
- Empower consumers with technology

US regions, as electrification continues to grow.

In particular, this growth will be driven by the decarbonisation of heat which today accounts for around a third of carbon emissions in both the UK and US north east.

This will be achieved through a mosaic of solutions, including

- heat pumps;
- hydrogen; and
- low carbon or renewable natural gas.
- ... all of which were working on today.

And so, what I want you to take away from this is; that the energy transition gives us enormous growth opportunities, not just over the next 5 years, but also for decades to come and that this growth will continue at a pace, we're confident we can deliver.

I want to leave you with these final comments.

I'm incredibly passionate about what we're doing at National Grid, because Right Now as one of the world's largest publicly listed utilities, we're making a tangible difference by taking on some of the biggest energy challenges, and driving innovation to get us there faster.

We're bringing people together as we do so, through our unique position working alongside and influencing governments, regulators, and customers.

And that's what I mean when I say National Grid is at the heart of a clean, fair, and affordable energy future.

And we're doing it Right Now, to drive long term value growth and returns for our shareholders and enable net zero across our communities.

As investors, you're partnering with us in achieving this mission.

Thank you.

The energy transition gives us enormous growth opportunities for decades to come - and this growth will continue at a pace we're confident we can deliver.

National Grid is at the heart of a clean, fair, and affordable energy future