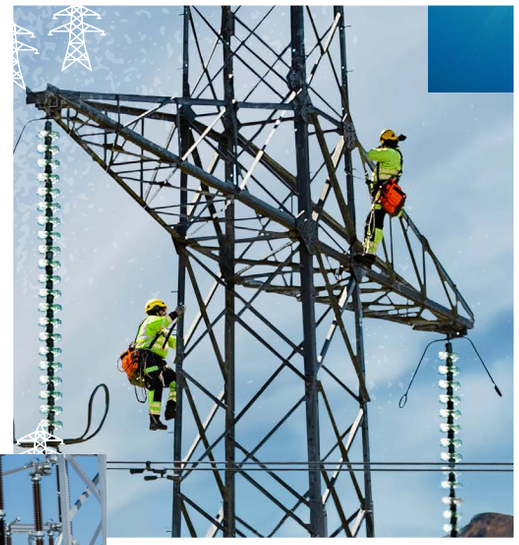
Scottish & Southern Electricity Networks

TRANSMISSION

Network Growth Strategy

December 2024



Executive Summary

The north of Scotland is rich in renewable energy resources which today make up 10.6GW[1] out of a total generation capacity of 11.9GW. With a peak demand level of 1.3GW[2], the north of Scotland is a major exporter of renewable energy to homes and businesses across the UK. The National Electricity System Operator's (NESO) Future Energy Scenarios (FES) from 2024 show that there is a deep pipeline of renewable resources predominantly offshore and onshore wind, hydro and solar, as well as flexibility through pumped hydro and battery storage capacity, in the north of Scotland.

2030 marks a significant milestone on the net zero journey, with one of our ambitious RIIO-T3 goals being to develop network capability to meet 20% of GB demand for clean power. We will measure our progress by boundary capability at the south of our network. The NESO FES forecasts that our network might support around 25GW of connected capacity by the end of RIIO-T3, a c.80% increase from the end of RIIO-T2. To facilitate this, we set out our network growth strategy comprising the following:

Strategic wider transmission investment of national significance determined within the emerging Centralised Strategic Network Plan (CSNP) framework. These investments facilitate the bulk electricity transmission over long distances, connecting mainly offshore wind through our eight approved Accelerated Strategic Transmission Investment (ASTI) projects, as well as the investments recommended by the NESO in transitional CSNP2 (tCSNP2) in March 2024.

We have developed our **industry-leading Area System Planning** (ASP) methodology to deliver net zero pathway-aligned regional investment. ASP is complementary to strategic national planning through CSNP, ensuring there is alignment in the development of the regional transmission system that will provide the link between ASTI projects and individual system users.

In addition to offshore renewable generation, onshore renewable resources are also required to meet net zero. To connect renewable generation, demand and flexibility resources such as pumped hydro and battery storage, we adopt ASP, a pathway-led approach in determining regional transmission investments. We deliver the physical connections through sole-use and small shared-use infrastructure local to the connection point. We propose that the needs for these schemes are approved automatically and costs are recovered through the appropriate uncertainty mechanisms during RIIO-T3. For the larger shared-use infrastructure, we are transitioning from scheme-by-scheme connections planning to more strategic, pathway-led and action-orientated planning, which forms the basis of our ASP. ASP is guided by FES pathways which provide a bounded direction of travel to reach net zero targets. We take no regret action now, informed by greater certainty in the short-term regarding renewable technology pipelines and policies. Our actions are strategically designed to achieve short-term milestones while remaining adaptable for the future within the FES pathways.

Our no regret action is informed by our intelligence-led approach to developing certainty in the short to mid-term through stakeholder feedback, and use of the Likely Outturn Assessment (LOA) tool, our industry-leading intelligence tool for forecasting connection likelihood over a 10-year period. Our ASP regional infrastructure planning is also shaped by policy (e.g. Scottish Government target of 20GW of onshore wind by 2030), and stakeholders (e.g. local authorities). With a clear Government-set priority on the strategic national infrastructure, our regional infrastructure is co-ordinated to maximise the connection of renewables while maintaining system security. We also coordinate regional infrastructure planning with the Distribution Network Operator, SHEPD, within the whole system framework. We simultaneously consider load and non-load network requirements including system operability and emergency restoration requirements.

We develop a wide range of network options and apply our Investment Decision Making Framework (IDMF) to determine efficient and economic investments considering trade-offs on a number of diverse factors which include environmental and community impact, cost, deliverability and operability, and strategic fit.

Our industry is changing, and so is the planning framework and associated methodologies. In addition to the development of our ASP, we actively contribute to the development of the CSNP, the Strategic Spatial Energy Plan (SSEP) and the Regional Energy System Planning (RESP) methodologies. The ASP is designed to support the SSEP development and integrate with RESP and CSNP. As these methodologies are developed, we continue to refine our ASP for efficient whole system outcomes.

Applying our ASP approach, and following the RIIO-T3 Business Plan Guidance, we have developed our ten RIIO-T3 baseline load projects. Our no-regret approach provides us with confidence that the NESO's Clean Power 2030 (CP30) pathways align with our proposed shared use works. We provide a short note on the emerging implications of CP30 and connections reform in Appendix C.

[1] As of 30/09/2024 and including 0.6GW of energy storage.

[2] Winter peak forecast for 2024 as per National Energy System Operator (NESO) Future Energy Scenarios (FES) 2024

Contents

1. Introduction

Our RIIO-T3 Network Growth Strategy outlines our approach to network planning, optioneering and governance, and our load related investment proposals for RIIO-T3. This strategy reflects our organisational context, decision making objectives and the requirements of our key stakeholders.

Our strategy and the investment proposals derived from it directly contribute to our ambitious goals for RIIO-T3:

- **Reliable Energy -** Zero interruptions in electricity supply to homes and business due to our network
- **Clean Power -** Our network will have the capability to meet 20% of the GB demand for clean power
- **Our Legacy -** Drive investment in the energy transition that delivers transformative lasting benefits for local communities, our economy and nature

Our investment planning processes focus on ensuring our network will have the capability to meet 20% of the GB demand for clean power and supports the UK in the ambition to decarbonise the power sector and meet net zero. Delivering this strategy will positively contribute to the UK ambition set out in Mission Control 2030 to deliver clean power by 2030, support the NESO in the strategic planning reforms and deliver infrastructure for customers seeking to connect to the network.

This RIIO-T3 Network Growth Strategy sets out:

- Our processes for determining need, including how we use generation and demand forecasts and sensitivities to UK policy and NESO Future Energy Scenarios.
- Our strategic optioneering process to evaluate a wide range of potential options to meet the need.
- Our overarching decision-making framework for identifying and prioritising our portfolio of investments for load related expenditure.
- Our prioritised RIIO-T3 load related capital investment proposals.
- Our approach to managing uncertainty explaining the use of uncertainty mechanisms.
- Our view on the suitability of RIIO-T3 investments for early and late competition.

This strategy should be read in conjunction with our Load Related Investment Decision Packs (IDPs) which set out the investments we will undertake in RIIO-T3 to meet our goals and commitments.

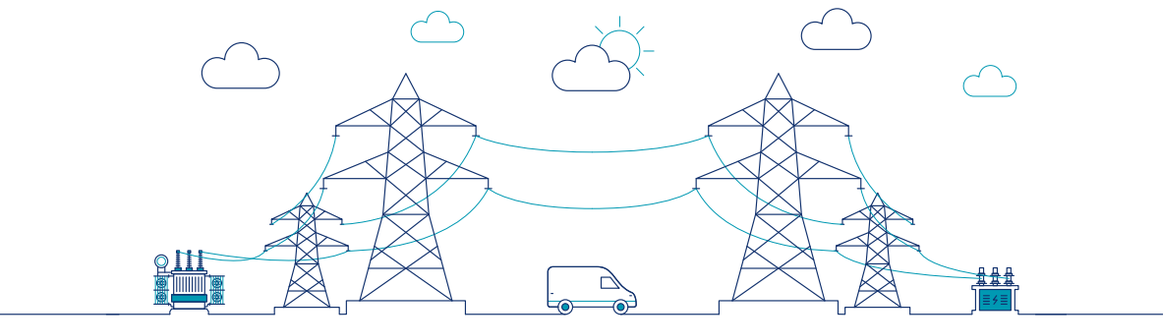
2. Accelerating the Pathway to Net Zero: Our Clean Power Milestone

Key messages

Our network will be capable of meeting 20% of Great Britain's demand for clean power by 2030, which is both ambitious and achievable. We will measure this goal by boundary transfer capability at our southern boundary.

Likely Outturn Assessment (LOA) Generation Forecast: According to our LOA, the total connected generation capacity in the North of Scotland (NoS) is forecast to reach around 25GW by the end of RIIO-T3.

Alignment with the Holistic Transition (HT) Pathway: Our LOA and our commitment are strongly aligned with the FES 2024 Holistic Transition pathway. However, the LOA forecast falls slightly short of the HT pathway target. This difference is primarily due to updated connection dates, which reflect the latest customer progress through the planning process, along with localised intelligence.



Scotland's transmission network has a strategic role to play in supporting delivery of the nation's Net Zero target, providing a safe and reliable electricity supply across the north of Scotland, and improving the overall security of supply of the nation's energy. Load-related expenditures sit at the centre of these strategic priorities by steering the investments that will drive future installations of the assets that are needed to accommodate changes in supply and demand.

The United Kingdom has committed to achieving "net zero" greenhouse gas emissions by 2050. This ambitious goal is part of its strategy to mitigate climate change and meet international obligations. The pathway to net zero by 2050 involves a combination of legislative actions, sectoral transformations, and technological advancements, all aimed at reducing carbon emissions across key areas of the economy.

Our goal in our RIIO-T3 business plan is that **our network will have the capability to meet 20% of the GB demand for clean power** by 2030. We will measure this goal by boundary transfer capability at our southern (B4) boundary.

In addition, the forecast impact of our investments in the price control and beyond to support the UK's longer-term decarbonisation is that our network will have capability to meet one-quarter of the UK's 2050 low-carbon electricity demand, contributing one-seventh of the UK's emissions reductions required for net zero.

These forecasts are in line with analysis published in our 2023 report "Getting to net zero: The critical contribution from electricity generated in the north of Scotland" but have been updated to reflect the FES 2024 Holistic Transition Pathway.

Table 1 shows how we have calculated the proportion of UK low-carbon electricity demand met by low-carbon electricity generated in the north of Scotland.

Table 1: Low-carbon generation capacity

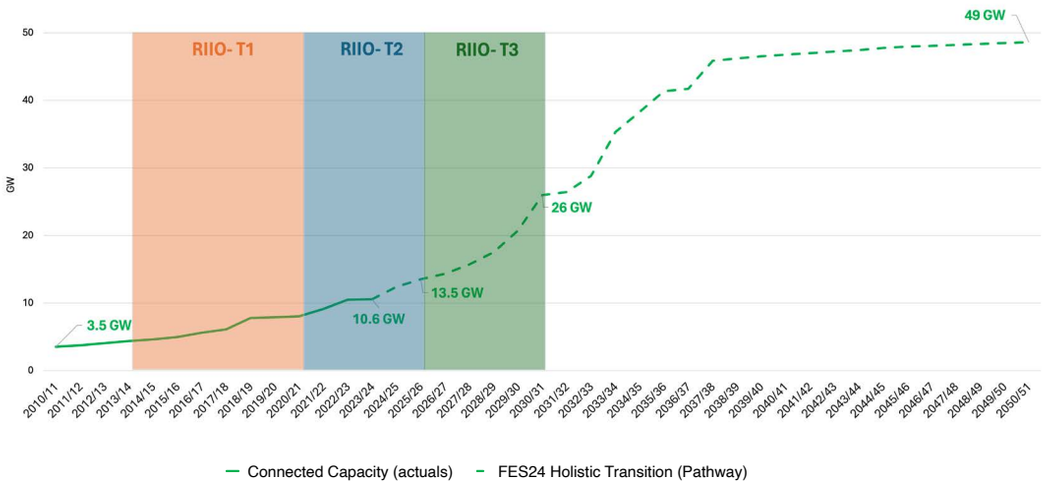
Metric	2030	2050
Low-carbon generation capacity connected to the north of Scotland Network (GW). Low-carbon generation includes: BECCS, Gas CCS, Biomass CHP, Hydro, Hydrogen, Offshore Wind, Onshore Wind, Solar, Marine, Waste and Other Renewables. It excludes unabated fossil generation, storage technologies and interconnectors. (source - *FES 2024 Holistic Transition Pathway Winter Rankings dataset for technology breakdown).*	**20.8**	**42.9**
Low-carbon electricity generated in the north of Scotland (TWh/year). Row above multiplied by technology-specific load factors from the *TNUoS Final Tariff Model 2023/24* (for hydro, offshore wind, onshore wind and pumped storage) and analysis of *FES 2024 Holistic Transition Pathway* (for all remaining technologies), comparing TWh generated toGW capacity to derive load factors.	**76**	**159**
UK low-carbon electricity demand (TWh/year). The CCC dataset does not include low-carbon electricity demand, so it is calculated as Total UK electricity demand minus unabated electricity generation. (source - *CCC Sixth Carbon Budget, Balanced net zero Pathway*).	**329**	**612**
Proportion of UK low-carbon electricity demand met by low-carbon electricity generated in the north of Scotland (%). Division of previous two rows.	**23%**	**26%**

The forecast landscape is constantly evolving, with the Committee for Climate Change's seventh carbon budget due in early 2025, ongoing annual updates of the FES pathways and the impacts of Clean Power 2030 and connections reform still to be fully clarified. This specific analysis draws on the FES 2024 Holistic Transition Pathway for generation capacity and the CCC sixth carbon budget for electricity demand, which allows us to calculate our contribution to UK GHG emissions reduction.

However, the broad result still holds true when using other datasets for generation capacity (e.g. our Likely Outturn Assessment, see following section) and electricity demand (e.g. FES 2024). Figure 1 shows the buildup of connected generation capacity on our network from 2010 to 2023 and the FES 2024 HT Pathway up to 2050. Forecast generation connected to our network will meet 20% of the nation's demand for clean power by 2030. This gives us confidence that our 20% by 2030 commitment is a robust description of our contribution to the net zero transition.

Our goal for 2030, and forecast impact by 2050 are ambitious, requiring us not just to keep pace with growing UK electricity demand but to actively grow our network capability over time. However, they are grounded in our deep understanding of our network, our customers, and the application of innovative new technologies and processes, such as our Area System Planning methodology. Our success depends on sustained investment, innovation, and engagement with stakeholders to ensure we can deliver the necessary investments in infrastructure to enable these outcomes.

Figure 1: Generation capacity connected to our system (2010-23) and FES 2024 HT Pathway (2024-50)



Our Likely Outturn Assessment (LOA)

Our Likely Outturn Assessment (LOA) is an important tool we use to forecast the connection likelihood and timing of generation and demand schemes to our network over a ten-year period. It provides a bottom-up assessment that focuses on the progress of individual users' schemes through their development, consenting, and construction process, offering a granular, data-driven outlook on when schemes are likely to connect. Our LOA and the associated analysis of the generation pipeline shows that our goal is credible and has a realistic pathway to delivery.

The LOA is built from the ground up, using actual pipeline data and historical trends, making it an essential tool for internal planning and resource allocation. The LOA derived insights and scenarios are a critical input to the NESO's top-down assessment of Future Energy Pathways as the basis for the development of the NESO's energy technology plant list and associated assumptions around development timelines and build rates.

The LOA, which is updated on a quarterly basis, encapsulates the localised, up-to-date knowledge that is derived from our customer and stakeholder engagement insights and to meet our obligation to continuously and independently assess the evolving future energy landscape in the north of Scotland. More details on the LOA are provided in Appendix A.

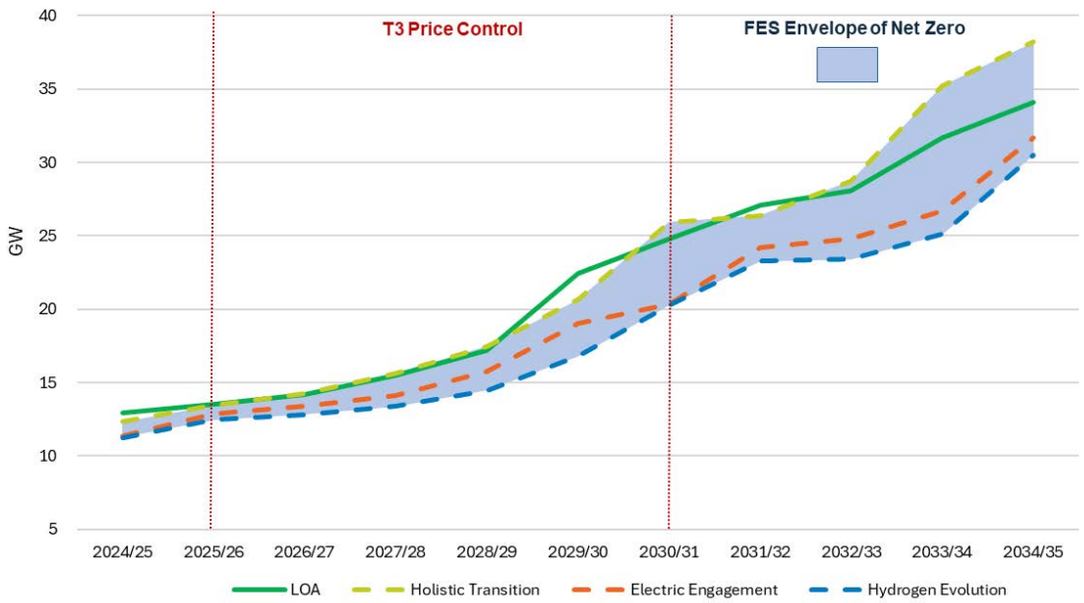
Scenario Analysis

Our LOA generation forecast as depicted in Figure 2 reaches 24.8GW by the end of RIIO-T3, falling marginally short of the NESO's Holistic Transition pathway which reaches 26GW.

This difference is driven by SSEN Transmission's localised intelligence on the generation pipeline in the north of Scotland, considering up-to-date reflection of current connection dates, schemes progress through the planning system and developer intelligence. This is likely to be impacted by the outcome of connections reform which is not accounted for here (see Appendix B).

The NESO's pathways reflect the contracted position in the north of Scotland's at a point in time (July 2024) alongside their modelling assessment of wider GB energy system need and phasing assumptions of schemes to meet Net Zero. Despite this difference there is strong overall alignment between the LOA in terms of both overall forecast capacity and mix of technologies.

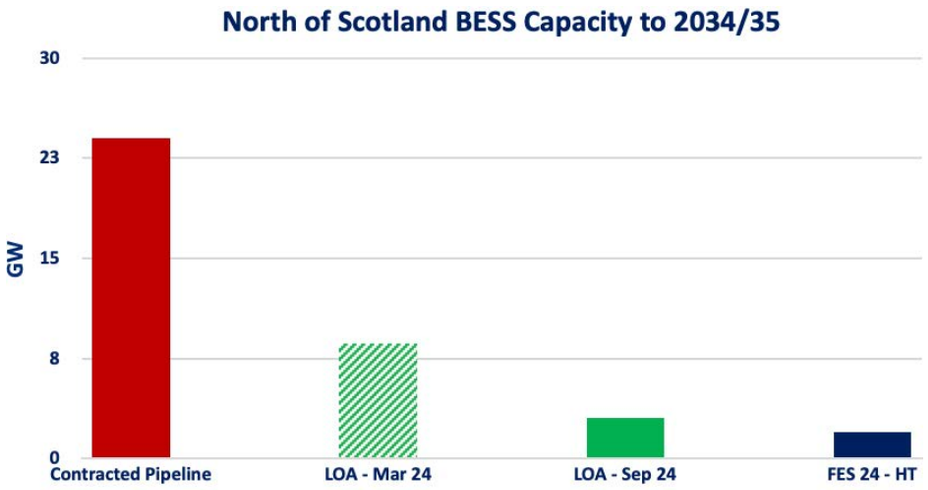
Figure 2: SSEN Transmission Likely Outturn Assessment Q3 2024 aligned with FES 2024 Future Energy Pathways for North of Scotland



With regards to scenario planning the key uncertainty is around the impact of Battery Energy Storage Systems (BESS) schemes on our network plans. There is a pipeline of over 20GW of BESS schemes contracted to connect over the next ten years in our network. This is a stark difference to the NESO's Future Energy Pathway modelling results indicating that by the end of RIIO-T3 only around 2GW of capacity will be required in the Holistic Transition pathway. Figure 3 shows the BESS capacity in the SSEN Transmission area based on different forecasts up to 2034/35.

However, it is expected that the Holistic Transition pathway is likely to estimate only a lower bound of the capacity seeking to connect. This is because the modelling methodology utilised to develop the pathways only captures the value of energy arbitrage in a day-ahead type market, whereas in real life, BESS schemes benefit from stacking revenues across a variety of interlinked and separate markets due to the flexibility of the technology.

Figure 3: SSEN Transmission BESS Capacity



Added to this, further uncertainty arises due to the lack of historical data on the progression of BESS schemes, particularly those above 100MW in size, and the observation that many of the connection applications for BESS may have been very speculative in nature. With these uncertainties in mind, we have applied a higher attrition rate to the BESS pipeline relative to other technologies in our network area. This does however result in closer alignment with the BESS capacity in the Holistic Transition pathway.

Our business plan includes Investment Decision Packs where we are seeking need approval to allow us to progress ten LRE schemes, in accordance with the Business Plan Guidance. It is our expectation, as with previous price controls, that we would seek approval for further schemes during the period through uncertainty mechanisms. The new Government mission for clean power by 2030 is not taken into account in this position.

We have engaged extensively with the NESO over the past few months to explore opportunities to accelerate schemes to facilitate CP30 ambitions. We have identified a number of other low regret schemes that would support CP30 ambitions. These schemes are included within our LOA and we anticipate presenting these schemes for need approval in a supplementary submission in Q1 2025 (see Appendix C). All the regional shared-use schemes submitted to the NESO as part of CP30 also appear in our LOA forecast.

3. Our Investment Proposals

Key messages

Our investments in RIIO-T3 encompass both Strategic Investment at the national level and Regional Investment in the north of Scotland. Together, these investments enable us to meet our commitment to net zero clean power and to have the network capability to meet 20% of Great Britain's clean power demand by 2030.

Strategic Investment - ASTI

We are currently progressing the development and delivery of large strategic infrastructure schemes through the ASTI framework:

i. As part of the Holistic Network Design, we have identified eight strategic investments. Four of these are subsea HVDC (High Voltage Direct Current) links, while the other four involve onshore reinforcements of overhead lines and substations. We have secured the supply chain for these projects and are on track for construction, which is expected to begin between 2024–2028.

ii. We expect to progress five more strategic investments derived from the NESO's Beyond 2030 Report and these will be progressed via the RIIO-T3 load framework to establish final cost and delivery obligations. These projects are expected to enter construction between 2026–2031.

Regional Investments

Our area investment plans for 2030 consist of three key elements:

- **LOTI:** Large regional reinforcements in Argyll, Skye and Orkney. These investments have been approved by Ofgem under its Large Onshore Transmission Investment (LOTI) framework, and are due to be energised in 2028–2029.
- **RIIO-T3 LRE (Need Approval):** Our RIIO-T3 plan comprises ten new investments that are required in the period and we are seeking approval of the need to progress these projects.
- **RIIO-T3 LRE (Uncertainty Mechanisms):** Our RIIO-T3 plan includes a projection of the generation schemes and associated infrastructure (Shared Use, Sole Use & Transmission Connection Assets (TCA)) required to meet our LOA projection in line with the FES 2024 Holistic Transition pathway. This Business Plan has been prepared on the basis of approval of allowances for these schemes through RIIO-T3 Uncertainty Mechanisms.

Our Strategic and Regional Investments will provide the network capability to meet 20% of GB demand for clean power and we will measure our progress by boundary transfer capability on our southern border (boundary B4).

Our approach to investment is fundamentally guided by collaboration with the NESO, other Transmission Operators (TO) and the Distribution Network Operator (DNO), SHEPD, alongside our wider stakeholders.

At the strategic level we use a whole system approach utilising existing planning frameworks and those such as the Holistic Network Design (HND) process and the transitional Centralised Strategic Network Plan (tCSNP) which have emerged in RIIO-T2 in recognition of the need to accelerate network infrastructure.

Our approach to network growth at the regional (or area) level seeks to mirror the national approach. Our industry-leading Area System Planning is a methodical approach to bridge the gap between national infrastructure planning (i.e. HND, tCSNP2 and CSNP) and local connections. It recognises if we are going to achieve net zero at the lowest cost, we must move away from local scheme-by-scheme connections to pathway-led planning. It is:

Pathway-led and action orientated: Guided by FES pathways to reach long-term targets, we take no-regret action now. With greater certainty in the short-term regarding technologies and policies, we act to achieve short-term milestones while remaining adaptable for the future. We can do so because the pathways bound the direction of travel.

Intelligence-led: Our confidence in short-term actions is bolstered by stakeholder-informed intelligence, particularly, our LOA. This mature, industry-leading intelligence tool forecasts connection likelihood over a 10-year period, ensuring shared use infrastructure works are no-regret. Crucially, it also provides us confidence that the NESO's Clean Power 2030 pathways align with the proposed shared use works.

Policy and stakeholder-informed: Our regional infrastructure planning is shaped by policy (e.g. Scottish Government target of 20GW of onshore wind by 2030), and stakeholders (e.g. local authorities).

Pathway to 2030 and Beyond

Our investments in RIIO-T3 cover both Strategic Investment at a national level and Regional Investment within the north of Scotland. Collectively these investments allow us to meet our net zero clean power commitments and provide the network capability to meet 20% of the GB demand for clean power by 2030.

Strategic investment at a national level. This involves the 'motorways' of the grid that transport electricity in bulk over long distances, **connecting offshore wind** through our eight approved ASTI projects.

Regional investment within the north of Scotland. This involves **connecting onshore generation**, primarily wind but also solar, demand and batteries. These are guided by our industry-leading processes and decision-making tools. This investment includes:

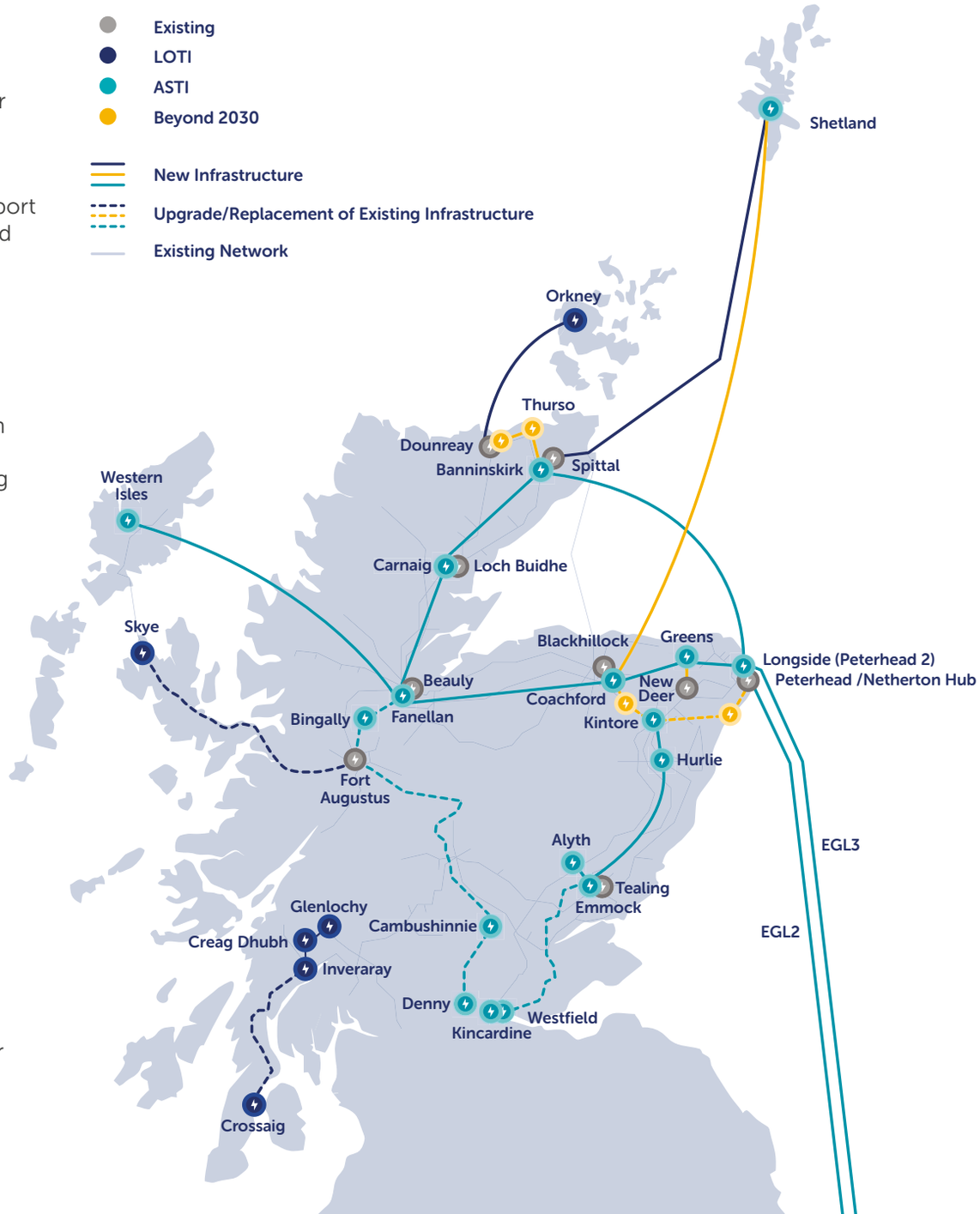
- **'A-roads':** The main routes connecting individual connection schemes to the transmission network. This typically involves large, shared-use infrastructure. We aim to transition from scheme-by-scheme connections to a more strategic, pathway-led planning (ASP), starting with the approval of our ten RIIO-T3 baseline load projects and our three approved Large Onshore Transmission Investments (LOTI); and
- **'Driveways':** These connect individual connections (sole-use) and small shared-use infrastructure, usually approved through the automatic volume driver mechanism.

The value of investment typically decreases as we move from motorways to driveways, and we would expect the level of regulatory intervention to reflect this.

Considering 2030 is a milestone on our journey to net zero, not the end point during the RIIO-T3 period, we will also develop:

- **Beyond 2030 projects:** These include projects to connect further offshore wind by the mid-2030s, some of which Ofgem has confirmed we are delivering and one of which we have approval for delivery with further assessment by Ofgem on exemption from competition.
- **Offshore Grids:** The development of two offshore grid projects; HND offshore network design (OG1) and HND Follow Up Exercise (FUE) offshore network design (OG2).

With clear priority on the strategic national infrastructure, our regional infrastructure is co-ordinated with this to maximise the connection of renewables while maintaining system security. We also coordinate regional infrastructure planning with the Distribution Network Operator, SHEPD, within the whole system framework. We simultaneously consider load and non-load network requirements including system operability and emergency restoration requirements.



Strategic Investments

Accelerated Strategic Transmission Investment (ASTI) Investments

The 'Pathway to 2030 Holistic Network Design' publications from the NESO in July 2022 set out the blueprint for the strategic electricity transmission network infrastructure required to enable the forecast growth in renewable electricity across Great Britain by 2030.

This was the result of a collaboration between the NESO, TOs and wider stakeholders to identify national investment that is critical to powering the just energy transition —meeting Scotland and the UK's renewable energy ambition and accelerating infrastructure delivery to meet the 2030 offshore wind targets. For our network, eight strategic investments were identified as required. Four of these are subsea HVDC links, and four are onshore reinforcements of overhead lines and substations.

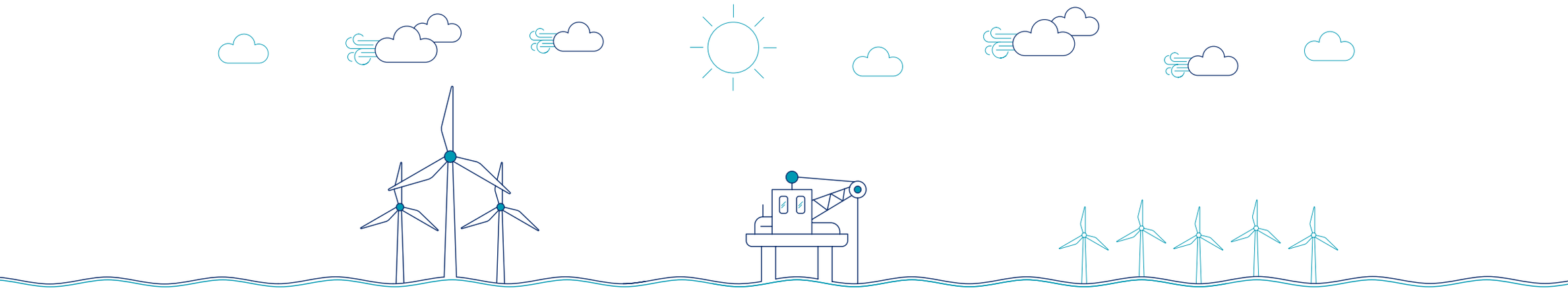
Decisions on the future strategic national infrastructure are determined through the emerging CSNP, led by the NESO and informed by the TOs, with the aim of meeting renewable targets[3].

In December 2022, Ofgem approved the need for these projects as part of its ASTI framework. These are now firmly embedded in our current activities where we are investing in pre-construction (i.e. development) and early construction (i.e. securing key supply chain) now, resulting in an increase in our overheads to ensure delivery in the RIIO-T3 period.

Over the past 18 months, we have undertaken extensive public consultation on these investments and, where possible, made modifications in response to feedback. We have secured the supply chain for all of projects, excluding EGL3 (New offshore HVDC link between Peterhead and the East Coast of England (Eastern Green Link 3)) although tenders have recently been returned. These projects are expected to enter construction between 2024–2028 and will deliver:

- Two 2GW subsea high-voltage direct current (HVDC) links from Peterhead to England, both of which will be taken forward as joint ventures with National Grid Electricity Transmission (NGET);
- A 2GW subsea HVDC link from Spittal in Caithness, connecting to Peterhead;
- A 1.8GW subsea HVDC link from Arnish on the Western Isles, connecting to the north of Scotland mainland;
- 400kV onshore reinforcements, between Beauly, Blackhillock, New Deer and Peterhead; between Beauly, Loch Buidhe and Spittal; and between Kintore, Tealing and Westfield;
- Uprating the existing Beauly to Denny line to enable 400kV operation on both circuits.

The above projects are included within Table 11.2 ASTI & tCSNP2 Memo table within our RIIO-T3 Business Plan for information purposes. We anticipate approval and full allowances for these schemes through the ASTI/tCSNP reopener mechanisms.



[3] Decision on accelerating onshore electricity transmission investment | Ofgem

Our transitional Centralised Strategic Network Plan Investments

The NESO has developed a further network plan that recommends network reinforcements needed beyond 2030, published in the transitional Centralised Strategic Network Plan 2[4]. The framework for tCSNP2 projects builds on the ASTI framework, but it also recognises the important differences between projects recommended by the NESO in tCSNP1 (Pathway to 2030) and tCSNP2, primarily that most (but not all) tCSNP2 projects are at an earlier stage of development than tCSNP1 projects. tCSNP2 introduces development and delivery track pathways and Ofgem is currently consulting on the projects and the associated pathway for each of the proposed investments:

- Projects in the development track will receive an initial development funding allowance for TOs to develop further and submit them for re-assessment by the ESO in the second half of 2025.
- Projects in the delivery track will receive a pre-construction funding allowance with further funding possibly available under the applicable tCSNP mechanism (decision expected by Dec 2024) to progress the projects into construction and delivery.

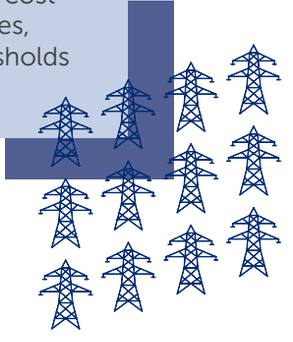
Ofgem is currently consulting on the proposed regulatory funding and approval framework for onshore tCSNP2 projects. But our expectation is that we will be confirmed as the delivery body for projects in the north of Scotland. We expect Ofgem to confirm our delivery track projects as:

- **NNNC:** A new 400kV Circuit between New Deer and Greens (New Deer 2 with an Earliest In-Service Date (EISD) in 2030. Identified through the tCSNP2, and proposed to be integrated for delivery purposes into the BPNC ASTI scheme.
- **BKUP:** An upgrade to the existing network to a higher 400kV voltage between Blackhillock and Kintore with an Earliest In-Service Date (EISD) in 2034. Currently in the development phase, and expected to be progressed through the tCSNP2 delivery track.
- **DSUP:** Will provide further connection capacity at 400kV between Dounraey, Banniskirk (Spittal) and Thurso with an EISD in 2034. Currently in the development phase, and expected to be progressed through the tCSNP2 delivery track.
- **PKUP:** An upgrade/rebuild of the existing Peterhead – Kintore OHL route for 400kV operation, and a new 400kV substation at Persley tee, with an EISD in 2033. Currently in the development phase, and expected to be progressed through the tCSNP2 delivery track.
- **PPUP (LPUP):** A rebuild of the Peterhead – Longside (Peterhead 2) 400kV OHL route with triple Araucaria conductor with an EISD in 2033. Currently in the development phase, and expected to be progressed through the tCSNP2 delivery track, and proposed to be integrated for delivery purposes into the BPNC ASTI scheme.
- **SHL2:** A new 1.8GW HVDC link between Shetland and Coachford with an EISD in 2033/34. Currently in the development phase, being progressed through the tCSNP2 delivery track.

We expect Ofgem to confirm our development track projects:

- **NHNC:** A new build 400kV double circuit OHL from North East Scotland to the Central Belt with an EISD in 2038. Being progressed through the tCSNP2 development track with further options to be assessed in the tCSNP2 refresh.
- **HNDFUE schemes ("OG2"):** Three assets identified by the ESO in the HNDFUE and subsequently classified as "onshore transmission" by Ofgem for regulatory purposes. In the strategic optioneering phase as part of a wider HNDFUE detailed network design phase, with funding provided through the tCSNP2 development track. We expect the final HNDFUE design to be validated in 2025 by the NESO.
- **AC3 and AC4 ("OG1"):** Assets identified by the ESO in the HND and subsequently classified as "onshore transmission" by Ofgem for regulatory purposes. Impact assessment underway by the NESO to validate final design of the HND, with assets currently expected to be delivered through the ASTI framework.

The above projects are included within Table 11.2 ASTI and tCSNP2 Memo table within our RIIO-T3 Business Plan for information purposes. We anticipate approval and full allowances for these schemes through the ASTI/tCSNP reopener mechanisms. These projects will be subject to a cost only reopener in the RIIO-T3 period to establish cost, energisation dates, incentives and penalty rates, and cost and output adjusting event thresholds as per the ASTI process.



[4] Consultation on the proposed regulatory funding and approval framework for onshore transitional Centralised Strategic Network Plan 2 projects

Regional Investments

The establishment of the NESO and the introduction of more coordinated planning mechanisms, such as the Strategic Spatial Energy Plan (SSEP), Centralised Strategic Network Plan (CSNP) and Regional Energy System Planning (RESP) are reshaping our industry from an individual connection-driven approach to system-wide generation and network planning.

These reforms and others, such as the Connections Reform, are designed to bring more strategic coherence to network development, providing us with clearer system-wide targets to integrate into our planning process. Importantly, these efforts build upon the work we are already doing, but with a greater emphasis on aligning local and national objectives.

The accuracy of the forecast for future need greatly matters in planning and building the right infrastructure at the right time and ensuring an economic and efficient network build. Overbuilding can lead to inefficiencies and excess costs, while underbuilding risks causing delays to net zero targets, costly iterations, and cumulative environmental and community impact.

Each of these policy reforms has the potential to change which generation and demand technologies connect to our network, when they connect, and the overall power flows across our network and beyond. We are working closely with industry stakeholders to ensure effective implementation of these reforms whilst also developing our industry-leading Area System Planning (ASP) approach for developing our regional network (see section 5).

Recognising the timeframes associated with implementing the above industry reforms and our transition toward ASP, we have set out our regional investment plans based on current levels of intelligence and certainty. Our regional investment plans for 2030 have three elements:

- **LOTI:** Large regional reinforcements in Argyll, Skye and Orkney. These investments have been approved by Ofgem under its LOTI framework, and are due to be energised in 2028-2029.
- **T3 LRE (Need Approval):** Our RIIO-T3 plan comprises ten new investments that are required in the period and we are seeking approval of the need to progress these projects.
- **T3 LRE (Uncertainty Mechanisms):** Our RIIO-T3 plan includes a projection of the generation schemes and associated infrastructure (Shared Use, Sole Use & Transmission Connection Assets (TCA)) required to meet our LOA projection in line with the FES 2024 Holistic Transition pathway. This Business Plan was prepared on the basis of approval of allowances for these schemes through T3 Uncertainty Mechanisms, although we are reviewing this in the context of CP30 (see Appendix C).

LOTI Investments

The Large Onshore Transmission Investments re-opener provides electricity Transmission Owners (TOs) with a route to apply for funding for large investments in the network, for example that may be required during RIIO-T2 to meet decarbonisation or system reliability needs. Projects coming through the LOTI re-opener would not have been funded at the time of setting the price control due to insufficient certainty regarding their need, scale and/or timing. We are progressing three projects through the LOTI reopener.

- **Orkney:** The Orkney transmission project, will deliver a 220MW subsea cable between Orkney and the Scottish mainland. The Orkney transmission link will enable the connection of up to 220MW of new renewable electricity and consists of a new substation at Finstown in Orkney, and around 57km of subsea cable, connecting to a new substation at Dounreay in Caithness.
- **Argyll:** The Argyll project is an electricity transmission infrastructure project that upgrades parts of the existing network from Crossaig to a connection point located east of Dalmally Village on the Scottish Power Transmission (SPT) Dalmally–Windyhill 275kV Overhead Line (OHL). With the appropriate network infrastructure, SSEN Transmission intends to uprate the 132kV operation to 275kV.
- **Skye:** The Skye project is an electricity transmission infrastructure project that proposes to replace the existing single circuit 132kV overhead line (OHL), spanning across 160km between Fort Augustus 400kV substation on the mainland to Ardmore on the Isle of Skye.

These three projects all have final needs case approvals, and are subject to project assessment for funding allowances. The projects are included within data tables within our RIIO-T3 Business Plan for information purposes.

RIIO-T3 LRE (Need Approval) Investments

We have identified ten schemes where we are seeking approval of the need and preferred option in our RIIO-T3 proposal. These schemes have high certainty on need and are required to either meet generator connection dates or are required due to system performance requirements, and will enable 2.2GW of connections in the LOA. Asset condition provides additional need justification for a number of these schemes.

Our proposals for each of these schemes is still at the development stage and, while we are confident in the need and preferred option, we don't have sufficient confidence in our cost estimates to request full project funding for these schemes. We are seeking Pre-Construction Funding allowances to allow full development for each of these schemes and propose to submit full project cost assessment in the future.

The investment decision packs for the ten schemes included in our RIIO-T3 plan are described Table 2.

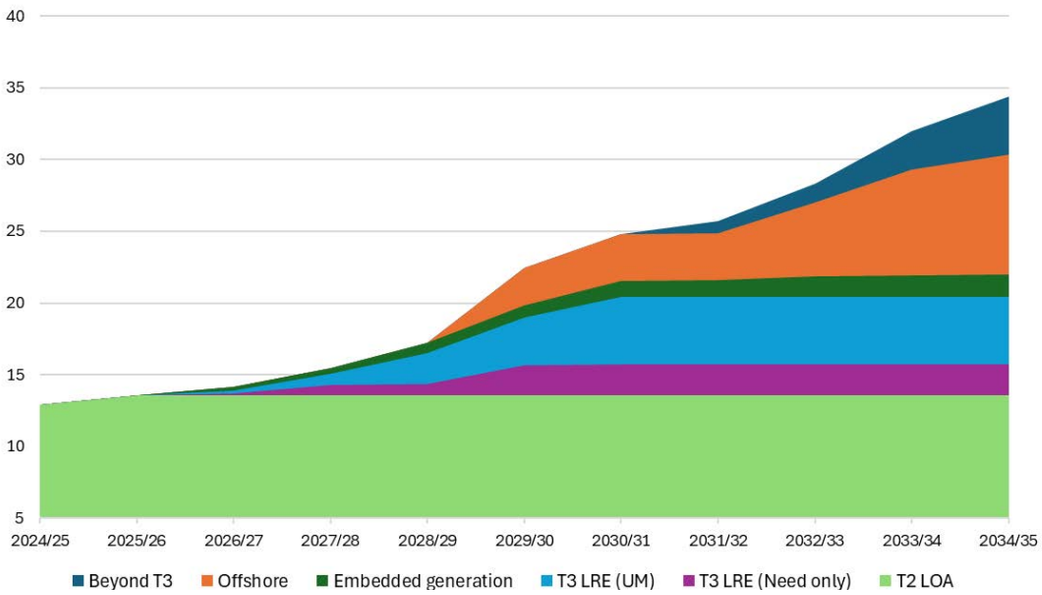
Table 2: Our RIIO-T3 Investment Proposals - T3 LRE (Need Approval) Investments

Project	EJP Reference	Description
East Coast 275kV	LT000542 T3BP-EJP-047	East Coast Infrastructure upgrade aligning asset health conditions with future connection requirement. A Strategic Investment which includes the upgrade of the existing Fetteresso 132kV busbar to a double busbar with a new 480MVA 400/132kV SGT, new 275kV double busbar (future proofed for 400kV operation) and reconductoring of the Tealing Arbroath OHL, upgrading of GSPs (Fiddes, Bridge of Dun).
Strathy Cluster	LT000107/108/229/230/559/560 T3BP-EJP-052	Connection of Strathy Wood and Strathy South Wind Farm. Installation of Connagiill 480MVA 275/132kV SGT. Construction of a double circuit 275kV line from Connagill substation to future Strathy Switching Station via two new OHLs initially run at 132kV capability for 275kV operation.
Melgarve Cluster	LT000217/218/286/287/419 T3BP-EJP-050	Connection of Cloiche and Dell wind farms on Shared Towers
Dundee City Phase 1	LT000490 / 491 / 598 T3BP-EJP-021	First Phase of the Dundee city strategy. New 132kV Double Bus Bar at Stannergate with new GSP to replace existing Dudhope GSP and facilitate connections. Extension of Tealing to accommodate new connections
Taynuilt – Creag Dhubh OHL	LT000039 T3BP-EJP-048	Alignment of asset health and connection activity to replace of 14km of existing 132kV OHL between Taynuilt and Creag Dhubh initially operated at 132kV future proofed for 275kV.
Coire Glas	LT000095/111/112/113 T3BP-EJP-049	Connection of Coire Glas Pumped Storage Hydro and associated network infrastructure including new 400/132kV substation, 2 X 480MVA 275/132kV transformers and 15.5km of 400kV OHLs. Enabling the rationalisation of assets and accommodates new connections.
Mossy Hill	LT000292/293/566 T3BP-EJP-053	Connection of Mossy Hill Wind Farm and establishment of a Tee-connection on one of the Kergord to Gremista 132kV circuits.
Harmonic Filter	LT000466 T3BP-EJP-051	Installation of a Harmonic Filter at new Crossaig North substation to remove harmonic distortion
Clash Gour	LT000263/264/381 T3BP-EJP-057	Connection of Clash Gour Wind Farm, 132Kv single busbar arrangement and 2 X 480MVA 275/132kV
Tealing Solar	PT000926/927/928 T3BP-EJP-055	Connection of Tealing Solar and establishment of a Tee-connection onto one side of the 132kV Tealing – Arbroath

T3 LRE (Uncertainty Mechanism) Investments

Our LOA highlights that we forecast our network will have 24.8GW of generation connected by the end of RIIO-T3 (2030/31) as per Figure 4 below:

Figure 4: Likely Outturn by Investment Category



We forecast that we will have 13.6GW connected to our network at the beginning of the RIIO-T3 period (2025/26). Delivery of the RIIO-T3 LRE (Need Approval) Investments will allow connection of another 2.2GW of additional generation to connect to our network (see purple area in Figure 3 above).

As outlined previously our LOA is based on a methodology that provides a bottom up view of the likely volume of new generation that will connect to our network, this allows us to plan for future infrastructure requirements and provides a basis to inform our financial modelling. At this stage (without taking into account connections reform and CP30) there is still a high degree of uncertainty surrounding which generation schemes will connect and the associated configuration requirements for our network.

Work is ongoing to understand future network requirements, including implementation of our Area System Planning methodology, and we anticipate firming up infrastructure requirements when there is a higher level of certainty. We have included an estimate of the anticipated level of infrastructure requirements in our business plan and anticipate allowances will be approved through RIIO-T3 Uncertainty Mechanisms (Connections Delivery Mechanism & Load Related Reopener mechanism). A summary of our RIIO-T3 LRE (Uncertainty Mechanism) schemes is provided below:

Shared Use Infrastructure

Our LOA projects that we will connect an additional 44 Shared Use infrastructure schemes during the RIIO-T3 period. This infrastructure will provide additional shared use capacity within our network and allow connection of new generation schemes.

Sole Use Infrastructure

Our LOA projects that we will connect a total of 80 schemes with a total capacity of 11.2GW including the RIIO-T3 LRE (Need Approval) Investments. Not all schemes will require new infrastructure (e.g. schemes that will connect directly into the Distribution network). We have included the additional anticipated Sole Use and Transmission Connection Assets for the schemes within our business plan forecast.

Impact of Clean Power 2030 Mission

This Business Plan submission does not take into account the impact of the Clean Power 2030 (CP30) mission, the NESO advice of 5 November 2024 or the proposed connections reforms that would align with CP30.

We have been working with the NESO to identify the network investment requirements for CP30. Although we have made significant progress over the past two months in identifying schemes that can be accelerated, we haven't included a formal submission at this point. We anticipate submitting a supplementary submission for these schemes in Q1 2025. It should be noted that these schemes might be included within our RIIO-T3 LRE (Uncertainty Mechanism) scheme list.

More information on CP30 is provided in Appendix B.

4. Delivering our Commitments

We have set out our highly ambitious commitments and the targeted outcomes we expect to achieve in Table 3.

Table 3: Outcomes and Targets

Outcome	Measurement	Target
Our network will have the capability to meet 20% of the GB demand for clean power	i. Accelerated Strategic Transmission Investments for 2030: output B4 boundary transfer capability ii. Connections strategically aligned with clean power by 2030	i. In line with approved regulatory timeline ii. On time delivery Target to be confirmed following publication of the UK Government Clean Power Plan

Our industry is changing, and so is the planning framework and associated methodologies. In addition to the development of our ASP, we will actively contribute to the development of the CSNP, the SSEP and the RESP methodologies. The ASP is designed to support the SSEP development and integrate with RESP and CSNP. As these methodologies developed, we will continue to refine our ASP for efficient whole system outcomes.

5. Area System Planning: The Next Frontier

Key messages

Our industry-leading Area System Planning (ASP) is a methodical approach to bridge the gap between national infrastructure planning (i.e. HND, tCSNP2 and future SSEP) and local connections. It is:

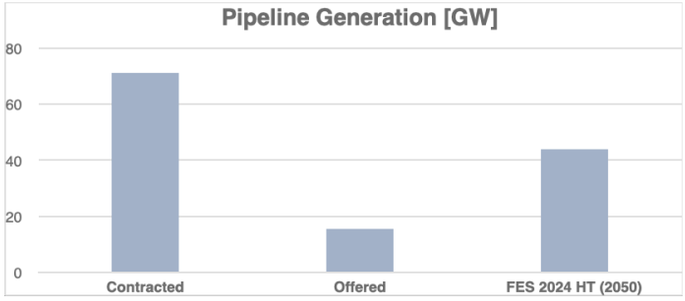
- **Pathway-led and action orientated:** Guided by FES pathways to reach long-term targets, we take no/low regret action now. With greater certainty in the short-term regarding technologies and policies, we act to achieve short-term milestones while remaining adaptable for the future. We can do so because the pathways bound the direction of travel.
- **Intelligence-led:** Our confidence in short-term actions is bolstered by stakeholder-informed intelligence, particularly, our LOA. This mature, industry-leading intelligence tool forecasts connection likelihood over a 10-year period, ensuring shared use infrastructure works are no regret. Crucially, it also provides us confidence that the NESO's FES pathways align with the proposed shared use works.
- **Policy and stakeholder-informed:** Our regional infrastructure planning is shaped by policy (e.g. Scottish Government target of 20GW of onshore wind by 2030), and stakeholders (e.g. local authorities). It co-ordinates with non-load requirements and the wider system, i.e. the emerging strategic national infrastructure through the Centralised Strategic Network Planning (CSNP) and the distribution infrastructure through the Regional Energy System Planning (RESP)

Traditionally, load investments have been guided by the connections queue, guided by the principle of 'first come first served' approach. But strategic national priorities in the form of zero carbon electricity targets and the need for a reformed connections process (being catalysed through Connections Reform efforts), have evidenced the importance of a more coordinated, strategic planning of the network to ensure that they are met.

Generation Connections Pipeline

The contracted capacity in the connections queue exceeds Net Zero requirements yet continues to increase. The SSEN Transmission contracted capacity exceeds 70GW, with an additional c. 15GW at offer stage as of 1 November 2024, while the NESO's FES 2024 Holistic Transition Pathway estimates that only 44GW of capacity is required in the north of Scotland in 2050. Figure 5 shows the currently contracted and offered generation capacity and the FES 2024 HT pathway generation capacity for 2050.

Figure 5: Future Connections



At the same time, the large queue of connections has resulted in extended connection timelines while current regulatory and industry processes are delaying progress to net zero as they create greater complexity and uncertainty over network investment planning.

Evolving our Approach

Evolving network needs and new strategic priorities have shown that we need to navigate away from reactionary, short term, piecemeal planning of the network, towards a more strategically planned network, fit for the needs of net zero. This includes planning for ambitious UK and Scottish targets, whilst also providing 'optionality' of adapting the network to differing long-term 'pathways' of achieving net zero targets.

The ASTI framework was the first signal of a shift in this direction and an essential step in unlocking the investment necessary to expand grid capacity in a strategic way to meet national needs. This was echoed in the subsequent tCSNP2, with further essential investments put in place to enhance capacity across the network in the north of Scotland and beyond. Both of these efforts are now serving as the backbone for the Clean Power Plan to help realise a Clean Power network by 2030.

This overall strategy is thus a first step in the shift from a traditional connections-led process into a world driven by strategic priorities and national needs. SSEN Transmission thus welcomes the strategic efforts to be manifested in the SSEP and the CSNP and their role in defining long term national need. Both the SSEP and CSNP are based on a series of critical inputs and SSEN Transmission will feed into both, as is already well-practiced in the form of the FES, the ETYS and the NOA.

Our input will be driven by our strategic area planning approach, working with distribution and continuing in our role of 'trusted friend' to the NESO. In doing so we will help ensure the NESO has the necessary inputs to make effective multi vector national strategic decisions.

In the future, SSEN Transmission's inputs will materialise in the form of Area System Plans—pathway-led area network plans which will work hand in hand with the SSEP to anticipate medium—and long-term network needs based on connection requests and GB net zero targets. The ASP will act as a bridge between the national Centralised Strategic Network Plan and Distribution-focused RESPs.

ASP Overview

At present, the SSEN Transmission business plan is informed by our likely outturn assessment (LOA), which forecasts the most likely to connect schemes on the north of Scotland network over the forecasting horizon of 10 years. This assessment applies a consistent methodology to assess the likelihood of schemes connecting based on factors such as consenting and route to market status. This approach supports regulatory needs case assessments that have focused on 'certainty' of future users to mitigate stranding risk.

In recent years, this forecasting of concrete schemes has been increasingly complemented by a drive towards net zero targets and economic growth—and the need to strategically plan a network to facilitate both. As mentioned above, ongoing changes to the national network planning framework (CSNP and SSEP) and the connections queue echo this drive towards strategic planning by trying to balance the competing needs of a 'first come, first served' network with strategic national priorities. SSEN Transmission's Area System Plan will in turn seek to support these planning reform efforts. The ASP will serve as a bridge between the CSNP and local connections by both forecasting the likelihood of schemes and anticipating capacity needs for net zero and proposing a strategic network to accommodate both. The ASP is expected to form a critical part in the development of the Strategic Spatial Energy Plan (SSEP), providing insights into the potential and concrete needs at a more granular network level and through coordination with both the local demands expressed through RESPs and strategic demands expressed through the CSNP. In turn, the SSEP would be expected to provide the signals for the ASP to identify strategic priorities for the regional transmission infrastructure development.

ASPs will echo many of the reform efforts currently underway instead of re-inventing the wheel—the outcome will be the essential puzzle piece of strategic planning at the regional level to complement the national planning efforts in the CSNP and the local planning efforts in the RESPs. As will be described below, the ASP will follow the traditional Investment Decision Making Framework (IDMF), which provides guidance around assessing need, identifying options and then evaluating the costs and benefits of those options, but with a number of key changes.

In assessing the need, for example, ASPs will no longer only take connection requests into account, but will incorporate strategic need for the region, in dialogue with the SSEP. Similarly, ASPs will rely on pathways in the short to mid-term and will be guided by scenarios in the long-term.

In assessing options, ASPs will incorporate techno-economic modelling into its efforts to explore the potential different impacts of a technology's operating philosophy and a more optimised system to help meet the system's strategic priorities, working to find a balance between a network that is aligned to net zero pathways and one that is economic and efficient for consumers.

ASPs will broaden the number of inputs considered to evaluate potential network options, including the condition of the assets, the impact on Net Zero, the acceptability of the options from an environmental and community standpoint, and a whole system perspective that evidences close coordination with SHEPD and the needs of the Distribution network. ASPs will thus be structured to ensure that local and regional infrastructure development aligns with national energy goals, including net zero targets, and that the methodology implemented in other ongoing reform processes (in particular the CSNP and RESPs) is echoed in the strategic planning efforts underway on the transmission network.

Future Considerations

The shift towards strategic energy planning is still underway, but the thinking behind Area System Plans can already be seen across the load-related requests within the RIIO-T3 price control period. As will be reflected in the overall approach outlined below, many of the pieces that will be manifested in comprehensive Area System Plans is already underway in many of SSEN Transmission's on-going efforts. Yet it is important to acknowledge that the current price control bridges a gap between past and future: it is essential that existing connection requests be met, while embedding decisions that will help meet current and future strategic priorities of the network.

Perhaps most importantly, it is essential to note that any reforms, from Connections Reform to Electricity Market Reform, should not lead to outcomes that increase uncertainty and complexity or reduce transparency as we move towards strategically planning a network for net zero. Uncertainty poses a key danger in undermining the signals necessary to move a strategically planned network forward. Furthermore, energy policy tools must coordinate with energy policy aims, meaning that the regulatory process must adapt to support the energy transition.

6. Investment Decision Making Framework

Key messages

The IDMF (Investment Decision-Making Framework) is consistently applied across all types of investments, including those in RIIO-T3, as part of our broader, unified approach to investment decision-making within SSEN Transmission.

Our RIIO-T3 projects are driven by a common set of key factors, taking into account a full range of social, economic, and environmental considerations that align with our ambitious goals and broader national policy objectives.

We use an integrated approach to asset health management to prioritise investments, ensuring the network remains resilient and capable of supporting future growth in renewable energy connections, while minimizing unnecessary costs and delays.

We evaluate a wide range of network investment options, from phased "non-build" alternatives to full "build" options, as part of the development of strategic investment pathways. Our analysis toolkit is applied on a case-by-case basis to refine options and select the preferred one.

Ultimately, our process aims to identify the options that best align with our ambitions, values, and national targets, while capturing broader social, environmental, and economic benefits.

The Investment Decision Making Framework provides SSEN Transmission with a transparent and consistent approach for the assessment of the project investment cases. It sets out stages of carrying out investment decision making assessment within SSEN Transmission in line with our principles and business goals. This creates the evidence base for our investment proposals.

It provides an overarching process, which is followed to ensure that our investment decision-making is undertaken in a consistent manner and informed by a full set of environmental, social and economic considerations. We align the IDMF with the UK Government net zero targets. It is built around our ambitions to accelerate the Pathway to net zero, build a Network that is reliable and resilient and achieve this transition in a fair and sustainable way.

The IDMF is applied consistently to different types of investments and, as such, its application to RIIO-T3 forms part of the wider, consistent approach to investment decision-making within the business. It follows three stages:

1. NEED - Where the need for the project is identified and justified. This covers both load and non-load requirements.

2. OPTIONS ASSESSMENT - This stage is concerned with identifying all viable options for implementing the project relative to a baseline.

3. ANALYSIS and DECISION ASSESSMENT - At this stage a detailed economic and strategic analysis is performed for all shortlisted options.

Ultimately the framework brings together various methodologies that exist within the business under the one consistent process and ensures that this process is followed consistently. These, in combination cover all stages of the investment decision-making process and provide comprehensive guidance on how to undertake this process within the business.

Adhering to these methodologies ensures that all our investment decisions are undertaken in a consistent, transparent and auditable way. The framework is continuously evolved and updated to reflect the latest set of methodologies developed within the business.

A summary of the methods and processes that encompass each stage of the investment decision-making in provided in Table 4.

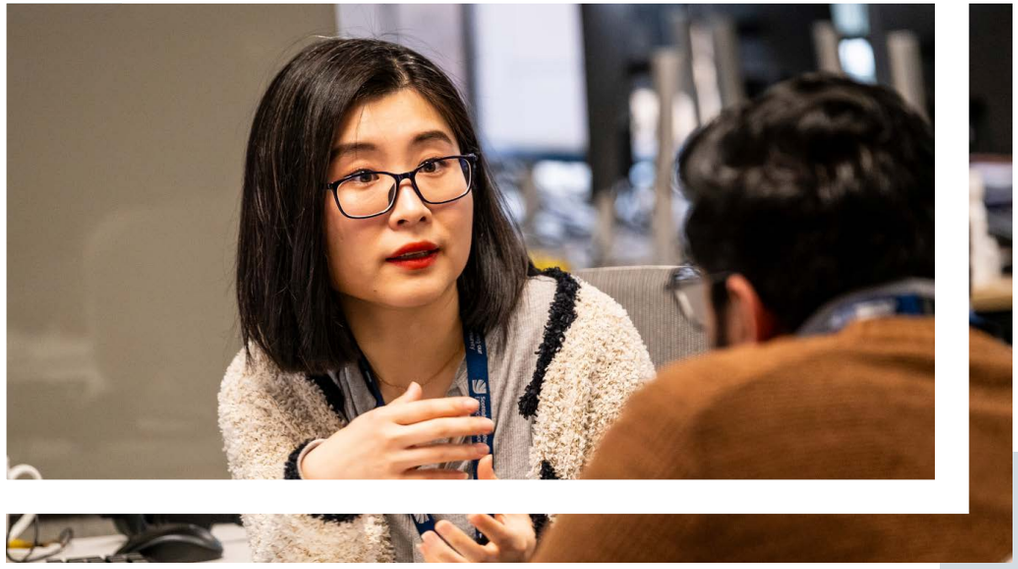


Table 4: Summary of Methods across Assessment Stages

IDMF Assessment Stage	LOAD and NON-LOAD Investments

NEED ASSESSMENT	**LOAD**
	• Connection Pipeline and Network Intelligence
	  • Connection applications process and dashboards
	  • Regional mapping
	  • Developer intelligence database
	  • Technology and industry insights
	• Forecasting and Scenarios
	  • Future Energy Scenarios and Pathways
	  • Clean Power Plan 2030 (CP30) (Not included in RIIO-T3 Business Plan)
	  • SSEN Transmission Likely Outturn Assessment (LOA)
	  • Financial forecasting (price control/5yr/10yr)
	  • Likely programme of works based on certainty
	• Area System Plan (ASP)
	
	NON-LOAD
	• Asset Condition Information
	• Asset Risk Models (CBRM)
	• Network Asset Risk Metric (NARM)
	• Condition Assessment Report

OPTIONS ASSESSMENT	• Strategic Optioneering • Regional Optioneering • Routeing and Site Selection
ANALYSIS & DECISION	• Cost-Benefit Analysis (CBA) • Options Score Cards • Business Case

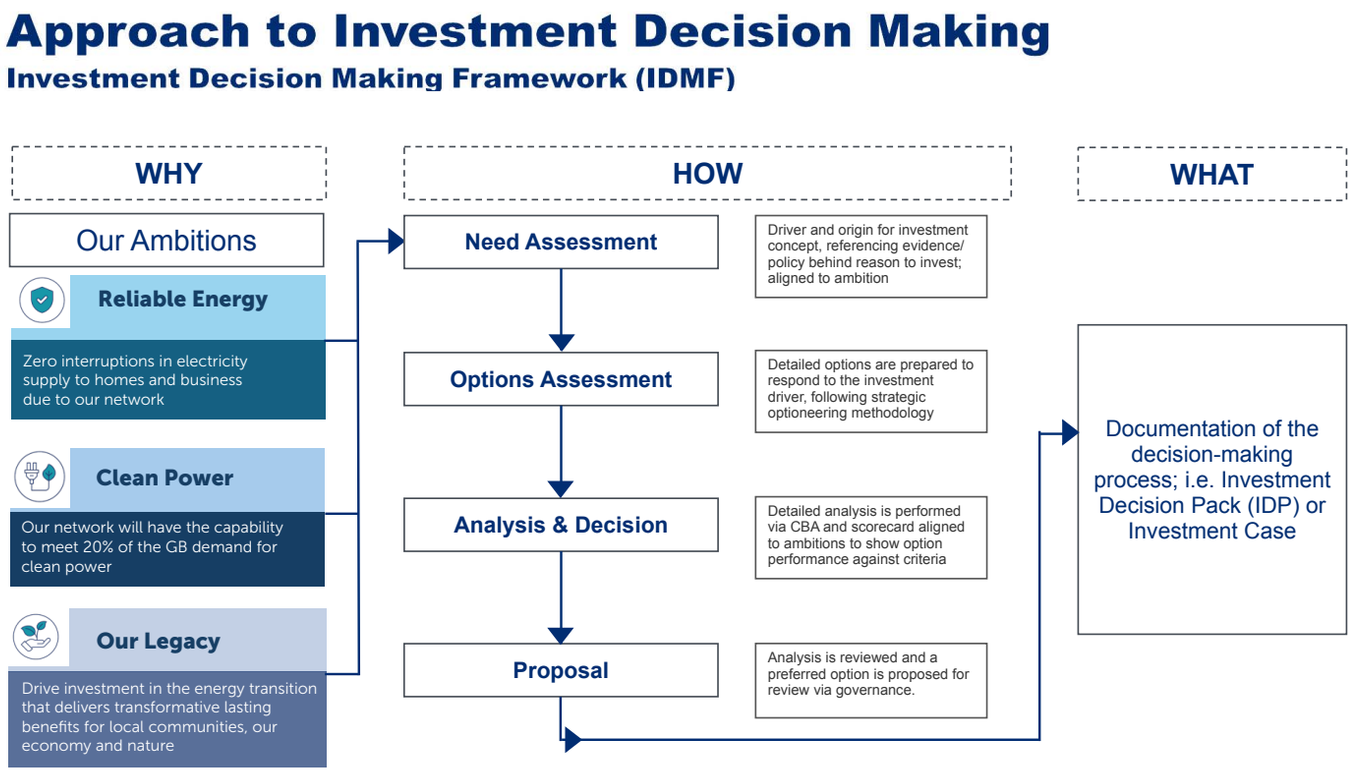
IDMF Application in RIIO-T3

In developing our proposals as part of RIIO-T3, we ensured that each project undergoes a number of consistent and transparent stages as set out in the IDMF, with clearly documented evidence at every stage. A high-level summary of our decision-making and a typical Investment Decision Pack (IDP) development process is shown in Figure 6.

Adhering to the above, we have ensured that our RIIO-T3 projects meet a set of the key drivers which will give confidence in the robustness of our process and a comfort that they are not only based on the cost considerations but consider a full set of social, economic, and environmental considerations in line with the business priorities and a wider policy direction. These are:

- RIIO-T3 IDPs are developed following consistent and replicable approach.
- Our decisions are transparent to our stakeholders.
- Our approach is flexible and applicable to varying investment cases.
- Our investments are aligned with the strategic ambitions of the Sector and the RIIO-T3 Business Plan Guidance.
- Our investment proposals are auditable and based on well-documented evidence.

Figure 6: IDMF Application to RIIO-T3



Need Identification and Qualification

In planning our future network capacity, we not only consider the demand from our customers to connect to our network and the progress and success of our customers' schemes through development over time, but also the need for the network to provide those connections in the context of net zero pathways driving the wider strategic energy system planning (CSNP) and regional planning (ASP).

As the energy system in Great Britian (GB) transitions to net zero, renewable generators seeking connection to the grid is the primary driver for increasing our network capacity. The demand for network capacity coming from the connection applications we receive, does not however in and by itself determine the future need for network capacity. There is significant uncertainty around future network demand, which is why our need identification processes are designed to address and deal with uncertainty inherent in planning large infrastructure with long lead times for an uncertain future need. This is the premise of CSNP and our ASP approach.

Uncertainty does not only arise from the requirement for network capacity needs to be forecasted years in advance, or the ever-changing energy landscape driven by technological advancements, but also from our customers themselves as to whether and when their projects are successfully developed. Our overarching process for determining investment needs is shown in Figure 7.

Asset Condition: Our Network Asset Management Strategy outlines our approach to monitoring and assessing the condition of our assets to maintain the reliable and resilient network. Effective asset condition monitoring helps ensure efficient network upgrades that minimise both load related and non-load related expenditure, and therefore overall cost. As a result, knowing when an asset is approaching the end of its life while a capacity upgrade will soon be required, we can strategically plan for both by directly upgrading the asset rather than replacing it twice. This integrated approach to asset health monitoring helps us prioritise investments, ensuring that the network remains robust and capable of supporting future growth in renewable energy connections, while avoiding unnecessary costs and delays.

Regional Connections: We are obliged to provide efficient transmission capacity to enable connection of customers in the north of Scotland to our network (although this is subject to connections reform). Additionally, NESO FES are inherently macroeconomic and may mask investment signals at a sub-system level resulting in insufficient investment pathways. Thus, we must overlay local and wider system needs to drive the correct level of investment.

Wider System: We utilise the NESO FES and Electricity Ten Year Statement (ETYS) to observe macroeconomic trends and to identify potential investment signals to increase capability of our network. Figure 8 provides an example of this analysis for the East Coast network.

Figure 7: High-Level Interactions for Strategic Planning

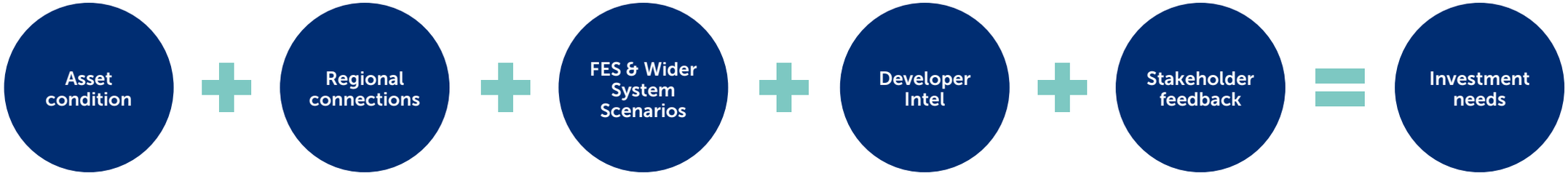
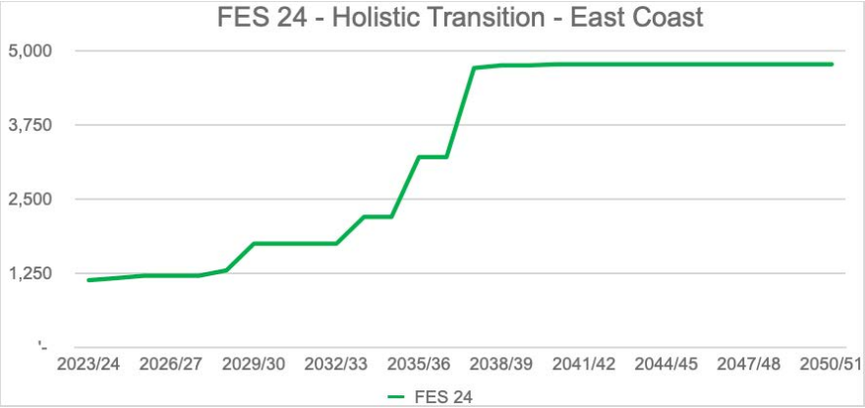


Figure 8: Example Scenario Testing for the East Coast in the north of Scotland



Developer Intelligence

We assess developer insights to support available project pipeline intelligence on generation and demand projects and the markets the projects operate in. While the GB and north of Scotland future energy landscape is undergoing transformational reform; current uncertainties remain regarding the future technology mix and how these technologies will interact with the network and markets.

Project pipeline information is gathered on both the SSEN Transmission contracted pipeline and projects progressing through the planning authorities in the north of Scotland. Table 5 describes the key project characteristics assessed and the relevant drivers.

Table 5: Key project characteristics and relevant drivers

Characteristic	Description of Drivers
Network Capacity	Generation and demand capacity is a key factor in assessing network development needs.
Technology Type	Understanding the technology type of each project, especially those of co-located sites, provides us an overview of the technology make up on our network and informs network need.
Connection Date	The timing of each connection is key to understanding current and future network development needs alongside potential impacts from external factors on connection dates. (Although this is subject to connections reform.)
Planning Status	Planning status is a key indicator of a projects progression and can impact delivery timescales. A project can fail during the planning process due to issues outside of a developer's control, and the stage of development is material to the deliverability of a project in a set timescale, such as RIIO-T3.
Location	The geographical location of both the project and the connection point to the network aids our regional mapping and allows for a more strategic and holistic approach to local network planning.
Route to Market	Understanding a project's route to market, e.g. if a project will apply for a Contract for Difference (CfD) award, can provide further confidence in a project's deliverability and delivery timescales.

Stakeholder Feedback

Our mission of building a network for net zero is fundamentally a stakeholder-led undertaking as we seek to connect generators with consumers in the most efficient way. Stakeholder feedback plays a pivotal role at every stage of our process in ensuring that our network planning is aligned with broader energy system needs and objectives, while meeting the expectations and priorities of all our key stakeholders, including developers, local authorities, industry bodies, and the regulator.

Effective stakeholder engagement helps us to be responsive to the needs of our stakeholders while ensuring that our network plans reflect both local and national priorities.

We collaborate and engage with project developers to gather detailed intelligence about their projects, including expected timelines, capacity requirements, and types of technologies to be deployed. This bottom-up intelligence is important for ensuring that the network we plan can accommodate our customers specific needs.

Local authorities and regional planners are instrumental in shaping the future energy landscape at the sub-area level. Their feedback helps us integrate local development plans into our broader network strategy, ensuring that the network supports regional economic growth and the deployment of low-carbon technologies.

In order for us to align local and regional planning with national targets, we also engage with the NESO where we provide both detailed information about the bottom-up intelligence we hold, and feedback on the top-down targets for our region derived from the national targets.

We draw on all of this information to build a comprehensive picture of the system need, this ensures that our projects meet both short-term and long-term goals.

Optioneering

Our Optioneering process is a balance of system benefit (present and future), technical, land, cost, environmental and consenting considerations.

- **System Benefit:** Options must provide the required network capacity in full or in part, based on all current known generation and demand scenarios in line with the required energisation dates. Consideration is then given to the capacity and operational flexibility delivered by each option against current and future system requirements. This includes how the option aligns with the long-term network development, minimising stranded assets and efficiencies through an integrated approach to Load and Non-load drivers and whole system options.
- **Technology Considerations:** The technical considerations reviews the maturity of the transmission technology and whether its introduction would create an unacceptable risk to the operation of the network. This should not function as a barrier to the implementation of new and innovative technology but to ensure potential risks are highlighted and that unproven or high-risk equipment is not installed on the network, leading to future operation issues.
- **Environmental Considerations:** Environmental considerations refer to the physical, natural and built environment features referred to in Schedule 9 of the Electricity Act 1989 and to features of amenity as referred to in the Holford Rules*. They include towns, villages and smaller scattered settlements and the amenity associated with them; international, national and local designations which protect physical, natural or built environment features, such as National Parks and National Scenic Areas, Special Protection Areas, Special Areas of Conservation, Sites of Special Scientific Interest (SSSIs), Scheduled Ancient Monuments, Garden and Designed Landscapes, and Listed Buildings; areas of natural habitat which support protected species or functions.
- **Cost Considerations:** Cost is a function of the quantum of assets required (e.g. cables, conductors, support structures, reactive compensation), the extent of construction and access works and the nature and extent of operational maintenance required.

East Coast Strategy Example: When defining credible network investment pathways for our East Coast strategy, we assess a range of primary and secondary drivers to deliver optimal sequencing of network investment. To achieve this in the context of the wider GB network; generation/ demand growth and asset driven needs for network are considered in the following context:

- **Network reliability/condition:** We consider all credible solutions that address the pertinent asset conditions concerns to enable continued safe and reliable operation of our network.
- **Known and potential future generation/demand:** Capacity requirements informed by not only a short-term planning horizon defined by our contracted and scoping connection queue but also a short-term calibration and longer-term planning horizon view driven by ESO FES.
- **Future proofing:** As outlined in the NESO's Beyond 2030 publication, there is a need for a new circuit from the North-East region of our area to the Central Belt for wider system capability.
- **Whole System Considerations:** We currently see the need for additional Grid Supply Points (GSPs) at Fiddes, Bridge of Dun, Arbroath and Lunanhead within the 2030s. The drivers for these are still maturing and are not certain within the RIIO-T3 period. However, all credible solutions taken forward for detailed analysis are cognisant of the long-term strategic need to provide new points of connections. Thus, options are discounted if they limit flexibility for the next phase of the wider East Coast strategy. Figure 9 shows the whole system capacity analysis for the East Coast network based on embedded generation capacity requirements.
- **Design Voltage:** Strategic options beyond the RIIO-T3 period propose that required substation elements of our strategy would be operated at 400kV. However, due to further optioneering required, impact to critical Pathway to 2030 projects and current network infrastructure it was concluded that any substation element shall be designed to 400kV but initially operated at a lower voltage of 275kV. This was due to the critical need to address asset condition needs within RIIO-T3 without limiting future options for a longer-term strategy.
- **Environment and consent:** As the existing 132kV OHL from Craigiebuckler to Arbroath requires replacing due to asset health, we have assessed alternative options to rationalise existing infrastructure.

This results in a range of credible pathways that meet the need for network investment in an economic, efficient, and co-ordinated manner. The optioneering phase is documented into an options report, or a documentable piece of evidence, which describes the optioneering process and findings.

*The Holford Rules - guidelines for the routing of new overhead lines – were originally set out in 1959. These guidelines, intended as a common-sense approach to overhead line route design, were reviewed and updated by the industry in the 1990s.

Figure 9: Example Capacity Analysis for East Coast in the north of Scotland

Analysis and Decision Making

Investment analysis is a key part of the IDMF. The methodology is set to ensure that our approach to decision making is fully consistent with Ofgem's guidance for undertaking investment analysis, and also combines Cost-Benefit Analysis with a wider, qualitative scoring, in order to capture a full set of social, economic and environmental drivers as reflected in our strategic ambitions.

It has been developed to ensure the following:

- That the identified options are aligned with SSEN Transmission obligations.
- That the analysis is consistent with Ofgem's guidance.
- That a full set of costs and benefits has been considered and included appropriately.
- That the investment decision on the preferred option is informed and balanced against a full set of economic and wider social and environmental benefits.

This approach is applied to all investment types.

Typically, IDPs include a Goal Scoring template, which ranks the identified options against wider benefits and SSEN Transmission goals and commitments, and where relevant a CBA. In order to capture a full set of social, economic and environmental impacts that are not easily quantified in CBA, we have developed an Options Scoring card, which provides a consistent and transparent process for identifying how each short-listed option contributes towards our 2030 ambitions, which in turn forms part of the overall decision-making process in selecting the preferred option.

The recorded evidence also enables us to track our progress towards our targets and make strategic investments considering a full set of impacts. It also helps inform any trade-decisions that may be necessary in identifying the preferred option.
Project options are scored against each of our ambitions, with each impact assigned a score. This process is supported by the criteria scoring matrix, which provides consistent guidance on how to assess the impacts.

Once completed, the results of the Cost-Benefit Analysis (CBA) and an Options Scoring Matrix are used in tandem to ensure an appropriate consideration of a full set of economic, social and environmental impacts and that our preferred solution not only provides the best value to a consumer, but also aligns with UK, Scottish and SSEN Transmission strategic drivers and ambitions.

As part of options analysis we qualitatively score options to assist in the selection of those progressed to detailed analysis (e.g. CBA). The assessment criteria are:

1. Contributes to primary driver (e.g. asset health, increased network capacity etc.)
2. Alignment with SSEN Transmission's 2030 ambitions (reliable energy, clean power, our legacy)
3. Technical feasibility
4. Deliverability
5. Overall confidence in option

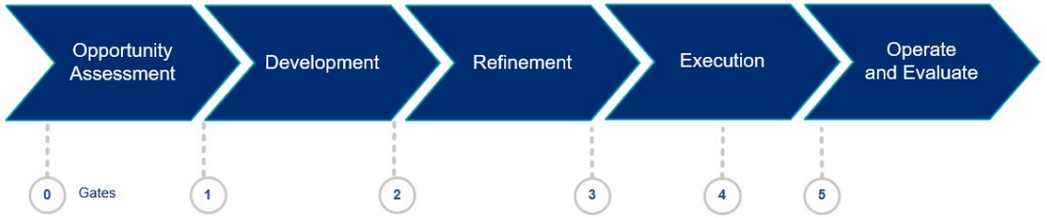
Scoring ranges from -1 to 3 with -1 indicating the option has a negative or adverse impact, 0 no impact, and 1–3 indicating low/mid/high positive impact. Each of our three 2030 ambitions have three sub-criteria, so the highest score per ambition is 9 and highest score for each option is 39. Options with comparatively higher scores are carried through to detailed analysis.

The highest scoring options are progressed to Cost Benefit Analysis stage. The CBA process allows the detailed consideration of option phasing and investment timing. It compares the forecast RIIO-T3 expenditure (capitalised and non-capitalised), and the net present value (NPV) of costs and benefits, e.g. reduced conductor losses associated with different option variants over different time horizons, for each option. This ensures we have a solution that balances monetary impacts with ambitious commitment and technical feasibility.

7. Project Delivery Governance

SSE's Large Capital Projects Governance (LCP) Framework manual ensures that all major capital investment projects for the Group are governed, developed, approved and executed in a consistent and effective manner, with full consideration of best practice project delivery. The manual, which was reviewed and updated in detail during 2022, provides common standards across the Group and incorporates continuous improvement practices.

Figure 10: Gate Positioning in Project Process



The LCP process is a six-gate process as shown in Figure 10, at each gate we undertake review to make sure project risks are understood, mitigated and controlled. At each Gate the deliverables are reviewed and approved by accountable individuals and teams.

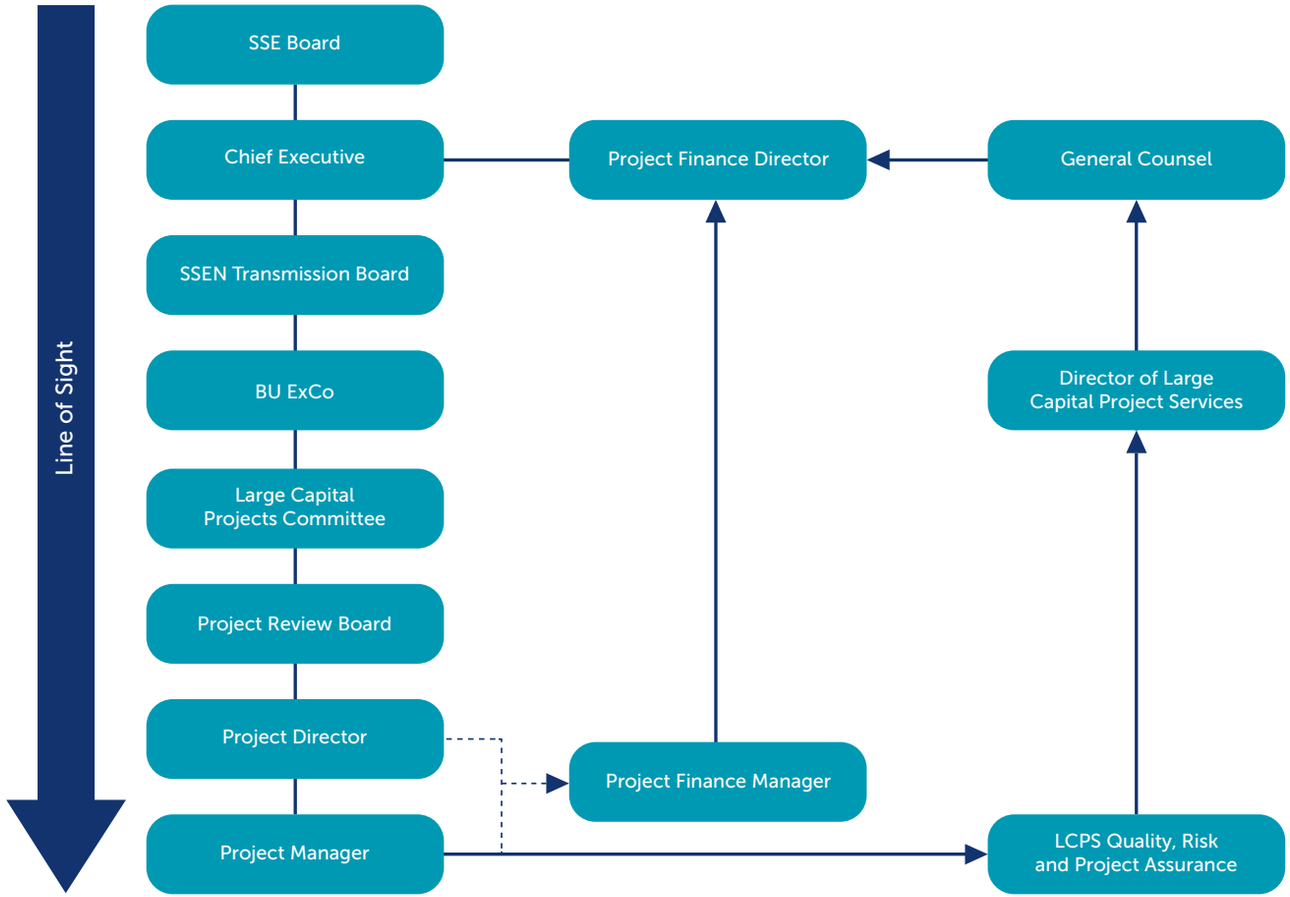
- **Gate 0–1 Opportunity Assessment:** This phase relates to developing, assessing and selecting business opportunities. This phase screens opportunities for best strategic and regulatory fit, assesses the business case and viability of technical execution, and defines the appropriate level of governance to be applied. If necessary, Pre-Construction Expenditure is requested during, or at the end of this Phase.
- **Gate 1–2 Development:** The phase where selected project opportunities are further assessed, defined, and a preferred option is selected. If necessary, Pre-Construction Expenditure is requested during, or at the end of this Phase.
- **Gate 2–3 Refinement:** The phase where the selected option is further developed to a level that allows full assessment of the viability of technology and execution. Key requirements from this phase include gaining higher degrees of certainty on cost, programme and risks. Execution and commercial strategies are selected, and the business case is finalised. During this phase a gradual transition and transfer of responsibilities takes place between the development and execution project teams. At the end of this phase, a request for full capital investment is made in line with our internal governance process.
- **Gate 3–5 Execution:** The phase where the approved option is designed in detail, procured, constructed and commissioned.
- **Gate 5 Operate and Evaluate:** The phase where the asset is handed over to our operations team and its performance and financial returns are evaluated against the business case.

It is the role of management to help frame, guide and progress projects through this process, and to bring rigour to Project planning and Value assurance as the Project makes its journey through its lifecycle. The process is driven by the SSE Governance, Project Review Boards and individual Project Teams.

The relevant SSE Governance includes the SSE plc Board, Group Executive Committee, the SSENT Boards, Business Unit Executive Committees, and the Large Capital Projects Committee. Equivalent Governance bodies would apply for Projects not covered by the above. Project Review Boards are established by the Project Director and have a supervisory, assurance, guiding and assessing role for a Project. The composition of these Boards draws on key stakeholders from appropriate Business areas.

The Large Capital Project Services function employs dedicated quality and assurance teams who perform in-depth quality reviews, the outputs of which are presented to the Board where appropriate. Decisions relating to Governance shall be made based on project value and complexity but all projects above £40m shall follow the LCP Governance Model and projects of high complexity shall have bespoke assurance steps added to the delivery pathway.

Figure 11: Line of Sight Governance Process



APPENDIX A: Overview of Likely Outturn Assessment (LOA) Methodology

Contracted generation and demand project pipeline intelligence informs the Likely Outturn Assessment (LOA). The LOA evaluates the factors that determine the likelihood of projects connecting in the north of Scotland for a ten-year period, encompassing the RIIO-T3 price control. The LOA supports insight of anticipated levels of generation connecting to the transmission and distribution networks in the north of Scotland and assists in understanding the anticipated local enabling infrastructure required for future generation projects connecting to the network.

The NESO FES 24 Future Energy Pathways for the north of Scotland provide the 'envelope of net zero' against which we assess schemes in the longer term so as to ensure the LOA, and therefore our network and business plans, align with the NESO's anticipated generation capacity necessary to deliver net zero targets.

The LOA methodology evaluates contracted schemes based on their likelihood to connect. This assessment is based on historical attrition rates and detailed project-level intelligence. For example, schemes like Battery Energy Storage Systems (BESS) are included, but given the limited historical data for these projects, attrition rate assumptions carry inherent uncertainties. It's important to note that at present, the LOA does not consider the economic viability of projects, focusing solely on technical progress and planning certainty.

This means that while the LOA gives us a forecast of the schemes most likely to connect, it does not assess whether those schemes will be economically viable or which projects will receive market funding. Table 7 summarises the scope of the LOA.

Table 7: The Scope of the LOA

Scope	Description
Is in Scope of the LOA	• Provides a bottom-up assessment of the likelihood that individual schemes will connect to the network. • Relies on historical attrition rates to filter projects into categories of likelihood (Most Likely, Likely, Not Likely). • Informs business planning by offering a consistent view of future infrastructure needs. • Acts as a baseline for financial forecasting, business planning, and resource allocation.
Is NOT in Scope of the LOA Intervention	• Does not consider the economics of each project, meaning it does not forecast which projects will be financially viable in the market or likely to secure a contract for difference (CfD). • Does not function as a system-wide forecast or an optimization model, which are areas covered by the NESO's Future Energy Scenarios (FES). • Does not forecast the future but rather relies on historic trends. It is important to note that there is limited historical data for some technologies, particularly for novel technologies such as battery energy storage systems and green hydrogen electrolysis and storage. In addition, future attrition rates and planning timelines may be very different from past experience due to ongoing and future wider policy reform. • Does not assume any acceleration of connection dates in light of CP30 because of present policy uncertainty and factors outside of our control.

Outcome of Likely Outturn Assessment (LOA) Process

Outcomes from the LOA process

The LOA is a rigorous process consistently applied by SSEN Transmission to provides a structured, bottom-up view of future connection likelihood that continuously integrates feedback from network planning and project development teams, resulting in an up-to-date, evidence-based view of future network requirements, helping the business understand network demand and plan accordingly.

The output from the LOA is used to provide a view of SSEN Transmission's network area in the future and inform:

1. Net Zero Pathways & Associated reporting

The LOA enables us to monitor anticipated generation connections and assess alignment with the NESO's future energy pathways as well as national and devolved net zero targets. By providing a clear forecast of expected renewable connections, the LOA helps us track our progress against and ensures our network supports the energy transition. This output is fundamental for internal and external reporting, providing a reliable data source for assessing progress towards decarbonisation goals.

2. Expenditure Forecasting

The LOA is a key input to our financial planning. By determining the schemes that are likely to connect, the LOA informs the forecasted expenditure over and above currently approved LOTIs, ASTI and RIIO-T2 certain view. The LOA highlights the likely schemes to be delivered through uncertainty mechanisms throughout RIIO-T3 and future price controls.

3. Internal Workload Planning & Prioritisation

The LOA provides practical guidance and visibility of likely infrastructure requirements to inform prioritisation of projects and plan resources for future workload. Based on the likely infrastructure requirements, the business can plan its recruitment efforts, conduct workforce planning, and inform procurement decisions.

APPENDIX B: Clean Power 2030 and Connections Reform

This appendix considers the implications of the national mission for clean power by 2030 and reform of the customer connections process for SSEN Transmission's RIIO-T3 Business Plan.

Clean Power

On 9 July 2024, the UK Government established a 'mission control' to deliver clean power by 2030 and asked the Electricity System Operator (now the National Energy System Operator, NESO) to provide independent advice on the pathway to 2030. This new national mission is an acceleration of the previous target to achieve a zero carbon electricity system by 2035.

The NESO provided its advice to Government on 5 November 2024 stating that "clean power is a huge challenge but is achievable". The advice goes on that "clean power will require doing things differently", describing actions required across all aspects of the electricity sector and engaging all stakeholders. For electricity transmission, the advice is that all planned infrastructure must be built on time and connections processes must be reformed to align with clear power goals and future strategic plans.

While at the time of writing (29 November 2024), the Government response to the NESO advice has not been published, it is widely expected to be largely supportive of the actions proposed. This appendix examines the implications of such a positive response that moves quickly into implementation in 2025.

Connections Reform

The process for getting connected to the GB electricity transmission system has, for many years, been one of 'first come, first served'. Connection applications are made to the NESO who then engages with the Transmission Owners (TOs) to determine, in accordance with the National Electricity Transmission System Security and Quality of Supply Standard (NETS SQSS), the 'enabling works' that must be undertaken prior to connection. Applications are examined sequentially, based on the date the application was made.

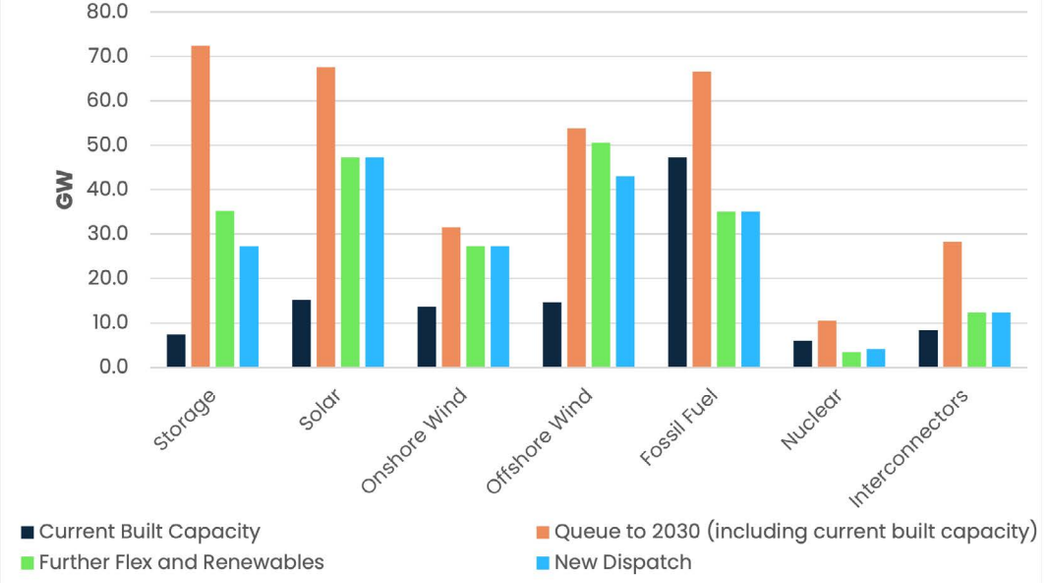
Over the past three years, applications to connect to the GB system have been around 10GW per month, meaning that the total 'queue' awaiting connection is now nearly 750GW. This vastly exceeds the NESO's advice on clean power, which is 200–225GW of connected generation and flexible providers by 2030 (Figure 1).

Alongside its advice on clean power, on 5 November the NESO issued for consultation detailed proposals to reform the connections process. This has been accompanied by proposals from Ofgem for an 'end-to-end' review of the regulatory framework and enabling modifications to networks' licences. This package of reforms will apply a 'first ready, first connected' approach that uses fixed application windows to determine:

- Applicant 'readiness' based on the securing of planning consents and land rights; and
- National 'strategic alignment' of the application with clean power pathways.

This process would be run by the NESO, with critical input from the TOs on 'network readiness'. Resultant connection agreements would be secured by a financial instrument and managed through contractual delivery milestones. Once agreements are made, it is proposed that connections would be delivered without modification or delay. Subject to the outcome of the consultation (which remains open at the time of writing), connections reform is expected to be implemented in spring 2025 with the first iteration—incorporating an assessment of the existing 'whole queue—to follow between May 2025 and February 2026.

Figure 1: GB queue to 2030 compared with the two clean power pathways - Further Flex and Renewables; and New Dispatch (NESO advice, 5 November)



Implications for this RIIO-T3 Business Plan

The policy developments associated with clean power and connections reform have been rapid over the past few months and are not concluded at the time of Business Plan submission. Thus it is reasonable that this Plan has not sought to pre-judge the outcome. However, it is also reasonable to anticipate that decisions on both clean power and connections reform in the coming months will impact upon the content of this Business Plan, particularly the Network Growth Strategy and load related investments.

Fundamentally, the implications of these reforms will be to significantly reduce uncertainty in the need for load related investments in the north of Scotland by 2030 and strengthen the expectation for on time, on budget delivery.

This appendix sets out SSEN Transmission's initial views on the potential impacts of clean power and connections reform on contents of this Business Plan in four main areas:

1. Clean power pathways and load related investment
2. Design of uncertainty mechanisms
3. Incentives and obligations
4. Implementation of connections reform and strategic (pathway-led) network development

These are initial views, and we expect these to change as the details of policy continue to emerge.

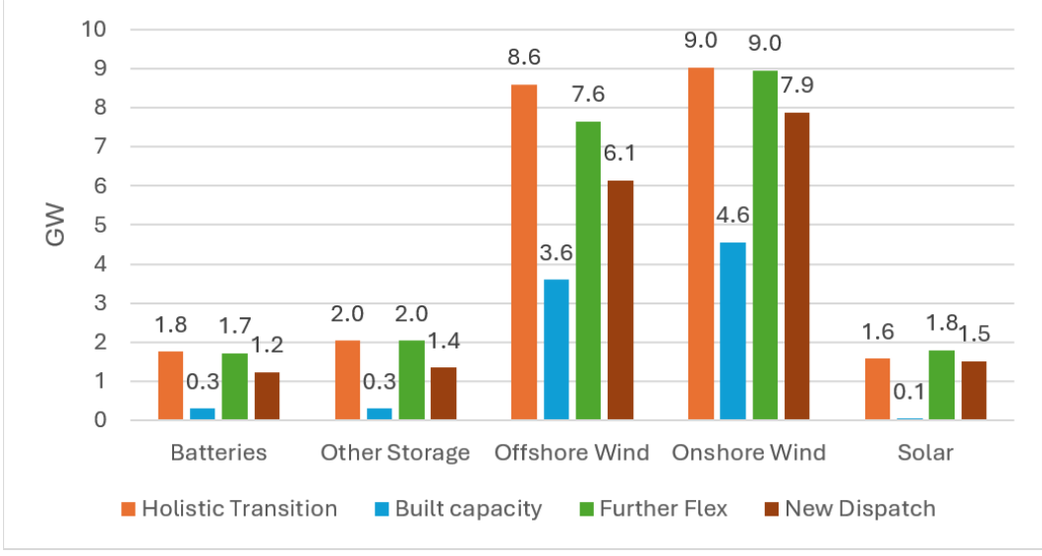
Clean power pathways and load related investment

The reference energy pathway for the RIIO-T3 period is the NESO Future Energy Scenarios 2024 (FES24) Holistic Transition. The Holistic Transition achieves the sixth carbon budget and zero carbon intensity of electricity by 2033. The two clean power pathways set out in the NESO advice have similar installed capacity requirements for the north of Scotland in 2030 as the FES24 Holistic Transition (**Figure 2**). This is not unexpected given the Holistic Transition was the most ambitious of the FES24 scenarios.

The regulatory criteria for business planning requires consideration of a wide range of factors when making investment cases, including generation and demand forecasts and the status of local connections. The Guidance encourages the use of uncertainty mechanisms where there is sensitivity to future utilisation (user certainty) or different pathways (alternative FES). This Plan follows that Guidance, hence does not include a full ex-ante load related investment plan for the FES24 Holistic Transition. Recognising uncertainty under prevailing targets and the connections queue, this Plan was prepared on the basis of using in-period uncertainty mechanisms to 'top-up' investment.

Likely impact - Currently, this Plan sets out ten load related investments (over-and-above those already with regulatory 'needs case' approvals) that meet the prevailing policy and Guidance for investment approval. Clean power (including the application of the 'strategic alignment' criteria in connections reform) provides greater certainty in the need, hence strengthening investment cases. The load related investments in this Plan are insufficient for clean power pathways. **Following the Government's clean power plan, we expect to submit additional load related investments, with proportionate justifications, for approval.**

Figure 2: North of Scotland installed capacity from FES24 Holistic Transmission and clean power pathways (NESO data)



Design of uncertainty mechanisms

The planning basis for this RIIO-T3 Business Plan is the prevailing 'customer-led' approach to network planning for regional investment (reflected in the Guidance). For shared-use infrastructure (and high-value sole-use infrastructure), this approach examines the status of individual customers, seeking demonstrable commitment, in determining the case for investment. Accordingly, TOs will not commit to invest until that customer-led investment case is made (upper process in **Figure 3**).

Relative to the current 'customer-led' network investment approach, connections reform will institute a 'pathway-led' approach. For the reformed connections process to be effective, it requires shared-use network infrastructure to be 'ready' and aligned with the spatial and technology-specific pathways. Accordingly, TOs must have network investment plans—already with regulatory 'need case' approval—prior to connection offers being applied for (lower process in **Figure 3**).

Likely impact- currently, this Plan assumes the 'customer-led' approach to the design of uncertainty mechanisms, specifically the Load Related Reopener (LRR). Adopting a 'pathway-led' approach that ensures regulatory 'needs case' approval in advance of connections windows, would require a change in the needs case guidance and flexibility in the LRR submission windows.

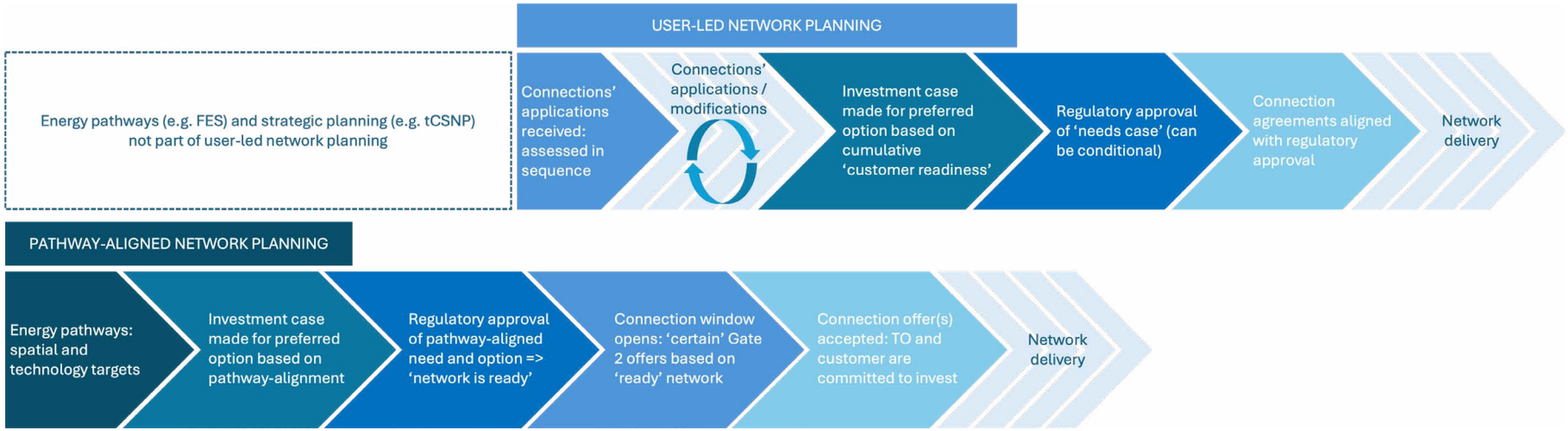
Incentives and obligations

The RIIO-T3 Business Plan Guidance does not provide a planning basis for the regulatory framework for connections given the ongoing development of connections reform. As this reform reaches a conclusion, on 8 November Ofgem opened a thorough end-to-end review of the regulatory framework for connections looking at both incentives and obligations with proposals expected in spring 2025.

In this Business Plan we have committed to maintaining a high quality of service for connections customers and we support retaining the customer survey to measure performance. We have assumed that regulatory obligations would not replicate commercial terms in connection agreements but would remain (as is currently the case) focused on the process of making connection offers.

Likely impact - Currently, this Plan assumes that regulatory obligations around connections would be largely unchanged and incentives would target customer service. **We will set out the implications of changes to the framework in response to the open consultation and as proposals develop thereafter.**

Figure 3: Illustration of the differences between the prevailing 'customer-led' approach and the likely 'pathway-led' approach to shared-use infrastructure (and high-value sole-use infrastructure)



Implementation of connections reform and strategic (pathway-led) network development

The known impacts of the energy transition during the RIIO-T3 period—including delivery of the Accelerated Strategic Transmission Investment (ASTI) programme— already require significant growth in the capability of SSEN Transmission. Workforce growth and in the 'behind the scenes' capabilities (such as training, buildings, equipment, digitisation) and support (e.g. finance, HR) are central to this RIIO-T3 Business Plan and its ambitious goals.

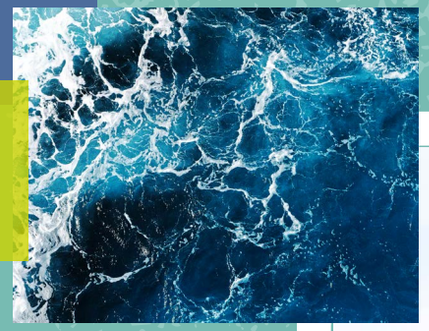
Relative to that known trajectory, the adoption of clean power pathways and implementation of connections reform would require a major cross-industry effort to implement change.

Likely impact - Currently, this Plan incorporates investment in the organisational capacity and capabilities of SSEN Transmission. To adopt clean power and connections reform would go over-and-above those proposed investments, with particular emphasis on network planning, project development, system operations, transformation and change, and 'back office' functions. **We expect to have to re-forecast our direct and indirect operating costs.**

Next steps

At the time of this RIIO-T3 Business Plan submission, it would be premature to pre-judge the outcome of the Government's clean power plan or the decisions on connections reform. However, it is clear that the 'direction of travel' would have substantial implications for this Plan.

It is SSEN Transmission's position that there should be a RIIO-T3 clean power related re-submission opportunity in Q1 2025 that would, at a minimum, address the points described above.



www.ssen-transmission.co.uk

Platinum Member of The 5% Club

SSEN TRANSMISSION AAI000 STAKEHOLDER ENGAGEMENT PERFORMANCE ADVANCED 2024

We are a Living Wage Employer

We are a Living Hours Employer

Fair Tax

The Institute of Customer Service

Scottish & Southern Electricity Networks

TRANSMISSION