SP Energy Networks
RIIO-T3 Business Plan Summary
2026 – 2031

spenergynetworks.co.uk

This is how we will transform our transmission network

A summary of our RIIO-T3 Business Plan

SP Energy Networks

INTRODUCTION

Welcome to the summary of our RIIO-T3 Business Plan, which proposes to invest £10.6bn in our transmission network between 2026 and 2031.

We are committed to making our plans for RIIO-T3 clear to all of our stakeholders. Our plan is comprehensive, ambitious and focused – with detailed and compelling cost and engineering justification. That ambition extends to how we are presenting our plan. This summary is intended to make the proposals and supporting reasoning accessible, transparent, and as easy to understand and navigate as possible.

Step on in to learn about what we are proposing and why, as well as hear directly from members of our team. Or read the plan in full here →

CEO STATEMENT

We have a chance to shape a cleaner, greener future for us all.

Achieving Net Zero is mission critical to fighting the harmful effects of the climate and biodiversity crisis. But the progress made so far in developing cleaner sources of energy will not count for much if the electricity grid is unable to transmit this power to homes and businesses. Our system is critically located in an area of outstanding renewable resource and for the integration we provide with other transmission networks. We have a unique role in connecting renewable generation and bulk transfer of renewable energy from Scotland into England and Wales.

Our plan provides a clear, credible vision for the network we need, with a defined set of efficiently sized, costed and future-proofed investment projects to progress urgently. It outlines how we will build capacity and readiness to deliver quickly, efficiently and to meet Goverment targets for a Clean Power System by 2030. Making this crucial investment now will drive a positive impact on stabilising and lowering consumer energy bills in the longer term alongside maintaining our world class network resilience.

I am very proud to present our RIIO-T3 business plan at a pivotal point in history – the energy transition – which is truly the challenge and opportunity of our time.

Nicola Connelly
CEO, SP Energy Networks

Watch the bitesize introduction to our RIIO-T3 Plan →

OUR TRANSMISSION BUSINESS

We take electricity generated from power stations, windfarms and various other sources and transport it to the local distribution network and between other UK transmission networks.

SP Transmission plc (SPT) is the licensed Transmission Owner (TO) responsible for the transmission of electricity in Central and Southern Scotland. We are a wholly owned subsidiary of Scottish Power Energy Networks Holdings Limited (SPENH), referred to as SP Energy Networks (SPEN). SPEN is part of the Iberdrola Group – a global leader in clean energy and electricity grids.

Around 80% of customers in Scotland are within our network area. As an operator of Critical National Infrastructure, our priority is to keep power flowing to our customers. Our network reliability is currently measured at 99.9%.

99.9%

We have 8.7GW of generation connected to our network and we keep electricity flowing to over two million homes and businesses in our own region, and help to keep supplies secure and reliable across GB.

8.7GW

Our transmission network is comprised of over 4,300 kilometres of circuits (3,759km of overhead lines, 593km of underground cables and 196km of HVDC cables) and 166 substations operating at 400kV, 275kV and 132kV.

4,300km

The value we add to UK infrastructure is measured in terms of regulatory asset value. Our RAV is forecast to be £4.8bn at the end of RIIO-T2.

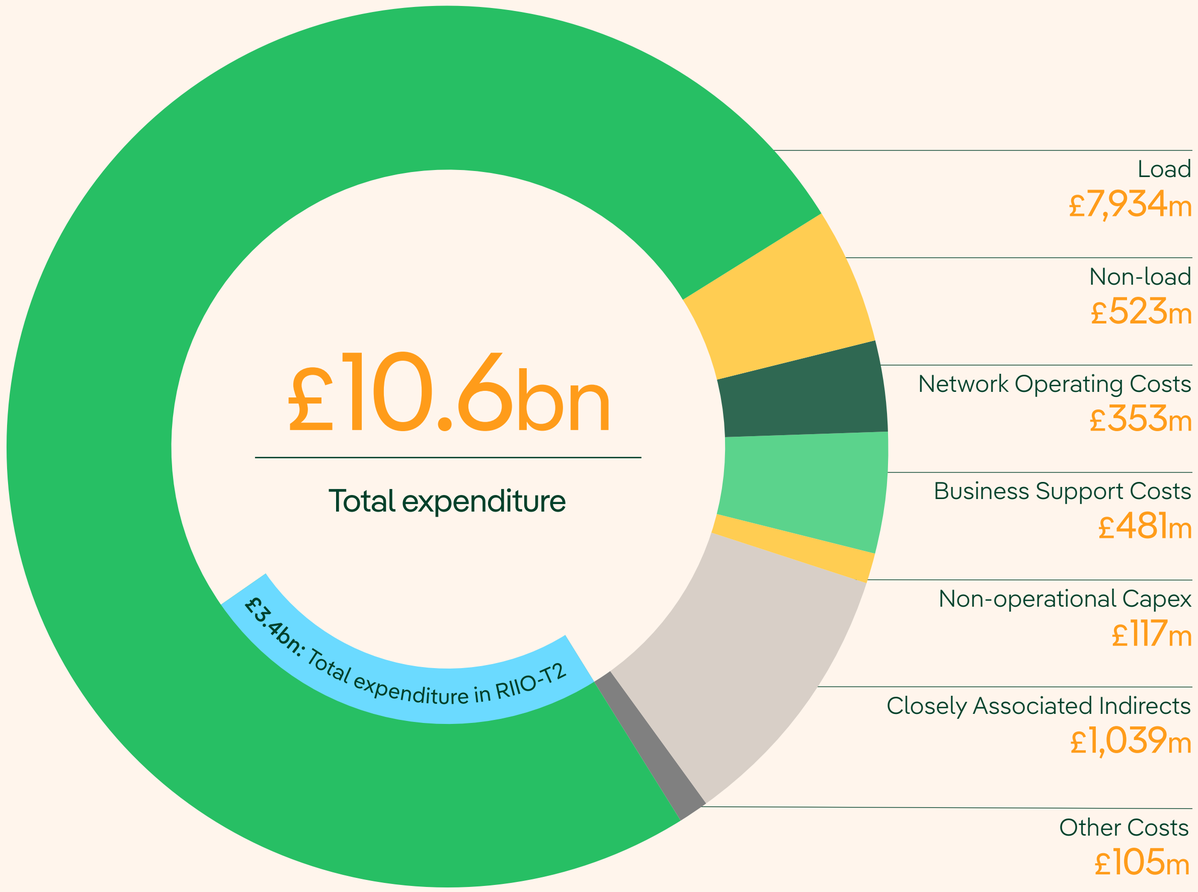
£4.8bn

What our plans will cost

We are planning to invest £10.6bn during RIIO-T3, with over 75% of this going directly towards assets to increase the capacity of the network for generation and demand. This will add £6.47 to the average household electricity bill but is expected to enable bill reductions worth much more than this over time.

"The Independent Net Zero Advisory Council (INZAC) believe SP Energy Networks have produced an ambitious and robust business plan that has been developed in response to not only the INZAC challenges but their broader stakeholder engagement. They have taken on board our feedback and responded to the challenges put forward."

Angela Love, INZAC Chair
December 2024



What customers are getting

Our plan focuses directly on the consumer outcomes that are most highly valued, according to our own engagement with stakeholders and based on Ofgem's strategic priorities for the sector.

INFRASTRUCTURE

Infrastructure fit for a low-cost transition to Net Zero

Facilitate the connection of additional renewable generation
19GW

Est saving per customer as a result of reduced constraint costs due to investments by all TOs, by 2030.
£167 p.a.

RESILIENCE

Secure and resilient supplies

Long-term monetised risk benefit
Lr£23.1bn

Maintain current level of network reliability
99.9%

VALUE

System efficiency and long-term value for money

Long-term boost to average real household incomes
£60.21

Long-term boost to jobs
+11,000

Long-term stimulus to GDP
£2.0bn

SERVICE

High quality of service from regulated firms

Quality of connections survey (score out of 10)
8.3/10

Our investment in data and digital solutions
£94m

Our impact on the bill

RIIO-T1 *(2013-2021)*	RIIO-T2 *(2023-2024)*	RIIO-T3 *(2026-2031)*
£5.54	£5.60	£12.07
Avg Annual Cost	*Annual Cost*	*Avg Annual Cost*

RIIO-T3: Mission focussed on Clean Power 2030

Two days after we submitted our Business Plan, on the 13th of December 2024, the UK government published their 'Clean Power 2030 Action Plan: A new era of clean electricity'. Our RIIO-T3 Business Plan is mission focussed to deliver the transmission investment needed to meet the government's targets.

What is Clean Power 2030 (CP2030)?

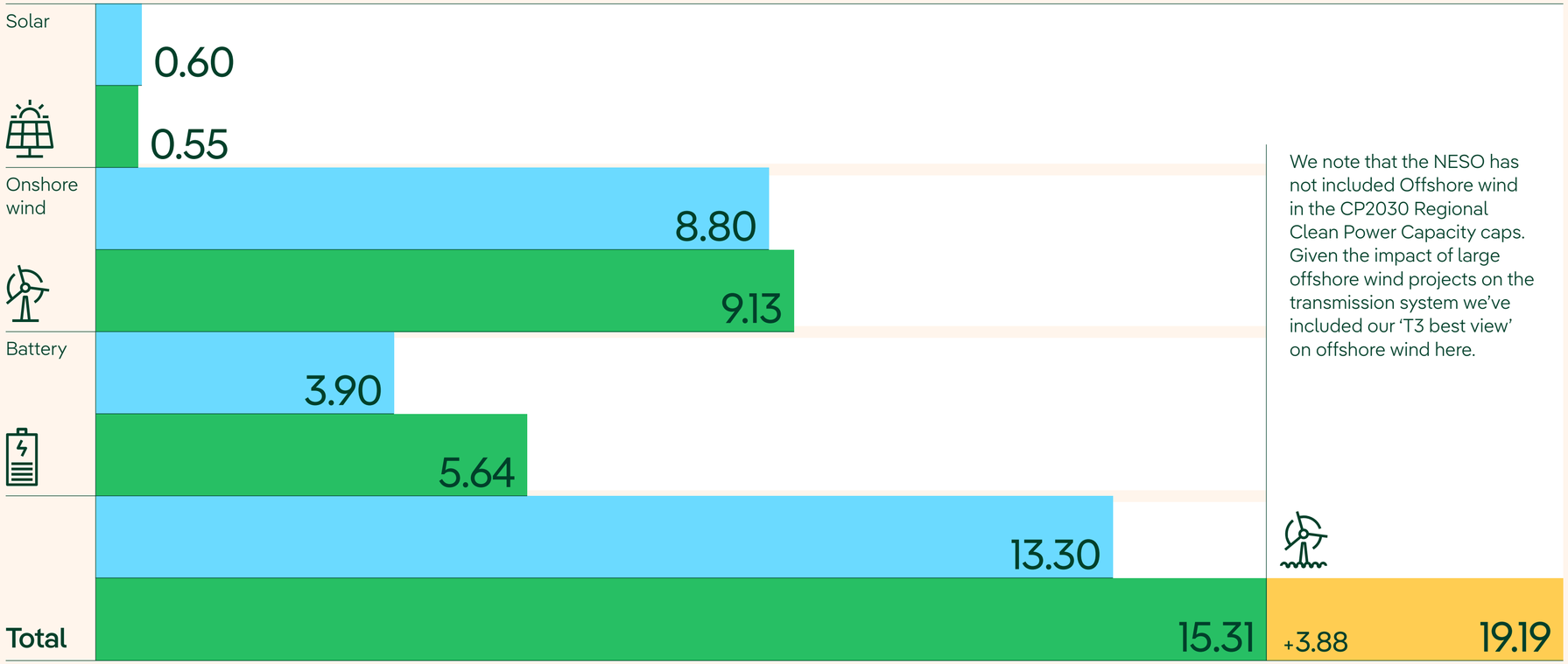
The Prime Minister has made clear that delivering clean power is an urgent national priority. CP2030 sets out the government's pathway to work together with industry, trade unions and investors to tackle the cost-of-living crisis caused by exposure to volatile fossil fuel markets by *"sprinting to clean, homegrown energy"*. Networks have a central role to play in decarbonising the power system and the whole economy by connecting and transporting the clean power we need. This is recognised and is central in the government's plan. The government targets for CP2030 are that:

- Clean sources produce at least as much power as Great Britain consumes in total; and
- Clean sources produce at least 95% of Great Britain's generation.

How does this impact our RIIO-T3 Business Plan?

Accelerating Transmission investment alongside re-ordering the connections queue has been a key focus area for government, industry and Ofgem over recent years, overturning decades of delay in investment. The government's CP2030 plan was informed by the National Energy System Operator (NESO) in their first formal advisory role to government and Ofgem: *"Build all planned transmission network on time, which involves twice as much in the next five years as was built in total over the last decade."* This included Clean Power Capacity Regional Targets which details how much of each clean power technology is required to connect, so as to meet CP2030. In short, the CP2030 plan provides a clear mandate for increased network investment which our Business Plan will deliver against.

SPT's RIIO-T3 'best view' Vs CP2030 Jan 25 Regional caps
GW of Elelctricity



We note that the NESO has not included Offshore wind in the CP2030 Regional Clean Power Capacity caps. Given the impact of large offshore wind projects on the transmission system we've included our 'T3 best view' on offshore wind here.

What's next?

The NESO will re-fresh the regional targets following the connection queue re-order, expected Summer 2025. As they stand today our RIIO-T3 Business Plan's proposed £10.6bn of investment – our 'best view' – would exceed these by 2GW of capacity.

Delivering our RIIO-T3 business plan will provide economic benefits to grow the economy by adding £2bn to GDP per annum and over 11,000 green jobs across the UK alongside reducing consumers bills by £167 by 2030 following an initial increase of £6.47.

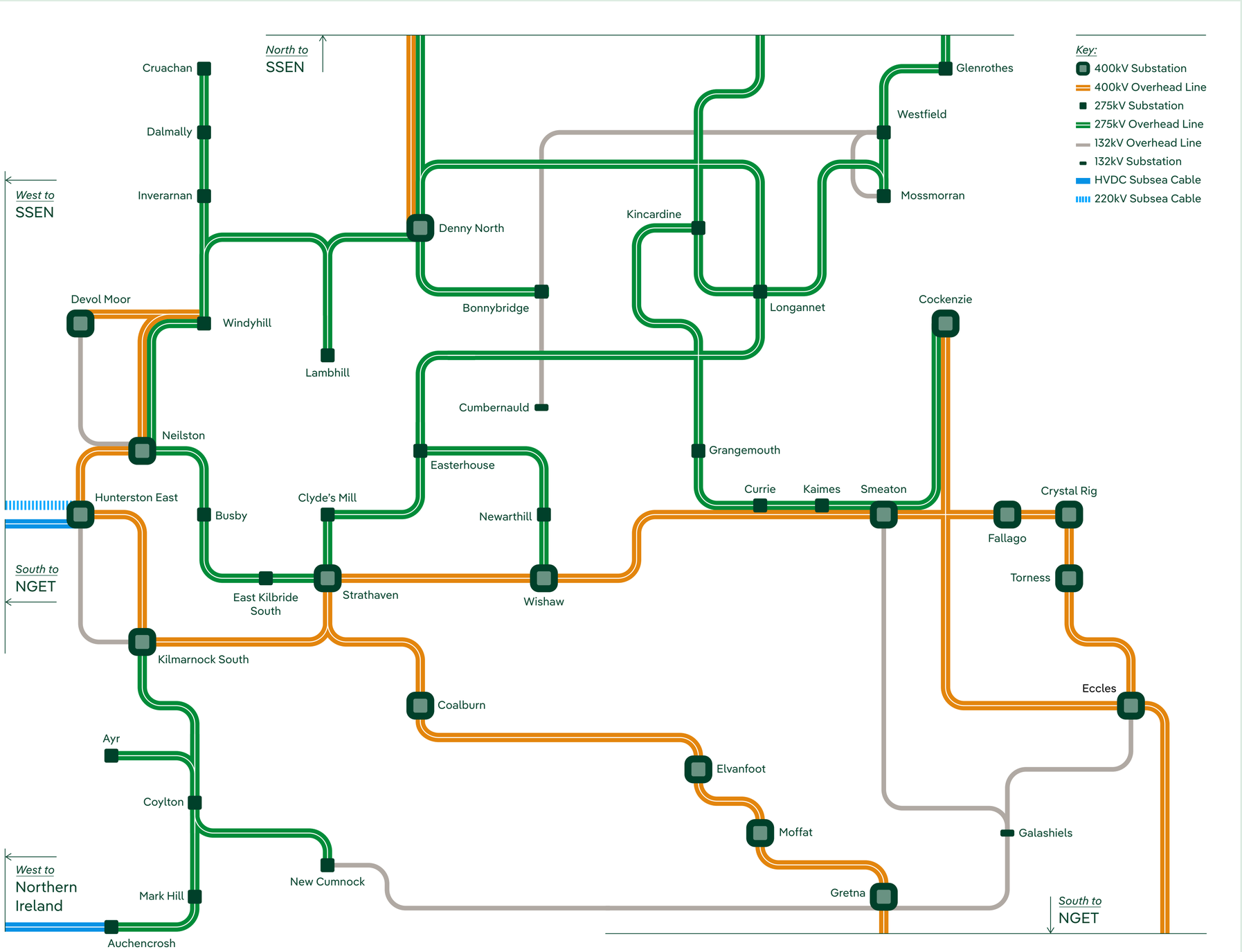
LAUREN LOGAN,
Head of Transmission Regulation and Policy
explains our approach →

1. https://www.gov.uk/government/publications/clean-power-2030-action-plan/clean-power-2030-action-plan-a-new-era-of-clean-electricity-main-report#our-pathway-to-2030
2.https://www.neso.energy/publications/clean-power-2030

TODAY'S NETWORK

The backbone of the network we have today was built to meet demand for electricity by routing power from a small number of large, predominately coal-fired, power stations to local distribution networks. The shift to low carbon and distributed generation has already driven significant change to our network .

Transmission assets have had to be built within areas that previously had none, where wind resources are in abundance. Power flows on the system are now multi-directional across the transmission system, but also to and from the distribution system, requiring upgrades to existing assets to manage this change. We also now rely far more heavily on inter-area power flows between ourselves, SSEN-T in the North and NGET in the south.



THE NETWORK WE NEED

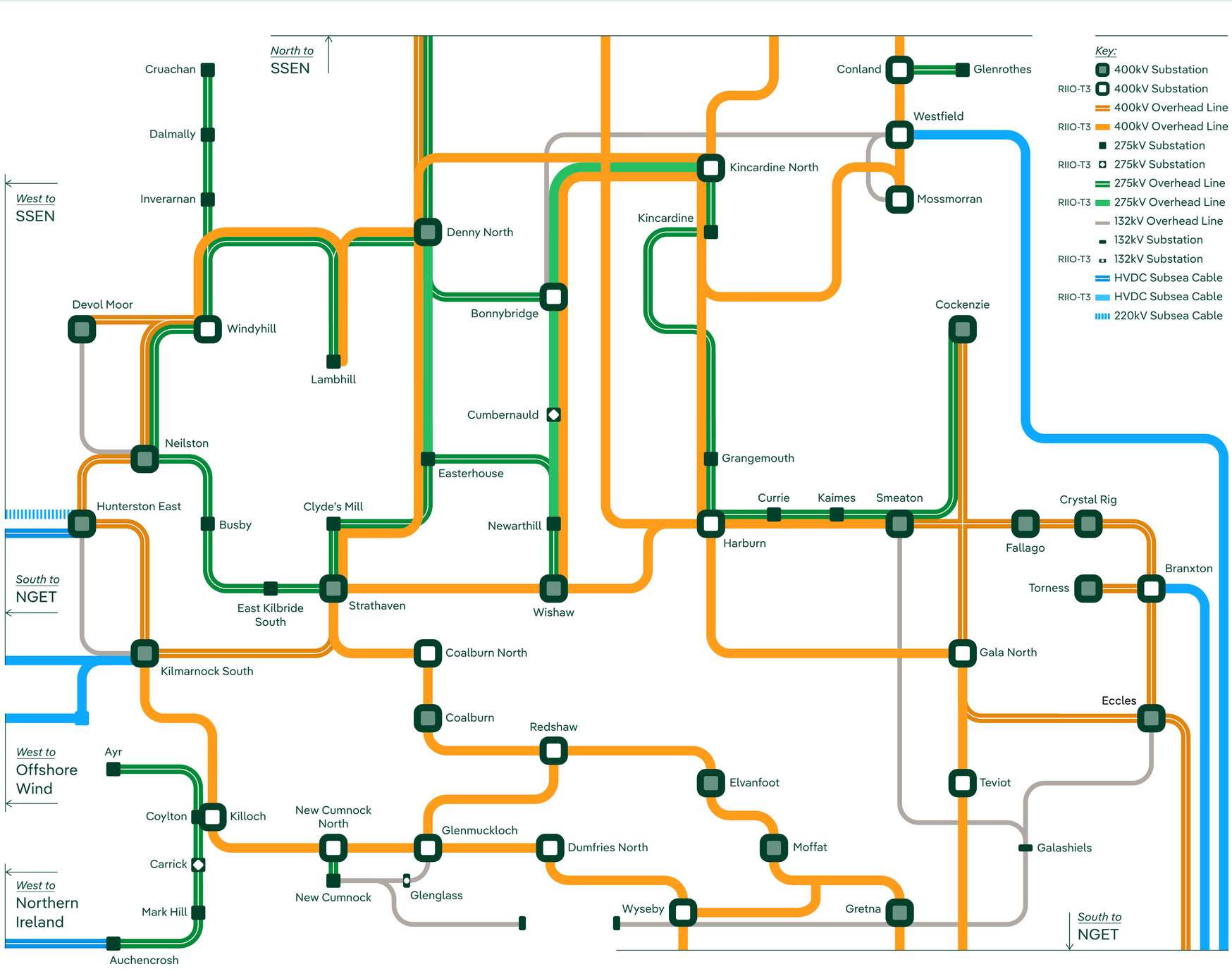
Our transformational plans for our network over the RIIO-T3 period are integral to a national effort to create a sustainable and secure energy system, aligned to pathways to Net Zero modelled by the NESO and ready to meet the government's Clean Power 2030 targets.

Our plan translates the pathways into a portfolio of optimised investment projects to deliver large-scale changes and the network we need. We do this in a number of ways:

- *maximising our existing network assets by reconductoring the majority of our main transmission corridors with high capacity conductors.*
- *progressing plans for major new transmission corridors in South West and South East Scotland.*
- *further expanding capacity through the traditional backbone of our network through Central Scotland.*

By doing this we can ensure we have a system ready for the future, and to meet the government's Clean Power 2030 targets.

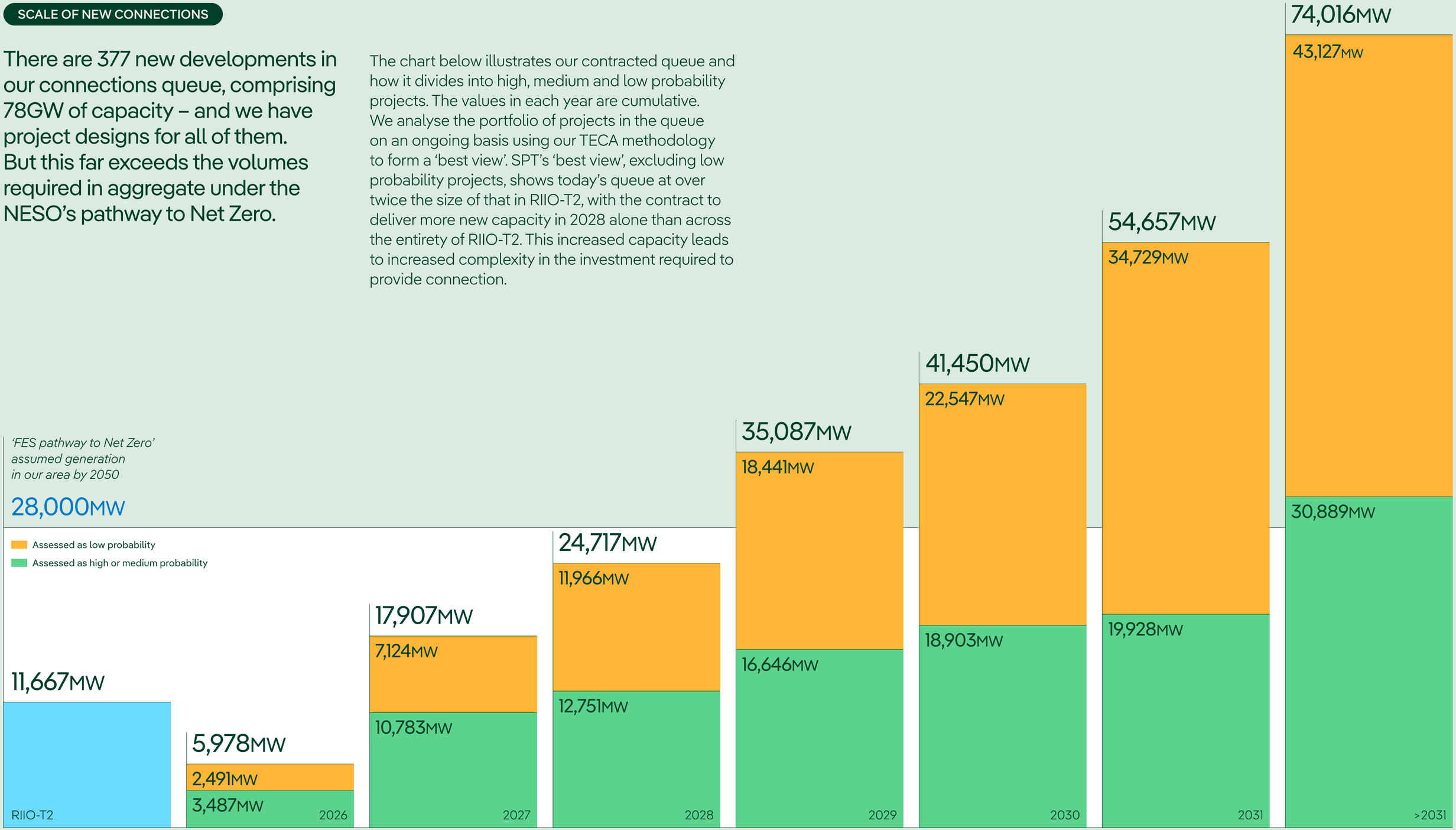
MARYAM HEIDARIAN,
Load Lead Engineer
explains our approach →



SCALE OF NEW CONNECTIONS

There are 377 new developments in our connections queue, comprising 78GW of capacity – and we have project designs for all of them. But this far exceeds the volumes required in aggregate under the NESO's pathway to Net Zero.

The chart below illustrates our contracted queue and how it divides into high, medium and low probability projects. The values in each year are cumulative. We analyse the portfolio of projects in the queue on an ongoing basis using our TECA methodology to form a 'best view'. SPT's 'best view', excluding low probability projects, shows today's queue at over twice the size of that in RIIO-T2, with the contract to deliver more new capacity in 2028 alone than across the entirety of RIIO-T2. This increased capacity leads to increased complexity in the investment required to provide connection.



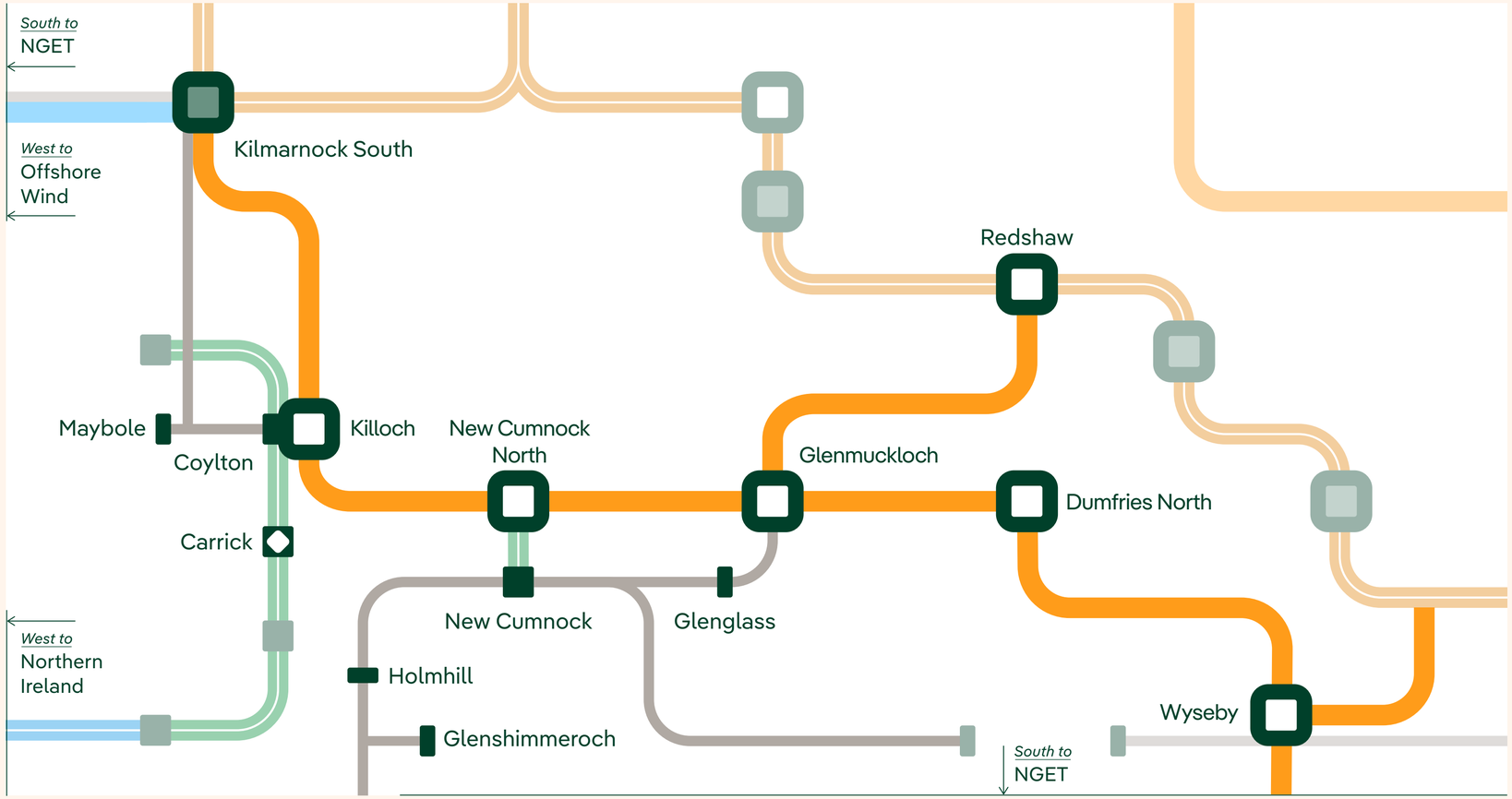
EXPLORE THIS IN FULL IN OUR PLAN | PAGES 08-42

This is how... we will grow our network

As GB demand for electricity grows over time, and the location of generation to meet that demand changes, the size and shape of our network needs to flex to match. The accelerated shift from fossil-fuel generation towards renewable generation alongside the use of large-scale battery storage and the electrification of heat and transport is driving huge increases in the need for load-related investment during RIIO-T3 across the three regions of our network.

SOUTH WEST SCOTLAND

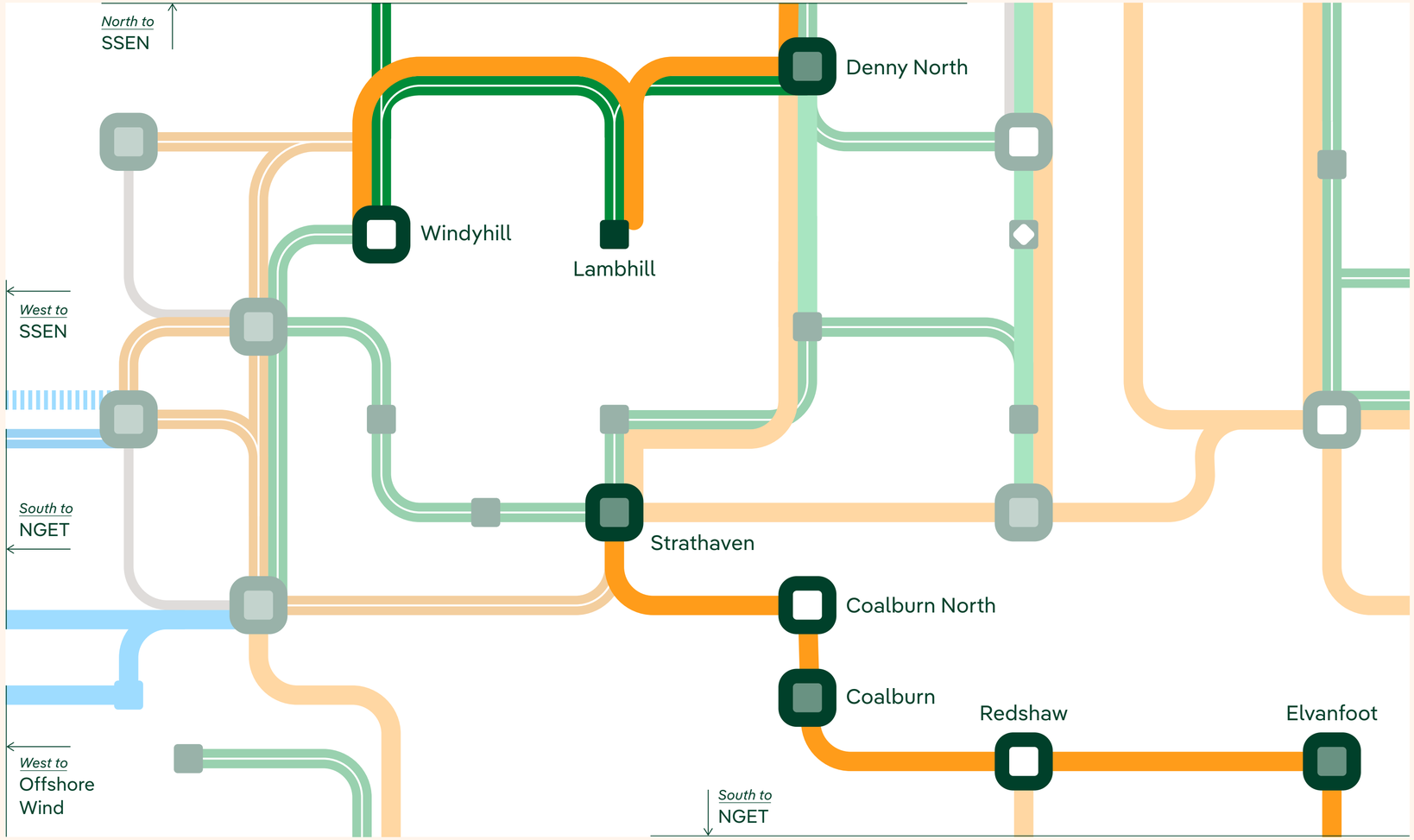
South West Scotland is a region with excellent natural resources for renewable generation, but also a region of historically low demand for electricity with limited existing transmission capacity. We have now reached the limit of growth that can be supported by the existing network, including the Western HVDC link commissioned in 2017. The answer involves a new onshore transmission corridor and our plan involves a suite of projects to support this. Our 'best view' indicates connection of over 7.5GW renewable development in the SWS area during the RIIO-T3 period. The transmission circuits in the region extend across licence boundaries, serving as a power corridor by connecting SSEN-T in the north and NGET in the south.



In Central Scotland, the traditional spine of our transmission network, we are progressing major upgrades to existing circuits further strengthening our ability to transfer power north and south.

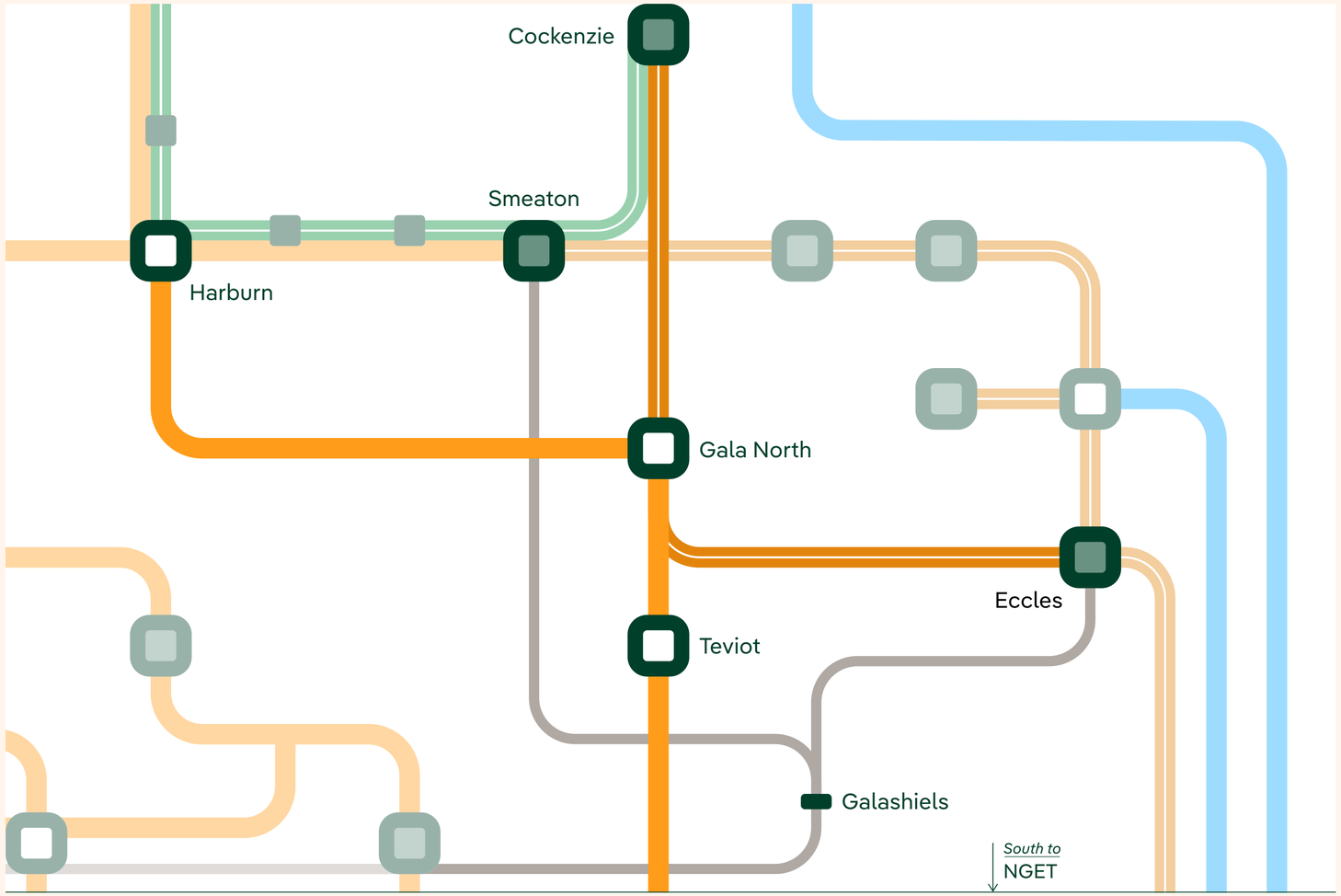
CENTRAL SCOTLAND

Central Scotland is historically the area with our largest existing transmission network. This provides opportunities to increase capacity by uprating existing circuits, which is more cost-effective and has less environmental impact than building new routes. The projects set out in our plan show how we intend to maximise the potential of these opportunities to transfer power through the region, and support the connection of new generation within the region itself. The reinforcement works are recommended in the Pathway to 2030 and Beyond 2030 reports.



SOUTH EAST SCOTLAND

The South East of Scotland is another area where historically our network has been relatively sparse, but where the capacity to transfer power needs to expand significantly to access available resources for renewable generation, including offshore. As with our plans for South West Scotland, this involves creating a new transmission corridor onshore (alongside new planned HVDC links). The projects described in our plan are key components of this process.

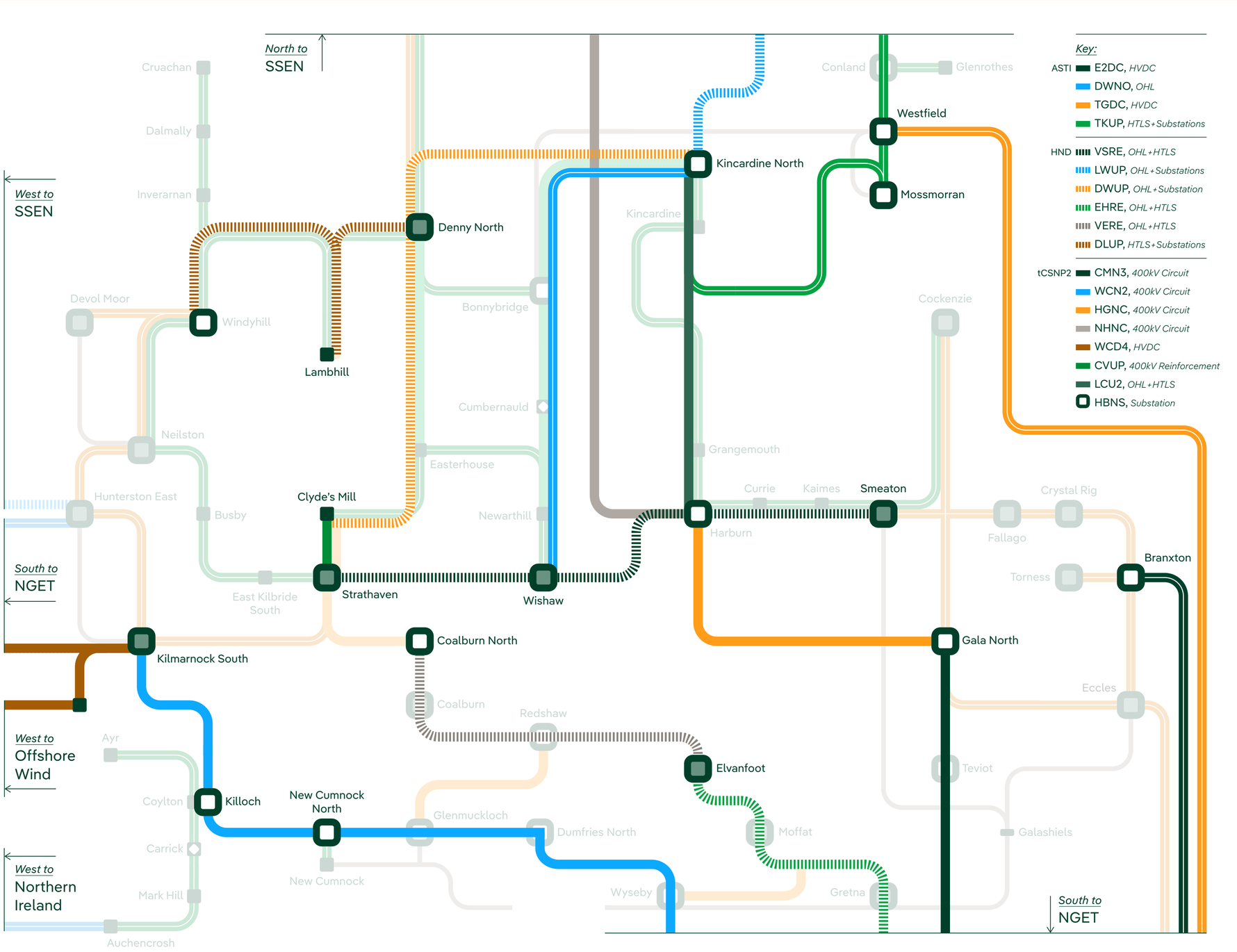


In South East Scotland, an area of relative new growth in renewables including offshore wind, we are proposing a set of projects to create another new 400kW transmission corridor.

Strategic projects

Our strategic projects are our most significant investments that will continue during the RIIO-T3 period and beyond. These projects have been identified through working closely with the NESO and the other TOs to determine the requirements, but have been developed to coordinate with all of our system needs, including works to accommodate new connections and asset health interventions.

Each of the projects have specific funding mechanisms already established and therefore are not included within our RIIO-T3 baseline plan, but are included here to provide a full overview of planned transmission investment.



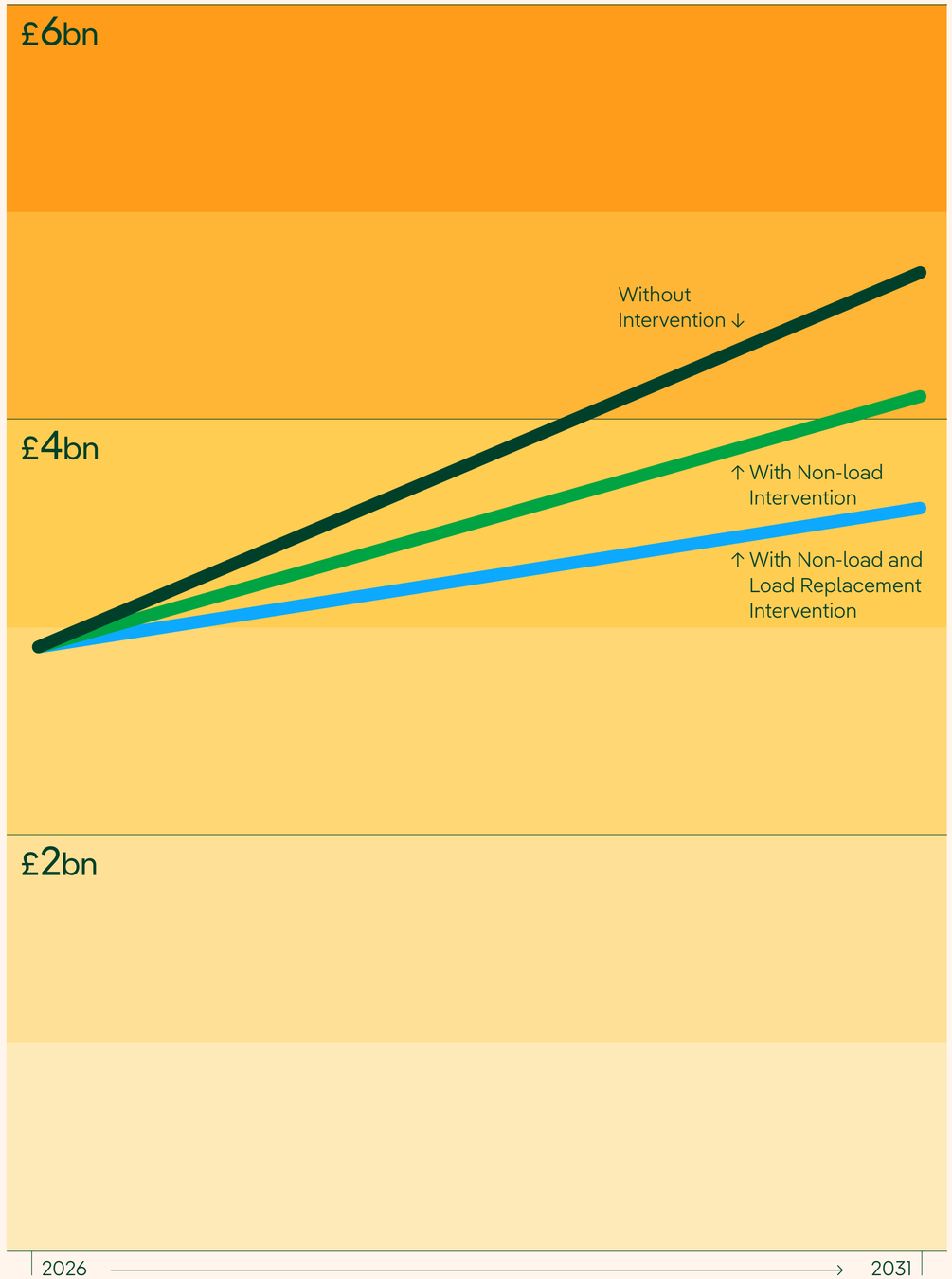
Protecting our network

We have world-class system resilience at 99.999% reliability. By keeping our assets in good condition, we avoid disruption on the network caused by asset failures. We plan to invest £507m during RIIO-T3, and the risk reduction that comes from the planned interventions is Lr£23.1bn, calculated over 45 years.

Where possible we take opportunities to replace ageing assets when we are also uprating or extending the circuit that the asset is on. This coordinated approach reduces costs and risks associated with taking circuits out of service multiple times. 80% of our planned reconductoring during RIIO-T3 will be coordinated in this way.

We are increasing by 96% our investment in network operations to £353m. Funding the activities we undertake to inspect and maintain our assets and generate the data to need to assess condition and risks. This includes large new investments in digitalisation and cyber security alongside significant measures to understand and adapt to risks to our network from more extreme weather.

RIIO-T3 Lead Asset Network Monetised Risk



EXPLORE THIS IN FULL IN OUR PLAN | PAGES 43-75

This is how... we will deliver

We are getting RIIO-T3 ready and need Ofgem to support this with early decisions and appropriate mechanisms. The foundations we have laid and the steps we are taking to create a new business-as-usual, capable of delivering at the scale and pace needed for RIIO-T3. Our readiness planning touches every part of our business, from how we recruit and train our staff through to how we create positive legacies in communities and habitats.

Organisation, workforce and supply chain

We have taken steps to ready our business in three key facets of project delivery – our operating model, our workforce and our supply chain arrangements. Our aim is to have arrangements in place that are agile enough to respond to changes in the scale and pace of work, and resilient to uncertainty and risk.

NICOL GRAY,
Policy and Licence Lead
explains our approach →

New FTE roles, (majority relating to project delivery)

INFRASTRUCTURE

1,422

Increase in in-house training capacity with a new training centre

VALUE

x2

Value of contractual framework with strategic partners

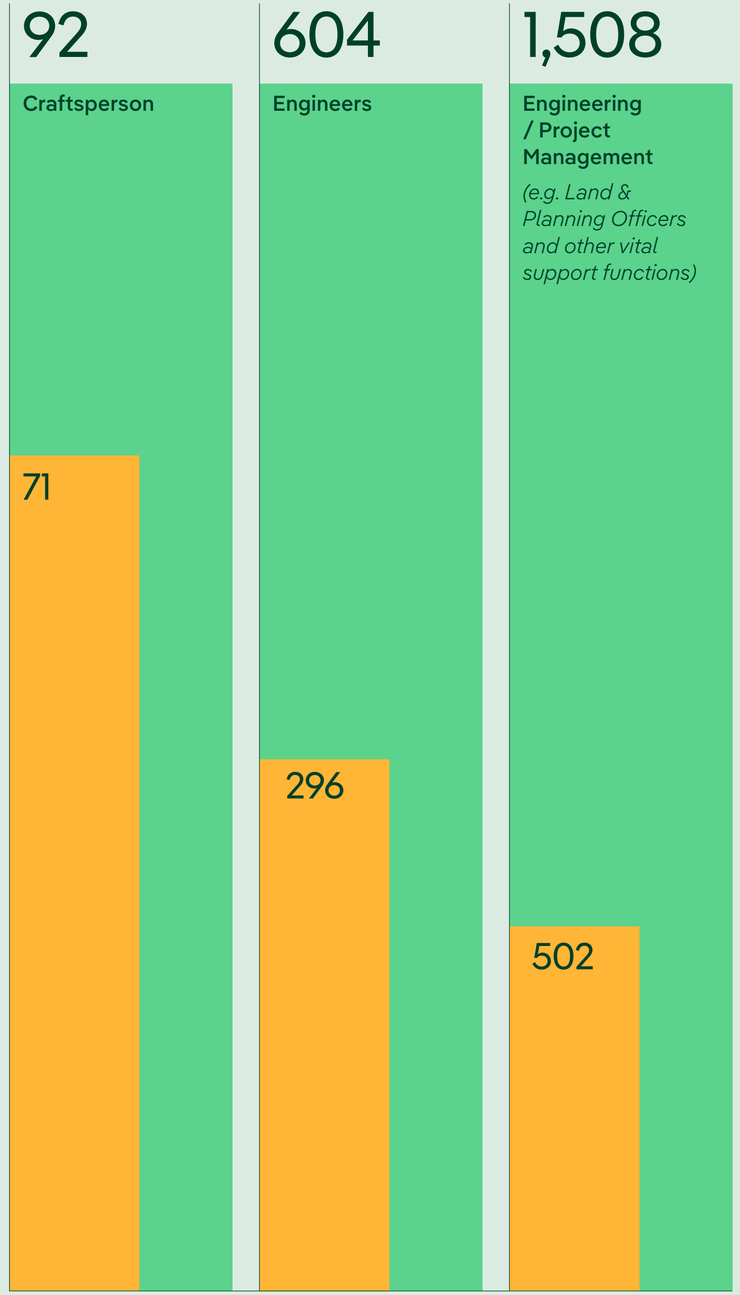
VALUE

£5.3bn

SPT Workforce role comparison

Latest Actual *(2023/24)*

Peak Forecast *(2028/29)*



Engaging with our stakeholders

Our RIIO-T3 plans are informed by the needs and aspirations of the people our network serves. Building on our business-wide engagement strategy, we have created a tailored, investment-area-specific approach to our engagement. This ensures we are speaking to the right stakeholders, about the right subjects, in the right way and keeping stakeholders at the heart of our decisions.

MATTHEW COLE,
INZAC Member
explains our approach →

SERVICE

Fund proposed to support clean energy ambitions of local communities

£20m

VALUE

Globally recognised stakeholder engagement standards

AA1000

SERVICE

Three distinct engagement themes (infrastructure delivery, communities and connections)

3

Supporting communities

We recognise that hosting new infrastructure can affect those living nearby. That is why we are committed to delivering social, economic and environmental benefits that will leave a positive legacy within the host communities and beyond. We have been engaging with the UK Government, Scottish Government and other Transmission Operators to develop a consistent approach to community benefits. Whilst we still await publication of the government guidance, we want to make sure that we are in a good position to start delivering for our communities.

We also want to ensure that the Net Zero transition is fair and inclusive, which is why our **£20m RIIO-T3 Net Zero Fund** is designed to provide much-needed support to communities struggling to advance their plans and ideas. With the extensive experience we have in this area, we are well-positioned to offer expert assistance and funding to help them accelerate their projects.

Food Train decarbonises essential community service by electrifying its fleet

Glasgow Women's Library set to become Scotland's first Net Zero museum

Nurturing and deploying innovation

During RIIO-T3, we will deliver over £380m of Totex funded innovation, comprising a mixture of deployment of proven technologies into business-as-usual, and continual improvements of operations. This planned totex-funded innovation will include the roll-out of RePower, a first of its kind approach to distribution-led system restoration, and a £338m investment in High Temperature Low Sag (HTLS) conductors capable of operating at higher temperatures to provide additional capacity.

We will also continue to make effective use of stimulus funding, made available through the SIF and NIA regulatory mechanisms, to promote innovation through collaboration with industry experts and academia.

Embedding digitalisation and becoming a data-driven organisation

In RIIO-T3, we will build on the foundational work completed in RIIO-T2. We will develop and deploy digital solutions that will enable our business to deliver the pace and scale of change which the RIIO-T3 period will require.

Investment in our data and digitalisation programme

VALUE

£94m

Four pillars for improvement to meet the intensity of RIIO-T3

INFRASTRUCTURE

4

Excellence against all 11 principles of Data Best Practice

RESILIENCE

11

PILLAR 1

Delivering tools and insights for our customers and stakeholders

PILLAR 2

Facilitating network growth through data & digital solutions

PILLAR 3

Developing smart network and asset management capabilities

PILLAR 4

Becoming a data driven organisation

Being a sustainable, responsible business

Integral within our RIIO-T3 plan are means to mitigate, reverse or offset any environmental and social impacts associated with building transmission infrastructure at the scale and pace currently necessary. We want to create positive, healthy legacies within our network areas.

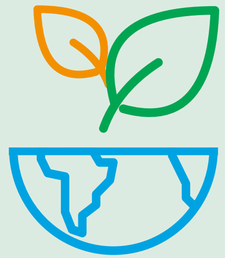
We are also focusing on mitigating our own emissions. Overall, by the end of RIIO-T3, we forecast that we will reduce our carbon footprint by approximately 66% relative to our 2018/19 baseline. Our RIIO-T3 climate action commitments are estimated to result in a reduction of around 22ktCO_2e/yr by the end of RIIO-T3 relative to the start of RIIO-T3.

EDDIE MULHOLLAND,
Director of Processes and Technology
explains our approach →

Examples of our approach

Action for Nature

Provide at least 10% enhancement to biodiversity on all projects that require planning consent.

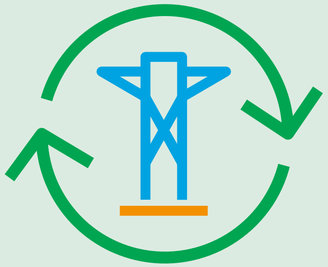


Supply Chain Sustainability

Require 80% (by value) of our supply chain to set their own validated Greenhouse Gas (GHG) reduction targets.

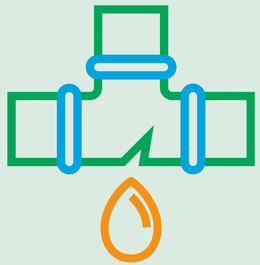
Circular Economy

30% of the aggregate, steel, or concrete we use will be recycled or reused material.



Preventing Pollution

Remove over 32km of our leakiest fluid filled cables from our network.



EXPLORE THIS IN FULL IN OUR PLAN | PAGES 76-93

This is how... our plan drives value

Our RIIO-T3 plan will significantly enhance GB critical energy infrastructure to drive secure, sustainable and affordable energy in the long-term. It will also stimulate growth in GDP and jobs, while managing risks and uncertainty. Benefits which a range of studies indicate will far exceed the £6.47 per annum average impact of our plans on customers' bills.

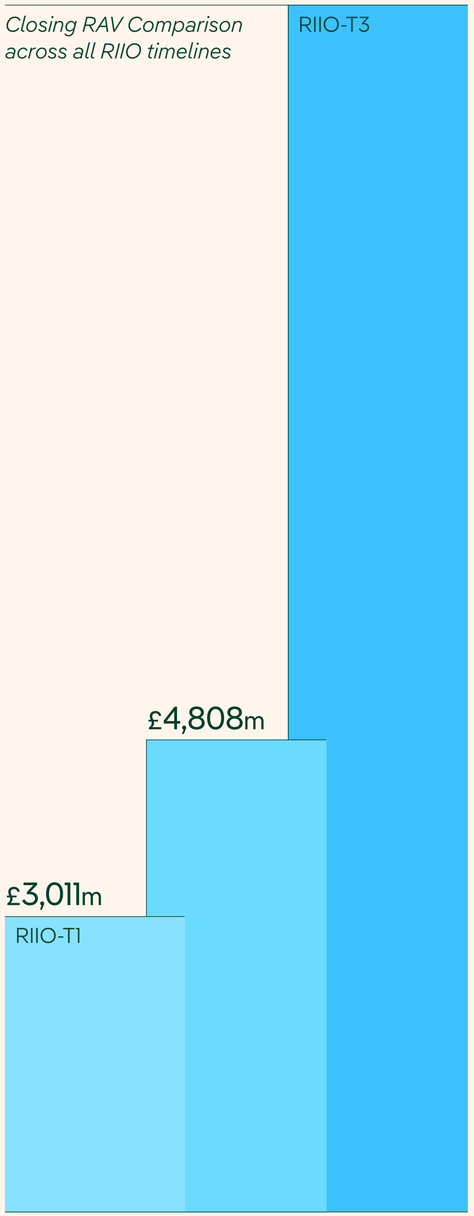
Our proposed capital programme for RIIO-T3 constitutes a large scale investment for the Scottish and UK economy. The total cost of £10.6bn is similar to that of hosting the 2012 Olympics, and around half of the cost of Crossrail 1 to build what is now the Elizabeth Line that runs through central London.

We commissioned the Centre for Energy Policy (CEP) at the University of Strathclyde to undertake independent research to model the impacts of our plans on economic growth and employment in the UK. Their findings are shown opposite.

GEORGE POTTER,
Finance and Modelling Manager
explains our approach →

Adding £7.5bn to the stock of infrastructure by 2031

Closing RAV Comparison across all RIIO timelines



More competition, lower congestion costs in wholesale markets

19GW

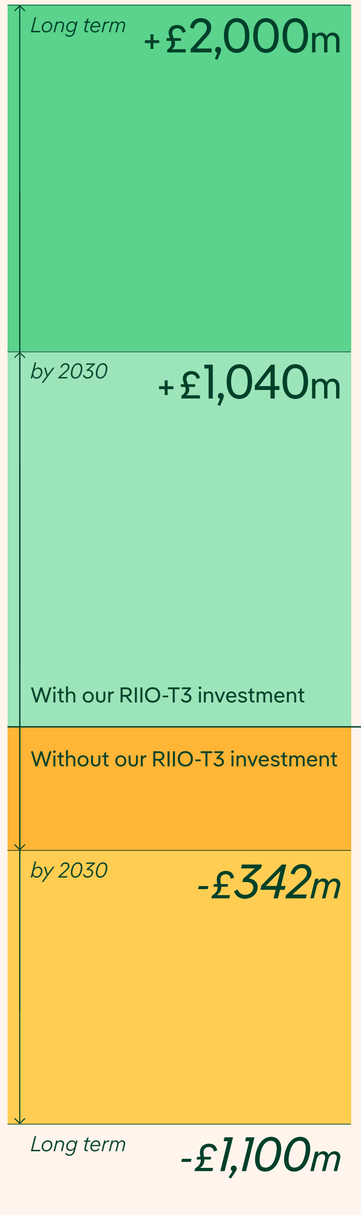
Our 'best view' of new connections, stimulating competition in wholesale markets, increasing energy security and reducing wholesale energy costs.

£167+

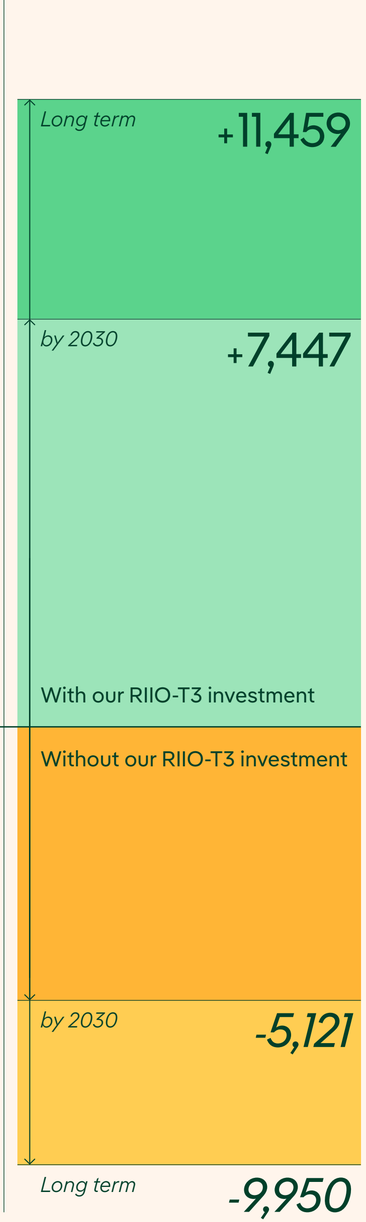
Annual saving on customer bills from the avoidance of around £4.9bn additional constraint costs by 2030.

Stimulus to jobs and growth

Impact on GDP



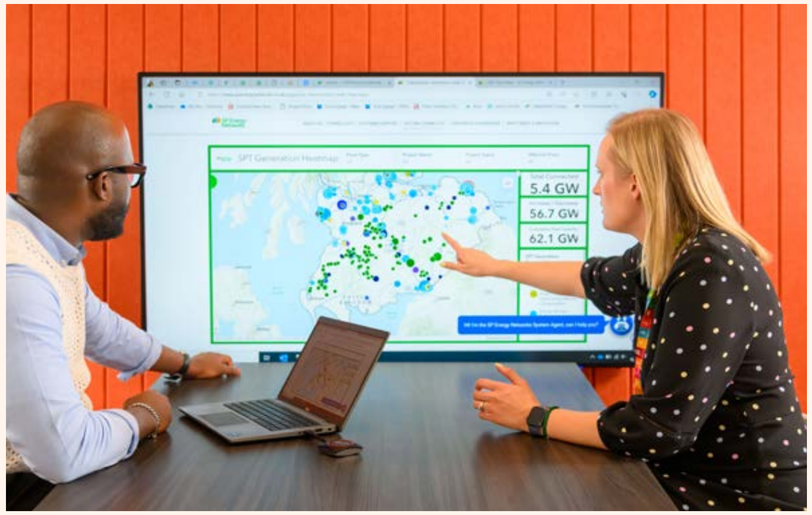
Impact on Jobs



INVESTABILITY

The scale of the investment planned for RIIO-T3 means that we need to raise significant new equity and debt finance, enabling costs to be shared equitably across current and future generations of energy consumers. How investors perceive our plans, and our ability to deliver them while also earning a fair profit, will be key to raising the required funds efficiently.

We have worked extensively with investors, consultants, other networks and Ofgem to identify what is important to investors when weighing up investment opportunities. From this engagement we have identified to a set of key characteristics that we can assess with evidence, and either "pass" or "fail".



Measure	Assessment
Financeability Assessment:	PASS OR FAIL
A fair allowed return aligned with the level of risk	PASS OR FAIL
Cashflows sufficient to make debt repayments	PASS OR FAIL
A fair bet for investors – a symmetrical balance of risk	PASS OR FAIL
Investment grade credit rating, robust to shocks	PASS OR FAIL
Cross-checks to other available investment opportunities	PASS OR FAIL
Remuneration for the cost of raising investment	PASS OR FAIL
Reasonable dividend payments	PASS OR FAIL

The setting that support our plan being financeable and investable

Cost of Equity *(60% notional gearing)*	6.86%
Cost of Debt	4.20%
WACC	5.27%
Credit Rating	BBB+/Baa1
Dividend Yield of no lower than	3.00%
Equity Issuance Allowance *and specific additional cost allowances*	5.00%
NPV Neutral Financeability Adjustment	£494m

HIGHLIGHTS FROM OUR COMMITMENTS

We have set out a series of 17 business plan commitments for the RIIO-T3 period. From a long list we carefully curated this focused set of commitments across the full range of our activities which will make us think outside of our business-as-usual operations, show ambition, are rooted in evidence and can clearly deliver additional value for our customers and communities. We have ensured each has a clear implementation plan and metrics to track progress. A selection are shown here.

INFRASTRUCTURE

Enable the transfer of more clean, green power

We will deliver projects which will increase the network capacity of the Scotland – England (B6) boundary from its current capacity of around 6.6GW to approximately 10GW.

Reduce greenhouse gas leakages

We will install SF_6-free equipment in RIIO-T3. SF_6 filled equipment will only be installed if a viable SF_6-free solution is not available. We will also reduce emissions from SF_6 leakage in line with the trajectory required to meet our Science-Based Target (SBT).

RESILIENCE

Maintain a cyber resilient network and cyber secure services

We will commit to continuous improvement in cyber security, ensuring compliance with Network and Information Systems (NIS) regulations and enhancing our cyber resilience. We strive to protect our systems and deliver reliable and resilient services to our customers, through continuous monitoring, employee training, and collaboration with industry partners.

Build our resilience to cyber threats

We will commit to a dynamic, risk-based approach to cyber security, informed by the latest threat intelligence. We will safeguard our critical infrastructure and maintain robust cyber resilience, through adaptive security measures, continuous risk evaluation, and strategic investments in advanced technologies.

VALUE

Empower the Net Zero ambitions of our communities

We will deliver a £20m Net Zero Fund in RIIO-T3 to enable more communities we serve to take part in the transition to Net Zero. Building upon success of our RIIO-T2 Net Zero Fund, we will continue to provide vital support and tailored guidance to help communities develop robust Net Zero plans and projects. We will work with community organisations and charities across our licence area to enable local decarbonisation initiatives and fund projects which will accelerate Net Zero transition and generate measurable social value.

Protect and enhance nature through our projects

We will deliver nature enhancements across all projects with a measurable impact on ecosystems, achieved through local partnerships, providing at least a 10% increase in biodiversity on projects subject to planning consent.

SERVICE

Reduce carbon emissions in our operations

We will deliver economically efficient actions to reduce our Scope 1, 2 and 3 Greenhouse Gas (GHG) emissions in line with our sector-leading 2035 Net Zero GHG Target, including targeting 80% of our supply chain, by spend, to set externally validated GHG reduction targets.

Grow a resilient workforce

We will improve our capability to deliver at pace. We have already started this transformation process and we will implement our new delivery-focussed operating model by April 2026. We have already recruited 300 new resources over the last three years, and we will recruit around 1,400 brand new roles over the RIIO-T3 period. We will fill 200 of our technical roles through our trainee programmes.

SP Energy Networks

RIIO-T3 Business Plan Summary

2026 – 2031

spenergynetworks.co.uk