SUPPLY CHAIN ANNEX

ED3-S19

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1. EXECUTIVE SUMMARY

This annex provides the supporting evidence for the supply chain strategy set out in Section B.3 of our 10-year (ED3-S05) ED3 Delivery Strategy. It explains how we translate our firm ED3 workbank and longer-term view of network requirements into the plant, equipment, contractor and specialist capacity required to deliver ED3, while developing the supply chain capability, capacity and resilience required for ED4 and beyond.

Our approach responds to a supply market in which capacity increasingly must be planned and secured ahead of need. Our assessment identifies extended lead times and capacity constraints across critical equipment markets, alongside constraints in specialist engineering and contractor capability. ED3 will be delivered in a market characterised by competing infrastructure demand, constrained manufacturing capacity, extended lead times, workforce shortages, commodity volatility and concentration in critical sub-tiers of the supply chain. These pressures are not uniform: current average lead times range from approximately 12 weeks for distribution transformers to 52 weeks for primary transformers and 120 to 160+ weeks for Grid transformers, while HV cable can require six to 18 months and HV switchgear approximately 56 weeks.

We respond through a programme-led supply chain model built around five principles: long-term demand visibility, earlier commitment where justified, standardisation, strategic commercial relationships and resilience. Together these convert our investment pipeline into actionable demand signals and, progressively, into contracted delivery capability and secured manufacturing capacity.

This annex provides the underlying evidence for our approach and sets out:

- how our workbank is translated into supply chain demand;
- how market intelligence informs sourcing decisions;
- how we secure delivery partner, manufacturing and material capacity;
- how standardisation and resilience increase usable capacity;
- how supplier readiness and performance are monitored; and
- how commercial, cost and governance arrangements protect value for customers.

Outcomes this annex supports

- Capacity available when required, with early action on long-lead and highly constrained supplier categories.
- A more investable pipeline, enabling the supply chain to plan workforce, facilities, production and innovation.
- Lower complexity and improved repeatability through standardisation and our “design once, build many” ethos.
- Commercial arrangements that reward outcomes while maintaining value, competition and accountability.
- Greater resilience through diversified supply routes, upstream visibility, strategic spares and contingency planning.
- Growth in efficient UK manufacturing and local supply chain capability where this strengthens delivery and customer value.

2. OUR SUPPLY CHAIN APPROACH

Supply chain as part of our integrated delivery model.

Our supply chain is an integral part of the delivery model set out in our (ED3-S05) ED3 Delivery Strategy. We plan supply-chain capacity alongside the workbank, workforce, design, outages, consents and investment so that contractor capability, engineering resource, plant and materials are considered as part of one integrated delivery system.

Our approach is designed to secure the resilience, capacity and capability needed to deliver our ED3 programme while protecting customers through appropriate competition, commercial discipline and active management of delivery risk. We provide longer-term visibility where this supports supply chain planning and investment, while distinguishing between firm ED3 requirements and emerging longer-term needs that inform future capacity and capability planning.

Figure 1: Supply Chain Principles



Our approach is built around five mutually reinforcing principles:

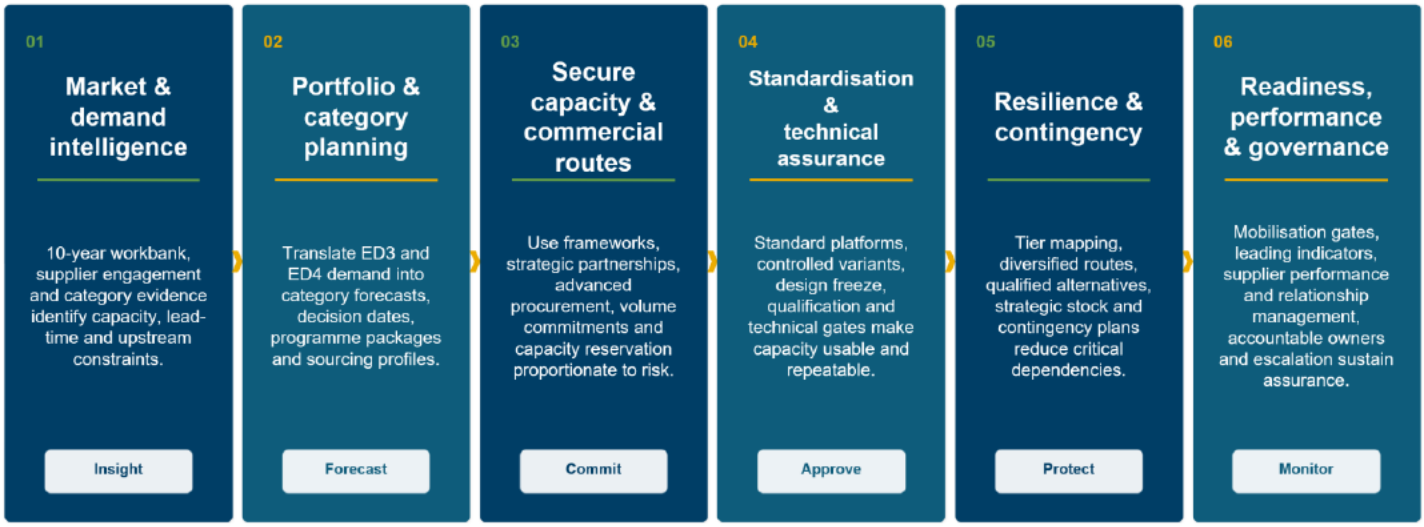
- **Visibility and demand:** translating our workbank into category and supplier requirements, providing visibility of demand, timing and emerging capacity requirements.
- **Commitment and capacity:** securing supply chain, manufacturing capacity ahead of need where market constraints, lead times and delivery risk justify earlier commitment.
- **Standardisation:** aggregating repeatable requirements to reduce unnecessary variation where this supports more efficient procurement and repeatable delivery.
- **Strategic partnerships and commercial models:** selecting commercial and contracting approaches according to the characteristics of the requirement, market conditions and delivery risk, maintaining competitive tension and customer value.
- **Resilience:** identifying critical dependencies and constraints, maintaining appropriate alternative and contingency routes, and actively managing supplier capacity and performance.

These principles shape how we engage, contract and manage our supply chain. Translating firm ED3 requirements and emerging longer-term needs into forward category and supplier forecasts.

We are increasingly using programme-led delivery where aggregation provides a clear delivery or customer benefit. By grouping requirements with common asset, geographic, resource or delivery characteristics where this can create greater continuity, reduce interfaces or enable repeatable delivery. Specialist and contestable requirements continue to be competitively sourced where this provides the appropriate balance of capability, flexibility, risk and value.

We apply these principles through a six-stage supply chain cycle that links our forward workbank and market intelligence to procurement decisions, capacity commitments, technical assurance, resilience and ongoing supplier performance.

Figure 2: Supply Chain Cycle



The cycle provides a structured route from demand to delivery:

1. **Market and demand intelligence:** use the forward workbank, supplier engagement and category evidence to understand capacity, lead-time and upstream constraints.
2. **Portfolio and category planning:** translate ED3 requirements and longer-term visibility into category forecasts, decision dates, programme packages and sourcing profiles.
3. **Secure capacity and commercial routes:** select frameworks, strategic partnerships, competitive procurement and other commercial mechanisms proportionate to the requirement and level of risk.
4. **Standardisation and technical assurance:** use standard platforms, controlled variation, design maturity and technical gates to support scalable and repeatable delivery.
5. **Resilience and contingency:** understand critical dependencies and maintain proportionate alternative supply, capacity and contingency arrangements.
6. **Readiness, performance and governance:** monitor mobilisation, capacity and supplier performance through defined accountabilities, leading indicators and escalation routes.

3. MARKET CONTEXT, DEMAND PLANNING AND INTELLIGENCE

Our supply chain planning is integrated with our wider network and portfolio planning. Our defined ED3 workbank provides visibility of near-term requirements, while our Long Term Integrated Network Plan (ED3-S02 LINP Strategy) and Strategic Development Plans provide an increasingly mature, probabilistic view of requirements into ED4. We translate this long-term visibility into forward demand for plant, equipment, delivery partners and specialist capability, and test it through ongoing market intelligence and supplier engagement. This enables us to identify capacity constraints and long lead times early, make capacity decisions ahead of need and give suppliers greater confidence to invest, while retaining flex

ibility as longer-term requirements evolve.

3.1 USING MARKET INTELLIGENCE TO UNDERSTAND CONSTRAINTS

We maintain a current view of supply chain capacity through independent market assessment, supplier engagement and category-level intelligence. Our evidence base includes an independent supply chain review undertaken by Efficio, supplier surveys and strategic interviews, engagement with OEMs, designers, EPC contractors and Tier 1 and Tier 2 delivery partners, and targeted assessment of transformers, switchgear, cable, overhead line materials and poles.

This evidence provides insight into available and emerging market capacity, lead times, supplier appetite, upstream dependencies, investment requirements and opportunities for standardisation and aggregation. It enables us to understand not only whether supply is available, but the conditions required to secure capacity and maintain a resilient supply chain.

Our assessment shows that the markets for our most critical plant remain constrained, with transformers, cable and switchgear currently assessed as Amber. The nature and severity of the constraint varies by category. Large power transformers face the greatest lead-time pressure, at around 120 to 160+ weeks, compared with around 52 weeks for primary transformers. HV cable can require six to 18 months and HV switchgear around 56 weeks. Across these categories, constraints are being driven by a combination of manufacturing and specialist engineering capacity, constrained upstream components, commodity exposure and competing global demand. Switchgear also faces a technology transition as the market moves towards SF_6-free solutions

Pricing remains under upward pressure. Our market assessment forecasts increases over the next six months of around 9% for transformers, 3% for cable and 6% for switchgear, alongside material increases already experienced since 2020. These pressures reinforce the need to provide credible forward demand, commit sufficiently early where capacity is constrained, standardise requirements and maintain diversified sourcing routes.

Detailed category-level evidence, including lead times, price trends, bottlenecks and mitigations, is provided in Appendix A

3.2 HOW MARKET INTELLIGENCE SHAPES OUR APPROACH

Across our evidence base, suppliers have consistently identified four factors that support investment and capacity planning:

- credible forward visibility of demand, enabling suppliers to plan capacity and investment;
- early and timely commitment, particularly where manufacturing or delivery capacity is constrained;
- stable and increasingly standardised requirements, reducing complexity and improving manufacturability; and
- appropriate commercial arrangements, with risk allocated to the party best able to manage it and incentives aligned to sustained delivery performance.

We combine this intelligence with our aggregated workbank to determine how and when we engage the market. We test forward requirements with suppliers and use the resulting evidence to refine programme packaging, procurement timing,

sourcing strategies and capacity interventions. We refresh this assessment as our workbank matures and market conditions change. This evidence directly informs our approach:

- capacity constraints and longer lead times inform advanced procurement and, where appropriate, capacity reservation;
- fragmented or intermittent demand informs aggregation into larger programmes and longer-term work packages;
- specification complexity informs opportunities for standardisation and repeatable solutions;
- supplier appetite and market capability inform packaging and commercial models; and
- concentration within upstream supply chains informs resilience assessments, diversification and consideration of alternative sources of supply.

Detailed evidence from our wider stakeholder engagement is provided in the (ED3-S05) ED3 Delivery Strategy. This annex focuses on the supply chain evidence and market intelligence that have materially influenced our procurement, commercial and delivery approach.

Table 1 Sources and application of Stakeholder Evidence

Evidence source	What it tells us	How we use it
Independent supply chain review	External challenge on market fragmentation, customer attractiveness, capacity constraints, commercial models and delivery enablers.	Informs our approach to demand aggregation, market positioning, procurement and commercial strategy.
Cross-market engagement	Tests supplier appetite, capacity, future delivery models, mobilisation requirements and performance arrangements with OEMs, designers, EPC contractors and Tier 1 and Tier 2 partners.	Informs packaging, route-to-market, capacity planning and the timing of market commitments.
Category market intelligence	Provides specific evidence on capacity, lead times, investment conditions, standardisation opportunities and resilience across long-lead plant and equipment.	Enables category-specific interventions, including advanced procurement, standardisation and capacity reservation where justified.
Forward demand and workbank intelligence	Provides visibility of the scale, timing and maturity of future demand requirements across programmes and categories.	Enables requirements to be aggregated and tested against available market capacity, supporting earlier identification of supply constraints.

4. TRANSLATING DEMAND INTO OUR SOURCING STRATEGY

We are giving our supply chain earlier and more actionable visibility of future demand, enabling suppliers to plan capacity, workforce and investment and allowing us to secure critical capability ahead of need. Our firm ED3 workbank provides the basis for procurement and capacity commitments, while the (ED3-S02) LINP Strategy and Strategic Development Plans provide an increasingly mature view of requirements beyond ED3. This enables us to distinguish committed ED3 demand from the longer-term outlook while using both to inform sourcing and capacity planning.

4.1 DEMAND VISIBILITY

We progressively translate this portfolio outlook into category forecasts, commercial commitments and project-level delivery requirements. As certainty increases, forecast demand is converted into tender and award dates, mobilisation and manufacturing commitments, project allocations and required-on-site dates. This provides a controlled line of sight from long-term network requirements to the capacity needed to deliver them.

Table 2 Visibility of future demand

Planning layer	What it contains	What it enables
Portfolio	ED3, ED4 and longer-term strategic development outlook	Supports investment and workforce planning.
Category Forecast	Volumes by plant, material and service category	Supports production planning and market testing.
Commercial Commitment	Tender, award, mobilisation, slot reservation and call-off dates	Converts visibility into secured capacity.
Delivery Requirements	Project allocation, design freeze and required-on-site dates	Supports execution, logistics and performance control.

Figure 3: Securing the Supply Chain



4.2 TEN-YEAR SOURCING STRATEGY

Our ten-year sourcing strategies sequence market engagement, procurement, mobilisation and framework transitions across ED3 and into the early years of ED4. They provide suppliers with visibility of when capacity is likely to be required and allow us to start procurement and mobilisation ahead of framework expiry or project need.

Existing arrangements are used where they remain the most effective route to secure early ED3 requirements, while successor frameworks and partnerships are developed and mobilised ahead of later requirements. For long-lead or capacity-constrained requirements, we use early procurement or capacity reservation where sufficient demand certainty exists.

The horizons therefore provide a pathway from visibility to commitment: early market engagement tests capacity and capability; sourcing decisions establish the appropriate commercial route; and procurement or capacity reservation secures requirements where early action is needed.

Figure 4: 10 Year Delivery Horizon - Outsourcing

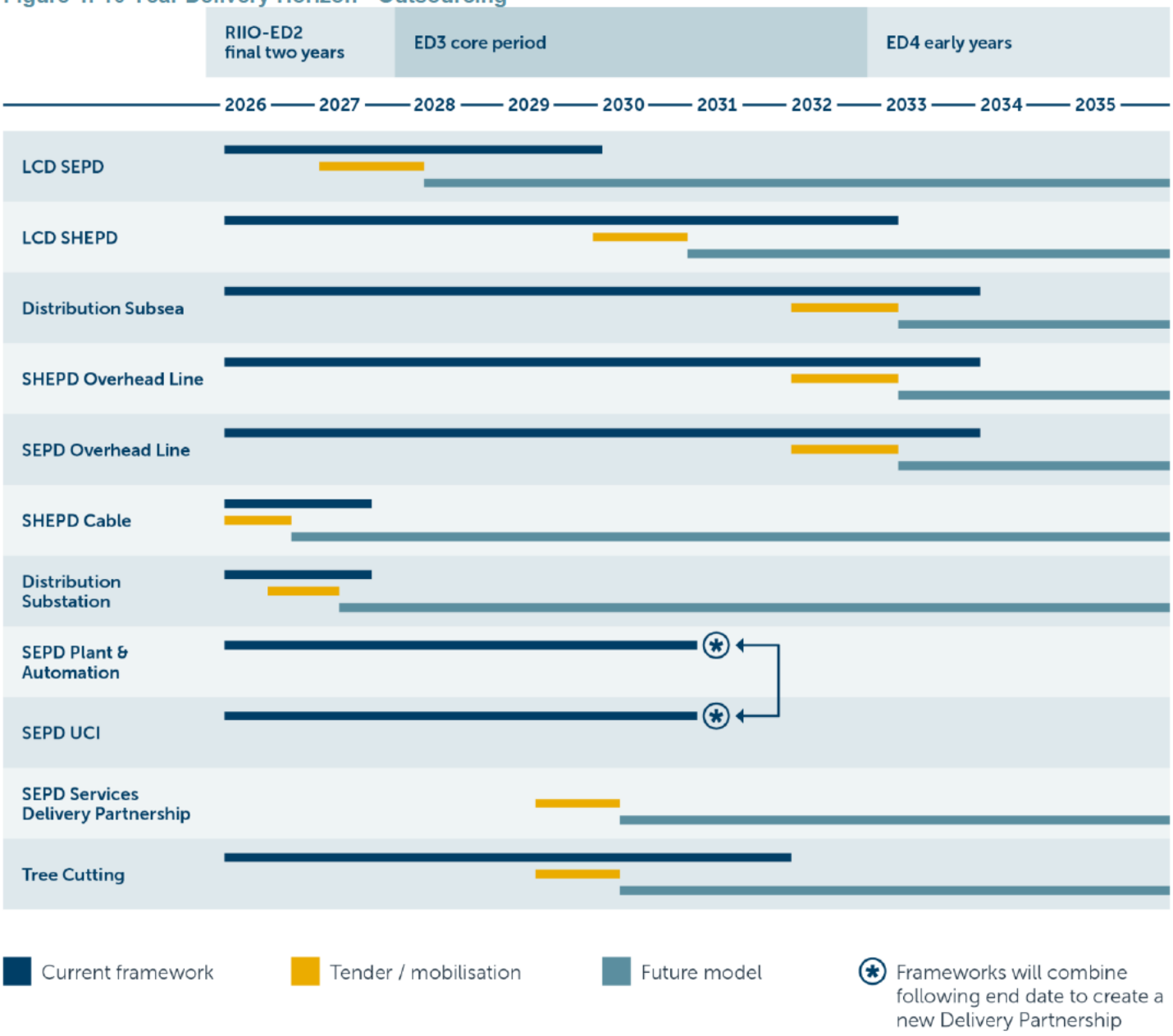
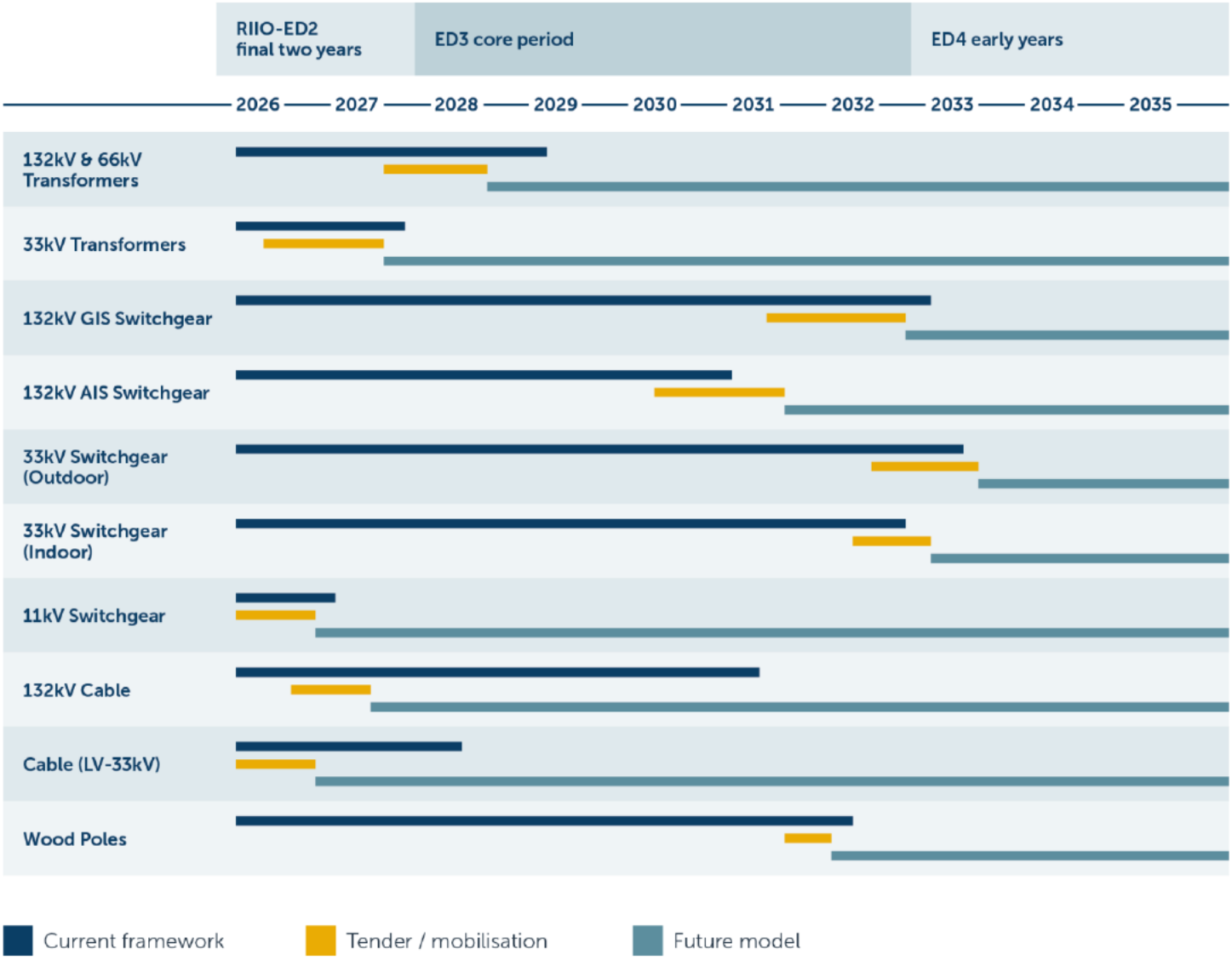


Figure 5: 10 Year Delivery Horizon - Long-lead Plant & Equipment



4.3 TRANSLATING PORTFOLIO DEMAND INTO CATEGORY DEMAND

We translate our portfolio outlook into category-specific sourcing strategies, recognising that equipment markets differ in manufacturing lead times, available capacity, market maturity and opportunities for standardisation. This enables procurement and capacity decisions to be targeted to the specific characteristics and constraints of each market, rather than applying a single sourcing approach across all plant and equipment.

For ED3, we are already converting this forward visibility into commercial commitments. As shown in Figure 4 and Figure 5, we are using existing frameworks where they provide the most effective route to secure early requirements, while developing longer-term and multi-price-control arrangements where these can provide greater continuity, support supplier investment and enable standardisation.

For example, current category plans show [redacted] Grid Transformers secured, alongside [redacted] Primary Transformers, [redacted] poles and [redacted] 33kV switchgear units. This represents [redacted] respectively of the stated category volumes.

Figure 5, the ten-year plant and equipment horizon, shows how these sourcing strategies are sequenced over time, combining current framework coverage with planned tender and mobilisation activity and future commercial arrangements. Together, Figure 5 and the Table 3 below demonstrate how our long-term demand outlook is progressively translated into category-level procurement decisions, securing requirements where early action is needed while maintaining flexibility as later requirements mature.

Table 3 Translation of long-term demand into category-level procurement decisions

Category	ED3 strategy	Long-term approach	Forecast Volume	ED3 procured volume	Percentage secured



4.4 PROGRAMME PACKAGING, WORKBANK MANAGEMENT AND ROUTE TO MARKET

We translate our portfolio requirements into coherent, investable packages of work that provide delivery partners with greater continuity and visibility than scheme-by-scheme procurement. A single governed workbank provides the basis for coordinating demand across programmes and aligning contractor, plant, design, outage and specialist resource requirements.

Consistent with the delivery approach set out in our (ED3-S05) ED3 Delivery Strategy, work is packaged according to its geography, asset type, scale and complexity, delivery risk, customer and regulatory outcomes and specialist capability requirements. Complex works are packaged through Regional Delivery Partners, providing continuity within regional workbanks, while repeatable, higher-volume activities are aggregated into cross-regional programmes and specialist frameworks. This allows scarce specialist capability to be deployed efficiently across regions while maintaining clear regional accountability for delivery.

Load, non-load and connections requirements are coordinated at portfolio level, providing visibility of competing demands for contractor capacity, plant, design and network access. This allows dependencies and constraints to be identified earlier and work to be sequenced, smoothed or reallocated across the portfolio, while retaining flexibility as requirements change. This aligns directly with the integrated planning and portfolio optimisation approach described in the (ED3-S05) ED3 Delivery Strategy.

We select commercial arrangements according to the characteristics of the work, market conditions and the capacity and capability required. This enables us to provide longer-term visibility and commitment where this supports supplier investment and capacity growth, while retaining competitive tension and flexibility where appropriate. We apply the following mechanisms according to the requirements and risk profile of each programme or category.

Table 4 Application of Commercial Mechanisms

Commercial mechanism	Primary purpose	Typical application
Long-term frameworks	Provide continuity, repeatability and confidence for earlier supplier investment.	Critical and repeatable categories with sustained demand.
Strategic partnerships	Enable joint planning, capacity commitments and collaborative improvement.	Where delivery depends on long-term capability, capacity and integration.
Programme-based contracting	Aggregate work packages around common delivery outcomes.	High-volume or interdependent programmes where aggregation improves coordination and productivity.
Competitive sourcing	Maintain market tension and provide access to specialist or emerging capability.	Bespoke, emerging or contestable requirements.
Capacity reservation	Secure manufacturing slots or defined capability ahead of final call-off.	Long-lead or capacity-constrained equipment and specialist capability where sufficient demand certainty exists.

5. SECURING SUPPLY CHAIN AND DELIVERY PARTNER CAPACITY

5.1 SECURING DELIVERY PARTNER AND CONTRACTOR CAPACITY

Our approach converts the long-term demand visibility described above into contracted and deployable contractor capacity. Consistent with the blended delivery model set out in our (ED3-S05) ED3 Delivery Strategy, we will use Regional Delivery Partners for complex programmes, specialist frameworks for repeatable and asset-specific activity, and engineering, design, Tier 2 and SME capability where this provides the appropriate balance of capacity, expertise, flexibility and value. We retain accountability for investment decisions and governance.

Supplier engagement has confirmed that capacity is influenced by the visibility, continuity and maturity of the pipeline against which suppliers can plan and invest. Our response is therefore to combine longer-term workbanks and programme packaging with earlier supplier involvement and joint resource planning, enabling partners to plan workforce, specialist capability and their own supply chains ahead of mobilisation.

Converting the workbank into investable programmes

As described in our (ED3-S05) ED3 Delivery Strategy, we are moving from fragmented project-by-project delivery towards coherent regional and cross-regional programmes. The preceding section explains how our workbank is packaged; the

purpose of that packaging from a supply chain perspective is to provide sufficient continuity and certainty for delivery partners to commit resources and invest in capability.

Supplier engagement identifies programme maturity and readiness for delivery as important factors in suppliers' ability to plan and commit resources effectively. We therefore involve delivery and engineering partners early, where appropriate, to inform:

- optioneering and design development;
- constructability and delivery methodology;
- programme sequencing and outage requirements;
- logistics and mobilisation planning;
- consenting and stakeholder dependencies; and
- critical workforce, specialist capability and supply chain requirements.

This enables constraints to be identified while there remains scope to adjust programme design, packaging or sequencing. We use earlier front-end engineering, route proving and consenting activities to improve the maturity of work entering delivery, reducing avoidable rework and late change and supporting more productive use of contractor capacity.

Securing scarce workforce and specialist capability

Our supplier engagement identifies workforce availability as a material constraint on contractor capacity, particularly across specialist engineering, competent and authorised resources and commissioning capability. We therefore plan external resource requirements alongside our internal workforce and programme demand, rather than treating contracted capacity as a standalone procurement activity.

For strategic delivery partners, we translate forward programme requirements into joint resource plans for critical capabilities, including SAPs, design and protection engineers, commissioning specialists, cable and overhead-line resources, project management, and consenting and environmental expertise.

Earlier visibility enables delivery partners to plan recruitment, training, competence and authorisation activity ahead of mobilisation, while portfolio-level planning enables us to identify competing demands for scarce resources across programmes. This connects our forward workbank directly to the people and specialist capability required to deliver it.

Supplier mobilisation and contingency planning

Contract award alone will not be treated as evidence that contractor capacity is ready to deliver. Mobilisation is assessed against the people, competence, systems and supply-chain capability required for the relevant programme. For strategic programmes, readiness reviews test:

- resource coverage against the programme requirement;
- competence and authorisation readiness;
- design and engineering capability;
- Tier 2 and specialist subcontractor arrangements;
- programme controls and systems readiness; and
- logistics, supply-chain and mobilisation dependencies.

Where capacity or performance moves outside the required delivery profile, interventions can include resource reallocation, additional specialist providers, alternative framework or delivery routes, use of contingency suppliers and programme resequencing. Contractor readiness and performance will feed into the integrated performance and governance arrangements set out in the (ED3-S05) ED3 Delivery Strategy, including monitoring of workbank contracted and strategic supplier performance, giving early visibility of emerging capacity constraints before they affect customer or regulatory outputs.

5.2 SECURING CRITICAL PLANT AND EQUIPMENT

Our approach to critical plant starts with the delivery need date and works backwards through manufacturing, technical approval and commercial commitment. A framework or supplier relationship is not treated as evidence of secured capacity

unless the required product is technically approved, allocated to SSEN Distribution and available within the required delivery window.

The point at which we need to commit varies materially by category. Current lead times range from approximately 30 to 52 weeks for MV switchgear and 52 weeks for primary transformers, to around 56 weeks for HV switchgear, six to 18 months for HV cable and 120 to 160+ weeks for grid transformers. We therefore align procurement and capacity decisions to the specific manufacturing cycle and constraint of each category, with the earliest interventions focused on the longest lead and most constrained requirements.

Capacity is assured at category, product and, where relevant, manufacturing-location level, recognising that available market capacity does not necessarily translate into capacity available for our programme. Our assurance tests whether capacity is technically usable, supported by critical components and testing capability, allocated to our requirements and available when our delivery programme needs it.

We use forward demand visibility, early capacity allocation, standardisation, technical qualification and diversified supply routes in different combinations according to the characteristics of each market. This allows us to make earlier commitments where required without committing volumes prematurely where demand or project requirements remain uncertain.

Table 5 Securing Plant and Equipment by Category

Category	Principal capacity constraint	How we secure ED3 requirements	Standardisation and technical intervention	Supply resilience	Evidence that capacity is secured
Grid and primary transformers	Approved-factory production slots availability, specialist engineering and testing, and long-lead components including tap changers, bushings, electrical steel, copper and insulation systems.	We segment requirements by voltage, rating, design family, year and region. We use annual allocations, manufacturing-slot reservation and staged component release for primary and large-power units, supported by early visibility of requirements beyond ED3.	We use standard transformer families, repeat designs and type-test reuse, with controlled site-specific interfaces. Defined technical gateways cover specification, drawing approval, component release, factory acceptance testing and delivery.	We maintain multiple approved suppliers and manufacturing locations where technically and commercially viable, map critical components and shared sub-tier dependencies, and assess alternative-component qualification and strategic spares.	Capacity is evidenced through an approved-factory slot allocated to the requirement, an agreed standard design, critical-component availability or reservation, completion of the required technical gates, confirmed factory acceptance testing and delivery windows, and a contingency route for critical requirements.
Distribution transformers	Production-line availability, repeatability of demand, raw-material availability and efficient call-off and stock profiles. Different transformer segments require different commitment models.	We use rolling product-level forecasts, volume bands, annual call-offs and appropriate stock arrangements, aligned to standard ratings and regional requirements while retaining controlled flexibility as demand changes.	We rationalise ratings, accessories and specifications into standard families and use repeat designs and controlled exceptions to reduce engineering effort, material variation and production changeovers.	We maintain a diversified supplier base, monitor critical-component and material exposure, and assess appropriate buffer or strategic-stock levels for repeat-use units.	Capacity is evidenced through technically approved production capacity covering the forecast requirement, confirmed framework headroom, agreed call-off or allocation, standard-design compliance, visible stock and replenishment positions, and monitored supplier production performance.
Switchgear	Capacity varies by product, voltage, configuration and factory. Design freeze, drawing approval, testing capacity, workforce,	We forecast requirements at product and voltage level and use phased commitment. We select early works orders, component release or slot	We use standard platforms, bay types, interfaces and variant rules. Technical gateways cover design freeze, drawing approval, testing, certification and	We map constrained components, testing facilities, workforce and approved factories, and maintain multi-supplier arrangements that allow	Capacity is evidenced through an approved product and factory, agreed standard configuration or authorised exception, completed technical

	relays and other long-lead components can constrain usable output.	reservation where the constraint justifies earlier commitment, progressing to firm orders as technical and programme maturity increases.	factory qualification. We manage the transition to SF6-free and digital solutions through controlled introduction and scale-up.	technically qualified alternatives to be introduced without weakening assurance.	approvals, confirmed critical components and test capacity, an allocated manufacturing slot and an identified alternative product or supplier route for critical requirements.
Cable	Capacity is specific to product, voltage, production line and factory, with dependencies on conductor and polymer availability, extrusion and testing capacity, skilled labour, production slots, logistics and technical qualification.	We translate our portfolio into a rolling forecast by voltage, design, size, region and delivery window. We select volume floors, slot reservations, purchase commitments or call-offs where market constraints warrant them rather than committing all volumes uniformly.	We standardise cable sizes, conductor cross-sections, voltage-specific designs, accessories, joints, termination interfaces, testing, documentation, drums and packaging, with specification changes controlled following design or contract freeze.	We maintain diversified UK and international manufacturing routes, qualify additional products and factories where required, monitor commodity and polymer exposure, and plan testing and logistics sufficiently early.	Capacity is evidenced by approved capacity for the required product, voltage, factory and delivery window; completed technical qualification or an approved qualification route; confirmed extrusion and testing slots; visibility of material dependencies; and an alternative route for critical requirements.
Wood poles	Harvesting, seasoning, treatment, transport and stockholding create a different supply cycle, with further constraints from pole class, dimensions, scarce timber sizes, treatment routes, forestry skills and inventory funding.	We use a rolling forecast aligned to harvesting and treatment decisions, with scheduled reviews of volume and product mix. Requirements are forecast by class, length, diameter, treatment, region and delivery window rather than aggregate pole volumes.	We rationalise the product range through a standard catalogue and control low-volume and non-standard variants. We progress technical approval and controlled use of engineered or alternative poles where these strengthen resilience or whole-life value.	We validate capacity by timber source, harvest year, treatment route and available stock, maintain contingency sources for scarce sizes, and develop alternative preservation and engineered-product routes.	Capacity is evidenced where requirements are covered by identified source, harvesting and treatment capacity; the granular pole mix is agreed; stock ownership and vesting controls are established; treatment and logistics capacity is confirmed; and scarce-size exposure is actively monitored.
Overhead line materials	Product-family demand, globally traded raw materials, workforce and upstream component availability, with	We use rolling forecasts by product family and region, supported by product-level call-offs and selective capacity reservation. We	We use a controlled standard catalogue separating common strategic-stock items from genuinely project-specific	We monitor raw-material, upstream-supplier and critical-workforce dependencies, maintain proportionate inventory	Capacity is evidenced through validated supplier and product-family capacity, an approved standard catalogue, measured

	disproportionate impacts possible from sudden demand for low-volume variants.	select volume bands, portfolio balancing and stockholding for common repeat-use materials where appropriate.	requirements, rationalise variants and apply exception governance.	for common items and retain alternative qualified supply routes.	forecast and call-off coverage, defined strategic-stock and replenishment rules, visibility of upstream material risks and an alternative source for critical common items.

6. BUILDING SUPPLY CHAIN RESILIENCE

We build resilience by identifying where disruption could affect delivery beyond our immediate Tier 1 suppliers and intervening at the point of dependency. Supplier diversity alone does not provide resilience where different OEMs rely on the same components, materials, manufacturing locations or geographic sources.

Our tier mapping therefore identifies concentration and common dependencies across critical plant and materials, including transformers, cable and switchgear. Current mapping shows diversity at final-assembly level alongside common exposure to electrical steel, copper, aluminum, polymers, transformer components, interruption technologies and electronics. Sub-supplier identities are withheld from the public-facing annex where commercially sensitive.

We use this insight to determine the appropriate resilience response. Depending on the nature and materiality of the risk, we select alternative supplier or component qualification, additional manufacturing locations, standardisation, diversified sourcing, earlier capacity reservation or proportionate stockholding. Material dependencies are monitored through portfolio governance so that action can be taken before supply constraints affect individual project delivery. See appendix A Market Assessment and Appendix B for Tier Mapping. Our approach follows a consistent cycle:

- **Map:** identify critical components, materials, source locations and common dependencies.
- **Assess:** evaluate concentration, lead time, substitutability and financial, geopolitical and logistical exposure.
- **Mitigate:** select the appropriate intervention, including diversification, technical qualification of alternatives, capacity reservation, standardisation or strategic stock.
- **Monitor:** track supplier performance, lead times, market intelligence and emerging constraints.
- **Escalate:** intervene through portfolio and category governance where risk exceeds agreed tolerances or could affect delivery milestones.

Table 6 Building Resilience by Category

Category	Critical dependencies identified through tier mapping	Resilience response
Transformers	On-load tap changers, bushings, insulation systems, core plate, tanks, radiators and copper.	We qualify alternatives, approve additional manufacturing locations where appropriate and monitor common component dependencies across OEMs.
Cable	Copper and aluminium conductors, insulation, sheath, armour, screening and specialist tapes, together with extrusion and testing capacity.	We maintain diversified supply routes, monitor commodity and polymer exposure, and assure the availability of extrusion and testing capacity.
Switchgear	Conducting and insulation components, protection and control equipment, operating mechanisms, interruption technologies, enclosures, metals, polymers and electronics.	We manage technology transition through controlled qualification, develop alternative technically acceptable routes and monitor constrained components and common sub-tier dependencies.

6.1 STANDARDISATION AS A CAPACITY AND RESILIENCE INTERVENTION

We use standardisation to increase the proportion of supplier capacity that can serve our programme and reduce avoidable supply chain complexity. Reducing unnecessary variation enables suppliers to repeat designs, aggregate component demand, plan manufacturing and invest against greater demand certainty. It also reduces our internal design and approval effort, simplifies spares requirements and improves interchangeability across the network.

We apply standard solutions by default and govern exceptions where network need, safety, whole-life value or project-specific constraints justify variation. This retains engineering judgement while concentrating bespoke design effort where it creates genuine value.

Table 7 Standardisation Solutions

Area	Intervention	Supply chain effect
33kV primary transformers	Modular standard specification with common secondary wiring and protection and control approach.	Improved repeatability, scalable procurement and “design once, build many”.
33kV outdoor circuit breakers	Reduction of numerous project-specific configurations to four standard variants.	Demand aggregation, capacity reservation and simpler production planning.
Switchgear platforms	Greater alignment of specifications and controlled adoption of SF6-free solutions.	Improved interchangeability, qualification and forecasting.
Cable and materials	Specification harmonisation and demand aggregation where technical requirements permit.	Reduced fragmentation, stronger leverage and simpler quality assurance.
Poles and overhead line materials	Reduction in number of variants. Longer forecast horizons and repeatable material standards.	Improved production planning and resilience for natural and globally traded materials.

6.2 DIVERSIFICATION AND ALTERNATIVE CAPACITY

We use diversification where it provides genuine additional capacity or reduces a material dependency, rather than increasing supplier numbers as an objective in itself. This includes qualifying alternative products and components, approving additional manufacturing locations and maintaining sourcing arrangements that allow demand to be reallocated where technically and commercially appropriate. Our response is proportionate to the nature of the risk:

Table 8 Responses to supply chain risk

Supply chain risk	Our resilience response
Supply interruption	We use dual or multi-sourcing, technically qualified alternatives, approved manufacturing locations and category contingency plans where these provide effective independent capacity.
Lead-time escalation	We select earlier commitment or capacity reservation where necessary and use portfolio resequencing or technically acceptable substitution where this protects delivery.
Commodity volatility	We use appropriate indexation or transparent adjustment mechanisms, monitor exposure and consolidate demand to improve visibility and purchasing efficiency.
Supplier underperformance	We use recovery plans and stepped intervention, with the ability to reallocate requirements and reflect sustained performance in future sourcing decisions.
Technology transition	We use qualification roadmaps, controlled introduction and sourcing arrangements that enable emerging solutions to be adopted without weakening technical assurance.
Major asset failure	We assess strategic spares, asset commonality, mutual support and potential collaborative procurement where these could provide greater resilience than individual sourcing arrangements.

6.3 CONTINGENCY AND STRATEGIC SPARES

Strategic spares provide an additional resilience option where the consequence of asset unavailability is high and replacement lead times cannot be adequately mitigated through normal sourcing arrangements.

We assess strategic spares on a category-specific basis, considering lead time, asset criticality, failure consequence, interchangeability, existing stock and other available contingency routes. This ensures that inventory is targeted where it provides incremental resilience and customer value rather than being used as a substitute for effective capacity planning.

Further detail on our Strategic Spares and Contingency can be found in our (ED3-S12) ED3 Network Asset Management Strategy.

We are currently leading across DNOs, assessing opportunities for mutual support and joint procurement with other network operators where shared arrangements could provide additional resilience. Any shared model would need to demonstrate incremental customer value and establish appropriate requirements for technical compatibility, ownership, storage, release, replenishment, governance and regulatory treatment before implementation.

6.4 SUPPORTING UK SUPPLY CHAIN CAPABILITY

Our objective is to grow UK supply-chain capability where this strengthens delivery, resilience and customer value, while retaining access to competitive global supply routes. A diversified international market remains important to affordability and security of supply, particularly where UK manufacturing capacity cannot alone meet our requirements.

We are developing the evidence base to target intervention where it can have the greatest impact. This includes collaboration with other DNOs on a common definition of UK content, development of a baseline, engagement with government, and economic and cost modelling. This work provides the basis for establishing a measurable and evidence-led approach to UK content, subject to final approval, affordability and applicable procurement requirements.

We use long-term demand visibility, procurement design and early supplier engagement to give manufacturers and the wider supply chain greater confidence in our future requirements. This allows us to identify where additional UK manufacturing, Tier 2 and SME capability can be developed economically, including the facilities, workforce, technical qualification and investment needed to support our programme.

We assess interventions against additional capacity, resilience, competition, cost, quality and deliverability, rather than UK content in isolation. This ensures that increasing domestic capability supports delivery and customer value without creating unnecessary dependency, reducing competition or constraining access to global capacity.

Table 9 Levers to support UK supply-chain capability

Lever	How we use it
Demand visibility	We provide credible multi-year category forecasts and procurement horizons to give suppliers earlier visibility of the scale and timing of our requirements and support informed investment decisions.
Tender design	We select proportionate UK-content evaluation mechanisms where these are lawful, relevant to the requirement and demonstrably value-adding.
Supplier investment	We engage suppliers on the facilities, workforce, technical qualification and innovation required to expand capability against our future demand.
Diversified sourcing	We balance development of UK capability with access to international supply routes to maintain resilience, competition and affordability.
Measurement	We establish a consistent baseline, attribution methodology and evidence requirements to measure UK manufacture and material assembly and track progress over time.
SME and Tier 2 access	We use appropriate procurement packaging, market engagement and framework design to improve access for capable SMEs and Tier 2 suppliers where this strengthens competition, capability and customer value.

7. SUPPLY CHAIN READINESS, RELATIONSHIP MANAGEMENT AND ASSURANCE

We maintain line of sight from our governed workbank and category forecasts through sourcing, mobilisation and supplier performance to delivery. This enables us to identify emerging capacity, capability, cost and delivery constraints early and take action before they affect programme or customer outcomes. Our assurance approach brings together forward supply chain readiness, active supplier performance and relationship management, and lifecycle commercial and cost assurance.

7.1 MAINTAINING SUPPLY CHAIN READINESS

For critical categories and long-lead equipment, day one readiness depends on action taken in advance of ED3. Procurement, technical approval, design development and supplier mobilisation therefore need to be aligned with manufacturing lead times and project need dates.

Table 10 Supply Chain readiness gates

Readiness gate	Evidence required
Demand maturity	Volumes and required dates reconciled to the governed workbank and category forecast
Technical readiness	Specification maturity, standard variants, technical approvals and design freeze aligned to procurement dates
Commercial readiness	Approved route to market, sourcing strategy, evaluation approach, risk allocation and contract documentation
Capacity secured	Manufacturing allocation, framework commitment, capacity reservation, purchase order or contracted resource sufficient for the required delivery window
Supplier mobilisation	Required people, competence, systems, quality arrangements, facilities, Tier 2 capability and logistics in place
Delivery assurance	Manufacturing milestones, inspection/testing, logistics, site interfaces and contingency monitored through to completion

Once capacity is secured, we continue to monitor readiness and supplier performance. Our measures combine conventional supplier performance indicators with forward-looking indicators that provide earlier warning of emerging constraints.

Table 11 Supplier Performance KPIs

Performance area	Key measures
Capacity and readiness	Committed capacity vs requirement; manufacturing slots secured; mobilisation milestones; critical-resource coverage.
Delivery	On-time delivery; milestone achievement; forecast adherence; backlog and recovery.
Quality	First-time acceptance; defects; non-conformances; audit findings and closure.
Commercial	Cost performance; change control; indexation; savings and whole-life value.
Safety and sustainability	Safety indicators; responsible sourcing; environmental and social commitments.
Relationship and improvement	Innovation pipeline; continuous improvement; executive actions; data quality and collaboration.

Where performance or readiness moves outside the required tolerance, we intervene according to the nature and timing of the constraint. Responses can include alternative sourcing, accelerated technical approval, reallocation of available capacity, programme resequencing, strategic stock or alternative technical solutions where these protect customer, safety and regulatory outcomes.

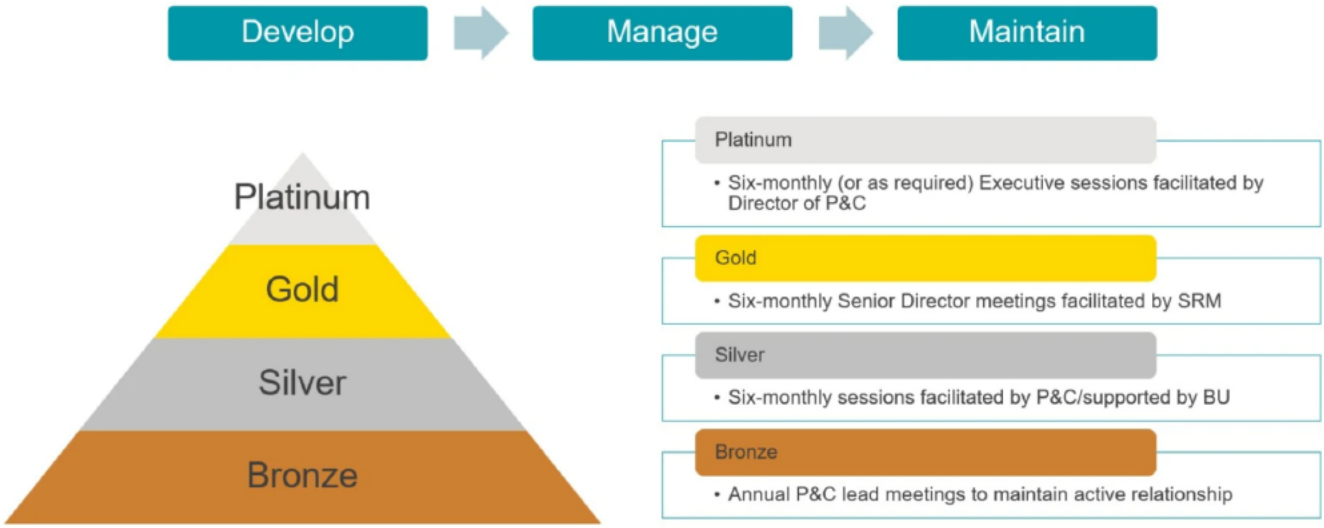
7.2 SUPPLIER PERFORMANCE AND STRATEGIC RELATIONSHIP MANAGEMENT

Strong supplier relationships are an important source of capacity, capability, innovation and market intelligence in increasingly constrained supply markets. Our Supplier Relationship Management (SRM) approach builds on the capability established during ED2 and provides differentiated management based on the strategic importance of each supplier relationship. Our SRM model is designed to establish mutually beneficial relationships with strategically important suppliers, creating value beyond traditional contract management. The programme focuses on four core objectives:

- Delivering sustainable value and cost efficiencies.
- Monitoring and improving supplier performance.
- Managing supply chain risk, resilience and compliance.
- Supporting innovation, capability development and long-term growth.

The SRM programme adopts a structured supplier segmentation approach, recognising that different suppliers require different levels of engagement. Strategic suppliers are managed through relationship tiers, characterised by executive sponsorship, structured governance and regular senior leadership engagement. This allows SSEN Distribution and suppliers to collaborate on future demand planning, delivery performance, innovation opportunities, sustainability ambitions and emerging supply chain risks.

Figure 6: Supplier Relationship Management



For our most strategic suppliers, relationship reviews are supported by executive and senior leadership involvement and focus on six key areas:

- Safety performance;
- Project and programme delivery;
- Sustainability;

- Innovation and engineering;
- Supply chain insight and market intelligence; and
- Future growth and capability development.

We use SRM to support four outcomes:

- Delivery and performance: clear accountability for safety, quality, cost, programme and improvement actions.
- Capacity and resilience: earlier visibility of manufacturing, labour and upstream supply chain constraints, including critical Tier 2 dependencies.
- Forward planning: greater alignment of demand forecasts with supplier workforce, manufacturing and investment decisions.
- Innovation and value: structured identification of opportunities to improve efficiency, engineering solutions, sustainability and whole-life value.

Where suppliers are shared across SSE, we coordinate strategic engagement across the Group where this strengthens the consistency of demand signals, supplier engagement and visibility of common risks and opportunities. This complements Distribution's accountability for securing and assuring the capacity required to deliver ED3.

7.3 SECURING AND ASSURING VALUE FOR MONEY

Our commercial approach seeks to secure the capacity and capability required for delivery while protecting value for customers throughout the contract and asset lifecycle. Value for money is assessed through the balance of cost, quality, deliverability, resilience, risk, sustainability and whole-life value.

Delivering competitive value

We select the commercial mechanism appropriate to the characteristics of the requirement and supply market. Competitive frameworks, strategic partnerships and major contracts establish market-tested arrangements, while mechanisms such as committed volumes, mini-competitions and, where appropriate, direct awards enable individual requirements to be placed efficiently within those arrangements.

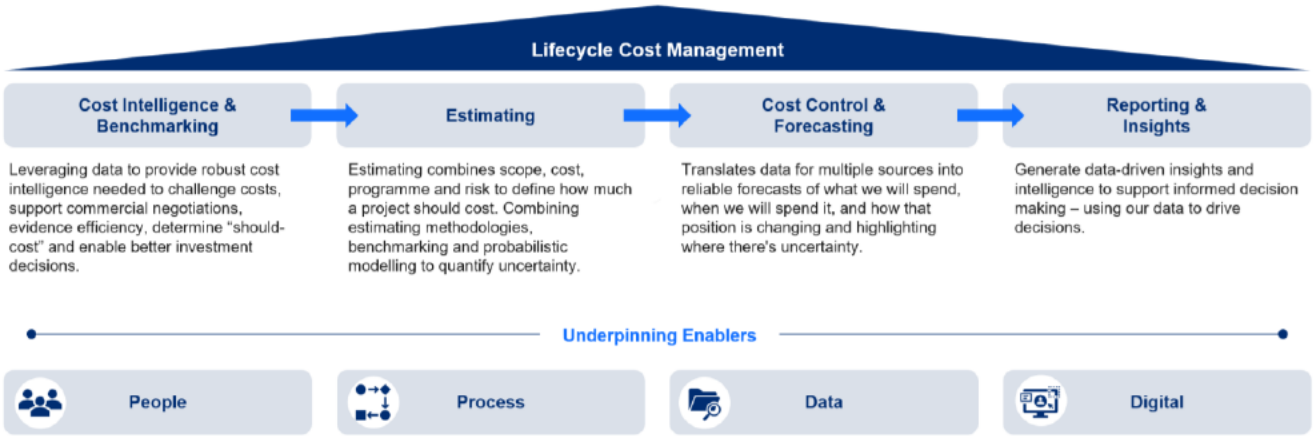
Our sourcing strategies are informed by market engagement, category intelligence, supplier capacity and programme requirements. We continue to test competitiveness through benchmarking, market testing and assessment of alternative delivery approaches where this is appropriate to the market and commercial model. Our procurement processes assess suppliers against a balanced set of criteria that considers:

- Cost and whole-life value.
- Technical capability and quality.
- Health, safety and environmental performance.
- Delivery capacity and resilience.
- Innovation and continuous improvement.
- Social value and sustainability outcomes.
- Commercial and contractual risk.

Cost Assurance and Cost Intelligence

During ED2, we established a dedicated Cost Assurance and Cost Intelligence capability to strengthen cost transparency, improve forecasting accuracy and support evidence-based investment decisions. This capability will continue to mature throughout ED3 and underpin our ambition to become a centre of excellence in lifecycle cost management.

Figure 7: Lifecycle Cost Management



Our lifecycle cost management approach brings together four connected capabilities:

- **Cost intelligence and benchmarking:** We use cost data and benchmarking to test proposals, support optioneering, inform commercial negotiations and identify where additional challenge is required.
- **Estimating:** We combine project scope, programme, cost and risk information with benchmarking to strengthen estimates and quantify uncertainty as projects mature.
- **Cost control and forecasting:** We monitor expenditure, change, compensation events and risk exposure to understand current performance and forecast the likely outturn of investments and programmes.
- **Reporting and insight:** We use integrated commercial and programme information to identify emerging trends, inform intervention and support evidence-based decision-making.

These capabilities are underpinned by people, process, data and digital tools, including portfolio-level forecasting and reporting and the use of Oracle Unifier to strengthen programme controls. These arrangements provide an evidence base to challenge cost, improve forecasting and manage commercial risk throughout delivery, supporting efficient expenditure and value for customers.

7.4 GOVERNANCE, SUSTAINABILITY AND COMMERCIAL ASSRUANCE

Governance

Procurement and commercial assurance are embedded within our wider investment governance rather than operating as a standalone control. Investments follow the applicable Distribution and SSE governance arrangements, with approval authorities and assurance proportionate to the scale and risk of the investment. Procurement and commercial specialists are embedded within delivery teams and support both pre-contract and post-contract activity. Our investments are governed in line with the Distribution Governance Investment Process (DGIF), or for projects above £40million, in line with Group wide Large Capital Projects Governance (LCP). Our strategy for ED3 will be subject to our governance procedures requiring approval from the relevant authority based on project value.

Projects and programmes are governed throughout their lifecycle following a gate procedure from 0-5 with clear deliverables at each gate. Procurement and commercial staff are embedded within the delivery teams and involved in all stages to support stakeholder needs and are accountable for pre and post contract activities established through our Procurement code of Practice and Commercial Manuals.

Within these, the processes are set out for the management and administration of contracts. The manual has been developed in accordance with the existing company procurement, financial and governance policies and follows industry best practices.

For investments subject to the Large Capital Projects governance framework, procurement and commercial assurance includes:

- Cost Estimation: Cost estimates are completed in line with SSE's LCP Governance Framework Manual up to Gate 3. As the project definition is refined the cost estimate progresses from strategic evaluation and feasibility to financial approval, budget preparation and project control.
- Commercial / Contract Management Strategy: A commercial and contracting strategy is developed and agreed at each stage as required (Gates 1, 2 and 3) of each project. Additionally, procurement strategies are required to be in place and approved for each procurement activity associated with the project in accordance with the relevant SSE procurement procedure. The Commercial and Contracting Strategy includes appropriate procurement, commercial and contract management approaches for the project.
- Procurement, Insurance, and Legal (PIL) Review: Integrated PIL recommendations on project risks and opportunities are critical for supporting project objectives. These reviews occur at each project phase and can be initiated as needed. At Gate 2, options are assessed, and a preferred solution is chosen. The strategy is finalised at Gate 3 with main approvals and contract awards.

Sustainable Procurement

We integrate environmental and sustainability requirements into our procurement, supplier engagement and contract management arrangements. This supports our wider supply chain objectives by considering whole-life value, environmental performance, responsible sourcing and resource efficiency alongside cost, quality, resilience and deliverability. The commitments and performance measures that underpin this approach are set out in our (ED3-S14) Environmental Action Plan.

Our Sustainable Procurement (SPC) and Sustainable Supplier Codes (SSC) establish expectations for suppliers across environmental, social and governance performance. During ED3, all suppliers will be required to sign up to the SSC for new contracts and frameworks from Year 1, with at least 80% of suppliers by value meeting the Code by 2033. We monitor supplier sustainability performance through reporting and assurance arrangements, supported by corrective actions where required. Further detail is provided in Section 6.3.2 of our (ED3-S14) Environmental Action Plan.

We also work with suppliers to reduce the environmental impacts associated with the goods, materials and infrastructure we procure. This includes improving Scope 3 and embodied carbon information, increasing the use of lower-carbon materials and embedding circular economy principles into procurement. Our (ED3-S14) ED3 Environmental Action Plan commits us to at least 55% of our supply chain by value being accredited with Science-Based Targets by 2033, and to embedding circular economy principles within procurement and asset management processes by Year 3 of ED3. Further detail is set out in Sections 6.1.3, 6.1.4, 6.3.1 and 6.3.3 of our (ED3-S14) ED3 Environmental Action Plan.

APPENDIX A: MARKET ASSESSMENT

Table 12 Market assessment for Transformers, Cable and Switchgear

	Transformers	Cable	Switchgear
[redacted]			

APPENDIX B. TIER MAPPING

Table 13 Tier mapping of strategic suppliers - Transformers

	Category	Place of Manufacture
[redacted]	[redacted]	[redacted]

Table 14 Tier mapping of strategic suppliers - Cable

	Category	Place of Manufacture
[redacted]	[redacted]	[redacted]

Table 15 Tier mapping of strategic suppliers - Switchgear

	Category	Place of Manufacture
[redacted]	[redacted]	[redacted]

