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Scottish & Southern Electricity Networks

TRANSMISSION

SHE Transmission – Competition Strategy

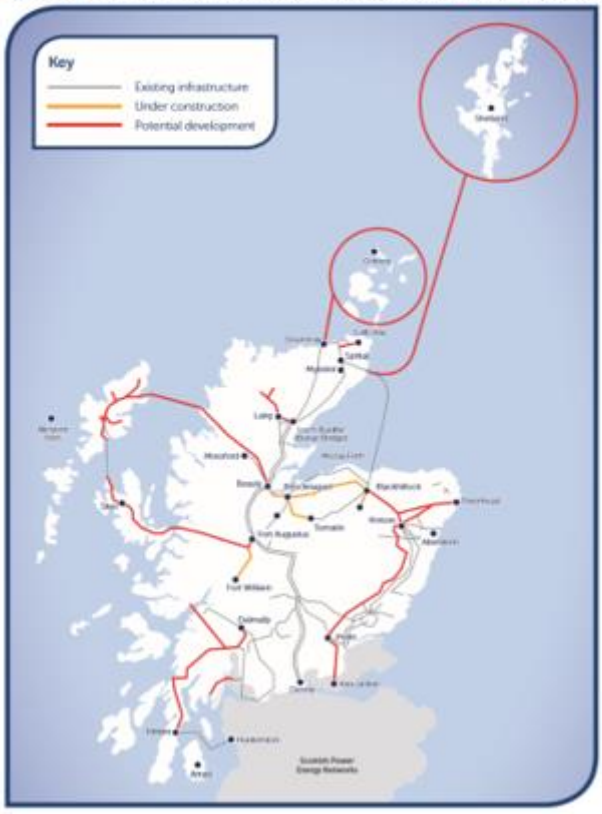
December 2019

Scottish Hydro Electric Transmission plc

About us

We are Scottish Hydro Electric Transmission (SHE Transmission), part of the SSE Group, responsible for the electricity transmission network in the north of Scotland. We operate under the name of Scottish and Southern Electricity Networks, together with our sister companies, Scottish Hydro Electric Power Distribution (SHEPD) and Southern Electric Power Distribution (SEPD), who operate the lower voltage distribution networks in the north of Scotland and central southern England.

Figure 1 The SHE Transmission network and operating area



As the Transmission Owner (TO) we plan, develop and maintain the high voltage electricity transmission network in the north of Scotland. This network takes the electricity from generators and transports it over long distances for ultimate distribution to homes and businesses in cities, towns and villages. We do this via our extensive network of overhead lines, underground cables and electricity substations, extending over a quarter of the UK's land mass and crossing some of its most challenging terrain.

As a natural monopoly, our activities are regulated by Ofgem. This includes the outputs that we need to deliver for our consumers and the associated revenues that we are allowed to collect. This is controlled through the RIIO price control framework. The current transmission price control period, RIIO-T1, runs from 2013-2021. The next electricity transmission price control period, RIIO-T2, will be five years and will run from 2021-2026.

As well as this framework and the drivers within, we have a duty to develop and maintain an efficient, co-ordinated and economical system of electricity transmission.

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1. Background

Our GB electricity system is undergoing a period of sustained change driven by our commitment to a net zero economy by 2050 (2045 in Scotland). New technologies are driving new ways of producing and consuming energy. How we generate and distribute that energy is becoming increasingly important, ensuring we do so in a sustainable and economic manner.

During RIIO-T1, we have successfully delivered, on time and under budget, a significant programme of capital investment to reinforce the north of Scotland transmission network and facilitate our connecting customers. This has resulted in a significant increase in renewable and low-carbon technologies powering our homes and economy, contributing to meet the sustainability and affordability challenges we face now and in the future.

We are well placed to manage the uncertainty associated with renewable generation wishing to connect to the network. We manage a suite of projects at a portfolio-level to ensure resource is deployed at the most efficient time to the correct project. There is inherent uncertainty attached to any generation project progressing to the point of connection, but our approach allows us to absorb or mitigate the impact of a generator cancelling or delaying a project by reallocating resource. Co-ordinating the need of several projects can often help lead to the most efficient solution.

We recognise that our business, together with our stakeholders, plays a key role in enabling GB's transition to a low carbon economy. The challenge to deliver Net-Zero in the timescales proposed is significant and demands a coordinated and immediate response of the energy industry[1].

In RIIO-T1 we reshaped our business to meet the challenge of a renewable energy boom, connecting over 3GW[2], on-time and under agreed allowances through efficiency measures. To meet the growth in electricity demand in a sustainable way, our network must support increasing volumes of renewable generation, as well as new forms of energy interactions and ways of working across industry. We recognise this and reflect it in our Strategic Objective for RIIO-T2, which is to enable the transition to a low carbon economy[3].

[1] https://www.ssen-transmission.co.uk/riio-t2-plan/planning-for-net-zero-scenarios-certain-view-and-likely-outturn/

[2] Based on current predicted connections timescales for the remainder of the T1 period.

[3] https://www.ssen-transmission.co.uk/media/3222/engaging-on-our-strategic-objective.pdf

That aim is supported by four key themes: safe and secure network operation; sector leading efficiency; stakeholder-led strategy; and leadership in sustainability. They describe how we will conduct our activities to achieve our strategic objective.

Safe and secure network operation

Our role, as the owner of the north of Scotland high voltage transmission network, is to ensure that electricity continues to be transported safely and reliably from the changing generation sources of electrical power to meet the needs of homes and businesses. We must ensure, that as competition is developed across the industry, it is applied in a way which does not compromise the safety and security of the network, ensuring no interruptions to the service our consumers expect.

Sector-leading efficiency

Energy networks must be affordable to consumers and be open about the trade-offs considered when making investment decisions. This is important during RIIO-T2 as we invest for local and national benefits to achieve the clean energy transition. Continuing our approach to delivering sector leading efficiency and providing an optimum economic solution when delivering investment in the transmission network is paramount. Enhancing competition to facilitate increased innovation and drive efficiencies within the existing RIIO framework will deliver further benefit to consumers.

Stakeholder-led strategy

Our stakeholders have been a key resource in challenging and refining our approach to network operation and development to meet current and future stakeholders' needs[4]. Competition, in conjunction with our whole system approach[5] to considering network solutions, has the potential to deliver real benefits to consumers where it is appropriately designed and efficiently applied. The links between whole system, innovation and competition for RIIO-T2 are further outlined within this document.

Leadership in sustainability

We are working hard to be a trusted partner of customers and communities, realising long term benefit for society, the economy and the environment. Embedding our Sustainability Strategy[6] within our processes and operations will ensure we deliver our commitments, create innovative solutions and drive sustainable decisions in our business as usual activities and beyond.

[4] https://www.ssen-transmission.co.uk/information-centre/our-stakeholder-engagement/implementing-the-strategy/
[5] https://www.ssen-transmission.co.uk/riio-t2-plan/enabling-whole-energy-system-outcomes-policy/
[6] https://www.ssen-transmission.co.uk/riio-t2-plan/sustainability-action-plan/

2. The purpose of this document

We recognise the challenge levied upon electricity network companies to provide greater transparency to the way in which networks are designed, constructed and operated, particularly regarding the costs associated with those activities. We understand and value the importance of developing our network in an efficient manner to the benefit of end consumers.

Over the last few years, Ofgem has sought to explore several mechanisms and models to increase competition in the delivery of onshore transmission activities. In addition, in its objectives for RIIO-T2, Ofgem has set transmission network owners the challenge of developing strategies and processes to implement more competition into existing activities to reveal the cost of these activities, to facilitate benchmarking, and to drive more efficient outcomes. It has termed this, native competition.

Our **Native Competition Plan**, in Appendix 1, explores this expansion of competition within RIIO-T2 and the interlinkages between innovation and whole system. These pillars of the RIIO-T2 framework are not mutually exclusive and must complement each other in order to maximise the potential consumer benefit.

In preparation for RIIO-T2, we have undertaken a programme of stakeholder engagement, using the insight gathered to determine the optimal processes to deliver efficiencies aligned with Ofgem's best practice principles as detailed in its Sector Specific Methodology Decision[7] and Business Plan Guidance[8]. In Appendix 2, we outline what information we commit to share and/or publish throughout RIIO-T2, such that Ofgem and stakeholders can assess our performance against the commitments in our Native Competition Plan.

In Appendix 3, we consider Ofgem's 'Early' and 'Late' competition criteria against our proposed capital investment strategy for RIIO-T2.

We are also actively engaging with National Grid Electricity System Operator (ESO) as it explores potential early competition models which could be introduced in RIIO-T2. The long-term aim for early competition is to drive innovation and consumer value through the introduction of competition for solutions which can avoid or mitigate the need for, and cost of, major transmission network reinforcements (i.e. through service provision such as flexibility). This will form part of the ESO's Early Competition Plan which will be submitted to Ofgem in February 2021. For more information, please visit the ESO's website[9].

Though the consideration of models is not currently limited in any way, we welcome Ofgem's stipulations, in its recent Open Letter[10], that any model developed by the ESO should be able to operate with and without Competitively Appointed Transmission Owner (CATO) legislation[11], and that in order to compete for the delivery of network solutions, parties will need to hold the required licence. We consider this is fundamental for developing true competition whilst maintaining the safety and integrity of critical national infrastructure.

[7] https://www.ofgem.gov.uk/publications-and-updates/riio-2-sector-specific-methodology-decision
[8] https://www.ofgem.gov.uk/system/files/docs/2019/10/riio-2_business_plans_guidance_october_2019.pdf
[9] https://www.nationalgrideso.com/publications/network-options-assessment-noa/network-development-roadmap
[10] https://www.ofgem.gov.uk/publications-and-updates/electricity-system-operator-s-early-competition-plan-letter
[11] More information relating to CATO development can be found on Ofgem's website: https://www.ofgem.gov.uk/electricity/transmission-networks/competition-onshore-transmission

3. Competition and RIIO-T2

During RIIO-T2, Ofgem proposes to expand the use of competition, where it is in consumers' interest. Ofgem's Sector Specific Methodology decision introduced a request for us to further extend the use of competition, including our response to Ofgem's best practice principles for native competition[12].

We continue to believe that, as a responsible transmission owner, we are best placed to deliver an economic and efficient network to the benefit of consumers. Co-ordinating the delivery of several projects, in conjunction with the ESO and neighbouring transmission owners, can often help lead to the most efficient solution. Maintenance and careful operational management of the network during development of new assets or reinforcement of existing areas of network, is integral to ensuring it remains safe and secure for customers, the public, and of course for those that operate and work on it. Early stage planning and coordination of maintenance with other capital investment projects, aligning with optimal operational conditions, leads to additional benefits through economies of scale in resourcing and minimisation of network disruption.

Recognising the important role for third party providers and the competitive market in striving for cost efficiency, we have and will continue to work closely with our supply chain to achieve this. We are subject to laws that require competitive procurement of our capital investment and associated works, goods and services above minimum value thresholds. In addition, we apply a risk/value matrix to our procurement activities which fall under these minimum value thresholds, ensuring we competitively procure in a variety of ways to ensure, even at lower values, our expenditure is as efficient as it can be. As our capital investment is over 80% of our total expenditure, achieving efficient outcomes from these competitive processes is essential to the overall assessment of the efficiency of our activities.

Many of the challenges[13] we will face during the RIIO-T2 period are similar to those we have addressed over the past ten years. By building upon our experience, we are well placed to manage these challenges and so deliver cost-effective outcomes that keep down the household energy bill. For example, our procurement strategy for RIIO-T2, as outlined within our Efficient Capital Investment: Benchmarking and Cost Metrics[14], develops the fundamental procurement principles we established through our RIIO-T1 approach, demonstrating where this has been enhanced and refined through engagement with our stakeholders. The information, contained within Appendix 1, below sets out where we are committing to meet and exceed Ofgem's native competition best practice principles to embed this *enhanced* competition within our day-to-day business activities.

We are under no illusions that there is evidence of societal distrust in the energy sector[15]. However, presenting evidence that this is not the case in electricity transmission is difficult not because it does not exist, but because the nature of transmission networks makes comparison difficult.

The industry faces challenges through the availability and reliability of benchmarking studies. Unlike electricity distribution networks, where there are greater numbers of similar projects, in terms of type and complexity, and where benchmarking is common, transmission networks are developed through large scale, complex and often bespoke projects, making benchmarking between TOs very difficult. Even when comparing

[12] Native competition refers to the procurement competitions run by network companies within the price control framework, operating under existing incentive mechanism to secure efficiencies to the benefit of consumers. See Appendix 1 for more details.

[13] Further information on this is detailed in our Efficient Capital Investment: Benchmarking and Cost Metrics document. This report is included as part of our Business Plan submission to Ofgem but is not published on our website due to commercial confidentiality.

[14] This report is included as part of our Business Plan submission to Ofgem but is not published on our website due to commercial confidentiality.

[15] Paying for energy transitions: public perspectives and acceptability available at: (UKERC, 2019) www.ukerc.ac.uk/publications/paying-for-energy-transitions.html

at a European or international level, there are deficiencies in the results of studies undertaken to date[16], which struggle to account for variables such as differences in CAPEX/OPEX ratios; price level differences between countries; and geographical issues such as terrain, coastal proximity requirements or population density.

There are significant differences between the three licenced GB TOs in terms of network attributes and geographic terrain. As a result, most transmission projects in GB are bespoke, both in design and technologies required, making any evaluation of efficient costs challenging. Despite these difficulties, and notwithstanding the limitations of benchmarking studies generally, in order to ensure that we strive to achieve value for consumers across our supply chain we do still participate in a number of European and international benchmarking studies:

- The International Transmission Operations and Maintenance Study (ITOMS): a study of operational quality, effectiveness and economy as well as the quality and costs of grid maintenance performed by transmission system owners. Undertaken every two years, we are currently engaged in our fourth cycle of benchmarking. Our performance in previous ITOMS benchmarking studies has shown continual improvement. Whilst we now benchmark close to the median for both cost and service levels, this study has demonstrated there is more we can do.

- The Council for European Energy Regulators (CEER) study: which assesses the relative cost efficiency of European electricity transmission owners. This study had been delayed due to difficulties in achieving consistency in data inputs for the different networks, highlighting the complexity and challenge to achieving meaningful benchmarking data.

- The International Transmission Asset Management Study (ITAMS): we participated for in the first time in 2018. ITAMS does not include cost benchmarking, but we have adopted best practice outcomes and learning from other network owners.

By participating in these types of studies, we have established collaborative relationships with international transmission owners, which we use to share best practice in all our activities. In addition, we benchmark costs across our projects, enabling us to continuously review and improve, endeavouring to make our activities as efficient as possible.

To cultivate and engender trust in energy networks, customers and stakeholders must have ready access to clear information about the priorities, targets and outcomes we are seeking to achieve. Decision making (and its costs and benefits), must be visible and meaningful to all stakeholders.

We are therefore committing to publishing information throughout RIIO-T2, consistent with findings from the Energy Data Taskforce[17], to give interested stakeholders earlier sight of upcoming competitive processes, creating greater potential for efficiencies across projects to be explored, and efficiencies in tender submissions to be identified.

The provision of further information will be facilitated in a transparent and fair way, which maintains the security of the transmission network, but allows Ofgem and stakeholders to continually assess our performance against our commitments. More information can be found within Appendix 2.

We invite stakeholders to review and feedback on our performance against our commitments throughout the price control period.

[16] Oxera have undertaken an analysis of the benchmarking studies in which we participate as part of a wider package of work supporting our business plan. This report is included as part of our Business Plan submission to Ofgem but is not published on our website due to commercial confidentiality.

[17] https://es.catapult.org.uk/news/energy-data-taskforce-report/

4. Links with Whole System and Innovation

We believe that whole system solutions and innovation will play an important role as we consider future investment in the transmission network. The introduction of competition seeks to ensure value for consumers, with the potential for reduced cost and increased innovation. We consider that both outcomes can be achieved through an effective whole system and innovation stimulus under RIIO-T2 (see our Regulatory Framework submitted alongside our overall Business Plan[18]).

Whole system and innovative solutions have the potential to defer, reduce the overall cost or potentially prevent the need for network investment to the benefit of consumers. Our strategy in relation to whole system and innovation are set out within supporting documents to our Business Plan[19],[20].

We are taking steps to expand our strategic optioneering assessment[21], addressing system needs by incorporate whole system solutions, and will develop this in the lead up to, and throughout, RIIO-T2. Working with Scottish Hydro Electric Power Distribution Plc (SHEPD) and the ESO, this will involve a technologically agnostic approach, considering the most economic and efficient outcome for any additional capacity required across the electricity network; and non-network solutions as contracted with the ESO or SHEPD. Through our procurement strategy for RIIO-T2 (as outlined in our Efficient Capital Investment: Benchmarking and Cost Metrics[22]) we intend to explore all possible options whilst seeking to maintain safe and efficient operation of the overall network.

We also note with interest the ESO's intention to expand the Network Options Assessment (NOA) process to allow Distribution Network Operators (DNOs) and third parties to submit options to address network requirements. The NOA is a demonstration of the industry's commitment to whole system consideration and will influence our planning for RIIO-T2. In addition, the ESO is carrying out several pathfinder projects to look at alternative means of addressing voltage, stability and constraint issues on varying parts of the network. We are active participants in these processes and are continuing to follow the ESO's work carefully to consider any impacts on the work we need to undertake during the RIIO-T2 period.

We commit to strengthening our stakeholder engagement with SHEPD reviewing the interface points of our networks through an initiative to harmonise our system planning approaches and encouraging and embracing third party contribution to network development. Inevitably, this will require close working with the System Operation functions, both on the transmission and distribution network.

We are actively involved in the Energy Network Association (ENA) development of Whole System Investment Planning and Data Exchanges under the Open Networks project. This work, amongst other things, is developing mechanisms through which a wide range of solutions to whole system needs can be sourced from network companies and third parties, allowing these to compete on an equal basis. We will reflect upon the outcomes of this work in our own whole system development efforts in the north of Scotland during RIIO-T2.

It is important that competitive delivery does not progress at the expense of an innovative or whole system solution with the ability to deliver wider and sustained benefit at lower lifetime cost.

At the end of RIIO-T1, we will have an estimated **7 GW** of renewable generation capacity connected to our network. If there was no further network growth during RIIO-T2, this alone would displace approximately **18 million tonnes** of CO2 equivalent by the end of the price control period. However, with the delivery of the projects in our Certain View,

[18] https://www.ssen-transmission.co.uk/riio-t2-plan/regulatory-framework-outputs-incentives-and-innovation/
[19] https://www.ssen-transmission.co.uk/riio-t2-plan/enabling-whole-energy-system-outcomes-policy/
[20] https://www.ssen-transmission.co.uk/riio-t2-plan/innovation-strategy/
[21] https://www.ssen-transmission.co.uk/media/3406/strategic-optioneering-methodology.pdf
[22] This report is included as part of our Business Plan submission to Ofgem but is not published on our website due to commercial confidentiality.

adding an extra **3 GW**[23], we have calculated the estimated carbon displacement would be **24 million tonnes** of CO2 equivalent by the end of RIIO-T2 (see our Sustainability Action Plan[24]).

If any of the projects within our Certain View are delayed, due to the timescales associated with the application of Ofgem or the ESO's proposed competition models (which are still in development), this would likely impact on the potential amount and value of carbon displacement.

An alternative approach to delivering investment could, in theory, cost consumers less, based on a simple capital cost view. However, it is important to consider in any assessment of cost, the value of displaced carbon emissions resulting from innovative solutions or an earlier connection date, which may not always be possible where alternative competitive models are proposed for delivery.

Enabling the swift connection of renewable generation to the network provides a wider benefit to society through the value of displaced carbon emissions. Each tonne of carbon displaced has an avoided impact and an associated avoided cost which GB consumers do not then pay. As such we must also consider the value of displaced carbon emissions before determining whether to apply competition in the delivery of onshore transmission. It is critical that we, as an industry tasked with making a significant contribution to Net Zero targets, consider fully the impact of any potential delay to delivery of connections infrastructure and the associated value of displaced carbon emissions.

Through our procurement processes in RIIO-T1, we have reinforced our network and delivered customer connections whilst enabling innovative technologies and methods of working.

• The composite poles utilised for the delivery of the Dornell windfarm overhead line connection: A single line of composite poles has a reduced corridor width meaning less land rights need to be secured. Composite poles are easier and less expensive to maintain and have a life expectancy of 80 years rather than 40 years for wood poles, meaning less maintenance visits, and replacing the need for the more visually intrusive and more time-consuming build of a traditional steel tower line; and

• The use of the Monte Carlo ACCC (Aluminium Conductor Composite Core) conductor: This innovative conductor has reduced emi ssions, a higher capacity and operates at cooler temperatures compared to the conductor types traditionally used in the UK. It was successfully installed on existing installed towers increasing capacity to connect the Bhlaraidh and Beinneun windfarm connection projects, avoiding the need for and expense of new steel lattice towers, resulting in a quicker delivery time and reduced costs.

• SF_6 gas free circuit breakers: Installed at SSEN Transmission's substation in Dunbeath; the first of their kind in the UK. The technology has been developed by Siemens, using a combination of vacuum and clean air technology to provide the same level of performance and reliability, without the need for SF_6 gas and with no Global Warming Potential (GWP).

We will continue to develop our network in partnership with our supply chain throughout RIIO-T2.

[23] https://www.ssen-transmission.co.uk/media/3411/north-of-scotland-future-energy-scenarios-full-report.pdf

[24] https://www.ssen-transmission.co.uk/information-centre/our-stakeholder-engagement/implementing-the-strategy/

Appendix 1 – Our Native Competition Plan

Ofgem's Sector Specific Methodology Decision requires us to demonstrate how we intend to use competition to identify and reveal efficient costs and ideas during RIIO-T2. This Native Competition Plan is our response to Ofgem's challenge and is designed to summarise how our proposed approach for RIIO-T2 will align with Ofgem's best practice principles[25].

Continuing our approach to delivering sector leading efficiency and providing an optimum economic solution, we have developed our procurement strategy for RIIO-T2. Our strategy is built upon the success of our RIIO-T1 activities and has the primary objective of establishing an efficient and economic supply chain solution that will support the delivery of our Business Plan goals.

Competition, and competitive processes, are utilised within our procurement approach, however it is not competition alone which drives consumer value. We have a multi-layered approach to procurement, described further below, which is designed to appropriately manage the risk in delivery of transmission investment whilst protecting the interests of consumers.

The RIIO price control framework, and a strong totex incentive, drives us to reduce costs through innovation, efficient procurement and whole system solutions. We already seek to deliver all transmission investment as efficiently as possible, sharing the benefits with consumers. We are therefore exploring areas of our proposed RIIO-T2 strategy within which competition has the potential to deliver additional benefits.

Our Native Competition Plan provides a detailed overview of how our proposed approach for RIIO-T2 aligns with Ofgem's best practice principles. In addition to demonstrating our response to Ofgem's best practice principles, Appendix 2 outlines the information we will make available throughout the price control such that consumers, stakeholders and Ofgem can monitor performance against our commitments.

SHE-Transmission and Native Competition

Native competition and the associated best practice principles are designed to reveal efficient costs and ideas for addressing network issues. **We foresee this as competition *within* the market as opposed to competition *for* the market (e.g. issuing CATO licences to compete with transmission owners).**

This section is focused on the principles and processes we apply in order to secure the best overall benefit for consumers. Later in this section, we outline where Ofgem's best practice principles align with our proposed approach for RIIO-T2.

In developing our procurement strategy for RIIO-T2, we undertook stakeholder engagement across the supply chain and with potential providers of network and non-network solutions (further details can be found later in this section on page 20). This stakeholder engagement led us to conclude that, due to the geography and topography of our licenced area, we will continue to have challenges within our supply chain regarding security of resources and project location.

We also recognise the additional output requirements under our RIIO-T2 business policies (for example environmental and sustainability targets). We therefore need to consider this feedback, whilst balancing the interests of current and future consumers, in developing an optimum economic solution that does not compromise our ability to deliver project and policy outputs on time, to budget and to a high-quality standard, all of which benefit our customers and wider GB consumers.

[25] https://www.ofgem.gov.uk/publications-and-updates/riio-2-sector-specific-methodology-decision

Our RIIO-T2 Sustainability, Whole system and Competition event, The National HVDC Centre (Sept 2019)

We seek to ensure that we operate a robust tender process that is fit for purpose for each project or portfolio of projects (described below). Whilst retaining these key principles, we have sought to simplify our procurement processes where practicable, to both reduce the programme timescales, and the cost burden for consumers. Examples of this include:

- **Bundling of Contracts** – When the opportunity arises, we encourage project and contract bundling, securing further cost efficiencies from the supply chain by leveraging economies of scale and streamlining resource.
- **Framework Renegotiation** – where expressly provided for in the tender exercise and contractual documentation, we seek to ensure through the duration of the framework, we maintain competitive pressure between framework suppliers by renegotiation of further reductions of schedule rates. This initiative has created substantial savings.
- **Supply Chain Innovation** – Forums were established with the supply chain to capture any innovative and efficient approaches. We aim to expand this approach during RIIO T2.
- **Mini-competitions** – Many of our frameworks are set up to provide for mini-competitions. While these are not always appropriate (introducing some delay and, as a result, additional costs), where possible we utilise mini-competitions between framework contractors to drive down costs even further.
- **Quality Management** – Under our quality control procedures, any defects that arise will go through a quality control review to ensure lessons learned are implement where possible in a controlled manner (to ensure events do not arise again).
- **Warranty Period** - We typically have warranty arrangements with our contractors who have carried out the construction activities and therefore any expenditure for rectification of defects will typically be carried out by the contractor at no further expense to consumers. For some technically complex projects, we enter into Long Term Service Arrangements to ensure reliability and availability is maintained.

Our approach to procurement

The role of SSE's Group Procurement function is to provide the goods, works and services required to support the wider business to achieve its key objectives whilst delivering best value. As part of the wider SSE Plc Group, we have the ability to leverage the increased purchasing power of the group to secure works, goods or services at lower rates. We also benefit from a reduction in transaction costs and process economies (such as eliminating redundancy in the supply chain).

The Group Procurement function is split into embedded support teams, termed as Front Office, and a Procurement Operations Group (Middle and Back offices). The Front Office function has the objective of supporting the transmission business through the delivery of robust commercial management services which ensure that projects and individual contracts are effectively commercially managed. The Middle Office team is responsible for the application of the SSE Category Management process, designed to deliver a strategic approach to key areas of expenditure, both internally and externally. The Back-Office function is responsible for the transactional procurement activity required for day to day SSE group operations and data/systems management.

We consider our multi-layered procurement approach provides the greatest potential benefit to consumers, over and above that of adopting an isolated competitive approach at an individual project-level. Competition, and competitive pressure leading to lower cost delivery, has been the focus in setting up our approach to procurement for RIIO-T2.

In addition, through analysis of the complexity and volume of projects to be delivered during RIIO-T2, we can maximise economies of scale and bundling of procurement opportunities, where possible, whilst maintaining the option to undertake bespoke competitions for large/complex projects where it is proportionate to do so.

We expand on our multi-layered approach below:

1. **Portfolio procurement strategy** (our overall approach to RIIO-T2 procurement);

We review our overall portfolio of RIIO-T2 planned investment and activities, identifying opportunities for aggregated work packages with negotiated discounts, whilst remaining focused on cost and efficiencies. Reviewing our approach at a portfolio-level enables effective utilisation of resource across multiple projects to drive costs and efficiencies.

We are able to refine our procurement strategy model and deliver further efficiencies through long-term commitments, earlier contractor involvement and seeking synergies between ourselves and our suppliers.

Recognising the inherent uncertainty with any generation project progressing to the point of energisation, our approach allows us to absorb the impact of a generator cancelling or delaying a project by reallocating resource. Co-ordinating the need of several projects can often help lead to the most efficient solution.

We have used this portfolio approach effectively during RIIO-T1 for the Bhlaraidh and Beinnuen wind farm connections. Both were delivered by one of our project teams, utilising one set of contracts, with one key contractor from our supply chain. This resulted in a significant commercial saving, as well as reducing the number of interfaces (risk points) and requirements for additional SHE Transmission resources. This was also repeated successfully for the delivery of the Dunmaglass and Corriegarth wind farm connections.

2. **Category Management Frameworks** (coordinating our procurement through forward planning and grouping procurement activities into categories of spend);

The purpose of Category Management is to identify opportunities to leverage SSE Group spend, driving value creation and innovation by segmentation and analysis of group spend. Segmentation allows a dedicated team of procurement staff to focus on the business needs, associated supply markets and demand forecasts to create value streams that deliver net benefits.

Effective category management processes deliver benefits to consumers. With the potential for significant savings and risk reduction, it can also reveal other sources of value and innovation from the supply base. We see the value and invest in meaningful collaboration with stakeholders, both inside and outside the SSE Group, to maximise value in each category of spend.

Each category group is managed by a Lead Category Manager and governed by a Steering Group that oversees the category strategies and endorses related execution plans. Our Category Managers focus on market analysis and detailed assessment of our supply chain to ensure individual categories (for example, transformers or overhead lines) have a specific procurement approach defined to achieve value for money.

3. **Project** (delivering our commercial and contracting strategies);

For each project, our Transmission Procurement Team are required to develop and seek approval of the proposed commercial and contracting strategy.

To support project objectives, it is important to receive input from SSE's Procurement, Insurance and Legal (PIL) groups in order to manage project risks and opportunities in line with our prevailing project governance framework. The contracting strategy for each project is reviewed during a PIL Review (Procurement, Insurance and Legal Review).

Senior level employees from each of SSE's Procurement, Commercial, Insurance and Legal functions, supported by Large Capital Project Services (LCPS), review procurement strategies for our projects collectively to provide specialist advice, make pertinent recommendations where appropriate, and ensure that our proposed commercial and contracting strategy is consistent with the long-term programme of works across our portfolio

4. **Task**

Task level individual work activities are controlled and monitored through our IT platform, Emptoris, where Category Managers will ensure tenders are awarded through the correct approach (e.g. in respect of potential award values and confirming there is an SSE or SHE Transmission framework available for specified services).

In addition, this has an audit and compliance function, ensuring that we undertake these individual procurement activities in a transparent manner, in alignment with our internal procurement policies and procedures.

Purchasing Works, Goods and Services

We purchase works, goods and services through a multitude of procurement processes. For example, depending on the procurement strategy selected (and as described above), we might call-off from a Framework Agreement or develop a bespoke tender for specific goods or services.

We have expanded on the different approaches to our procurement processes that we will use during RIIO-T2 below, setting out the purpose and benefits associated with each, and how they facilitate competition and efficient outcomes for consumers:

Framework Agreements: a framework agreement is a general phrase for a fixed term framework under which agreements with providers may be awarded and sets out terms and conditions under which these agreements for specific purchases (known as call-off contracts) can be made throughout the term of the agreement. In most cases a framework agreement will not itself commit either party to purchase or supply.

For procurements above defined threshold values, the procurement exercise necessitated to establish a framework agreement is subject to competitive processes established via EU procurement rules, now enshrined in UK legislation. Our approach to selecting potential framework providers is subject to a competitive tender process as outlined within our response to Ofgem's best practice principles on page 17.

Frameworks comprise an outline of the requirements and corresponding specifications, procedures and policies, a list of providers who have been evaluated as capable and competent of delivering against the requirements, the terms and conditions of the call-off contracts and corresponding price schedules. Frameworks can be divided into lots by product or service type, geographical area or by value/complexity of project. A multi-supplier framework allows us to select from several providers to meet our requirements, helping to ensure that each commitment represents best value. Using a framework agreement can also save significant time and money, while still delivering a service specified to local requirements, and supporting local decision making and accountability.

We can purchase from a framework in various ways, such as direct award or via a further competition amongst the framework providers (a 'mini competition'). A framework agreement contains service providers' maximum prices for the works, goods or services described in the framework lots. Where appropriate and the cost of doing so is outweighed by the potential savings, we can potentially reduce prices further by undertaking a mini-competition between the framework providers. These enable continuous competitive tension throughout the life of a framework and secure value for consumers.

In a limited number of circumstances, we might need to directly award a contract due to the highly specialised nature of equipment or only one supplier being able to meet the tender criteria or timescales.

Procurement legislation states that, following a mini-competition, the call-off contract must be awarded to the provider that submits the best tender on the basis of the award criteria specified in the contract documents based on the framework agreement. This transparent process means the award criteria, and any ability to flex this, must be clearly communicated in the Invitation to Tender (ITT), and contract documents made available to providers when the framework agreement is tendered. Subject to that requirement, it is then possible to vary the relative priorities of the award criteria from those used at framework award. The proposed criteria and the relevant weightings are clearly stated in documents sent to framework providers in relation to the mini-competition.

At the end of the term of the framework agreement, each framework is reviewed and competitively tendered again in the market.

Bespoke Procurement: For larger and/or complex projects (these tend to be in the high risk, high value category but are not limited to this), we have the option to consider developing a bespoke procurement arrangement.

We utilise the Achilles UVDB system as an initial selection route for the identification of potential providers. Eligible providers are invited to complete a Pre-Qualification Questionnaire (PQQ) to establish the suitability, capacity and capability of potential providers.

We then utilise competitive processes in relation to the ITT, allowing providers who have successfully prequalified to submit their technical and commercial bid against a predetermined scope of works or service requirements with the award criteria based upon the most economically advantageous tender (combining the optimum balance of price and quality). Further rounds of robust negotiation relating to technical and commercial matters are undertaken in order to secure the lowest possible price to the benefit of our customers and end consumers.

Dynamic Purchasing System: Over the course of the RIIO-T2 period, we are considering the development of a Dynamic Purchasing System (DPS). DPS is used by organisations required to comply with the requirements of the Public Contracts Regulations 2015, of which we, as a utility, are subject to by virtue of the Utilities Contracts (Scotland) Regulations 2016.

DPS has the effect of streamlining procurement processes for both providers and utilities. Once registered, providers don't have to demonstrate suitability and capability every time they wish to compete, meaning less administration and associated costs for us, as well as providers. In addition, processes are shorter, and contracts awarded more quickly than under more traditional tender procedures, saving costs long term.

DPS also has the ability to offer more flexibility than traditional framework contracts. Potential providers, meeting the service requirement and evaluation criteria, are able to join at any time during the process service period, meaning the pool of potential providers is not limited to the duration of a traditional framework contract.

By utilising a suite of procurement options through RIIO-T2, we are not limiting the potential for efficiencies, and through our established principles and extensive experience we are able to deliver outcomes which balance the needs of customers and consumers.

Similar to RIIO-T1, our approaches to the effective and efficient procurement of services, goods and works in RIIO-T2 will continue to develop through the influence of our review processes and stakeholder feedback, and as we obtain more clarity of Ofgem and the ESO's thinking on competition policy development.

Native Competition Best Practice Principles

Ofgem's Sector Specific Methodology Decision sets out several native competition best practice principles[26].

This section outlines how our approach to purchasing goods and services described in the sections above, aligns with each of Ofgem's native competition best practice principles.

The competitive process must be robust, transparent and ensure equal treatment of potential bidders and protect information appropriately.

The SSE PLC Group's stringent procurement policies and procedures provide a fully transparent and robust process at all stages of the procurement process. These policies and procedures are fully compliant with The Utilities Contracts (Scotland) Regulations 2016 which require open, fair and transparent competition.

The utilities market is fast moving, subject to ever more stringent regulation and constantly evolving new technologies. To ensure that we are engaging with the widest pool of potential suppliers in a transparent and compliant manner, we utilise the Achilles UVDB platform. Achilles UVDB is the utility industry pre-qualification system used across the UK. This helps us achieve the highest standards of supply chain assurance. From a supply chain perspective, joining UVDB provides an organisation with the opportunity to showcase its capabilities and access multiple contract opportunities.

Prior to issuing an ITT, we ensure equal access and treatment using a pre-qualification process. Selection criteria is proportionate to the project or service requirement and captures the optimum number of capable, competent providers. Where the nature of the requirement is such that the supply chain is not necessarily represented within UVDB, then a separate Call for Competition, advertised in the Official Journal of the European Union (an OJEU notice), shall be utilised.

Responses are independently scored by Achilles UVDB, which provides an audit score assessing Safety, Health and Environment and Quality performance - this aspect is scored by an Achilles appointed audit team. That audit score can be utilised as an initial selection criterion. The subsequent scoring of PQQ responses is undertaken by internal stakeholders, scored independently, to ensure no bias, consistent with procurement industry best practice principles.

In protecting information, SSE PLC Group's Responsible Procurement Charter outlines our guiding principles and standards in relation to protecting confidential information and personal data. Further confidentiality provisions are included within the instructions to tender, draft contracts and resultant agreed contracts.

Utilisation of competitive processes for all procurements and projects, except where the potential benefits of doing so are outweighed by the costs; and

The complexity of the competitive process used should be proportionate to the value and time-sensitivity of the project or system need in question.

Our procurements must be proportionate and our evaluation of how to competitively procure a service or project goes beyond a cost only consideration. As we have detailed earlier in this document, we evaluate our procurement exercises through a value/risk matrix.

There are other factors which must also be considered in that evaluation, for example timeframes and wider system impacts.

[26] https://www.ofgem.gov.uk/publications-and-updates/riio-2-sector-specific-methodology-decision

Interventions to the transmission network are driven by deteriorating asset health (through age or damage) or as a result of our licence obligation to facilitate connections to our network. Both of these drivers have timescales associated with them:

- We may not always have sufficient time to undertake a competitive process in an asset health situation (for example where damage has occurred due to extreme weather or malicious actions of third parties), but competitive procurement is facilitated nonetheless, and the risk of meeting often limited timescales mitigated, through the use of proactively implemented frameworks;

- Similarly, where a customer has applied for a connection to our network there are often circumstances where it is more cost effective to directly award contracts under our competitively procured frameworks for quicker delivery, meeting or advancing connection dates to reduce the impacts to the wider system (for example, through alignment with existing scheduled outages or to reduce constraint costs) and deliver additional consumer and environmental benefits, in the case of renewable connections through displaced carbon.

Where competitive procurement is proportionate and appropriate, we are able to select from a suite of options, ensuring we maximise efficiencies without the risk of adverse wider system impacts or costs.

As outlined above, we have developed a multi-layered procurement process, supported by our internal governance protocols to ensure our procurement activities are managed in a way which accounts for the complexity of the requirement and timeframe for delivery.

We apply an end to end 'Source 2 Contract' procedure which operates proportionate procurement routes dependent on the value and risk. The process associated with each route applies a balanced approach to governance, documentation and contractual approach relative to the risk and value.

In addition, all procurement requests are initiated utilising a web-based software application that enables us to optimise the process of procurement and provides capabilities for analysing and awarding items and services. This allows for a 'Target Date' completion agreement between members of the project team. Accordingly, the task durations associated with procurement activity are adjusted in recognition of time sensitive projects.

Importantly, a significant part of our proposed T2 investments within the Certain View are driven by an increasing need to connect renewable generation (i.e. load driven). We are contractually obliged to connect generators by a specific date. We therefore also balance up the time-sensitivity of a project or system need against the contracted date for which we are accountable.

All information must be provided equally to all parties, and any conflicts of interest must be appropriately managed.

In compliance with Utilities Contracts (Scotland) Regulations 2016 and our internal governance procedures, we provide a fully transparent and robust process at all stages of the procurement process.

During this process all tender information is carefully collated and produced to ensure information is neutral and provided equally to the supply chain. As mentioned above, we utilise an online tendering portal. This system provides the benefit of facilitating transparent, real-time sharing of tender documentation with all potential providers. If we receive a query relating to the tender documentation, the response is also posted and available to all potential suppliers.

The SSE Plc Group's Responsible Procurement Charter contains a conflict of interest statement, which providers are required to expressly confirm compliance with, that potential providers avoid any interaction, out with the procurement process, with SSE employees to ensure there is no conflict of interest. The statement also requires providers not

to make any payment or incentivise any SSE employee during the course of any business transaction and to disclose family relations between its employees and those of SSE Plc. Our internal group audit function monitors compliance with the Responsible Procurement Charter.

In addition, we recognise that SHE Transmission is part of the wider SSE Plc Group and that there are instances where our associated group companies are bidders into our procurement exercises. In these circumstances we follow our robust internal business separation governance processes. Our business separation protocols ensure that there is no preferential treatment for group companies. They are required to bid and compete on the same basis as any third-party tenderer.

Licensees should be agnostic to technology and bidder type.

Utilising Achilles UVDB, any provider which meets the criteria set out in the first pass selection activity can participate in the resultant prequalification process.

Clearly, in some circumstances, functional specifications are utilised where appropriate, to ensure network operational requirements are fulfilled (i.e. complying with our requirements to maintain a safe and secure network). Where appropriate, we may alternatively issue a 'Call for Competition' to ensure that the widest range of potential technology providers are aware of the procurement opportunity and able to respond.

In certain circumstances, there is a need to define the specific technology we require in order to maintain system security, achieve network resilience through asset diversity and allow it to operate efficiently, or where there may only be one type of technology capable of meeting the need (for example, if there is a requirement for electricity to be transmitted from an island to the mainland, there is currently only one technology with this capability (sub-sea cable)). In these situations, it would not be proportionate to design a tender exercise and associated documentation which would allow for a wide range of potential technologies. Introducing such a level of complexity in evaluation and contracting strategy would only serve to introduce unnecessary delay and cost into a process where there would be no benefit in doing so. As we have described previously, we consider the complexity and value of our procurement exercises, selecting the procurement option we consider will achieve the greatest customer and consumer benefit.

Where we intend to recommend entering into a single source contract, this must be specifically highlighted in SSE's standard internal Procurement Strategy document and subsequent Tender Evaluation Report.

The intention to progress with a single source strategy/recommendation to award requires an additional hierarchy of internal approval than those which do not recommend a single source approach.

Competitions should be structured to generate outcomes in the interests of existing and future consumers.

In addition to selecting the appropriate procurement process option, we consider the lifecycle of the asset/equipment, and the relevant scoring criteria for price and quality, before tenders are issued. Our procurement strategies are developed to ensure that the most economically advantageous outcome is secured, considering the optimum mix of price and quality.

The Utilities Contracts (Scotland) Regulations 2016 require that award decisions cannot be solely based on a lowest price technically acceptable model but rather, should be based on price and quality.

We also complete significant strategic activities comprising market analysis, supply chain analysis, application of experience through lessons learned exercises, value/risk analysis and resultant opportunity analysis at the outset of each strategic procurement event to develop a successful strategy which has the greatest potential to deliver optimum value from the supply market and ultimately for our customers and consumers.

Stakeholder Feedback

In developing our procurement strategy for RIIO-T2, we undertook stakeholder engagement across the supply chain and potential providers of network and non-network solutions.

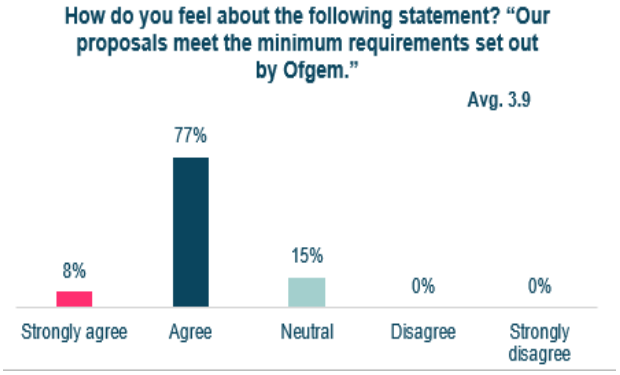
We presented our initial thinking on Native Competition to our stakeholders at our RIIO-T2 Sustainability, Whole System and Competition Stakeholder Workshop targeted event at the National HVDC Centre in September 2019.

The session was independently facilitated by EQ Communications Limited, a specialist stakeholder engagement consultancy, ensuring the feedback received was accurately recorded and presented without bias [27] The event consisted of presentations followed by roundtable discussions.

The event was very productive, with representation from across our supply chain in addition to wider stakeholders. Overall our proposals were well received with 85% of stakeholders agreeing that our proposals meet the best practice principles set out by Ofgem.

When asked what more SHE Transmission could do, stakeholders suggested:

- being more open to innovation;
- a more ambitious approach to long-term partnering;
- providing an efficient framework for the supply chain; and
- a supply chain procurement process that has a mechanism for removing or sharing bad risks.



Future Engagement

Generally, stakeholders feel that engagement should take place at the earliest possible stage[28]. This feedback has led us to review our existing project development approach in order to involve the widest pool of potential suppliers at an earlier stage in the process.

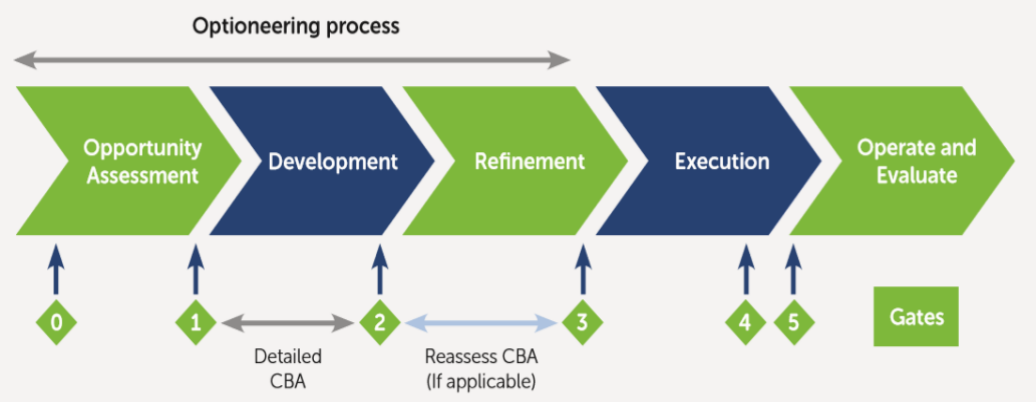
All major projects undertaken by SHE Transmission must comply with the SSE Group Project Governance process, commonly referred to as the Large Capital Projects Governance Manual. This manual aims to ensure that all large capital (investment) projects for the SSE Group are

[27] https://www.ssen-transmission.co.uk/media/3651/riio-t2-stakeholder-engagement-events-may-2019-output-report.pdf
[28] www.ssen-transmission.co.uk/media/3450/she-transmission-stakeholder-workshop-november-2018-report-final.pdf

governed, developed, approved and executed in a safe, consistent and effective manner.

The Governance process was developed to align with the natural progression of a project and has five phases with formal 'gates' between each phase. The purpose of the gates is to ensure transparency, scrutiny and appropriate approval of project development, definition and the required deliverables. It has been also recognised that involving stakeholders too early on in planning could be counterproductive leading to additional costs. The gates are therefore also appropriate junctures to obtain clarity on project risks and issues, as well as benefits, and assists with business decision making.

Our Procurement Strategy for RIIO-T2 is focussed on earlier engagement with potential solution providers to maximise innovation and cost efficiency. This could, for example, take place prior to Gate 1 (as outlined below) and before the development of a detailed cost-benefit analysis to ensure that as wide a range of possible network and non-network solutions are considered within our optioneering process.



During RIIO-T2 we will also focus on delivering our Meet the Buyer initiative, promoting the Open4Business[29] programme and gathering further insights from our supply chain, including details relating to the size of companies, the nature of services they provide, and the value of contracts awarded. With this greater understanding, we can target further improvements, where practicable under procurement regulations. For each 'Meet the Buyer' event we will seek to:

- hold the event at the beginning of the procurement process;
- promote the event in advance; and
- engage with providers in advance to ensure attendance by the widest range of organisations.

We also commit to developing a forward-looking register to provide advanced sight of forthcoming competitive procurement exercises. This will allow potential providers with sight of upcoming competitive processes at least one year in advance, where possible. It will determine whether there is possibility to participate in forthcoming framework agreements, portfolio procurement projects or bespoke tendering exercises.

We will strive to create opportunities, where contractors and providers of every size may participate in competitive processes for delivery of our projects (where appropriate, considering risk and complexity in project delivery), in a fair and competitive arena and use our knowledge and experience to improve our future events or tenders accordingly

[29] https://www.o4b-highlandsandislands.com/

Appendix 2 - Reporting our performance during RIIO-T2

Ofgem's Business Plan Guidance sets out a requirement for us to commit to sharing information throughout the price control such that Ofgem and stakeholders have sight of upcoming competitive processes and can continually assess our performance against the commitments in our Native Competition Plan.

In addition to engaging with our stakeholders through our procurement, innovation, sustainability and whole system activities, we are committing to the following annual deliverables as a minimum provision:

Reporting Commitment		
	Commitment	**What is it?**
1	Publish an Annual Competition Report	Whilst seeking to protect confidential commercial supply chain information, this report will include (as a minimum): • information on procurement processes that we have completed during the period; • a review of whether those procurements are aligned with our native competition plan and commitments; • if applicable, a summary of what improvements we intend to make; • a summary of procurements we expect to begin in the next two financial years; and • details of any 'Meet the Buyer' events that have taken place, and advance notice of any potential upcoming events.
2	Publish an Annual Competition Register	This will include an annual register of contracts awarded through a competitive process (framework, bespoke etc). This will allow assessment of performance against our commitments within the native competition plan.
3	Publish an Annual Efficiency Report	This report will provide an overview of the benefits of the competitive processes embedded within our procurement activities for RIIO-2. It will include an assessment of annual efficiency for bespoke items which will include bundling opportunities, negotiated savings and other scope/programme reductions. This will seek to demonstrate the efficiency achieved through bespoke procurement activity where competition is not possible.
4	Advanced notice of competitive procurement exercises	We commit to developing a forward-looking register to provide advanced sight of forthcoming competitive procurement exercises, including advance notice to framework suppliers where we intend to utilise mini-competitions within the awarded frameworks. This will provide potential suppliers with sight of upcoming competitive processes at least one year in advance, where possible, ensuring they can understand the pipeline of projects. It will determine whether there is possibility to participate in forthcoming framework agreements, portfolio procurement projects or bespoke tendering exercises.

Appendix 3 – Competition Assessment

As outlined in the previous sections of this paper, our Native Competition Plan is designed to reveal efficient costs and ideas for addressing network issues through competition *within* the market as opposed to competition *for* the market (e.g. issuing CATO licences to compete with transmission owners).

This section considers Ofgem's 'Early' and 'Late' competition criteria against our proposed capital investment strategy for RIIO-T2 and sets out our best view of which of our projects meet either set of criteria (competition *for* the market). Whilst we have sought to highlight those projects potentially eligible under Ofgem's competition criteria, it is worth noting that as Ofgem and the ESO are still at the very early stages of developing competitive models, and in the absence of the primary legislation required to implement the Competitively Appointed Transmission Owner (CATO) regime, significant further work will be required before any decision can be made on the application of any new competition model to these or any other projects.

Late Competition

Under a late competition model a 'preliminary works party' (most likely a networks owner) would complete all necessary preliminary works for a new, separable and high value project. Ofgem or another third party would then run a tender to determine who is responsible for the construction and operation of the project. Each party would bid a 'tender revenue stream' to construct, own and operate the asset for a long-term operational period (currently expected to be 25 years).

Ofgem's criteria for application of a **late competition** model include the following:

- New – means a completely new transmission asset or a complete replacement of an existing transmission asset;
- Separable – means the boundaries of ownership between these assets and other (existing) assets can be clearly delineated.
- High-value means at or above £100m of expected capital expenditure at the point of Ofgem's initial assessment of the appropriate delivery model.

Where we consider that project valued at over £100m does not meet the criteria for competition, we have included an explanation within the relevant Engineering Justification Paper.

Early Competition

Early Competition can be described as a competition run prior to the project design process, aimed at revealing the best idea to meet a system need, including non-network solutions. As noted above, Ofgem has tasked the ESO to develop an Early Competition Plan, detailing how it intends to develop an early model of network competition (for more information, please visit the ESO's website[30]).

Ofgem's criteria[31] for application of an **early competition** model is any project valued at £50m or over. We can indicate from among the projects flagged, any which are considered to have no reasonable probability of being addressed by an alternative solution (contestability test) or where this would not be in the interests of consumers.

For example, where the project is part of a wider programme of work and the separation of one aspect will make the overall programme more expensive for consumers or would result in the overall programme of work failing to deliver the intended system benefit.

[30] https://www.nationalgrideso.com/publications/network-options-assessment-noa/network-development-roadmap

[31] Criteria for the identification of projects for early competition is still being developed, however Ofgem has asked networks owners to 'flag' projects with an estimated value of £50 million or more as part of their business plan submissions

Scheme Eligibility

We have considered Ofgem's early and late competition criteria against each of our proposed RIIO-T2 schemes which meet either the £50m or £100m value threshold. The table below provides a summary of this assessment.

Further detail on our approach to assessing projects, and the additional factors that must be considered, can be found below and within the project specific Engineering Justification Papers (referenced within the table below).

Scheme eligibility against late and early competition criteria

Scheme Name (and Engineering Justification Paper Reference)	**Early Competition Criteria**			**Late Competition Criteria**			
	>£50m?	**Contestable?***	**Criteria met?**	**>£100m?**	**New or Replacement?****	**Separable****	**Criteria met?**
Beauly Substation Works (T2BP-EJP-0033)	✓	✗		✗	n/a	n/a	n/a
Kintore 275/132kV Substation Works (T2BP-EJP-0044)	✓	✗		✗	n/a	n/a	n/a
Port Ann – Crossaig 132kV OHL Works (T2BP-EJP-0022)	✓	✗		✓	✓	✗	
North East 400kV Upgrade (T2BP-EJP-0016)	✓	✗		✓	✓	✗	
East Coast 275kV Upgrade (T2BP-EJP-0018)	✓	✗		✓	✓	✗	
East Coast 400kV Incremental Upgrade (T2BP-EJP-0017)	✓	✗		✓	✓	✗	
Kinardochy Reactive Compensation (T2BP-EJP-0023)	✓	✗		✓	✓	✓	

*i.e. Is there reasonable probability of the system need being addressed by an alternative solution?

**an assessment of new/seperable is only undertaken where the initial >£100m threshold is exceeded.

We want to be as transparent as possible in providing our stakeholders and consumers with information on how we assess projects against Ofgem's competition criteria. This section provides more detail on our approach and reasons as to why subjecting these projects to early competition may not be in the interests of consumers.

Defining 'separability'

This section provides information on our approach to determining whether a scheme meets Ofgem's 'separability' criteria.

Whilst the 'new' and 'high value' criteria are reasonably simple to determine, there is an element of engineering and technical judgement required when deciding whether a project is 'separable'.

We have therefore provided more detail within the Port Ann – Crossaig case study below.

CASE STUDY - Port Ann – Crossaig 132kV OHL Works (T2BP-EJP-0022)

This project has been assessed against Ofgem's 'new' and 'separable' criteria ahead of any consideration of the applicability of a late competition model. The Port Ann to Crossaig reinforcement relates to the double circuit transmission overhead line (OHL) in Kintyre between the Port Ann tee-off and Crossaig substation. The overhead line (OHL) project is a new and complete replacement and the scheme is also above Ofgem's value threshold.

We do not consider the project electrically separable. The existing circuit from Inveraray to Crossaig is a continuous OHL, of which the Inveraray to Port Ann tee point section is currently under construction and due to complete before the beginning of RIIO-T2.

This Port Ann-Crossaig project will replace the line section from the Port Ann tee point to Crossaig and the new circuit will not turn into Port Ann substation. It is not efficient to construct a switching station solely for the purpose of making the project separable as this will result in additional cost to consumers.

Therefore, the project is subsequently unflagged as being eligible for late competition.

Running a competitive tender

In assessing the eligibility of projects against Ofgem's competition criteria, it is also important to consider whether there is enough time available to run a competitive tendering process (which we assume would take 18 to 24 months including pre-qualification etc).

A significant proportion of projects we are proposing to deliver during RIIO-T2 is driven by generation contracted to connect to our network by an identified connection date. The required development to deliver each connection date is based upon the most efficient programme for procurement and delivery.

We are obliged to deliver against these contracted dates. We have undertaken additional desktop analysis applying the estimated timeframe for a competitive process commencing at the earliest point currently envisaged (start of RIIO-T2) to the identified projects. This approach has led us to determine that the identified projects are not able to absorb an 18 to 24-month delay in order to accommodate a competitive tendering process, on the basis this would significantly impact connection dates.

Aligned with this and led by our customers, we have committed in our Commercial and Connections Policy to provide tailored connection solutions and to deliver connections on time. It is critical that the views of those parties who would be directly affected by any proposal to apply a competition model are sought ahead of any such decision.

Contestability

For each project contained within our Certain View for RIIO-T2, we undertake an 'optioneering' exercise to determine all possible solutions with the potential to meet the required system need. Ofgem's Business Plan Guidance states that we can indicate from among the projects flagged as meeting the £50m threshold value for early competition, any which we consider would have no reasonable probability of being addressed by an alternative solution (contestability test).

We therefore considered the possibility of alternative solutions (i.e. non-network) being able to address the system need. However, in several examples, particularly for non-load projects, we are required to intervene in order to maintain compliance with the Security and Quality of Supply Standard (SQSS).

As a licensed transmission owner, the only possible approach towards ensuring compliance with the SQSS is to utilise existing technology in order ensure that the transmission network is being maintained and developed to a high technical standard which contributes to the overall reliability and security of the system.

In addition, several of our load-related projects are upgrading the network in order to transfer significant volumes of electricity from the North of Scotland down to where it is most required in the south. The transfer capability required in these scenarios can only be delivered through physical infrastructure with the capability of moving power from where it is generated to where it is consumed (i.e. via wires and substations).

We are not aware of any alternative technology that can deliver the required output. We consider it is in consumers interests to progress with known technological solutions that are guaranteed to deliver the output within the required timescales.

Project splitting/bundling

Through a GB-wide approach to system planning, supported by our portfolio procurement strategy and our risk-based approach to managing our assets, we have identified a clear and justified need for our planned capital investment during RIIO-T2. Our approach to capital investment is designed to deliver specific outputs, such as:

- Strategic boundary capability reinforcement to accommodate increased north to south power flows, largely due to increasing installed renewable generation in the north of Scotland and interconnection to other jurisdictions;
- Regional investments to connect new renewable generation and accommodate changes in the use of energy due to electrification;
- System driven investment to ensure the operability of the network with a more flexible generation and demand mix, and provide commercial alternatives to reinforcement; and
- Asset risk driven investments to replace assets in poor condition, performing below expectations or of undue risk to the environment or public, and maintain the integrity of the existing transmission system.

Each scheme is designed to deliver a pre-defined system benefit or 'output'. In order to determine whether it is suitable to bundle or split projects, the required output must be considered (i.e. MW boundary uplift, contracted connection dates etc). These factors contribute to our engineering and technical judgement as to whether a project has the potential to be bundled or splitting.

CASE STUDY - East Coast 275kV Upgrade

This project is above both Ofgem's early and late value threshold and is therefore flagged as potentially eligible for competition.

We have considered the viability of splitting East Coast 275kV Upgrade into smaller elements. However, this scheme is a combination of several components designed to deliver a pre-defined system benefit. The splitting of responsibilities poses risk to the delivery of the overall system benefit (e.g. if one element of the project were to be delayed) with the potential to increase wider system costs considerably.

Regardless of delivering the pre-defined system benefit, splitting the East Coast 275kV Upgrade into smaller 'lots' resulted in only one element meeting the £100m threshold (re-profiling existing overhead line). This individual element is not considered separable from the wider system (or project) and would therefore not be eligible for competition.

Wider considerations when assessing suitability of projects for competition

The Scheme Eligibility table on page 24 is based on an initial technical and engineering assessment of each proposed scheme or system need against Ofgem's criteria for early and late competition.

There are several additional factors to consider alongside Ofgem's criteria to determine whether a scheme is suitable for competitive delivery (as described above). In addition, certain projects will already be well developed and defined with planning consents in place and therefore unsuitable for early competition as this will increase costs for consumers.

Our experience tells us that investment planning needs to be able to react to unexpected changes or changing trends in a given area. For example, the actions of a large generator (or several small generators) connecting or terminating can result in range of potential outcomes to the local network and beyond. This can range from, a change to the design of a particular local network asset to a significant network redesign, requiring, for example, a different operating voltage and tower suite with differently specified switchgear and transformers. Consequently, a network design might require change (large or small) between the pre-design and execution phase of a project.

The scope of the projects identified within the Scheme Eligibility table above are therefore subject to change, as the driver or need for reinforcement has the potential to evolve over time.

There is also an increasing requirement for us to consider the whole network and to be flexible and responsive in our planning activities, considering a wide range of possible risk scenarios to ensure economic, efficient and coordinated outcomes. If not considered carefully, the introduction of early models for competition could potentially hamper the development of whole system solutions by progressing too quickly towards contestable delivery prior to a full and coordinated impact assessment to determine the best route and solutions to address network requirements.

We see value in considering whole system solutions that are flexible and can evolve as system requirements develop.

There is a risk that a competitive approach resulting in the award of a contract or licence to provide a solution to address a specific system requirement will be contractually settled at the point of contract award (potentially reducing the scope of further innovation or an ability to manage shifting system needs during construction and operation). A key challenge for us all is how we manage this uncertainty without increasing the risk of cost increases, through redevelopment or re-tendering of solutions, or of stranded assets (where something is no longer required but for which

consumers continue to pay). Utilities can manage these risks across their network portfolio.

Ofgem and the ESO are still at the very early stages of developing potential competition models, with the ESO not scheduled to make its recommendations to Ofgem until February 2021.

We are continuing to engage with the ESO to better understand how the outcome of contestable system requirements interacts with potential whole system solutions, network risk and ultimately the cost to customers and consumers.

Considerable further work and analysis will be required before any final decision can be made on the application of any competitive model for the market, including the requirements of a regulatory and or legislative framework

We need to work together with the other TOs, Ofgem and National Grid ESO in order to ensure that any scheme put forward for delivery through a competitive model (either early or late) is only progressed where there is clear consumer benefit and where it does not risk the safety and security of the GB electricity network.

Finally, and as noted above, competitive delivery should not progress at the expense of an innovative or whole system solution with the ability to deliver wider benefit at lower lifetime cost and produce sustained benefits for consumers.

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