

# Expenditure Forecast Methodology

Regulatory Control Period 2028–29 to 2032–33

June 2026



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# 1 Purpose and scope

ElectraNet owns and manages South Australia's electricity transmission network which covers a service area of over 200,000 square kilometres and powers homes, businesses and communities across South Australia. We plan the network in accordance with our regulatory obligations, strategic priorities, the long term interests of consumers. This is informed by industry planning documents such as the Integrated System Plan (ISP) and Electricity Statement of Opportunities (ESOO) developed by the Australian Energy Market Operator (AEMO).

ElectraNet will lodge its formal Revenue Proposal for the regulatory period from 2028-29 to 2032-33 to the Australian Energy Regulator (AER) by 31 January 2027.

The purpose of this Expenditure Forecast Methodology is to describe the methods and processes by which ElectraNet will develop the forecasts for its operating and capital expenditure programs for the coming regulatory period, in accordance with clause 6A.10.1B of the National Electricity Rules (the Rules), and other applicable regulatory instruments, including the AER's Expenditure Forecast Assessment Guideline.

This document will be supported by ElectraNet's Value Framework for the 2028-29 to 2032-33 regulatory period which provides a single source of truth for economic valuation inputs and risk metrics. It establishes a consistent methodology for quantifying the costs, benefits and risks of investment options, enabling transparent, evidence-based decision-making and supporting the development of efficient expenditure forecasts and investment portfolios in the long-term interests of consumers. The Value Framework will be submitted as part of our revenue proposal.

## 1.1 Investment drivers – South Australia's energy transition

South Australia is leading Australia's energy transition, targeting 100% net renewable energy by 2027. It already regularly achieves periods where renewables meet or exceed total demand, driven by rapid uptake of wind, solar, and rooftop PV. This transformation is underpinned by ambitious federal and state policies, which are spurring new industrial activity, including green steel, data centres, and minerals processing. As a result, ElectraNet is experiencing unprecedented demand for network connections, with forecasts indicating significant growth in both energy consumption and peak demand. This growth, alongside the increasing adoption of grid-scale battery energy storage systems, and consumer energy resources such as rooftop solar and batteries, is making the operation of the grid more complex and dynamic.

These changes bring both opportunities and challenges. The variability of renewable generation increases operational risks and requires new investment in firming, storage, and interconnection to maintain reliability. Policy and regulatory drivers are accelerating the need for timely, efficient transmission upgrades, while system security and resilience are becoming more critical as inverter-based renewables replace traditional synchronous generation. ElectraNet's investment in new infrastructure, operational technology, and asset management is essential to support South Australia's economic transformation, manage operational complexity, and deliver reliable, affordable, and sustainable energy for the future.

## 1.2 Expenditure decision-making framework

Before forecasting capital expenditure by category, ElectraNet applies a structured, proportionate decision-making process to identify, assess and prioritise investment proposals for inclusion in the regulatory control period.

This process ensures that forecast expenditure reflects prudent and efficient decision-making, consistent with the capital expenditure objectives and criteria in the National Electricity Rules.

In practice, the process used to develop the capital expenditure forecast follows the decision logic illustrated in section 3.4 and involves:

- identification of a clearly demonstrable need (e.g. regulatory obligation, asset risk, demand, system security);
- assessment of feasible options, with the depth of analysis proportionate to the materiality and nature of the investment;
- development of project scope and cost estimates for preferred options;
- portfolio-level review and optimisation to consider interactions, prioritisation and deliverability; and
- governance and approval through ElectraNet's executive decision-making framework.

Not all proposed investments progress through identical assessment pathways. The form and depth of assessment reflects the characteristics of the investment, including its scale, risk profile and applicable regulatory requirements.

The expenditure forecast is therefore the outcome of this decision-making process, rather than an objective in itself.

The sections below describe how ElectraNet categorises and forecasts expenditure once projects have been identified, assessed and prioritised for inclusion in the revenue proposal.

## 1.3 Capital expenditure

Capital expenditure (capex) is driven by a combination of network and non-network expenditure. Network expenditure relates to investment in the physical transmission network and can be split into load-driven and non-load-driven expenditure. Load-driven expenditure relates to building the network to accommodate changes in the supply and demand of electricity, while non-load-driven expenditure relates to reinvestment in existing assets and addressing system security requirements, such as system strength and inertia. Non-network expenditure relates to other capital expenditure necessary to operate the business, such as business IT and corporate facilities.

This document describes the methodology ElectraNet will use to develop its forecast capital expenditure, which will be prepared to comply with the capital expenditure objectives and criteria outlined in clause 6A.6.7 of the Rules. It also addresses the information requirements specified in Schedule S6A.1.1 of the Rules, which must be included as part of our revenue proposal.

## 1.4 Operating expenditure

Operating expenditure (opex) is forecast using a base-step-trend approach, which is the AER's preferred methodology for assessing most efficient opex requirements. Under this approach, a base year of actual opex is selected from the current period and adjusted for forecast changes in real input prices, output growth and productivity, with step changes included where required for costs not captured in the base year or rate of change. This methodology ensures that the forecast reflects the efficient costs of operating the transmission network over the following regulatory period.

This document describes the methodology ElectraNet will use to develop its forecast operating expenditure, which will be prepared to comply with the operating expenditure objectives and criteria outlined in clause 6A.6.6 of the Rules. It also addresses the information requirements specified in Schedule S6A.1.2 of the Rules, which must be included as part of our revenue proposal.

## 1.5 Contingent projects

Contingent projects are large, discrete capital investments that are likely, but not certain, to be required during the regulatory period. These projects are not included in the total forecast capital expenditure unless the pre-defined trigger event occurs and the project is approved by the AER. ElectraNet identifies contingent projects in accordance with clause 6A.8.1 of the Rules, which sets out the criteria and process for proposing such projects. This document outlines the contingent projects proposed for the upcoming regulatory period and provides the supporting information required under Schedule S6A.1.1 of the Rules to justify their inclusion in our revenue proposal.

## 2 Consumer engagement

ElectraNet has taken a collaborative approach to developing its revenue proposal, with the objective of delivering a proposal that is capable of acceptance by consumers.

Our key avenue for engaging with relevant stakeholders is our Consumer Advisory Panel (CAP) and specifically the Revenue Reset Reference Group (RRRG) as a sub-committee of the CAP. In setting terms of reference, the RRRG expressed that capex and opex forecasting were core issues to be included in their sphere of engagement with ElectraNet.

RRRG meetings have been facilitated by an independent facilitator and attended by members of ElectraNet's Regulation team, with individual subject matter experts and relevant members of ElectraNet's Executive team invited where appropriate. AER staff also attended meetings of the RRRG when available to observe consumer engagement and provide preliminary views and commentary.

This engagement has had a practical influence on the way ElectraNet proposes to present and justify its expenditure forecasts in the Revenue Proposal. In particular, feedback from the RRRG has informed the areas where ElectraNet will provide greater transparency around key drivers of expenditure, the degree of discretion available in particular expenditure categories, and the way alternative approaches or delivery mechanisms are explained. While the RRRG does not approve ElectraNet's expenditure forecasts, its input has provided an important source of challenge and has helped improve both the clarity of the forecasting methodology and the consumer-centred framing of the proposal.

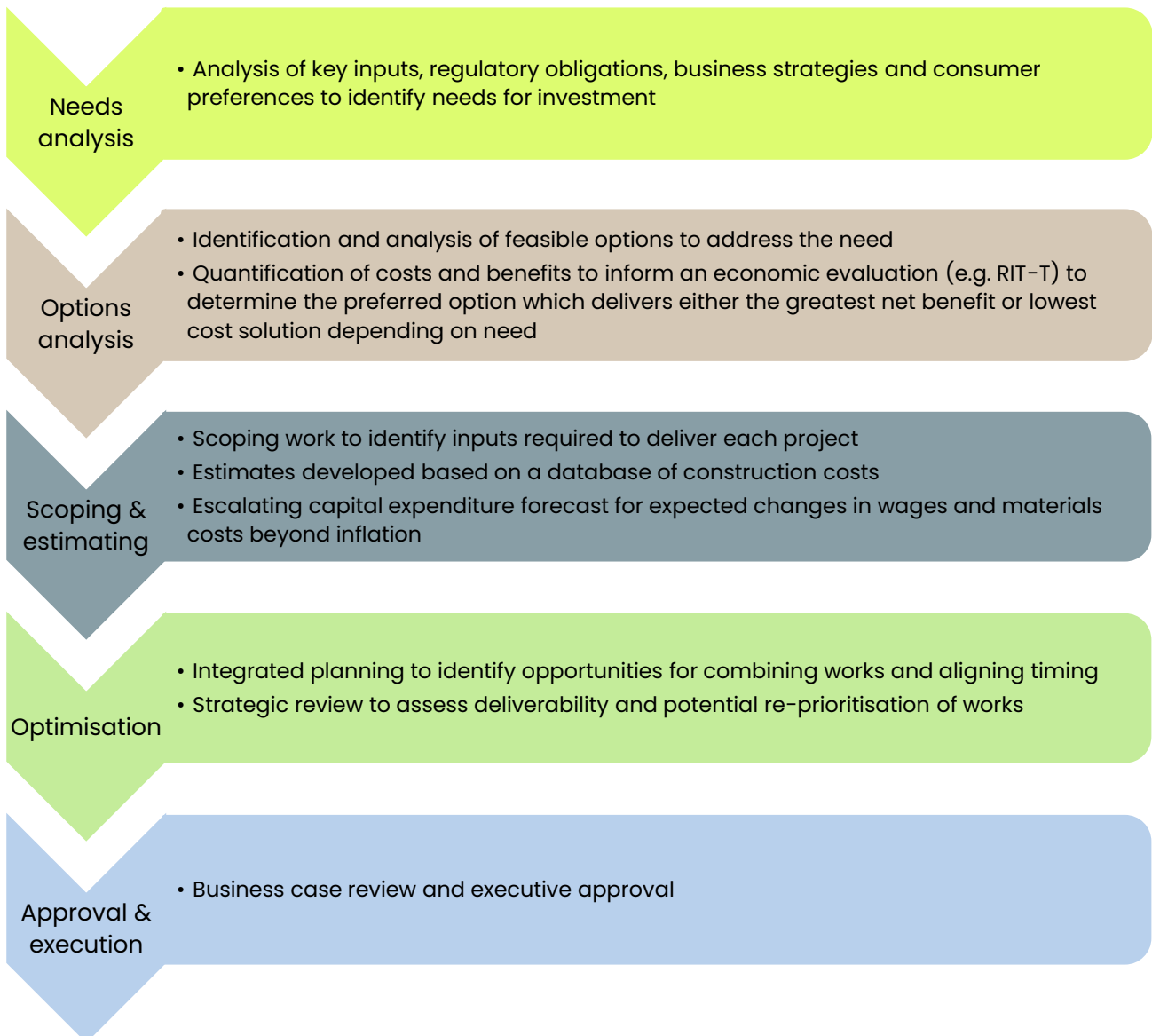
### 3 Capital expenditure

#### 3.1 Project assessment pathway

In developing its expenditure forecasts, ElectraNet continually assesses the need for investment across the transmission network and the business using a range of established decision-making approaches that are tailored to the nature of the investment and the risks being addressed.

This includes assessing network augmentation where investment is expected to deliver net benefits to consumers, applying risk-cost frameworks to determine the efficient timing and scope of asset replacement, undertaking failure and condition-based assessment for electronic and secondary systems, and developing business cases for investments required to support ElectraNet’s ability to perform its functions as a transmission network service provider.

**Figure 1. Project assessment pathway**



### 3.2 Categories of capital expenditure

	Sub-category	Key inputs
Load-driven network	<b>Augmentation</b> Ensuring sufficient transmission capacity to meet demand, e.g. construction of new lines, substations, and augmentation of existing lines and substation assets, such as transformers.	ISP AEMO’s ESOO Demand forecasts (e.g. SAPN Connection Points forecasts) Connection applications Network performance assessments South Australian Electricity Transmission Code (ETC)
	<b>Connection</b> Investment to connect new generators or customers to the transmission network, including substations and associated infrastructure.	ISP Connection applications Demand forecasts DNSP joint planning
	<b>Easements/Land</b> Strategic acquisitions or renewal of land access rights to construct, operate, and maintain transmission assets.	Government strategic plans Land availability assessments Long-term planning
Non-load network	<b>Replacement</b> Reinvestment in network assets that have reached the end of their serviceable life or are no longer fit for purpose.	Asset condition reports Quantified risk assessment model Environmental factors Network performance reports
	<b>Refurbishment</b> Targeted upgrades or repairs to extend the life of existing transmission line assets and maintain performance standards.	Strategic Asset Management Plan Asset condition reports Quantified risk assessment model
	<b>Security/compliance</b> Expenditure to meet regulatory obligations or enhance physical, system and cyber security of network infrastructure.	ISP AEMO reports (e.g. System strength report) Regulatory obligations

	<p><b>Inventory/spares</b></p> <p>Procurement of critical spare parts and materials to support planned maintenance and restoration of services as required by the Electricity Transmission Code.</p>	<p>South Australian ETC</p>
<b>Non-network</b>	<p><b>Business IT</b></p> <p>Investment in information systems and technology platforms that support core business operations and network management.</p>	<p>Strategic Asset Management Plan</p> <p>Regulatory obligations</p> <p>Cyber security requirements</p> <p>Technology strategy</p>
	<p><b>Facilities</b></p> <p>Capital works related to office buildings, depots, and other corporate infrastructure required to support the workforce and operations.</p>	<p>Fleet/property condition assessments</p>

### 3.3 Revisions from previous revenue proposal

While the AER accepted ElectraNet’s forecast capex for the 2023–24 to 2027–28 regulatory control period, and was broadly supportive of our forecasting approach, it identified two modelling improvements to the replacement capital expenditure (repex) forecast to be considered by ElectraNet in the future.

#### Applying the Transmission Asset Life Cycle to economic assessments

- The AER recommended an improved connection between ElectraNet’s internal condition assessment process (Transmission Asset Life Cycle) and its economic assessment for calculating the level of replacement.
- ElectraNet has developed a new Asset Risk Cost Model (ARCM) which now directly incorporates Transmission Asset Life Cycle (TALC) scores into the economic assessment. The model calculates a risk value based on inputs including probability of failure, likelihood of consequence, cost of consequence, and condition factor.

#### Application of risks and benefits across the portfolio of assets

- The AER had identified instances where the majority of benefits driving a larger portfolio of repex could be attributed to a small number of individual assets, and recommended more clarity in our modelling to reflect the benefits of bundling individual works into a larger portfolio.
- From a broader deliverability perspective, ElectraNet seeks to limit the scope of programs of work to assets that require intervention. However, we have also taken steps to highlight the benefits of bundling of works into larger programs.

### 3.4 Tailored options analysis approach

In line with the AER's expectations set out in the Better Resets Handbook, ElectraNet tailors the options analysis depending on both the recurrence and materiality of forecast expenditure.

#### Top-down analysis for recurrent, non-major expenditure

For recurrent, non-major ICT programs, ElectraNet applies a proportionate, top-down options analysis rather than undertaking project-specific economic assessments for each individual activity.

This reflects the characteristics of recurrent ICT expenditure, which typically:

- maintains existing systems, platforms and capabilities rather than delivering discrete, step-change benefits;
- occurs on cyclical or rolling refresh periods rather than being triggered by a new investment need; and
- is individually low materiality, but collectively necessary to sustain safe, reliable and compliant business operations.

Consistent with the AER's guidance on non-network ICT expenditure, ElectraNet considers that a bottom-up options analysis for each recurrent ICT activity would not be proportionate, nor informative, given the absence of meaningful alternative delivery options for many such investments and the administrative burden this would impose.

Where forecast recurrent ICT expenditure departs materially from historical levels, ElectraNet will provide a clear explanation of the drivers of change (for example, increased cyber security obligations or unavoidable vendor life cycle changes), consistent with the AER's expectations for trend-based assessment of recurrent non-network capex. Further, where recurrent ICT expenditure becomes material in scale, materially expands scope, or introduces new functionality, ElectraNet will treat the expenditure as non-recurrent and subject it to a more detailed, bottom-up options analysis and business case assessment, consistent with the approach outlined above for major or non-recurrent projects.

Finally, in developing project estimates, we consider any capex and opex substitutions to ensure a clear delineation of recurrent expenditure and opex forecasts.

#### Bottom-up analysis for non-recurrent and/or major projects

For all non-recurrent ICT projects, as well as any major recurrent projects, the options analysis will include a more detailed business case which includes, where possible, a quantitative cost-benefit analysis. The level of detail in the options analysis will be commensurate with the materiality and nature of the project.

In practice, the majority of projects will be supported by an economic assessment demonstrating that the preferred option has net benefits, or is the least-cost option in the case of meeting regulatory requirements. There may be a small number of investment proposals that are not driven by a specific regulatory obligation and for which consumer benefits are not readily quantifiable. In these cases, ElectraNet applies a bottom-up business case assessment consistent with good industry practice, focusing on the efficient delivery of the capabilities required to perform its functions as a transmission network service provider at the lowest

sustainable cost, as contemplated by NER clause S6A.2.2(4). Further, ElectraNet will endeavour to engage meaningfully with its Consumer Advisory Panel to ensure any such projects align with the concerns of consumers, consistent with the capital expenditure factors set out in NER clause 6A.6.7(c).

### 3.5 Governance

#### Capital expenditure criteria

NER clause 6A.6.7(c) requires that our forecast of capital expenditure must be reflective of the following capital expenditure criteria:

1. the efficient costs of achieving the capital expenditure objectives;
2. the costs that a prudent operator would require to achieve the capital expenditure objectives; and
3. a realistic expectation of the demand forecast, cost inputs and other relevant inputs required to achieve the capital expenditure objectives.

Consistent with this requirement, ElectraNet considers it appropriate to reflect expected changes in input costs, including where these differ from general inflation.

ElectraNet notes that the AER's Expenditure Forecast Assessment Guideline explicitly contemplates the inclusion of real input cost movements, including labour cost escalation, as a component of the forecasting framework. In this regard, ElectraNet considers that recognising changes in input costs, including wages, materials and contractor services, is consistent with established regulatory practice and not limited to movements in CPI alone.

The last time we are aware of the AER discussing this issue directly in a revenue determination was the preliminary decision on Jemena's electricity distribution determination in October 2015. In that decision, the AER recognised that the capex criteria require consideration of a realistic expectation of cost inputs required to achieve the capex objectives. However, the AER was not satisfied that Jemena's proposed materials escalation methodology reasonably reflected those future cost inputs, because Jemena had not provided sufficient evidence that the methodology produced unbiased forecasts of the prices it would pay for physical network inputs.<sup>1</sup>

In developing its forecasts, ElectraNet is observing sustained cost escalation across a range of key inputs, including labour, specialist contractors and critical equipment, in many cases materially exceeding general inflation. These pressures reflect broader market conditions, including labour availability constraints, supply chain disruptions and increased competition for resources associated with the energy transition.

ElectraNet expects to manage these pressures, in part, through ongoing prioritisation, efficiency improvements and appropriate re-scoping of projects within the regulatory period. However, there are practical limits to the extent to which cost escalation can be offset through these measures without impacting the timing, scope or delivery of required projects. If not

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<sup>1</sup> AER, *Preliminary Decision – Jemena Distribution Determination 2016–20, Attachment 6: Capital Expenditure*, October 2015, p. 6–118

appropriately reflected in forecasts, sustained input cost escalation may give rise to risks in relation to deliverability, including deferral of necessary works or increased exposure to asset risk and compliance obligations.

At the time of preparing this methodology, ElectraNet is continuing to develop its approach to forecasting input cost escalation. This will be informed by a combination of historical trends, external market data and relevant economic forecasts. The final escalation assumptions, including the basis for their selection and application in the expenditure forecasts, will be set out in the Revenue Proposal.

## Expenditure governance

Expenditure governance at ElectraNet is a dynamic process that both constrains and informs the preparation of forecasts. Strategic oversight by the Board and Portfolio Management Groups ensures that forecasts are developed in line with business objectives, regulatory requirements, and prudent financial management. All forecasts are subject to rigorous review, challenge, and approval processes, integrating both bottom-up project assessments (e.g. business cases and economic assessments) and top-down portfolio optimisation (balancing deliverability, risk, and prioritisation).

Accountability for identifying investment needs, developing project rationale and assessing options sits with the proposing divisions within ElectraNet, consistent with the business's normal decision-making and governance processes. These divisions retain responsibility for ensuring that project justifications reflect the underlying operational, asset management or business needs driving the investment, rather than being constructed solely for regulatory purposes.

In particular, ElectraNet's Capex Portfolio Management Group is responsible for overseeing the preparation of the regulated capital program for the following regulatory control period, including strategic direction, principles for project prioritisation and the capital expenditure profile. Individual projects developed through the Group are subject to management review, ensuring project scopes are well defined, well supported and justified. All projects must be approved by the responsible Executive before being included in the Revenue Proposal.

### **Box 1. Case study: Integrated asset planning – Mount Gambier transformers**

Mount Gambier substation has two 132/33 kV transformers. Transformer #1 is sized at 50 MVA (installed 1971), and transformer #2 at 25 MVA (installed 2003).

ElectraNet identified a need to replace Mount Gambier transformer #1 due to condition during the 2028-29 to 2032-33 regulatory control period (i.e. replacement expenditure). The preferred option was 25 MVA, as this was sufficient to supply expected load based on current forecasts.

In the last 12 months, SA Power Networks has advised that two separate spot loads will connect to the distribution network close to Mount Gambier in the next four years. These spot loads will increase the demand at the Mount Gambier and Blanche connection points such that it will breach the required transformer capacity under the Electricity Transmission Code (ETC). The arrangement of the loads was forecast to overload both Blanche and Mount Gambier as early as 2029 if no proactive steps were taken, which could have required multiple substantial

augmentation projects. Our integrated planning working group, in consultation with SA Power Networks, now proposes to:

- Replace 50 MVA TF1 at Mount Gambier based on condition with 60 MVA transformer – meets replacement requirement and augmentation need.
- Replace 25 MVA TF2 at Mount Gambier with 60 MVA transformer – meets augmentation need.
- Switch a portion of load from Blanche connection point to the higher capacity Mount Gambier connection point – avoids need to augment Blanche substation at significant capital expenditure.

Our integrated planning approach – in this case considering asset replacement requirements together with network augmentation needs – avoids a scenario where TF1 was replaced with a 25 MVA unit solely for asset condition reasons in the immediate future, only for ElectraNet to be required a few years later to augment transformer capacity. This would have required replacement of the newly installed transformer with a larger unit, more than doubling the capital expenditure compared to our preferred option.

## 4 Operating expenditure

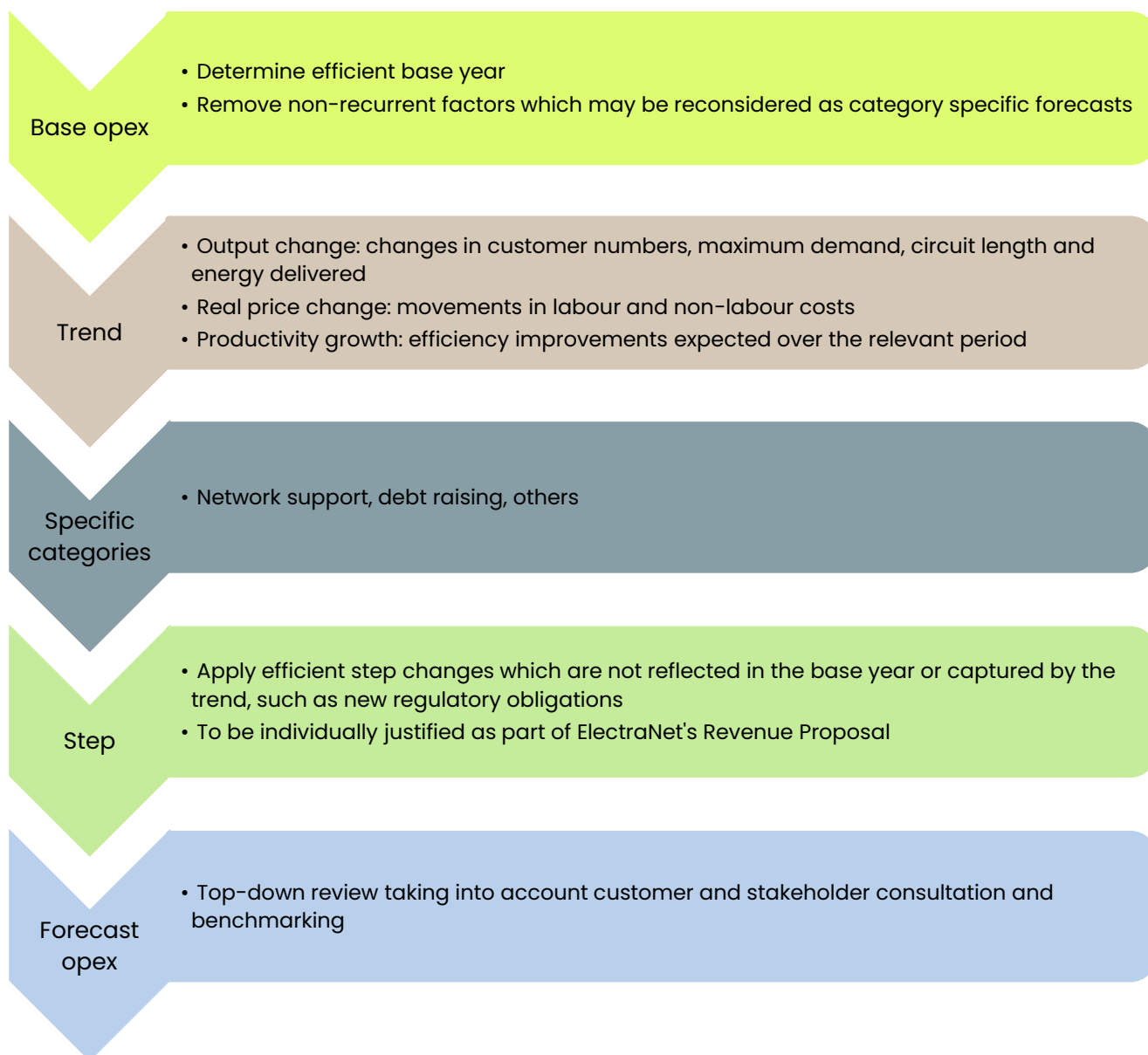
### 4.1 Operating expenditure categories

ElectraNet’s categorisation of operating expenditure remains unchanged from that adopted for the current regulatory period.

Sub-category	
Controllable operating expenditure	<p><b>Field maintenance</b></p> <p>Field-based maintenance such as inspections, corrective works, and operational refurbishment</p>
	<p><b>Maintenance support</b></p> <p>Business processes and systems that directly support field maintenance, such as geospatial information systems, contracts administration, and safety management</p>
	<p><b>Network operations</b></p> <p>Activities associated with the control centre and related network operation activities such as offline system security support and asset monitoring</p>
	<p><b>Asset manager support</b></p> <p>Development and management of the network, such as network planning, asset strategy, and regulatory support</p>
	<p><b>Corporate support</b></p> <p>Corporate governance and business administration, such as finance, legal counsel, employee relations, and internal audit, along with insurance premiums from external sources</p>
Non-controllable operating expenditure	<p><b>Self-insurance</b></p> <p>Management of risk exposure when external insurance cover is not available or cost effective</p>
	<p><b>Network support</b></p> <p>Non-network solutions contracted by ElectraNet as alternatives to augmentation</p>
	<p><b>Debt raising</b></p> <p>Debt financing and transaction costs over and above the debt margin allowed in the cost of capital</p>

### 4.2 Forecasting methodology

ElectraNet proposes to follow the established base-step-trend method for developing its operating expenditure forecast for the 2028-29 to 2032-33 regulatory period, as set out in the AER’s Expenditure Forecast Assessment Guideline.



### 4.3 Inputs and assumptions

#### 4.3.1 Efficient base year

The selection of a base year from the current regulatory period is the first step to preparing a realistic expectation of efficient and sustainable opex for the following regulatory period.

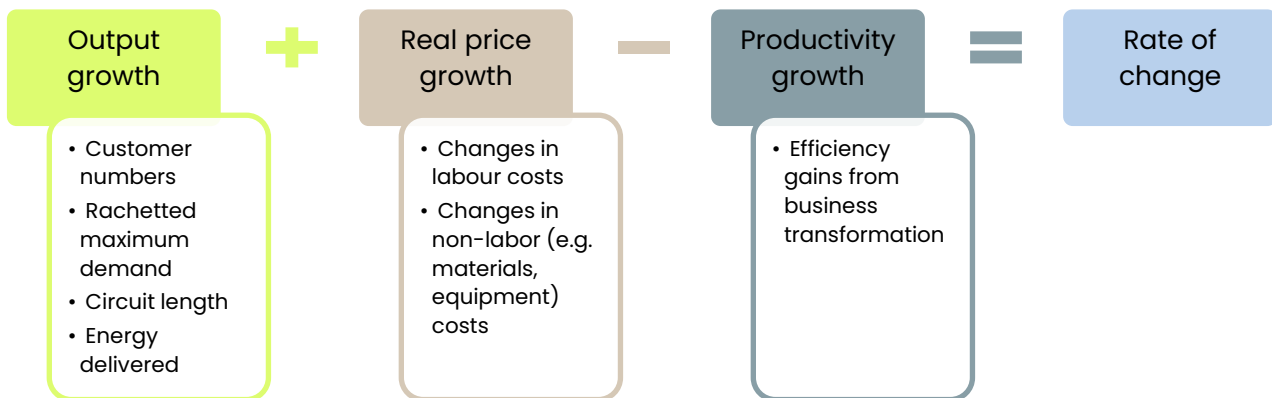
ElectraNet will select an appropriate base year at the time of preparing its Revenue Proposal. Consistent with the AER's Expenditure Forecast Assessment Guideline, the base year will be selected to provide a representative view of efficient, ongoing expenditure. ElectraNet will confirm the specific base year and any associated adjustments in its Revenue Proposal.

In selecting and normalising the base year, ElectraNet will assess whether observed expenditure includes material non-recurrent or atypical costs that are not expected to persist in the subsequent regulatory period. Where relevant, such costs will be adjusted to ensure that the base year provides a representative view of efficient, ongoing expenditure.

ElectraNet will document the nature of any adjustments made, including the rationale for identifying costs as non-recurrent and the method of adjustment. Where expenditure is removed from the base year but is expected to recur in the forecast period, it will be incorporated through an appropriate forecasting mechanism, such as a step change or category-specific forecast.

### 4.3.2 Trend

The rate of change will account for forecast changes in output growth, real input prices and productivity over the regulatory control period. ElectraNet will identify the output measures, escalation assumptions and productivity assumptions applied in the Revenue Proposal, and explain how these assumptions have been selected to avoid double counting with any proposed step changes or category-specific forecasts.



### 4.3.3 Step changes

Step changes are costs that are either not included in the base year or rate of change, or are included but are not expected to continue into the next regulatory period.

Step changes are typically material changes in opex that arise from new or changed regulatory obligations or other exceptional circumstances. ElectraNet will identify and justify any applicable step changes for the 2028–29 to 2032–33 regulatory period in its Revenue Proposal, including explaining why the costs are not already captured in the base year or rate of change.

### 4.3.4 Category-specific items

Non-controllable operating expenditure may be included as category-specific forecasts. These costs are outside the control of a TNSP, and associated expenditure outcomes are driven by external volatility. Applying incentive schemes in this context can produce windfall gains or unwarranted penalties that are not reflective of the TNSP's underlying efficiency.

These costs typically relate to debt raising, self-insurance and network support costs, where debt raising is separately assessed against the cost of debt and network support costs may be subject to cost pass-through arrangements. Any category-specific costs will be identified and justified in our Revenue Proposal.

