



# Expenditure objectives, criteria and factors

**PAL RIN013 - Expenditure factors and criteria -  
Jan2020 - Public**

**Regulatory proposal 2021–2026**

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# Contents

1	BACKGROUND .....	4
2	MEETING THE EXPENDITURE OBJECTIVES .....	5
2.1	Interpreting the expenditure objectives .....	5
2.2	Meeting the capital expenditure objectives.....	5
2.3	Meeting the operating expenditure objectives.....	6
3	THE EXPENDITURE CRITERIA AND FACTORS .....	8
3.1	Interpreting the expenditure criteria and factors .....	8
3.2	Expenditure criteria .....	8
3.3	Expenditure factors .....	9
3.4	Capital expenditure categories.....	13

# 1 Background

The National Electricity Rules (**Rules**) require the Australian Energy Regulator (**AER**) to make a decision whether to accept, reject or substitute our forecast expenditure for standard control services. To enable the AER to make its decision, our regulatory proposal must include the total forecast expenditure for the 2021–2026 regulatory period necessary to meet the expenditure objectives.

Our forecast expenditure must also comply with the requirements of the Regulatory Information Notice (**RIN**). On 4 October 2019, the AER issued a RIN for our 2021–2026 regulatory reset where it sought information on:

- why the total forecast capital and operating expenditure is required for us to achieve each of the objectives in clauses 6.5.6(a) and 6.5.7(a) of the Rules and paragraphs 4.1(a) and 9.1(b)(i) of Schedule 1 of the RIN
- how our total forecast capital and operating expenditure reasonably reflects each of the criteria in clauses 6.5.6(c) and 6.5.7(c) of the Rules and paragraphs 4.1(b) and 9.1(b)(ii) of Schedule 1 of the RIN
- how our total forecast capital and operating expenditure accounts for the factors in clauses 6.5.6(e) and 6.5.7(e) of the Rules and paragraphs 4.1(c) and 9.1(b)(iii) of Schedule 1 of the RIN
- an explanation of how the plans, policies, procedures and regulatory obligations or requirements have been used to develop forecast capital expenditure as required under paragraph 4.1(d) of Schedule 1 of the RIN
- an explanation of how each response provided in the above bullet points is reflected in any increase or decrease in expenditures or volumes, particularly between the current and forthcoming regulatory control periods as required under paragraph 4.1(e) of Schedule 1 of the RIN.

The purpose of appendix is to provide evidence on why we consider our forecast expenditure should be accepted by the AER with reference to the objectives, criteria and factors as set out in the Rules and the RIN. We have also sought to explain the following:

- the key drivers of capital expenditure as requested in paragraph 4.5(a) of Schedule 1 of the RIN
- how it can be distinguished between categories as required by paragraphs 4.5(b)(i) to 4.5(b)(iv) of Schedule 1 of the RIN.

This appendix consists of three sections:

- how we consider the total expenditure forecasts are required to achieve the expenditure objectives
- how we consider the total expenditure forecasts reasonably reflect each of the expenditure criteria have regard to the expenditure factors
- a description of the capital expenditure category key drivers and how the categories can be distinguished.

# 2 Meeting the expenditure objectives

## 2.1 Interpreting the expenditure objectives

We have interpreted the expenditure objectives of the Rules as follows:

- expenditure objectives should be considered as a whole, rather than in isolation. In particular, support expenditure in ICT, property and fleet are vital for ensuring we can meet our objectives
- where there are reliability, quality, security or safety standards in place, we must ensure that forecast expenditure is directed at meeting those standards for each year of the regulatory period
- where there are no standards in place for reliability, quality, security or safety, we must ensure that the forecast expenditure is to maintain performance
- safety is a broad concept and includes safety of the workforce, general public and the environment.

## 2.2 Meeting the capital expenditure objectives

The purpose of this section is to demonstrate how our proposed forecast capital expenditure is required to achieve the capital expenditure objectives.

Our proposed forecast capital expenditure is based on a number of capital expenditure categories. It should be noted that:

- A single capital category may meet multiple capital expenditure objectives. For example, reliability and quality maintained expenditure is related to meeting regulatory obligations, maintaining reliability of the network, and maintaining safety.
- All capital expenditure categories are related to complying with regulatory obligations as a distributor or Corporations Act 2001, e.g. our policies, procedures and strategies deliver on the requirements set out in the Victorian Electricity Distribution Code.
- Support investment provides the necessary functions to achieve network objectives. For example, non-network property capital expenditure is required to ensure that the offices and depots are fit for purpose in housing our staff. Non-network investments also related directly to complying with regulatory obligations, such as market settlement rules

Table 2.1 summarises the type of capital expenditure and why it is required for us to meet the capital expenditure objectives.

Table 2.1 Capital expenditure objectives

Capital category	Capital expenditure objective
Augmentation	<p>Enables us to augment our network in order to ensure we have sufficient capacity to avoid:</p> <ul style="list-style-type: none"> <li>asset utilisation rates exceeding the upper bounds of good engineering practice, in order to ensure the safety, reliability and security of supply of the distribution network</li> <li>the need to increase the repair and maintenance of heavily loaded assets.</li> </ul> <p>(Capital expenditure objectives 1, 2, 3 and 4)</p>
Connections and customer driven works	<p>Enables us to meet customer demand for new and upgraded connection services. These forecasts will be influenced by economic conditions, development demographics, including major projects arising from mining, pipelines, generation and agricultural development.</p> <p>(Capital expenditure objectives 1, 2 and 3)</p>
Replacement	<p>Enables us to maintain our network performance within acceptable risk levels, as well as replace assets that have failed. Reliability and quality maintained expenditure is necessary because, with time, network assets age and deteriorate and, if they are not replaced, they may fail or may operate at a sub-standard level. This may result in a reduced level of service reliability and quality.</p> <p>(Capital expenditure objectives 2, 3 and 4)</p> <p>Enables us to be compliant with applicable environmental, electrical safety, regulatory and other Victorian and Federal legislation, in particular, the requirements of Energy Safe Victoria, the Victorian Environmental Protection Authority and Parks Victoria.</p> <p>(Capital expenditure objective 2)</p>
Victorian Bushfires Royal Commission (VBRC)	<p>Enables us to be compliant with applicable legislation and regulatory obligations, in particular the requirements of Energy Safe Victoria.</p> <p>(Capital expenditure objective 2)</p>
Non-network capital expenditure: Supervisory cable and data acquisition (SCADA) and network control	<p>Enables us to provide 24 hour monitoring and control of our zone substation and sub-transmission substation assets and other distribution assets (including feeders). This capital expenditure will strengthen network performance, improve data security, increase data visibility and provide more accurate and timely information to customers on fault rectification.</p> <p>(Capital expenditure objectives 1, 2, 3 and 4)</p>
Non-network capital expenditure: IT and communications, motor vehicles, property and other	<p>Will enable us to invest in information technology, motor vehicles, office furniture and property that, whilst not directly related to the distribution network, are essential to ensuring our distribution network, and its distribution services, meet relevant quality, reliability, safety and security of supply standards.</p> <p>(Capital expenditure objectives 1, 2, 3 and 4)</p>

Source: Powercor

## 2.3 Meeting the operating expenditure objectives

The purpose of this section is to demonstrate how the forecast operating expenditure is required to achieve the operating expenditure objectives.

Our regulatory proposal includes a total forecast operating expenditure for the 2021–2026 regulatory period that we consider is required to carry out the necessary activities so as to achieve each of the operating expenditure objectives listed in clause 6.5.6(a) of the Rules. Our forecast operating expenditure is made up of a

number of cost categories that represent the costs of undertaking a set of interrelated activities and to operate the various systems necessary to achieve each of the operating expenditure objectives.

We believe our operating expenditure forecast for the next regulatory period will deliver the operating expenditure objectives because:

- we are currently meeting these objectives and our forecast operating expenditure has been developed using a 'revealed cost' approach by applying justified rate of change and step changes to the 2019 operating expenditure base year. This means that the forecast is based on our currently efficient operating expenditure, with necessary adjustments being made for the forecast rate of change, and changes to the scope of existing work.
- the nature of the activities that we will undertake through our operating expenditure program are targeted at specifically delivering the operating expenditure objectives. These activities are based on the practices that are currently being applied in the 2019 base year and will only change in the next regulatory period in order to accommodate the forecast rate of change and changes to the scope of work.
- we have robust plans, policies, procedures and strategies to support the delivery of our operating expenditure program. These are based on those that are currently being applied in the 2019 base year and will only change in the next regulatory period in order to accommodate the forecast rate of change and changes to the scope of work.
- we are physically able to deliver the work for the operating expenditure program by acquiring and deploying necessary labour and materials. The operating expenditure forecasts will be delivered in a similar manner to that which is currently being applied in the 2019 base year, with changes only being made in the next regulatory period in order to accommodate the forecast rate of change and changes to the scope of work.

# 3 The expenditure criteria and factors

## 3.1 Interpreting the expenditure criteria and factors

The AER is required to accept our forecast of required expenditure if it is satisfied that the total of the forecast expenditure reasonably reflects each of the expenditure criteria. In making this decision on whether it is satisfied, it must have regard to the expenditure factors.

## 3.2 Expenditure criteria

We consider that our forecast capital and operating expenditure is consistent with the capital and operating expenditure criteria outlined in clauses 6.5.6 (c) and 6.5.7(c) of the Rules, as it reflects:

- the efficient costs of achieving the capital and operating expenditure objectives
- the costs that a prudent operator in our circumstances would require to achieve the capital and operating expenditure objectives
- a realistic expectation of the demand forecast and cost inputs required to achieve the capital and operating expenditure objectives.

We believe our capital and operating expenditure reflects the expenditure criteria because we have developed our forecasts by applying a prudent approach to developing our expenditure forecasts. This approach includes:

- Having regard to historic expenditure levels. PAL APP02 - What we have delivered - Jan2020 - Public explains the variance between actual and forecast capital and operating expenditure, by expenditure category, between the current and next regulatory periods.
- Having regard to the benchmarked efficiency of our operating expenditure, as per the Annual Benchmarking Report 2019.
- Using, where relevant, independent forecasts of maximum demand and customer numbers, as discussed in PAL APP03 - Maximum demand and customers - Jan2020 - Public.
- Consideration of applicable regulatory requirements, as shown in tab 7.3 of Workbook 1 of the RIN.
- Applying the internal plans, policies, procedures and strategies that are listed and explained in in chapters 4 to 8 of the regulatory proposal and 7.1 of Schedule 1 of the RIN.
- Application of Value of Customer Reliability (**VCR**).
- Drawing on relevant consultants' reports, which are listed in the attachments to this regulatory proposal. The application of each report is discussed in chapters 4 to 9 of this regulatory proposal.
- Applying efficient cost escalators discussed in the Operating Expenditure chapter of this regulatory proposal.
- Undertaking regulatory investment tests, where relevant.
- Undertaking, where relevant, risk-monetisation assessments to quantify risks of not implementing capital solutions and determining the most efficient timing of investment. This includes for network and non-network capital expenditure.
- Undertaking multiple-options analysis, including in collaboration with key stakeholders, to assess the most efficient cost and highest customer benefit solutions for investment, including non-network solutions.
- Having regard, where relevant, to non-network alternatives.

When considering our expenditure forecasts, it is particularly important to also recognise the circumstances under which we operate. Our capital and operating expenditure forecasts are catered to our network's specifics, and reflect expected future challenges relevant to our environment.



### **3.3 Expenditure factors**

The capital and operating expenditure factors in clauses 6.5.6(e) and 6.5.7(e) of the Rules are the matters that the AER must have regard to in assessing whether forecast capital and operating expenditure forecasts reasonably reflect the capital and operating expenditure criteria in clauses 6.5.6(c) and 6.5.7(c) of the Rules. As discussed above, we consider that our capital and operating expenditure forecasts in this regulatory proposal fully reflect the capital and operating expenditure criteria.

Table 3.1 below describes how we believe we have meet each of the expenditure factors under clause 6.5.6(e) and 6.5.7(e).

**Table 3.1 Meeting the expenditure factors**

Capital expenditure factor	Expenditure objective
<p>Clauses 6.5.6(e)(4) and 6.5.7(e)(4)</p> <p>The most recent annual benchmarking report that has been published under rule 6.27 and the benchmark capital expenditure that would be incurred by an efficient Distribution Network Service Provider over the relevant regulatory control period</p>	<p>We have addressed our relative performance compared to the AER’s 2019 Annual Benchmarking Report in the Operating Expenditure chapter of our regulatory proposal</p>
<p>Clauses 6.5.6(e)(5) and 6.5.7(e)(5)</p> <p>The actual and expected capital (operating) expenditure of the Distribution Network Service provider during any preceding regulatory control period</p>	<p>PAL APP02 - What we have delivered - Jan2020 - Public our actual and estimated capital and operating expenditure in the current regulatory period. It also explains the variances between actual and forecast capital and operating expenditure by expenditure category, in the current and next regulatory period.</p>
<p>Clauses 6.5.6(e)(5A) and 6.5.7(e)(5A)</p> <p>The extent to which the capital (operating) expenditure forecasts includes expenditure to address the concerns of electricity consumers as identified by the Distribution Network Service provider in the course of its engagement with electricity consumers</p>	<p>Our Stakeholder Engagement chapter sets out our stakeholder engagement activities undertaken in the preparation of this regulatory proposal Chapters 4 to 9 of our regulatory proposal detail how customer and stakeholder engagement has influenced decision making for programs/concepts relevant to each chapter.</p>
<p>Clauses 6.5.6(e)(6) and 6.5.7(e)(6)</p> <p>The relative prices of operating and capital inputs</p>	<p>We have not developed our operating expenditure forecasts by multiplying input costs and quantities. Rather we have prepared our operating expenditure forecasts based on a ‘revealed costs’ methodology, which assumes that the nominated base year, 2019, is representative of our future costs. The unit costs inherent in the operating expenditure forecast are therefore based on those historically achieved in 2019. The profile of operating expenditure in the current regulatory period supports the view that the unit costs underlying the forecast operating expenditure are efficient. This is discussed further in the Operating Expenditure chapter.</p> <p>We note that the unit costs which underpin the capital expenditure forecasts have been developed on the basis of the current average costs of undertaking similar capital works in the current regulatory period. Costs of program related capital works are recorded against specific function codes and are divided by the quantity of physical units of work undertaken. As a consequence, these unit costs represent an aggregation of materials and other costs, such as labour, that are required to complete the works. These rates do not include overheads or escalators that are separately applied.</p> <p>Our forecast input prices changes are discussed in paragraphs 8.1 to 8.4 of Schedule 1 of the RINs. Expert consultants were engaged to forecast the real growth in the costs of each of these sub categories. The escalators determined by the expert consultants were directly applied in the development of the capital and operating expenditure forecasts.</p>

Capital expenditure factor	Expenditure objective
<p>Clauses 6.5.6(e)(7) and 6.5.7(e)(7)</p> <p>The substitution possibilities between operating and capital expenditure</p>	<p>There are three aspects of capital and operating expenditure forecasts that present substitution possibilities, being:</p> <ul style="list-style-type: none"> <li>• aging assets</li> <li>• investment in new systems, processes, plant and equipment</li> <li>• purchase or lease of equipment or facilities.</li> </ul> <p>As assets age, their condition deteriorates and maintenance costs increase, as does their risk of failure. Furthermore, the failure of aging assets presents its own risks. We must evaluate whether it is more prudent and efficient to replace these assets, thereby incurring capital expenditure, or whether additional operating expenditure should be incurred to manage the risk associated with the assets.</p> <p>We have undertaken an assessment of the age and condition of our electricity distribution assets. On the basis of this assessment, we have developed capital and operating expenditure forecasts that represent the optimal mix of capital asset replacement, and enhanced condition monitoring, by which to balance costs and risks.</p> <p>As our commercial and operational requirements evolve, and newer technologies become available, we must evaluate whether it is prudent and efficient to invest capital expenditure in new systems, processes, plant and equipment, thereby reducing operating expenditure.</p> <p>As requirements arise that necessitate the purchase or lease of equipment, we must evaluate whether it is prudent and efficient to make a capital investment in the purchase of equipment, or whether the option of leasing the new equipment (and thereby incurring higher operating expenditure) is more prudent and efficient.</p> <p>Our financial management processes require a financial evaluation (based on discounted cash flow analysis) to be performed whenever expenditure is proposed relating to the provision of standard control services, and there are competing options available with respect to financing. As a result of these analyses, we have determined to purchase the vast majority of our vehicles, heavy equipment, property, and IT assets. The exceptions where we have elected to lease equipment typically relate to short-term requirements, or where suitable purchase options are unavailable.</p> <p>Our plans, policies, procedures and strategies have regard for the interactions, and substitution possibilities, between our capital and operating expenditure programs and they are inherent in the efficient base year costs.</p>

Capital expenditure factor	Expenditure objective
<p>Clauses 6.5.6(e)(8) and 6.5.7(e)(8)</p> <p>Whether the capital expenditure forecast is consistent with any incentive scheme or schemes that apply to the Distribution Network Service Provider under clauses (6.5.8) 6.5.8A or 6.6.2 to 6.6.4</p>	<p>The proposed capital and operating expenditure forecasts are based on delivering network reliability and quality of supply, consistent with the consumer preferences identified through the VCR. Thus, we consider it consistent with the Service Target Performance Incentive Scheme (<b>STPIS</b>) which is also based on the VCR.</p> <p>The proposed capital and operating expenditure is consistent with the capital efficiency sharing scheme (<b>CESS</b>) and the efficiency benefits sharing scheme (<b>EBSS</b>) as proposed by the AER as the proposed expenditure in this regulatory proposal is efficient and prudent, as required by the expenditure criteria. Any additional unforeseen productivity or efficiency gains that potentially arise during the regulatory period would therefore be shared with consumers in accordance with the properties of the incentive schemes.</p> <p>Under the demand management incentive scheme (<b>DMIS</b>) we are provided an allowance for investigating innovative technologies that have the potential to defer capital and/or operating expenditure. We have not identified any overlap between the DMIS allowance and our proposed capital or operating expenditure forecasts.</p>
<p>Clause 6.5.7(e)(9)</p> <p>The extent the capital expenditure forecast is referable to arrangements with a person other than the Distribution Network Service Provider that, in the opinion of the AER, do not reflect arm's length terms</p>	<p>We outsource some of our functions including:</p> <ul style="list-style-type: none"> <li>• field services work-these are provided by Network Services under a Network Services Agreement</li> <li>• back-office services, which includes our corporate services, customer services, and IT support services- are provided by CHED Services under a Corporate Services Agreement.</li> <li>• We engaged KPMG to establish the commercial benchmark for the margins applied in the Network Services Agreement and the Corporate Services Agreement. Based on the KPMG report, the margins applied are consistent with comparable market rates</li> </ul> <p>The efficiency of our service provision model is also borne out in the actual efficient capital and operating expenditure performance of us over the period 2008-2018.</p>
<p>Clause 6.5.7(e)(9A)</p> <p>Whether the capital expenditure forecast includes an amount relating to a project that should more appropriately be included as a contingent project under clause 6.6A.1(b)</p>	<p>We have not identified any projects that would constitute a contingent project for the next regulatory period.</p>
<p>Clause 6.5.7(e)(10)</p> <p>The extent the Distribution Network Service Provider has considered, and made provision for, efficient and prudent non-network alternatives</p>	<p>We have not made an explicit provision in our capital expenditure forecasts for non-network alternatives, although we have had regard for non-network alternatives in the development of our capital expenditure forecasts.</p> <p>We have published our Demand Side Engagement Strategy which sets out our framework and processes for assessing non-network solutions to address a current or future constraint in the network.</p> <p>Consistent with this strategy, we will continue to examine the relative merits of network, and non-network, alternatives in making our expenditure decisions. Non-network alternatives will be pursued where they provide the best solution in the circumstances to address the identified need.</p>

Capital expenditure factor	Expenditure objective
Clause 6.5.7(e)(11) Any relevant final project assessment report (as defined in clause 5.10.2) published under clause 5.17.4(o), (p), or (s)	We have included, in the attachments to the regulatory proposal, all final project assessment reports completed at the time of preparation of this regulatory proposal.
Clause 6.5.7(e)(12) Any other factor the AER considers relevant and which the AER has notified the Distribution Network Service Provider in writing, prior to the submission of its revised regulatory proposal under clause 6.10.3 is a capital expenditure factor	The AER has not advised us of any further expenditure factors at the time of preparing this regulatory proposal.

Source: Powercor

### 3.4 Capital expenditure categories

Paragraph 4.5(a) of Schedule 1 of the RIN requires a description of capital expenditure key drivers. Table 3.2 provides the key drivers.

Table 3.2 Key drivers of expenditure

Expenditure category	Key drivers
Replacement	<ul style="list-style-type: none"> <li>safe environment for our customers and workers (including mitigating bushfire risk)</li> <li>reliable supply of electricity</li> </ul>
Augmentation	<ul style="list-style-type: none"> <li>enabling solar exports and renewable generation</li> <li>reinforcing our network to provide the electricity 'backbone'</li> <li>modernising our network to support customer outcomes</li> </ul>
Connections	<ul style="list-style-type: none"> <li>deliver more connections to power customers' everyday activities</li> <li>facilitate infrastructure growth</li> </ul>
Information and communication technology	<ul style="list-style-type: none"> <li>improve customer experience</li> <li>respond to changes in the energy market</li> <li>drive improvements in our network planning and operations</li> <li>underpin safe, reliable and efficient delivery of network services</li> <li>maintain delivery of services to customers and meet regulatory obligations</li> <li>ensure our operations remain safe from emerging cyber threats</li> </ul>
Non-network expenditure	<ul style="list-style-type: none"> <li>maintain compliance with industry standards</li> <li>creating greater workforce diversity</li> <li>managing employee growth or network related programs of work</li> </ul>

Source: Powercor

Paragraph 4.5(b) of Schedule 1 the RIN requires us to provide an explanation as to how we distinguish various classes of expenditure. Table 3.3 provide the relevant explanations.

**Table 3.3 Distinguishing between expenditure classes**

Expenditure category	Key drivers
Greenfield driven and reinforcement driven augmentation capital expenditure	Projects that have been classified as greenfield are those where demand has increased due to changes in the use of the land in an area, with all other projects being treated as reinforcement. Some examples of this are the re-zoning of industrial land to commercial/residential, farm land on the edges of cities and towns becoming residential development or a golf course getting re-developed into residences. As such we have applied the general rule that CBD security projects, projects to address fault level and some re-conductor projects, projects to address supply quality projects (Solar enablement, voltage regulators, capacitor banks, line capacitors and some re-conductor projects) and REFLC projects. All other projects have been treated as greenfields.
Connections expenditure and augmentation capital expenditure	A connection project is a project being undertaken at the request of a specific customer, and the specific customer’s contribution to the project is calculated in accordance with our published connection policy. An augmentation project is initiated by the business and benefits a wider number of customers, and hence is a standard control service funded by all customers.
Replacement capital expenditure driven by condition and assets replacements driven by other drivers (e.g. the need for greenfield or reinforcement driven augmentation capital expenditure)	Where an asset is being replaced due to its condition, and is replaced with a modern equivalent asset, this is classified as a replacement project. There are some zone substation projects being driven by asset condition that are classified as an augmentation project where rather than replace the assets on a like for like basis, the highest benefit option can be to decommission the asset(s) and extend high voltage feeders to an adjacent substation. This type of project is classified as a ‘non-demand driven’ augmentation as the assets are not replaced with like for like modern equivalents
Any other capital expenditure category or operating expenditure category where there is a reasonable scope for ambiguity in categorisation	We have not identified any other capital expenditure or operating expenditure categories where there is scope for ambiguity.

Source: Powercor

Chapters 4 to 8 of our regulatory proposal include descriptions of the key drivers and distinguishing features of, each of the capital expenditure categories. Chapters 4 to 8 of our regulatory proposal also sets out the methodology for forecasting expenditure for each of the capital expenditure categories, including an explanation as to why the methodology used is appropriate.