





FOREWORD

The impact of the Covid-19 pandemic is unlike anything we've ever seen. It has caused sudden and dramatic changes to our way of life, and every industry has felt the effects.

I'm proud of how quickly and effectively ScottishPower has responded to the crisis.

- To keep power flowing to homes and businesses, we've worked tirelessly to maintain and reinforce the electricity grid, with SP Energy Networks going the extra mile to protect power supplies to critical facilities like hospitals and essential services. SPEN has also provided more than £500,000 of support to local charities, including the funding of nine new state-of-the-art electric vehicles for the Food Train charity.
- Throughout the crisis, we've ensured continued generation from our onshore and offshore windfarms. And where possible, we've kept up the momentum to bring more clean energy onto the system.
- And we've worked hard to support our customers through these tough times. Tens of thousands of homes and businesses have felt the benefit of our flexible payment options, and we've helped those most in need by issuing more than £500,000 in credit on pre-loaded payment cards to vulnerable customers.

With the UK now emerging from lockdown, **it's time to start planning for the future.** As the first company of its kind to go 100% Green – we only produce renewable electricity – we believe the best way to get the economy moving again is to accelerate investment in green infrastructure initiatives that tackle the other great crisis of our time: climate change.

By taking the right approach now, **the UK can unlock significant economic benefits** on the path to Net Zero – incentivising private investment, creating jobs, boosting our domestic supply chain, and ensuring that no communities are left behind.

Today, we're setting out the **ten practical steps** we can take together, right now, to secure a green recovery. Steps that balance the need to get strong pillars of the economy, like ScottishPower, leading the way again, with a long-term programme that maximises the benefits of renewable energy and paves the way for cleaner transport and heat solutions.

Crucially, most of the steps we recommend can be taken **without any additional cost to government.** At a time of stretched public finances, unlocking private money to invest up front is particularly important. Time and again, the UK has shown how established and respected market mechanisms can successfully **leverage private investment in energy infrastructure** in ways that deliver value for money, spur innovation, boost the economy and provide the advantages of the low carbon transition fairly across society.

Using existing regulatory and market frameworks to accelerate progress towards Net Zero, I'm convinced that investment can be stimulated and funded over the long term, **minimising the impact to consumers** and taxpayers.

Keith Anderson, CEO, ScottishPower

10 Practical Steps For A Green Recovery...

1. Build on success of existing Contracts for Difference scheme with ambitious programme of uncapped future auctions
2. Prioritise climate change mitigation and support the planning process to speed up the Net Zero transition
3. Ensure the right framework is in place to attract the investment in network infrastructure needed to meet Net Zero
4. Unlock additional private investment through a more ambitious approach to the RIIO T2 and ED2 price controls
5. Bring forward the petrol and diesel vehicle phase-out date to 2030
6. Maintain grant funding for EVs and home chargers
7. Support the roll-out of a comprehensive network of public EV chargepoints
8. Speed up action on energy efficiency and bring forward the Future Homes Standard to 2022
9. Increase grant funding for the roll-out of heat pumps and support heat pump-based heat networks
10. A new approach on smart metering to accelerate roll-out

...boosting the economy with limited cost to government.

INVESTING IN THE UK'S GREEN ENERGY FUTURE

As the Committee on Climate Change set out recently, the challenges we face now are also an opportunity to make faster progress towards Net Zero. We're a key partner in this agenda – investing in our renewables and networks businesses to **decarbonise infrastructure**, and delivering cleaner transport and heating solutions to **decarbonise communities**.

A few months ago, we set out the first detailed roadmap to show how local communities can play their part in the journey to Net Zero. Based on independent forecasts, our **Zero Carbon Communities** report set out the scale of the challenge – and the opportunity to support and sustain skilled jobs over the long term.

Our focus is on helping to build a dynamic green recovery that supports jobs, shifts long-term behaviours and embeds fairness at the core of everything we do.

At the same time – recognising the scale of the fiscal challenges ahead – we believe that government can best use policy to incentivise private sector investment at scale, whilst complementing this with some direct and targeted support in certain areas.

Across our networks, renewables and retail businesses, **we plan to invest nearly £1.5bn this year**. Undeterred by the crisis, we've continued to invest and we've continued to support our supply chain – keeping up the momentum on delivering infrastructure projects that will be essential for the path to Net Zero. Examples include:

- installing all 102 turbines at our East Anglia One offshore windfarm;
- announcing £150m+ plans for a new cluster of onshore windfarms in South Lanarkshire that will deliver 165MW of electricity – enough to power 100,000 homes;
- signing contracts for work on the giant battery storage project at Whitelee windfarm outside Glasgow; and
- continuing to invest in network infrastructure projects that facilitate decarbonisation.

As we take the first steps to emerge from the crisis, **we're committed to playing our part in the UK economic recovery** – with domestic content in the region of two-thirds of our procurement overall. We expect to maintain our investment plans over the coming months, helping to provide the catalyst for a green recovery.



> INVESTING IN THE **UK'S GREEN ENERGY FUTURE**

Building on well-established regulatory and policy mechanisms, there is no shortage of green infrastructure projects where governments can deliver progress, for the good of every local community:

Green Generation

- driving forward an ambitious programme of onshore and offshore wind developments
- supporting the deployment of key innovations like battery storage to help balance generation and the resilience of the energy system

Net Zero Networks

- facilitating 'no regrets' private investment through regulated price controls to upgrade and strengthen our electricity networks, in anticipation of the future demands of electric transport and heating

Electric Vehicles

- accelerating measures to stimulate the take-up of electric vehicles (EVs)
- ensuring the roll-out of EV charging happens fairly across urban and rural areas, so that no communities are left behind

Low Carbon Buildings

- bringing forward the carbon reduction benefits of smart meters by speeding up the rate of installations through a more co-ordinated and cost-effective approach
- make faster progress on energy efficiency, helping to stimulate investment in heat pump technology and local initiatives

With a clear sense of direction and the right regulatory mechanisms, companies like ScottishPower are willing to **invest billions in green infrastructure**, helping to create and sustain new jobs, deliver long-term supply chain benefits, and accelerate progress towards our Net Zero targets.

Onshore and offshore wind are now among the lowest cost and most proven means of delivering rapid decarbonisation. Combined with the expected long-term trends in consumer demand for electric transportation and clean heating solutions, there's a **compelling case** for accelerating investment in a cleaner, greener society.

In fact, it's fair to say that **the economic and environmental advantages of investment in a green recovery are aligned** as never before. A win for the economy in terms of jobs – and a win for the environment in terms of getting us closer to our Net Zero targets.



GREEN GENERATION

The UK has led the world in delivering the renewables revolution. By establishing a clear government ambition for the amount of green energy we want as part of our generation mix, and then setting out a roadmap for getting there, industry has had the certainty it needs to invest at scale.

The result: boundaries have been pushed, technologies have matured, and the costs of renewable generation have fallen dramatically.

Billions have been invested, hundreds of thousands of jobs have been supported, and whole communities have felt the economic benefit.

The UK's framework, known as the Contracts for Difference (CfD) scheme, has proved itself to be robust and sustainable – successfully attracting investment in renewable generation, driving down deployment costs, and delivering significant economic benefits to the UK economy.

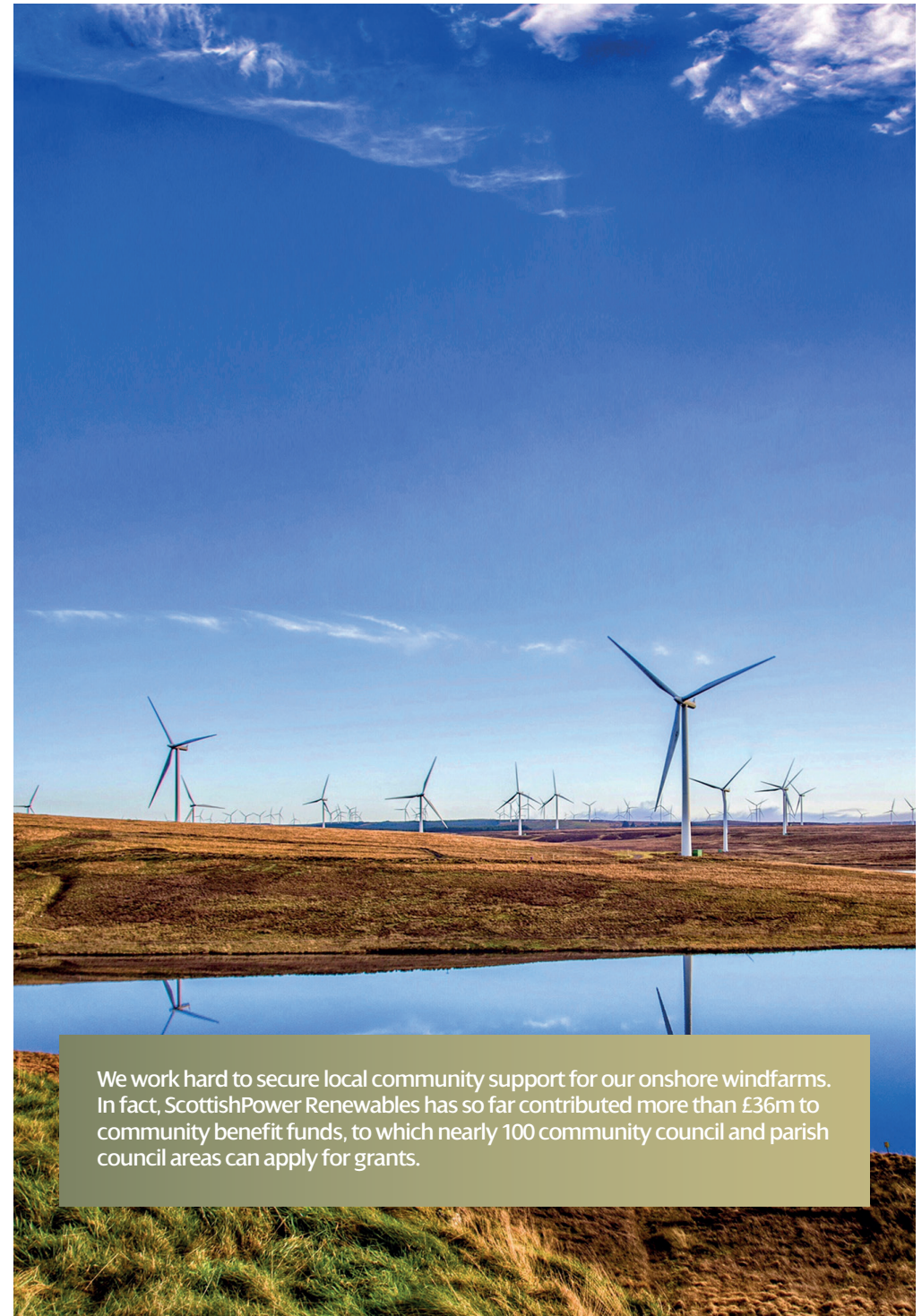
Onshore wind

The Government has rightly recognised the need to include onshore wind projects in the next CfD auction. As one of the UK's leading developers, we strongly welcome this. And as the Committee on Climate Change has found, onshore wind has an important role in decarbonising the power sector at lowest cost while supporting jobs and delivering community benefits. We've now invested in and developed nearly 2GW of onshore wind projects, creating huge economic benefits for the country – with UK content levels of 66% for eight of our recent projects.¹

Offshore wind

The Government is committed to an ambitious programme of offshore wind development, including a target of 40GW of generating capacity by 2030 from offshore projects. Continuing to deliver at scale is essential to developing the UK industry and meeting this ambition, while keeping down costs.

The practical next step is to remove the artificial cap on how many offshore projects can be deployed at any one time. Rather than imposing arbitrary limits on the amount of offshore wind we build, we should be opening up the process for more projects,



We work hard to secure local community support for our onshore windfarms. In fact, ScottishPower Renewables has so far contributed more than £36m to community benefit funds, to which nearly 100 community council and parish council areas can apply for grants.

> GREEN GENERATION

increased investment, greater opportunities for the UK supply chain, and faster progress to Net Zero. And with renewable prices already so low, this can be done with negligible additional cost to the consumer or government.

Planning ahead

As well as ensuring that the planning process reflects the need to deliver responsible onshore and offshore wind projects in a timely way, we should be thinking ahead now about the most effective ways to integrate new renewables into a smart, low carbon energy system.

That’s why, where possible, we’re keen to co-locate battery storage and solar projects alongside our onshore windfarm developments – helping to make the best use of the power generated. Looking further ahead, we’re also considering opportunities to implement technology innovations, like battery storage and green hydrogen, as part of potential offshore projects.

Over the long term, by taking a strategic approach to offshore wind developments, we should also seek to minimise the number of connections needed to bring onshore the power they generate. That means taking practical steps now to accelerate work on identifying, consenting and building the onshore substations these new offshore wind projects will require.



Practical step	Cost to government	Benefits
<p>✓ 1. Build on success of existing Contracts for Difference scheme with ambitious programme of uncapped future auctions</p>	No additional funding required	<p>Creates jobs</p> <p>Supports UK supply chain</p> <p>Boosts investment in regions and local communities</p>
<p>✓ 2. Prioritise climate change mitigation and support the planning process to speed up the Net Zero transition</p>	No additional funding required	<p>Delivers low-cost, green energy</p> <p>Drives technological innovation</p>





NET ZERO NETWORKS

When it comes to financing our electricity networks, the lessons are very similar. As part of a long-term funding model that minimises the impact to consumers by spreading costs over decades, network companies like SP Energy Networks have a strong track record of investing billions in the grid infrastructure that's at the heart of the Net Zero transition.

Maintaining that approach to incentivising innovation and investment in our electricity networks, as part of the forthcoming price control reviews for transmission and distribution, will help to secure the benefits of a smart, resilient and low carbon network. Known as RIIO T2 and RIIO ED2, the decisions taken now on these price controls will have a critical impact on our ability to stimulate investment, create economic opportunities and deliver progress toward Net Zero over the next few years.

Indeed, we believe that Ofgem's Draft Determination on the T2 price control, which will set out the investment framework for our electricity transmission networks for the five years from 2021, should be seen as an important test case for the scale of the UK's ambition.

The Government has been clear that it wants to drive early progress on an economic recovery to unlock skills and training opportunities, deliver a boost to local supply chains and make progress towards Net Zero by bringing even more renewables onto the grid. We're equally clear that we can meet that challenge and invest behind it.

To build on the promising start Ofgem has made with its **Decarbonisation Action Plan**, one immediate practical step would be to use the T2 price control to send the right signals on the central role electricity networks have in delivering Net Zero. That would allow us to invest significantly above the £1.4bn baseline plan that we've submitted – unlocking as much as double that amount in investment, at minimal cost to the consumer over the long term.

Getting ready for electric transport and heating

If we're going to make progress on meeting our national and local Net Zero targets, major changes will be required to our modes of road transport and the ways we heat our buildings. Over the next decade, we're likely to see hundreds of thousands



> NET ZERO NETWORKS

of vehicles rely on electricity from our networks as EVs replace our cars' and buses' combustion engines. And the widespread use of electric heat pumps as a green alternative to our homes' gas boilers could impact peak demand even further.

In the future, electricity demand for the average domestic customer could be between four and seven times higher than current assumptions. At the same time, we could see a trebling of the amount of generation that's connected.

These factors affect generation and demand on both transmission and distribution networks, requiring new skills and capabilities as the focus shifts to the dynamic management of local systems in order to meet customers' changing needs.

That's why we think we should be anticipating these impacts now, and investing ahead of time to make sure the grid is dynamic and resilient enough to cope. By setting out local targets for projected EV infrastructure requirements, for example, the regulatory process could provide a clear and supportive framework for investment and delivery in every community.

Building a smart and resilient grid

As we've seen during the COVID-19 crisis, dramatic changes in energy demand and usage show how important it is that our electricity system is managed smartly to remain balanced and resilient. Charged with delivering our increased electricity needs reliably and efficiently in the future, network companies are critical to our efforts to decarbonise transport, heating and other sectors of the economy.

With more renewables, embedded generation and battery storage on the system, accelerated investment in strengthening and digitising the grid would help to manage demand fluctuations more effectively. That means adopting a more strategic approach to anticipating future demands and investing now to meet them.

The smart grid that results from this investment would give customers access to tangible economic and environmental benefits, linking up with smart meters in our homes and businesses to optimise energy usage.

Practical step	Cost to government	Benefits
✓ 3. Ensure the right framework is in place to attract the investment in network infrastructure needed to meet Net Zero	No additional funding required	Creates jobs Supports UK supply chain Boosts regional development
✓ 4. Unlock additional private investment through a more ambitious approach to the RIIO T2 and ED2 price controls	No additional funding required	Stimulates low carbon innovation

MOVING FASTER ON ELECTRIC VEHICLES

We welcome the UK Government's commitment to advancing the ban on new petrol and diesel car sales to 2035. But there's no reason why both this date and Scotland's 2032 target shouldn't be brought forward to 2030, sending a welcome signal to the supply chain and consumers that change is coming.

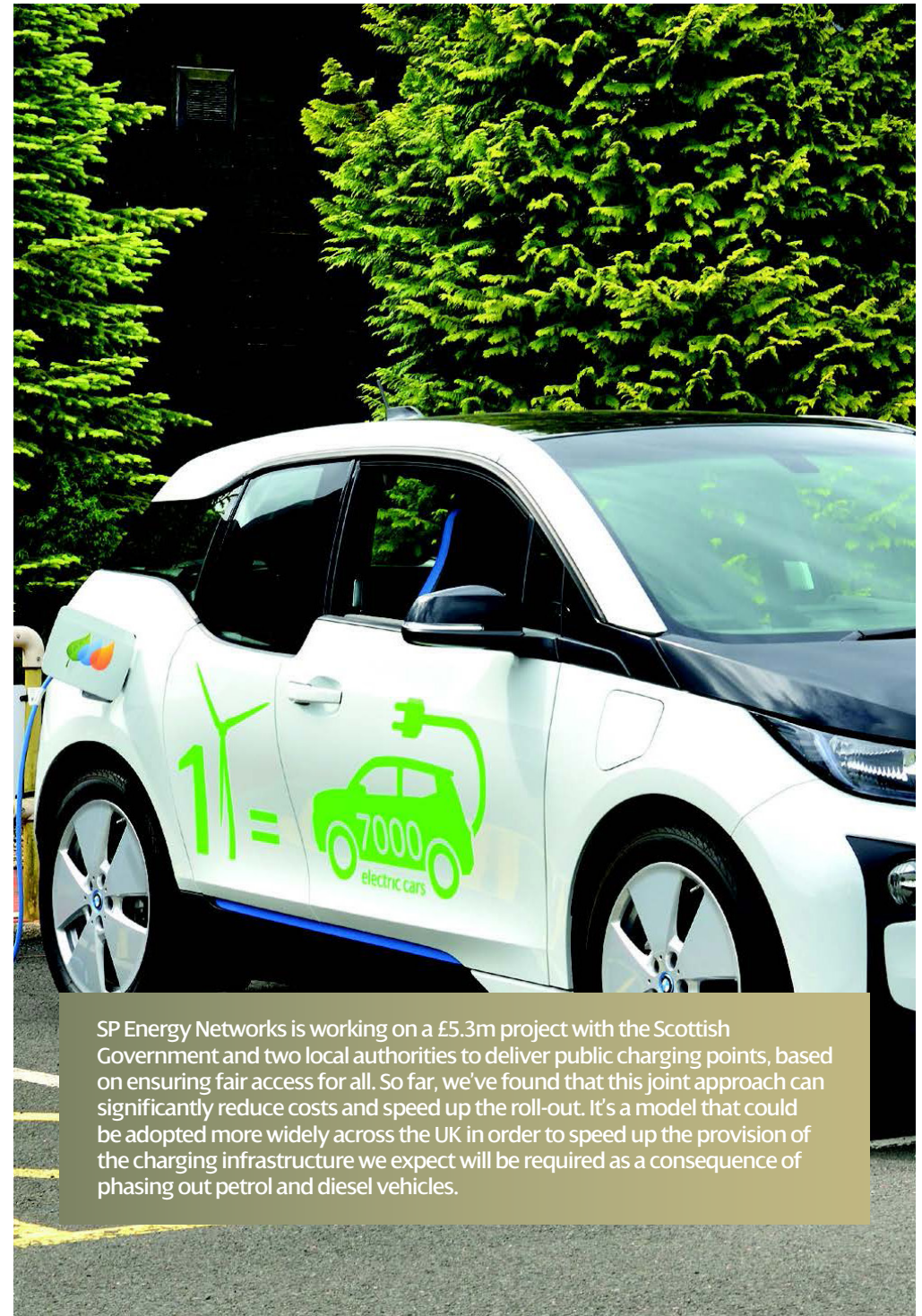
And we should be speeding up other measures to stimulate EV demand, such as changing building regulations as soon as possible to require the provision of EV chargepoints as standard in new homes, and introducing requirements for business premises to provide at least one chargepoint for every ten parking spaces. Independent research we commissioned for our **Zero Carbon Communities** campaign forecasts that the UK will need more than 25 million private and public EV charging points as part of its path to Net Zero.

Ensuring fair access to the benefits

At the same time, we should be taking action to put in place the charging infrastructure that we can expect will be required with more and more electric cars, vans and buses on our roads.

Through its £500m Rapid Charging Fund, the UK Government is already setting out its ambition for an EV driver to be no more than 30 miles from a charger. By taking early 'no regrets' action, we can act strategically, efficiently and cost-effectively to further extend the benefits of public chargers – in a way that ensures fair access for all.

That means supplementing chargers in private driveways, hotels, shopping centres, and motorway service stations with a programme of public use chargepoints – right across the country. Not just on wealthy high streets or leafy suburban avenues, but in remote, rural and socially disadvantaged areas as well, which the market is less likely to reach.



SP Energy Networks is working on a £5.3m project with the Scottish Government and two local authorities to deliver public charging points, based on ensuring fair access for all. So far, we've found that this joint approach can significantly reduce costs and speed up the roll-out. It's a model that could be adopted more widely across the UK in order to speed up the provision of the charging infrastructure we expect will be required as a consequence of phasing out petrol and diesel vehicles.

> MOVING FASTER **ON ELECTRIC VEHICLES**

One practical step the Government can take now is to set out a clear funding framework to deploy publicly available chargepoints across the country, leveraging private investment to ensure that all communities benefit from the move to clean transport. Based on our experience, there is a key role for local authorities and electricity Distribution Network Operators (DNOs) to play in facilitating this.

Funding some of the costs of the EV charging infrastructure, such as the connection costs, over the long-term in much the same way as network companies are already repaid for investing in upgrading and reinforcing the grid, this programme would give a real boost to a new EV industry in the UK and give consumers the confidence to go electric by tackling range anxiety.

It could set DNOs milestones to meet in terms of penetration levels to ensure timely installation. A networks-based programme like this could be supplemented by building on other existing schemes, such as the On-street Residential Chargepoint Scheme.



Practical step	Cost to government	Benefits
✓ 5. Bring forward the petrol and diesel vehicle phase-out date to 2030	No additional funding required	Creates jobs
✓ 6. Maintain grant funding for EVs and home chargers	No additional funding required	Sends clear signals to the UK supply chain
✓ 7. Support the roll-out of a comprehensive network of public EV chargepoints	Some additional funding required	Drives EV adoption
		Delivers fair access to low-cost EV charging for every community
		Stimulates innovation and deployment of low carbon solutions



LOW CARBON BUILDINGS

Less than 5% of homes in the UK use low carbon sources for heating. Tackling the energy efficiency of our homes and offices – how buildings are insulated and heated, and how they manage their overall energy use – is a critical part of our efforts to deliver progress towards Net Zero.

So, we know that meeting our Net Zero targets means we have to make faster progress in tackling carbon emissions from the housing sector.

Speeding up energy efficiency, creating jobs

Over the years, the UK has made progress to improve the efficiency of our existing housing stock, mainly through use of effective supplier-led carbon saving obligations – street by street, community by community. As these obligations become more focused on assisting the most vulnerable to minimise upward cost pressure on consumer bills, progress will be slower and there will be big challenges in tackling the more difficult improvements that remain.

This is one area where some targeted public support could help to kick-start activity. A new Homes Upgrade Grant scheme could bring energy saving improvements to the homes of low income and vulnerable customers. This could also include low carbon heating options, especially for people living off the gas grid. Similarly, a scheme focused on decarbonising social housing could deliver progress quickly and support jobs.

As we move beyond the worst of the current crisis, we should look to step up the rate of change in the 'able to pay' owner-occupier market – creating local jobs, making homes more compatible with clean heat solutions, and saving families money through reduced energy use. And so it will be important to ensure that there are appropriate loan financing schemes in place to support improvements in the owner-occupier sector too.

Decarbonising heat

The UK Government's Future Homes Standard will establish requirements, from 2025, for all new build homes to have low carbon heating and world-leading levels of energy efficiency. Bringing forward the implementation date to 2022 would send a clear signal to the UK's supply chain about the importance of developing and investing in cleaner commercial alternatives to gas boilers, such as heat pumps. As independent forecasts for our **Zero Carbon Communities** report show, the UK will need to install more than 22 million heat pumps as part of its path to Net Zero.



UNLOCKING NET ZERO

> LOW CARBON BUILDINGS

Other practical steps we can be taking now to scale up the low carbon heating industry include increasing the planned grant funding for the roll-out of heat pumps. This could be expanded to cover support for deploying heat networks based on the innovative use of heat pumps with shared ground source arrays. As they become more widely adopted, these new heat sources will have an impact on the UK's electricity networks. So we'll need to plan our investments carefully to ensure the grid can manage these new and increased demands.

A new approach to smart metering

We recognise the important role that smart meters have in enabling and supporting the transformation of our national energy system on a pathway to Net Zero, and we share the Government's ambition to see smart metering in every home and small business.

Again, the UK's progress towards this goal has been too slow. As the Committee on Climate Change has pointed out, smart meters are a key part of delivering a more flexible energy system, without which the increased use of electric vehicles and heat pumps won't deliver their full potential carbon reductions, and the costs of reaching our Net Zero ambition by 2050 could be as much as £16bn higher per year.

The Net Zero imperative, and the valuable contribution that every home can make to getting us there, means it's now time for a more concerted approach to engaging consumers in the need to install smart meters.

The key practical step we can take is for government to work with energy suppliers to agree a better, faster and more cost-effective way forward that establishes the responsibility of homes and businesses in delivering the programme.

Installing a smart meter at home is one straightforward step that all households should be expected to take in order to play their part on the path to Net Zero and help upgrade our low carbon infrastructure.

We should see the installation of smart meters as a key infrastructure project – essential to delivering progress to Net Zero, and a responsibility on us all. A key part of this will be industry and government working together to promote the skills and jobs opportunities needed to sustain timely delivery.

Practical step	Cost to government	Benefits
✓ 8. Speed up action on energy efficiency and bring forward the Future Homes Standard to 2022	Some additional funding required	Creates jobs Sends clear signals to the UK supply chain
✓ 9. Increase grant funding for the roll-out of heat pumps and support heat pump-based heat networks	Some additional funding required	Stimulates investment Boosts regional development
✓ 10. A new approach on smart metering to accelerate roll-out	No additional funding required	Speeds up carbon reduction benefits, reduces energy demand Improves family income and tackles fuel poverty

CONCLUSION

The green recovery can be a reality. Our 10 practical steps show how, with the right regulatory approach, it is possible to accelerate progress in the short term – for the long-term benefit of communities across the UK.

Moving faster means speeding up planning, incentivising investment, and doing more now to meet the demands of future electric transport and cleaner heating solutions. Importantly, we can leverage private investment to do this under a model that spreads the cost over decades and minimises cost to consumers.

Taking action on the green recovery now will create a rolling wave of economic opportunities – a winning combination of sustainable benefits for the economic and the environment.

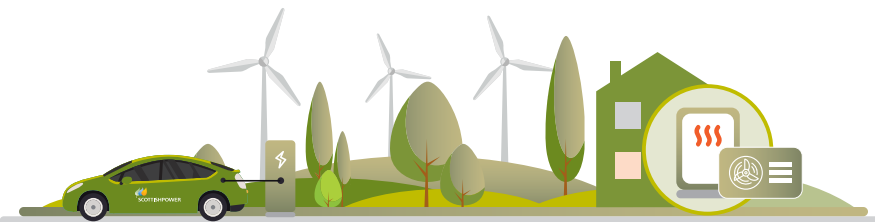
Crucially, the green recovery creates and supports new jobs that will be the bedrock of economic activity – spread fairly right across every region of the country.

Apprenticeships for young people. Retraining options for people seeking career changes. The expansion of highly skilled jobs. Opportunities for small business growth all the way through the supply chain.

All of these are in prospect as we consider the opportunities across energy generation and network infrastructure and the drive to decarbonise our transport and housing sectors. Renewables construction projects, network engineering, EV charger installation, the roll-out of energy efficiency and smart metering...the list of opportunities goes on.

Net Zero means levelling up the fabric of our national infrastructure. And it provides us with the framework to create thousands of jobs – not just in economic hotspots but in every community across the country.

Let's move fast and set the direction – creating a better future, quicker.



10 PRACTICAL STEPS TO UNLOCKING NET ZERO

	Practical step	Cost to government	Benefits
Green Generation	1. Build on success of existing Contracts for Difference scheme with ambitious programme of uncapped future auctions	No additional funding required	Creates jobs Supports UK supply chain Boosts investment in regions and local communities
	2. Prioritise climate change mitigation and support the planning process to speed up the Net Zero transition	No additional funding required	Delivers low-cost, green energy Drives technological innovation
Net Zero Networks	3. Ensure the right framework is in place to attract the investment in network infrastructure needed to meet Net Zero	No additional funding required	Creates jobs Supports UK supply chain Boosts regional development
	4. Unlock additional private investment through a more ambitious approach to the RIIO T2 and ED2 price controls	No additional funding required	Stimulates low carbon innovation
Electric Vehicles	5. Bring forward the petrol and diesel vehicle phase-out date to 2030	No additional funding required	Creates jobs Sends clear signals to the UK supply chain
	6. Maintain grant funding for EVs and home chargers	No additional funding required	Drives EV adoption Delivers fair access to low-cost EV charging for every community
	7. Support the roll-out of a comprehensive network of public EV chargepoints	Some additional funding required	Stimulates innovation and deployment of low carbon solutions
Low Carbon Buildings	8. Speed up action on energy efficiency and bring forward the Future Homes Standard to 2022	Some additional funding required	Creates jobs Sends clear signals to the UK supply chain
	9. Increase grant funding for the roll-out of heat pumps and support heat pump-based heat networks	Some additional funding required	Stimulates investment Boosts regional development
	10. A new approach on smart metering to accelerate roll-out	No additional funding required	Speeds up carbon reduction benefits, reduces energy demand Improves family income and tackles fuel poverty

ScottishPower
320 St Vincent St, Glasgow G2 5AD
www.scottishpower.com/zerocarboncommunities

