

Review of proposed 2024-27 system control and market operator charges

Consultation paper

A paper seeking feedback on the
Northern Territory Electricity
System and Market Operator's
Regulatory Proposal for 2024-27
system control and market
operator charges

June 2024

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Abbreviations and acronyms

AER	Australian Energy Regulator
CEPA	Cambridge Economic Policy Associates Pty Ltd
Commission	Utilities Commission of the Northern Territory
CPI	Consumer Price Index
NPV	Net Present Value
NTEM	Northern Territory Electricity Market
NTESMO	Northern Territory Electricity System and Market Operator
NT NER	Northern Territory National Electricity Rules
PWC	Power and Water Corporation
WACC	Weighted Average Cost of Capital

Executive summary

The Northern Territory Electricity System and Market Operator (NTESMO) is a business unit within the Power and Water Corporation (PWC) that carries out system control functions for the Territory's three major electricity networks – Darwin-Katherine, Alice Springs and Tennant Creek, and market operator functions in Darwin-Katherine. The services provided by both functions are regulated and NTESMO is entitled to impose and recover charges to undertake its functions. Section 39(2) of the *Electricity Reform Act 2000* requires these charges to be approved by the Commission.

In late December 2023, NTESMO submitted its regulatory proposal for the three year period, from 1 July 2024 to 30 June 2027. Charges for the first year of the regulatory period (1 July 2024 to 30 June 2025) are covered by interim arrangements approved by the Commission in November 2023, which roll forward approved regulated charges for 2023-24, adjusted for inflation. NTESMO's current regulatory proposal submits proposed system control and market operator charges for 2025-26 and 2026-27 to the Commission for approval. The proposal seeks to put in place a more formal economic regulatory framework and involves a step up in complexity regarding the calculation of required revenue relative to the approach taken for the current 2019-20 to 2023-24 period, including a proposed mechanism for recovery of capital expenditure over time and recovery of historical overspends as well as recovery of an estimated shortfall in revenue relating to the interim arrangements for 2024-25.

If approved as proposed, NTESMO estimates a 150% increase in the 2025-26 system control charges for a retailer's customers in Alice Springs and Tennant Creek compared to 2024-25 and a 187% increase in system control and market operator charges for a retailer's customers in Darwin-Katherine compared to 2024-25.

In light of NTESMO's proposal, and following an initial high-level review, the Commission engaged an economics expert, Cambridge Economic Policy Associates Pty Ltd (CEPA), to assist the Commission in developing an approach for regulating system control and market operator charges, for both the upcoming and future regulatory periods.

To help inform its draft decision on NTESMO's system control and market operator charges regulatory proposal, the Commission with the assistance of CEPA has prepared this Consultation Paper, which seeks stakeholders' feedback on the approach proposed by NTESMO and, where relevant, on the Commission's initial views or options.

Relevantly, this consultation and the Commission's current focus is on the methodology to be adopted in considering NTESMO's regulatory proposal. Analysis of NTESMO's data and other information submitted to support its regulatory proposal will be undertaken by the Commission in phase 2 of the review, with the assistance of CEPA.

Following this consultation, the Commission will consider the feedback received and develop its draft decision in relation to NTESMO's regulatory proposal. The draft decision will be published for feedback from stakeholders, which will inform its final decision.

The Commission seeks feedback from stakeholders by **5pm Tuesday, 16 July 2024**. To help guide submissions, the Consultation Paper poses 21 questions for consideration by respondents.

Submissions should be provided electronically by email to utilities.commission@nt.gov.au in Adobe Acrobat or Microsoft Word format. Submissions will be made publicly available on the Commission's website.

1 | Introduction

The Commission is an independent statutory body established by the *Utilities Commission Act 2000* with defined roles and functions for declared (regulated) industries in the Territory including electricity supply, water supply and sewerage services industries, and ports. The Commission seeks to protect the long-term interests of consumers of services provided by regulated industries with respect to price, reliability and quality.

The Northern Territory Electricity System and Market Operator (NTESMO) is a (ring-fenced) business unit within the Power and Water Corporation (PWC) that carries out system control functions for the Territory's three major and regulated electricity networks – Darwin-Katherine, Alice Springs and Tennant Creek. Since 2015, NTESMO has also been the market operator for the Darwin-Katherine interim Northern Territory Electricity Market. The services provided by both functions are regulated and NTESMO is entitled, via the *Electricity Reform Act 2000*, to impose and recover charges to undertake its functions. Section 39(2) of the *Electricity Reform Act 2000* requires these charges to be approved by the Commission.

In 2000, an initial system control charge of \$0.001/kWh was approved by the Commission. This charge remained constant in nominal terms until 2019. During this period, NTESMO took on the market operator role in the Darwin-Katherine network. In 2018, PWC made a submission to the Commission proposing an increase in system control charges stemming from changes over time in the nature of NTESMO's system control role and the introduction of the market operator role. In 2019, the Commission issued a final decision on the system control and market operator charges to be applied from 2019-20 to 2023-24. The approach taken by NTESMO when proposing these charges, and approved by the Commission, assumed that NTESMO held no assets and, therefore, all forecast expenditure was treated as operating expenditure. Separate charges for the system control and market operator functions, the latter of which is only applicable to Darwin-Katherine network connected consumers, were set using a revenue cap as the form of price control.

Due to NTESMO's delay in developing a regulatory proposal for the next regulatory period starting on 1 July 2024, NTESMO in consultation with the Commission submitted a pricing proposal for 2024-25, the first year of the new regulatory period, based on rolling forward approved regulated charges for 2023-24 adjusted by inflation. This was submitted to the Commission in September 2023 and subsequently approved.

In late December 2023, NTESMO submitted its regulatory proposal to the Commission for the period covering 2024-25 to 2026-2027 (the subject of this Consultation Paper). This proposal involves a step up in complexity regarding calculation of required revenue relative to the approach taken for the 2019-20 to 2023-24 period including a framework that distinguishes between operating and capital expenditure in the cost forecasts, across a shorter regulatory period of three years, and a mechanism for recovery of both capital expenditure over time and historic overspend that was not approved by the Commission.

If approved as proposed, NTESMO estimates a 150% increase in 2025-26 system control charges for a retailer's customers in Alice Springs and Tennant Creek compared to 2024-25 and a 187% increase in system control and market operator charges for a retailer's customers in Darwin-Katherine compared to 2024-25.

Context to the Consultation Paper

To help inform its draft decision on NTESMO's system control and market operator charges regulatory proposal for the period covering 2024-25 to 2026-2027, this Consultation Paper seeks stakeholders' feedback on the approach proposed by NTESMO and, where relevant, on the Commission's initial views or options.

Relevantly, this consultation and the Commission's current focus is on the methodology to be adopted in considering NTESMO's regulatory proposal. Analysis of NTESMO's data and other information submitted to support its regulatory proposal will be undertaken by the Commission in phase 2 of the review, with the assistance of the Commission's expert advisor, CEPA.

Following this consultation, the Commission will consider the feedback received and develop its draft decision in relation to NTESMO's regulatory proposal. The draft decision will be published for feedback from stakeholders, which will inform its final decision.

Structure of the Consultation Paper

The Consultation Paper is arranged as follows:

- Chapter 2 discusses the regulatory framework to calculate regulated revenues for NTESMO's system control and market operator functions
- Chapter 3 discusses the approach to calculate regulated charges for NTESMO's system control and market operator functions
- Chapter 4 discusses the recovery of previous overspends that NTESMO has included in its regulatory proposal.

Where relevant, the Consultation Paper poses questions, which appear like this:

Question X	Example question
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How to make a submission on the Consultation Paper

All interested parties (stakeholders) are invited to make submissions on matters raised in the Consultation Paper by **5pm Tuesday, 16 July 2024**. Responses to the Consultation Paper will inform the Commission's draft decision, which will be released in the second half of 2024.

To facilitate publication, submissions should be provided electronically by email to utilities.commission@nt.gov.au in Adobe Acrobat or Microsoft Word format.

Stakeholders need only respond to matters relevant to their areas of expertise or interest. The Commission encourages stakeholders to include sufficient explanatory detail in their responses to any matters discussed in the Consultation Paper.

Any questions regarding the Consultation Paper or the review should be directed to the Commission at any of the following:

Email: utilities.commission@nt.gov.au

Telephone: +61 8 8999 5480

GPO Box 915
DARWIN NT 0801

Confidentiality

In the interests of transparency, the Commission will make all submissions publicly available on its website, with the exclusion of confidential information. Confidential information may include:

- information that could affect the competitive position of an entity or other person
- or information that is commercially sensitive for some other reason.

Submissions must clearly specify any information that a respondent considers confidential and advise the Commission why they would like the information to be treated as confidential. A version of the submission suitable for publication (that is, with any confidential information removed) should also be submitted to the Commission.

The Commission may also exercise its discretion not to publish any submission based on its content such as submissions containing material that is offensive or defamatory.

2 | Regulatory framework

This chapter discusses the regulatory framework to calculate regulated revenues for NTESMO's system control and market operator functions.

Design and approach

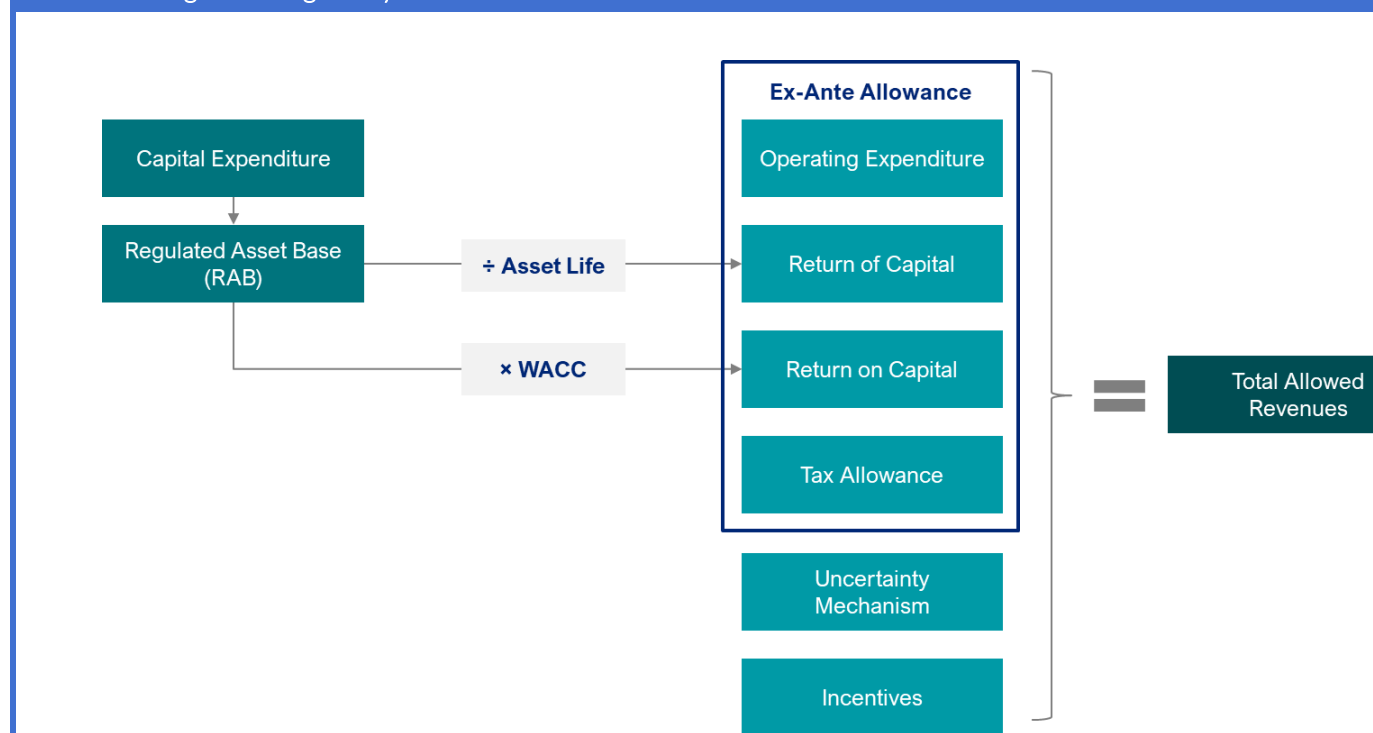
Historically, NTESMO's regulated revenues and charges, for both system control and market operator functions, have been based on forecasted operating expenditure only. For the upcoming regulatory period, however, NTESMO has proposed that a regulatory framework based on the 'building block' model is used to calculate allowed revenues. This would involve an operating expenditure allowance, return of and on capital expenditure allowance, tax allowance, and an uncertainty mechanism.

The building block model is a standard approach used in network regulation in Australia and internationally by regulators to determine how much revenue a network business requires in order to:

- recoup the efficient costs of providing its regulated service(s)
- enable appropriate levels of investment to provide the service required
- provide customers with the quality of service they are willing to pay for
- cover their efficiently incurred financing costs.

The building block model is usually implemented as a form of ex-ante regulation, under which revenue allowances are imposed on the regulated company prior to the expenditure being incurred and, therefore, requires an assessment of the needs of the network and challenges a firm will face, to be considered ahead of time. There are many variations, but the general design involves six main 'building blocks' as illustrated in Box 1 below.

Box 1: Building Block Regulatory Model



At a high-level the revenue recovered from consumers during the regulatory period is divided into:

- **Operating expenditure** – Includes all costs that the network pays on a regular basis as part of the day-to-day delivery of its service(s). It is recovered within year (i.e., on an as-incurred basis).
- **Return of capital invested** – Capital expenditure typically involves the creation or replacement of new physical assets and, as a result, can be 'lumpy' (i.e., firms can invest large amount in one year but relatively

little in other years), but the assets can provide services to customers for a period of many years. The network, therefore, recovers the cost of its capital investment in instalments over the 'asset life'. These instalments are labelled 'depreciation'.

- **Return on capital invested** – An allowance for a level of return to investors, who provide the regulated firm with financing, to compensate for the cost of the capital made available. This rate of return is known as the Weighted Average Cost of Capital (WACC).
- **Corporate tax payments** – An allowance for tax is forecast based on the size of the other building blocks.
- **Uncertainty Mechanism(s)** – The activities of regulated utility companies and the expenditure associated with those regulated activities are by their very nature uncertain. Therefore, many regulators introduce uncertainty mechanisms, as part of the ex-ante regulatory framework, as a means of alleviating these issues.
- **Incentives** – In practice most regulators seek to implement the building block model in ways which create desirable incentives. These incentive mechanisms take two main forms: cost and performance.

The sum of these blocks provides the total allowed revenues of the regulated firm across the regulatory period.

The building block model is, at its heart, a tool that allows for 'lumpy' capital expenditure to be smoothed over time, so that consumers do not face large changes in prices from one period to the next and recovery is spread across those consumers who will benefit from the investment across the asset life.

The Commission's initial view of NTESMO's proposal to apply the building block model is that it is reasonable given NTESMO's expenditure forecast for the upcoming regulatory period introduces notable capital expenditure (subject to approval) for which it is not beneficial, given the impact on charges, to recover fully in the year it is incurred, as is the current regulatory approach to expenditure.

Question 1

Do stakeholders agree the building block model is an appropriate method to calculate NTESMO's allowed revenues for the upcoming and future regulatory periods? Why or why not?

Time period

In its regulatory proposal, NTESMO has proposed a 3-year regulatory period, from 1 July 2024 to 30 June 2027. Whilst this is shorter than the current regulatory period of five years, NTESMO consider this length to provide the right balance of pricing certainty and cost uncertainty.

The first year of this regulatory period, 1 July 2024 to 30 June 2025, is covered by interim charges that have already been approved by the Commission based on a regulatory proposal NTESMO submitted in September 2023. These charges were set by rolling forward approved regulated charges for 2023-24 adjusted for inflation. Accordingly, the current regulatory proposal will effectively only set charges for a 2-year period covering 2025-26 and 2026-27.

The optimal length of a regulatory period can be considered to represent a trade-off between risk, incentives, and administrative requirements. Longer regulatory periods provide higher incentives for cost reductions under a revenue cap, as the company is able to retain the benefits for longer, and greater regulatory certainty. However, a longer regulatory period also implies greater risk to the company as the regulatory determination is based on an incomplete and uncertain information set (e.g., higher risk of forecasting error).

The Commission is aware the Territory Government intends to implement significant electricity market reforms that will impact NTESMO¹. Given the level of uncertainty currently present in the Territory electricity industry, the Commission considers a shorter regulatory period this time is likely reasonable, albeit implying some weakening of incentives and increased administrative costs, to both NTESMO and the Commission.

The Commission expects to revert to a standard 5-year regulatory period for future decisions.

¹ Refer: <https://industry.nt.gov.au/reforms/reform-territory-electricity-market#:~:text=The%20reforms%20aim%20to%20ensure,50%25%20renewable%20energy%20by%202030.>

Question 2

Do stakeholders agree NTESMO's proposed 3-year regulatory period (for the upcoming period only) is reasonable? Why or why not?

Corporate overheads

NTESMO is a business unit within PWC, a government-owned entity. In its regulatory proposal, NTESMO has included costs for corporate overheads, areas of expenditure that are not wholly or exclusively associated with a single unit of PWC or are shared between two or more business units. NTESMO propose a three-stage allocation process to directly attribute and/or allocate these costs to the operating and capital expenditure of both the system control and market operator functions:

- Firstly, PWC's Australian Energy Regulator (AER) approved Cost Allocation Methodology is used to attribute costs directly and allocate shared corporate overhead costs between PWC's business units, including NTESMO. This uses a variety of causal allocators which are dependent upon the corporate cost sub-category.
- Secondly, in order to further directly attribute and allocate these costs to NTESMO's system control and market operator functions, the Core Operations Cost Allocation Methodology will be applied. This uses direct expenditure as a driver to determine the allocations.
- Finally, the proportion of corporate overheads allocated to the system control and market operator functions are capitalised based on the overall percentage of corporate overheads that are considered to contribute to the capital program. NTESMO note this approach is guided by Australian Accounting Standards and is consistent with the approach adopted for the AER in relation to PWC's distribution networks.

Importantly, corporate overhead costs should be recovered only once.

The Commission's initial view is that the Cost Allocation Methodologies NTESMO propose to apply to corporate overheads appear sensible, noting the Commission will, as part of undertaking its due diligence, review whether the approach has been applied correctly in practice and if the attributions and allocations are aligned with those included in PWC's distribution proposal to the AER for the 2024 to 2029 period. NTESMO should ensure, if it has not done so already, that both the regulatory proposal and revenue model provide sufficient information to enable this.

Question 3

Do stakeholders agree NTESMO's proposed approach to corporate overheads reasonable? Why or why not?

Operating expenditure

Operating expenditure reflects the on-going or regular costs incurred by a regulated company in providing the regulated services and maintaining and operating the relevant assets. NTESMO are forecasting \$57.8 million in operating expenditure across the upcoming regulatory period, which is \$19.3 million per annum. This is a notable increase on the ~\$40m total expenditure requested across the previous 5-year period. Personnel costs account for \$35 million (60%), with the other notable cost area being corporate overheads allocated to NTESMO (21.5%).

The section below provides an overview of the operating expenditure building block as it relates to NTESMO's regulatory proposal.

Mapping actual expenditure

A review of NTESMO's regulatory proposal and supporting documents indicates NTESMO has mapped the actual costs incurred between 2019-20 and 2022-23 recorded in the General Ledger to its services within the system control and market operator functions. NTESMO highlight that some remapping has been required due to structural reform within PWC. During this process, NTESMO has added a new service

within the system control function to capture costs related to power system evolution and reallocated related costs that were originally allocated to Northern Territory Electricity Market (NTEM) reform.

Provided costs recovered by NTESMO are equal to costs incurred for the regulated activities of the system control and market operator functions only (i.e., no double counting or over recovery), the proposed mapping of expenditure appears reasonable.

Forecast methodology

In its regulatory proposal, NTESMO has forecast operating expenditure in three areas: personnel, professional fees, and residual costs. At a high-level, the following four-step methodology has been applied to forecast expenditure in these areas:

1. Determine the base year expenditure;
2. Adjust base year expenditure to account for non-recurrent expenditure;
3. Adjust to reflect forecast changes in expenditure requirements (step changes); and
4. Apply an escalation (trend) rate over the regulatory period.

The Commission notes that corporate overhead costs are also included in the operating expenditure forecast, although the base-step-trend approach has not been applied.

NTESMO's personnel work across both operational and capital activities. Therefore, NTESMO has forecast personnel costs at the total expenditure level and then allocated a portion to capital based on forecast capital personnel requirements. As a result, the base and step include both operational and capital personnel requirements and the forecast is then split into capital expenditure and operational expenditure, following step three, and subsequently escalated.

The Commission considers that, overall, the approach taken to forecasting operating expenditure appears reasonable and is largely aligned with the AER approved base-step-trend method that PWC apply to the regulated electricity networks. However, the following two adjustments have been considered:

- Trend adjustments are factors that are applied to account for expected input cost increases at a different rate to inflation. However, NTESMO are proposing to escalate professional fees, residual costs, and graduate/undergraduate contracts by the Consumer Price Index (CPI). NTESMO are also proposing to annually inflate allowed revenue charges by the annual increase in CPI, implying double application of inflation to these costs and resulting in over recovery across the regulatory period. A clear, consistent approach should be applied, where costs are forecast and an allowed revenue determination made in real terms (e.g., 2024-25 prices) and then inflation applied when NTESMO submit its annual pricing proposal, removing the use of CPI as a trend adjustment to operating expenditure.
- NTESMO has proposed trend adjustments to account for changes in input prices but has not explicitly proposed an adjustment in relation to productivity, which has the effect of decreasing operating expenditure forecasts across the regulatory period. This is common practice in regulatory frameworks, including PWC's electricity networks. The inclusion of an explicit productivity element in the regulatory proposal, even if it is not used in the upcoming 3-year period (i.e., set as zero), would set an expectation that NTESMO should be seeking to achieve operating expenditure efficiencies and that a (non-zero) productivity factor could apply in forthcoming regulatory periods.

The Commission notes that the use of a base year can create incentives to inflate base year expenditure and, in this instance, the use of audited actuals from 2022-23 reflects a level of expenditure that is significantly higher than allowed expenditure (i.e., includes overspends NTESMO are claiming retrospective recovery for). However, the Commission considers that the use of audited actual expenditure from 2022-23 is likely to be the most appropriate way to set base year expenditure and that a detailed review of the efficiency of base year operating expenditure is not likely to be justified. The Commission's proposed

approach to operating expenditure overspends (see below) sets a reasonably strong incentive on NTESMO to minimise operating expenditure over time.

The Commission considers two areas of NTESMO's proposed approach to operating expenditure forecasting are less clear-cut and as such, the Commission has sought clarification from NTESMO on the following issues:

- NTESMO has applied an escalation rate to personnel costs that is a weighted average of three individual escalation rates, one of which is the application of CPI to graduate/undergraduate contract. In addition, NTESMO has applied an additional escalation for the Australian Government superannuation rate increase of 0.5% per annum for three years from 1 July 2023, where it increases to a total superannuation contribution of 12%. The use of a weighted average of three individual escalation rates appears to be an overly complicated approach. It also does not align with PWC's recent regulatory proposal to the AER for the electricity networks 2024-2029 period, where a labour cost growth rate, based on an independent forecast of the Wage Price Index for Electricity, Gas and Wastewater Services developed by BIS Oxford, has been applied.
- In the proposal, NTESMO include an allocation of costs within Core Operations to residual costs, however, these costs are also mentioned as part of the corporate overheads forecast. It is not clear whether this would result in double recovery of these costs.

Subject to receiving appropriate responses to the above clarification questions, the Commission's initial view is to accept NTESMO's proposed base-step-trend approach to forecasting operating expenditure, with the base year to be set as the most recent year of audited actual operating expenditure. However, NTESMO's application of CPI to escalate professional fees, residual costs, and graduate and undergraduate contracts over the upcoming regulatory period is not supported. This is on the basis that trend adjustments should be applied to adjust for changes in prices over and above inflation. The Commission is also considering the need for a productivity factor within the regulatory framework, to be applied in future regulatory periods.

Question 4	Do stakeholders consider NTESMO's proposed base-step-trend approach to forecasting operating expenditure, with the base year to be set as the most recent year of audited actual operating expenditure is reasonable? Why or why not?
Question 5	Do stakeholders agree NTESMO's application of CPI to escalate professional fees, residual costs, and graduate and undergraduate contracts over the upcoming regulatory period is not appropriate? Why or why not?
Question 6	Do stakeholders support inclusion of a productivity factor within the regulatory framework, to be applied in future regulatory periods? Why or why not?

Capital expenditure

NTESMO are forecasting total capital expenditure of \$41.5m between 2024-25 and 2026-27, which is approximately \$13.8 million per annum. The majority of this expenditure relates to system control functions, with the proposed investment in the Territory Dispatch Engine comprising 75% of the forecast in expenditure in the next regulatory period.

The section below provides an overview of capital expenditure, which is a direct input into the return of and return on capital building blocks, as it relates to NTESMO's regulatory proposal.

Capitalisation

Regarding capitalisation of expenditure, NTESMO has proposed the principle that if an initiative provides value beyond the year the cost is incurred, it should be treated as an asset and recovered over its useful life. The regulatory proposal highlights that this proposed approach varies from the accounting standards used for statutory reporting. NTESMO's reasoning for this is that statutory accounting standards would result in a

significant proportion of expenditure related to software development being classified as operating expenditure and so recovered 'in year'.

NTESMO has adopted this principle for both historical and forecast expenditure, having re-categorised expenditure on assets, including transitional tools, the Settlements System, and Territory Dispatch Engine, from operating to capital using this principle. This equates to \$14 million in expenditure that NTESMO are seeking to capitalise for regulatory purposes.

The Commission notes the purpose of capitalising expenditure is to spread the recovery (through charges to consumers) over time. The Commission notes that NTESMO's proposed approach departs from standard accounting standards. However, NTESMO's approach could have benefits for some consumers as it will smooth these costs over a longer period of time, which will reduce charges in the short term and increase them in the long term.

The Commission notes there is a potential variation to NTESMO's proposed approach that may be preferable - if an initiative provides value beyond the year the cost is incurred, and that initiative is not recurring (i.e., is one-off or exceptional), it should be capitalised. Under this approach, any stable, on-going expenditure (e.g., research) would be treated as operating expenditure even if it yielded benefits over many years.

The Commission has not reached a position on the approach to capitalisation and requested further explanation from NTESMO on the departure from the accounting standards used for statutory reporting. The Commission will consider this and stakeholder feedback as part of making its draft decision.

Question 7

Do stakeholders support NTESMO's proposed approach to capitalisation? Why or why not?

Assessment approach

When assessing capital expenditure, the rationale and assumptions behind cost projections for capital projects is key. Therefore, forecasts need to be supported by economic, regulatory, and/or policy justification and information that demonstrates they are prudent and efficient. There is, however, notable uncertainty regarding the Northern Territory Government's electricity market reforms and NTESMO's specific regulatory obligations under the reforms. The final decisions on NTESMO's role and obligations, which the Commission understands will be set under market rules, will likely have a material impact on the nature and level of the required capital expenditure program over the coming regulatory period and future periods.

Given NTESMO is operating in an uncertain and changing environment, it would be difficult for the Commission to set a capital expenditure allowance at the start of the regulatory period that remains unchanged throughout until the start of the next period. A capital expenditure allowance set at the start of the period could expose the NTESMO to unreasonable risk and makes designing incentives for efficiency more difficult. The Commission notes there are two ways to handle this uncertainty, which are not mutually exclusive. The first is to shorten the length of the regulatory period, as has been proposed by NTESMO. The other is to rely less on "upfront" forecasts of required capital expenditure, and more on a project-by-project assessment and review of expenditure that is actually incurred.

The Commission is considering three approaches with regards to the approach for assessing NTESMO's capital expenditure forecasts, with a current preference for the third approach subject to stakeholder feedback. Each approach is summarised below in terms of benefits and potential issues.

Option 1: Exclude Uncertain Projects

The first approach is similar to that used by the AER. Under this approach, an ex-ante capital expenditure allowance would be determined based on forecasts of expenditure for projects that NTESMO is required to undertake to meet a current regulatory obligation or requirement (i.e., those projects with a high degree of

certainty as to the required scope and timing of the project). Projects which do not meet this threshold would be identified as "contingent projects". These would not be included in the ex-ante capital expenditure allowance set at the beginning of the regulatory period. But, if the conditions or thresholds for these projects are subsequently attained during the regulatory period, NTESMO could seek approval from the Commission to add forecast revenue for these projects to the annual revenue allowance.

This approach ensures that customers do not end up paying, in advance, for projects which may not eventuate during the regulatory period. A drawback of this approach is that approval of a project during the regulatory period increases the regulated revenue allowance and, therefore, the prices. As a result, customers will likely see price increases, perhaps material, during the regulatory period. It would also create work for the Commission and NTESMO, and risks delays to projects, as a separate approval process would be needed for each individual major project during the regulatory period prior to expenditure on that project being incurred.

Option 2: Best Estimate

The second approach recognises this problem and allows for an ex-ante capital expenditure allowance which is based not just on the projects that are required with a high degree of certainty to meet current regulatory obligations, but also those projects that are likely with some probability to proceed in the coming regulatory period but their scope or timing is uncertain. The resulting capital expenditure allowance is intended to be "best estimate" of the capital expenditure requirement.

This Commission understands that this is the approach that has been proposed by NTESMO in its proposal. NTESMO's proposal includes capital projects that do not yet have completed business cases and Board or shareholder approval, but are based on best estimates of the forecast costs and timing. The proposal also does not include any mechanisms for contingent projects, but it does include reasonably broad pass through arrangements as discussed below

Under NTESMO's proposal, it is not clear what would happen at the next determination if NTESMO spends more or less than the forecast amount over the regulatory period. Under standard approaches to economic regulation such as that adopted by the AER, the amount of actual capital expenditure would be rolled into the Regulatory Asset Base (RAB), regardless of whether that actual expenditure was more or less than the forecast expenditure. If NTESMO spent more than forecast, it would be penalised by not being able to recover its financing costs (return on capital) on the overspend during the current regulatory period, and if it spend less than forecast then it would retain the financing costs on unspent forecast expenditure.

Option 3: Ex-Post Review

Whilst one of the above options may be suitable for future 'conventional' 5-year regulatory periods with settled regulatory obligations, in the context of the shorter (effectively 2-year) upcoming regulatory period and current significant regulatory change, it may be simpler to defer the detailed capital expenditure assessment until the end of the period.

A third possible approach for the upcoming regulatory period involves an ex-ante allowance of NTESMO's full capital expenditure requirement based on a best estimate as in option 2, coupled with an ex-post end-of-period review of the prudence and efficiency of the capital projects undertaken during the period. This ex-post capital expenditure review would be undertaken during the determination process for the next regulatory period. At the start of the next regulatory period, only prudent and efficient expenditure on projects would be allowed into the RAB and there would be "clawback" of the difference between the ex-ante capital expenditure allowance and the subsequently approved spend (including depreciation and financing costs). The Commission would review the expenditure to ensure that only expenditure for prudent and efficient projects is recovered from regulated charges.

The Commission considers this approach is pragmatic, given the short forthcoming regulatory period, as it avoids any mid-period assessments of any 'conditional' capital expenditure and the need to set binding forecasts now when the extent of NTESMO's regulatory obligations and required expenditure is uncertain.

The Commission notes that an ex-post capital expenditure review would represent a risk for NTESMO that may have an impact on investment. It is also more resource intensive for the Commission. Accordingly, the Commission would not normally favour such an approach. However, this approach may be appropriate in the relatively unique current circumstances where the regulatory period is very short and the current market reforms result in a high level of uncertainty about NTESMO's future functions and required expenditure.

In this context, an approach which focuses less on giving NTESMO an ex-ante "bucket of money" to spend on capital expenditure based on forecasts, and more on an ex-post project-by-project assessment, may be considered most appropriate and beneficial. In any case, only projects which pass a test of prudence and efficiency would be allowed into the RAB.

The Commission would envisage working with NTESMO during the current regulatory period to agree what information and evidence NTESMO should collect to inform the Commission's assessment of the prudence and efficiency of expenditure.

The Commission's initial view is a preference for the third option given the short nature of the upcoming regulatory period and current status of the market reforms. The Commission considers that the third option deals with current Territory electricity market uncertainties whilst the other options may not.

Provided that the legislative amendments and new market rules for the market reforms are made in time to be incorporated into NTESMO's proposals and the Commission's decisions for the next regulatory period, the Commission would expect to revert to options 1 or 2 above for the next regulatory period.

Question 8	Do stakeholders agree that the third capital expenditure assessment approach is the best option given the electricity market reform uncertainties as they relate to NTESMO? Why or why not?
Question 9	Are there any other approaches the Commission should consider in terms of assessing NTESMO's proposed capital expenditure?

Corporate capital

In the regulatory proposal, NTESMO included a forecast for corporate capital expenditure, which is attributed to corporate assets that are shared across PWC's business functions such as ICT systems, corporate property, and fleet. These costs have been attributed to NTESMO, and then to the system control and market operator functions, using the same approach as is applied to corporate overheads.

The Commission notes that NTESMO has included both capitalised overheads and corporate capital within its capital expenditure forecast, however PWC did not include corporate capital expenditure in its regulatory proposal to the AER for the 2024-2029 period in relation to the regulated electricity networks, only capitalised corporate overheads. The Commission has sought clarity from NTESMO on this matter, in order to further understand the basis on which this expenditure occurred and to ensure there is no double counting of corporate costs.

Scaling of expenditure

In NTESMO's Revenue Model, NTESMO has scaled up all capital expenditure by half the annual WACC value as it is added to the RAB, and operating expenditure by inflation until the end of the year.

The Commission notes that regulated companies justify this adjustment by the observation that capital expenditure is, in reality, incurred across the year rather than on the last day of each year. This results in the loss of the "time value of money" from when the capital expenditure is incurred, which is on average mid-year, to when it is recognised in the accounting models at the end of the year. On average the adjustment required is equal to half the cost of capital. Some regulated companies also apply this scaling up to operating expenditure based on the same argument.

Under the AER regulatory approach applied in the roll forward model for electricity distribution network service providers, there is a timing assumption that capital expenditure, on average, takes place halfway through the year. Therefore, a half-year nominal vanilla WACC is applied to the actual net capital expenditure added to the RAB for each asset class to 'gross-up' the actual values. The AER considers that it is reasonable to assume that actual capital expenditure is undertaken evenly over a year and, therefore, reported annual capital expenditure values may be more appropriately recognised as middle of the year values which are scaled up to the end of the period.

However, if operating and capital expenditure are recognised as incurring across the year, it must also be acknowledged that revenues are received across the year and the regulated firm is able to retain the time value of money that results. As a result, for consistency, revenue allowances should be scaled down by half the annual WACC value, to reflect the fact that it is not, in practice, all received on the last day of the year. Applying the scaling adjustments to operating and capital expenditure, but not to revenue, is inconsistent and results in over-compensation to the firm. Adjustments should either be made to all three components or to none. NTESMO are forecasting total capital expenditure to be added to its RAB of \$41.5m but, removal of this adjustment would reduce this by ~\$1 million across the upcoming 3-year period.

The Commission has sought further information from NTESMO on this matter.

Return of capital

Capital expenditure typically involves the creation or replacement of new physical assets and, as a result, can be 'lumpy' (i.e., firms can invest large amount in one year but relatively little in other years), but the assets can provide services to customers for a period of many years. Unlike operating expenditure, which is recovered in the year incurred, the regulated company recovers its capital investment in instalments over the 'asset life'. These instalments are labelled 'depreciation'.

Depreciation profiles the original capital cost of a project over its useful life. The RAB plays a key role in determining the amount of depreciation a regulated company receives, acting as a running record of historical, yet-to-be depreciated capital expenditure. This section provides an overview of the return of capital building block, outlining the proposed approach to be taken regarding:

- the depreciation methodology applied to NTESMO's RAB; and
- the length of asset lives applied to the assets within NTESMO's RAB.

The box below explains a RAB. The value of NTESMO's opening RAB for the upcoming regulatory period is considered in Chapter 4.

Box 2: The Regulated Asset Base (RAB)

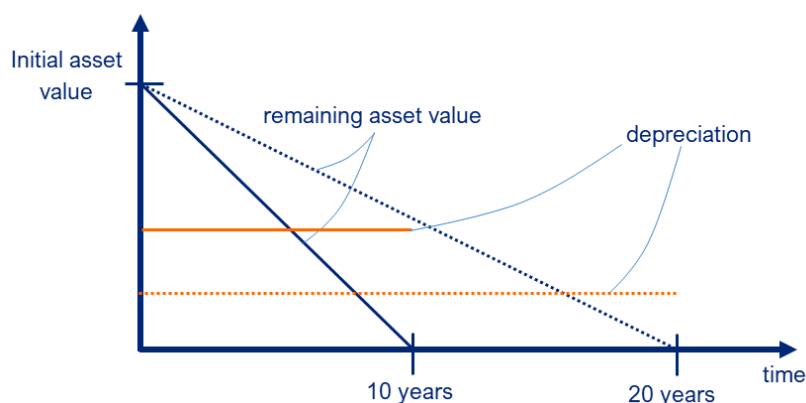
Capital expenditure on fixed assets is typically spread over the asset life, closer in line with the benefits provided. Remuneration of capital expenditure is provided via the RAB as depreciation (return of capital) and returns (return on capital).

The RAB keeps a record of how much investment the regulated company has made, but has not yet been paid for by consumers, and is used to provide a commitment by regulators that current capital investment will be recovered in the future. The RAB acts as a running account, its value goes up as capital expenditure is incurred, and is written down each year as the regulated firm recovers revenue from its customers which it may pay back to its investors. It is a financial construct that has no ongoing link to the physical side of a firm (e.g., assets that have been fully depreciated from the RAB, but still provide services to consumers are not revalued).

From a regulatory point of view, the firm chooses what to invest in (i.e., capital expenditure) and the regulator approves. Consumers pay for all investments that the regulator allows into the RAB. Typically, there is no write-up or write-down of historic capital expenditure, except through the payment of the depreciation schedule, as the regulator makes the capital expenditure assessment on a forward-looking (ex-ante) basis.

NTESMO has proposed the return of capital using a straight-line depreciation approach and the AER's standard asset lives and classes, used by PWC for the regulated electricity networks who also apply a straight-line depreciation approach.

Figure 1: Straight-line depreciation approach



There are a number of possible methods through which the asset bases may be depreciated. The application of straight-line depreciation, and use of AER standard asset lives, can ensure regulatory stability and the full depreciation of assets over the asset life. The Commission has no concerns with this approach.

Question 10 Do stakeholders have any concerns regarding NTESMO's proposed capital (depreciation) approach? If so, what are the concerns?

Return on capital

This section provides an overview of the return on capital building block as it relates to NTESMO's regulatory proposal. The value of the RAB is considered in Chapter 4.

Capital expenditure is incurred before benefits from the investment are derived. In order to raise capital to finance this expenditure, the regulated firm must offer a return to investors that is commensurate to what they expect to receive for equivalent investments in the market, taking into account the risk experienced by the regulated firm. The cost of capital reflects this opportunity cost of the funds used and is equal to the expected return that equity or debt investors require in order to part with their funds. The RAB is the base to which the WACC is applied when determining the return on capital.

NTESMO has forecast a return on capital expenditure allowance for each year of the upcoming regulatory period by multiplying the nominal value of the RAB by a nominal rate of return. NTESMO has calculated a nominal vanilla WACC by applying the methodology in the AER's Rate of Return Instrument and a gearing ratio of 60%. This includes methods for incorporating recent market data and a trailing average portfolio method for calculating the return on debt. The values calculated for the upcoming regulatory period are outlined in the table below.

Table 1: NTESMO WACC parameters

	2024-25	2025-26	2026-27
Return on equity	7.67%	7.67%	7.67%
Return on debt	4.24%	4.46%	4.68%
Nominal Vanilla WACC	5.61%	5.74%	5.88%

Source: Northern Territory Electricity System and Market Operator Regulatory Proposal, Page 62, Table 24

Estimating the cost of capital to be used in determining the return on capital can be controversial and complex.

The Commission considers that another option for setting the WACC for NTESMO would be to apply the value calculated by the AER for PWC's regulated electricity networks for the 2024-2029 regulatory period. In its recent final decision, the AER have set PWC a nominal vanilla WACC value for 2024-25 of 5.68%. Whilst the return on equity value (7.91%) will be constant, the decision document notes that a different rate of return may apply for the remaining years of the regulatory control period as the return on debt component will be updated annually, in accordance with the Rate of Return Instrument, to use a 10-year trailing average portfolio return on debt that is rolled-forward each year. The Commission notes, however, that this approach would provide NTESMO, at least in the first year of the upcoming regulatory period, with a higher WACC than requested.

The Commission's initial view is to apply the WACC value calculated by the AER for PWC's regulated electricity networks, given the time and cost requirements of calculating this value and on the basis that finance will most likely be raised at a corporate or government level.

Question 11	Do stakeholders agree the WACC value calculated by the AER for PWC's regulated electricity networks should be used rather than that proposed by NTESMO? Why or why not?
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Tax allowance

This section provides an overview of the tax building block as it relates to NTESMO's regulatory proposal.

Within a regulatory framework, the regulator may build the tax allowance into the return on capital, determining the allowed WACC on a pre-tax basis to include an allowance for the corporation tax liabilities forecast to arise on the expected profits generated by the regulated company over the regulatory period. Alternatively, the regulator could make use of a 'vanilla' (post-tax) WACC, in which case the regulator targets a given post-tax return for investors. In this case the regulator must take account of the tax to be paid in the allowed revenue stream. If the regulated firm expects to pay tax, the allowed revenue must be increased to ensure a given post-tax return. This is usually achieved by including a 'tax building block' in the building block model. Conversely, if the regulated firm expects to make a loss (and therefore to receive tax credits which reduce the tax payable in the future) the allowed revenue of the regulated firm must be reduced. In principle, this could be achieved by including a negative tax building block.

NTESMO has calculated a forecasted value of zero corporate tax liability in its regulatory proposal, based on the method applied in the AER regulatory framework, in conjunction with a post-tax WACC. This is a result of NTESMO expecting to not incur a positive tax liability.

If NTESMO expected to pay tax on its income, the Commission considers it would be reasonable to include a "tax building block" in the revenue allowance to ensure that the shareholder receives the required after-tax return.

Question 12	Do stakeholders have any concerns regarding NTESMO's proposal regarding the tax allowance?
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Uncertainty mechanism

The activities of regulated utility firms and the expenditure associated with those regulated activities are by their very nature uncertain. This may be caused by uncertainty about the timing, size or nature of the expenditure required. By design, ex-ante regulation requires the revenues, and the associated outputs, of regulated companies to be prescribed ahead of time, before the actual costs are known, to provide incentives for efficient behaviour.

In the presence of uncertainty there may be difficulties in estimating the level of allowed revenues a regulated company will require in order to deliver its (uncertain) outputs. Where these uncertainties are material enough, they could expose consumers to significant forecasting uncertainty, or the regulated company to an increase in the cost of capital and finance ability risk. Therefore, many regulators introduce uncertainty mechanisms as part of the ex-ante regulatory framework, as a means of alleviating these issues.

Uncertainty mechanisms allow for a degree of ex post adjustment of the allowed regulated revenues if and/or when the defined need on the system is triggered. These mechanisms allow for access to additional revenues in response to changing system needs and uncertainty within period. Costs that are foreseeable but deemed unavoidable and completely outside of a network company's control should, arguably, be allowed as a pass through.

To address uncertainty, NTESMO has proposed a 'pass-through'/uncertainty mechanism related to four event categories: regulatory or market reforms; structure change event; major system response events; and terrorism or cyber-attacks. The mechanism is designed to allow NTESMO to recover revenue if one of these events occurred and would apply to both operating and capital expenditure. The proposal does not include a materiality threshold, meaning NTESMO could make an application in response to any cost increase. NTESMO has proposed the following eight step process for recovering costs related to the event categories.

Figure 2: NTESMO steps for proposed uncertainty mechanism



Source: CEPA analysis of Northern Territory Electricity System and Market Operator Regulatory Proposal (Attachment 11.1)

The Commission notes the approach proposed by NTESMO differs to that applied by the AER in regulating electricity networks under the Northern Territory National Electricity Rules (NT NER). The NT NER requires that the network service provider submits a forecast of costs (i.e., ex-ante) as part of an uncertainty mechanism application for the AER's approval. The annual amount is then included in subsequent pricing proposals with an adjustment for the time value of money. In contrast, NTESMO's proposed process seeks to recover pass through event costs annually on an "as-incurred" basis (i.e., ex-post), and subject to the Commission assessing these as efficient costs. The ex-ante approach applied via the NT NER better maintains incentives on the regulated company for efficient spend. Further, in comparison to NTESMO proposed events, the AER provides the following events that PWC's regulated electricity networks can claim under: terrorism event; natural disaster event; regulatory change; service standards; tax change; and insurance.

The Commission will need to determine whether to accept that an uncertainty mechanism event has occurred. The information required under the NT NER to assess this is as follows:

- the details of the event;
- the date on which the event occurred;
- the eligible pass-through amount in respect of that event;
- the positive pass-through amount the Distribution Network Service Provider proposes in relation to the event;
- the amount of the pass-through amount that the Distribution Network Service Provider proposes should be passed through to Distribution Network Users in the regulatory year, and each regulatory year after that, in which the event occurred; and
- evidence of the actual and likely increase in costs and that such costs occur solely as a consequence of the event.

The Commission's initial view is to include an uncertainty mechanism in the regulatory framework for NTESMO utilising the following approach:

- NTESMO can claim under the uncertainty mechanism provided the Commission considers the event meets a set of prescribed criteria (to be developed).
- The NT-NER ex-ante approach taken by the AER is applied (i.e., NTESMO submit a forecast of costs for Commission approval) instead of NTESMO's ex-post approach.
- The uncertainty mechanism would not apply to capital projects reviewed as part of the capital expenditure assessment.

However, there are three areas of the uncertainty mechanism that need to be considered further, and stakeholder feedback is sought. These are:

- A materiality threshold, so that NTESMO cannot make applications in response to any cost increase, noting this needs to be considered in the context of NTESMO being a small, 'asset light' entity.
- The events within scope, noting those proposed by NTESMO and those stipulated by the AER for PWC's electricity networks.
- The information to be requested from NTESMO to assess whether an uncertainty mechanism event has occurred, noting the information required under the NT NER.

Question 13	What are stakeholder's views on the application of the list of <u>information</u> , requested under the NT NER, for the Commission to determine whether an uncertainty mechanism event has occurred? Is there anything additional that should be included?
Question 14	What are stakeholder's views on the application of the list of <u>events</u> , used by the AER, to NTESMO? Are there any additional events that should be considered?
Question 15	What are stakeholder's views on the application of a materiality threshold? If supported, what would a reasonable materiality threshold be given NTESMO is an 'asset light' entity?

Incentives

There are a range of behaviours that the customers of a regulated firm would like to observe, such as maintaining high levels of customer service, and keeping costs to a minimum. These behaviours can often be encouraged through financial rewards and penalties for reducing cost or improving performance. The basic building block model does not necessarily lead to desirable financial incentives – instead financial incentive mechanisms are often implemented explicitly as part of the implementation of the regulatory framework. This section discusses potential approaches that could be taken within the regulatory framework regarding incentives on NTESMO's system control and market operator functions.

Performance incentives

Performance incentives aim to improve the quality and efficiency of the service delivered by the regulated entity to consumers. They require monitoring of performance in set areas, involving collection of data and regular reporting, and are generally more complex to design and administer than cost incentives.

System and market operators are typically physically asset light with small profit margins but provide important value to the system. Given the value, regulators often propose more upside incentives/ bonuses to drive performance. This can involve applying an asymmetric performance framework, with only upside reward available and no risk of financial loss or penalty, or one with a greater reward than penalty. However, the activities and outcomes for system and market operators are also harder to define ex-ante, as these roles can affect consumer outcomes in many ways.

NTESMO has not proposed any performance incentive mechanisms.

Given the current uncertainty surrounding the Territory electricity market reforms, which impacts on NTESMO, and the timeframe within which the regulatory framework needs to be designed and applied, the Commission considers it is unlikely to be possible to include performance incentives in the regulatory framework for the upcoming regulatory period. However, once there is greater certainty regarding the electricity supply industry in the Territory, performance incentives may be considered as an addition to the framework in future regulatory periods, noting this will require the Commission and NTESMO to consider and agree upon the core outcomes for the system control and market operator functions and how monitoring and measuring performance can be achieved.

The Commission's initial view is not to include performance incentives for the upcoming regulatory period.

Question 16	Do stakeholders agree with the Commission views to not consider NTESMO performance incentives for the upcoming regulatory period? Why or why not?
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Cost incentives

In an ex ante regulatory framework, once the regulatory allowance has been set, the regulated firm will receive a financial reward if it reduces its expenditure and underspends its regulatory allowance. Similarly, it will usually receive a financial penalty if it overspends its regulatory allowance. The treatment of these overspends or underspends is therefore a key determinant of the incentive to reduce costs and should be carefully specified in the regulatory framework. Cost incentives allow the network company to keep, or bear, some or all of the difference between the allowance and incurred expenditure.

The cost incentive rate shares the balance of risk between consumers and the regulated company by sharing the differences between outturn expenditure and that assumed when the price control was set. In theory, the higher the incentive rate is set (that is, the more of the cost savings that is retained by the regulated firm), the stronger the efficiency incentives the company faces. But a high-powered incentive also exposes the firm to risk and may create perverse incentives, such as incentives to cut quality or service in order to reduce expenditure. On the other hand, the low-powered incentive the weaker the efficiency incentives but the more protection can be afforded against risk. A balance is needed between incentives for cost efficiency and the impact on other incentives and the risk exposure that customers ultimately need to finance.

Relevantly, there is a distinction to note between operating and capital expenditure. Due to the recurring nature of operating expenditure, the effect on future revenue allowances from a reduction is different to the effect of a reduction in capital expenditure. A permanent reduction in operating costs is reflected in lower charges (allowed revenues) for the next regulatory period. Therefore, the regulated company only keeps the benefits of a permanent or on-going operating expenditure reduction for a short period and then shares those benefits with consumers through lower future charges.

In contrast, as capital expenditure is typically not recurring, any cost efficiencies achieved on one project will not generally impact forecast costs for another.

The Commission notes there is no standard approach to setting the cost incentive rate, nor is there an 'optimal' level. Rather the Commission needs to consider the environment in which NTESMO is currently operating, along with risk sharing and any perverse incentives which could arise. Importantly, NTESMO needs to resource itself appropriately, and should not be incentivised to underspend by reducing the quality of the service they provide, instead of achieving efficiencies.

The simple device of a fixed-length regulatory period gives rise to some incentives for cost efficiency. Many regulators (including the AER) supplement these basic incentives with more sophisticated efficiency-benefit sharing schemes. However, the Commission notes these schemes quickly become complex and require a number of additional assumptions.

NTESMO has not proposed any cost efficiency incentive mechanisms.

The Commission considers a more simple approach as proposed by NTESMO may be appropriate, involving no reimbursement for any operating expenditure overspend, nor any return of operating expenditure

underspend (i.e., NTESMO receive operating expenditure allowance set at the start of the regulatory period). For capital expenditure, the closing RAB for the regulatory period would be set equal to depreciated actual expenditure, with the return on any capital expenditure overspend (underspend) being foregone (captured) by NTESMO.

The Commission's initial view is to apply the cost incentive approach proposed by NTESMO, preferring an approach that is simple and encourages accurate cost forecasts, whilst recognising the unwanted incentive properties that the simplicity of this approach may create.

Question 17	Do stakeholders support the proposed cost incentive approach? Why or why not?
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3 | Regulated charges

This chapter provides an overview of NTESMO's proposed approach to be applied to calculate regulated charges for the system control and market operator functions which, at a high-level, involves:

- escalating revenue requirements for the actual CPI movement since the determination;
- adjusting for under and over recovery amounts in previous years in accordance with a set formula;
- account for changes in forecast energy consumption; and
- enable pass through amounts to be provided in the year following an approved pass-through event.

Overview

NTESMO are currently subject to revenue-cap regulation and are proposing this continues into the next regulatory period. The revenue cap approach establishes a fixed revenue profile for companies, requiring the inclusion of a factor in the formula so that any under or over-recovery of revenue can be corrected within the life of the price control.

NTESMO has calculated the regulated charges by dividing the adjusted annual revenue requirement by an annual energy consumption forecast to produce the regulated charge on a \$/kWh basis. The regulated charges for the system control function have been calculated by dividing the adjusted annual revenue requirement by the annual energy consumption forecast for the Darwin-Katherine, Alice Springs and Tennant Creek power systems. The market operator charge has been calculated by dividing the adjusted annual revenue requirement by the annual energy consumption forecast for Darwin-Katherine only.

The mechanism for calculating the adjusted annual revenue requirement proposed by NTESMO is as follows:

$$AAR_t = AR_t \times \Delta CPI_t + B_t + C_t$$

Where:

- AAR_t is adjusted annual revenue requirement
- AR_t is annual ex-ante allowed revenues, as calculated using the building block approach
- ΔCPI_t is the annual percentage change in inflation
- B_t is any under or over recovery of actual revenue
- C_t is the sum of any approved 'pass through' (uncertainty mechanism) costs.

The approach proposed to calculate adjusted annual revenue requirements, and the regulated charges, are largely a continuation of the approach currently applied and raises no concerns. There are, however, several elements that required further consideration by the Commission.

Time value of money

NTESMO proposes that both the under/over recovery and cost 'pass through' are adjusted for the time value of money given these relate to historic expenditure. This adjustment results in these components remaining Net Present Value (NPV) neutral. NTESMO's proposed recovery of both these items is on a 2-year backwards looking basis, due to revenues for 2024-25 having already been approved by the Commission. For example, in 2026-27 the cost pass through and under/over recovery amounts included in the adjusted annual revenue requirement are from 2024-25.

$$C_{2026/27} = C_{2024/25} \times (1 + WACC_{2024/25})^{0.5} + (1 + WACC_{2025/26})$$

NTESMO propose that an 18-month adjustment is applied to these items, made up of the full WACC from the proceeding year and half-WACC from the year in question. However, for the same reasons as those given regarding the scaling of expenditure, the half-WACC adjustment can be considered as unnecessary.

The Commission has requested NTESMO to provide explanation and justification for applying a half-WACC adjustment to the under/over recovery and cost 'pass through' in determining regulated charges.

Under/Over recovery within the regulatory period

NTESMO's revenue allowance is converted into prices based on forecast energy consumption. If actual consumption differs from forecasts, NTESMO's prices may under or over recover its revenue allowance in a year. This issue is addressed by an under/over recovery mechanism, where any under or over recovery in one year is accounted for by an adjustment to future prices.

The current approach (i.e., in the current regulatory period) to the under or over recovery of actual revenue is to use an ongoing overs and unders account where adjustments are only made if the accumulated amount of over or under recovery from previous years is 5% or more of total allowance revenue.

Ultimately the materiality band delays the correction of over or under recovery of revenue for small amounts, only amending the revenue requirement when the 5% threshold is met.

For the forthcoming period, NTESMO has not included this threshold in its proposal for dealing with under or over recovery of revenue (i.e., the difference between actual and allowed revenues is corrected for in the adjusted annual revenue requirement every year regardless of the amount). The Commission has no concerns with not including this threshold.

Revenue smoothing

The allowed revenues in the current 5-year regulatory period were smoothed across the period by use of an X-factor. The unsmoothed revenue is smoothed by assuming that:

- the revenue in the final year of the period aligns with the forecast costs in that year
- the NPV of the smoothed revenue over the five-year period is the same as the NPV of the unsmoothed revenue over that period
- the NPV of the revenue is calculated by discounting using the nominal WACC as determined by the AER for the Power Networks business
- the X-factor is the same each year.

The Commission notes this revenue smoothing approach is not included in NTESMO's proposal for the upcoming regulatory period. Whilst this will not have a notable impact on the short upcoming regulatory period, it may aid in longer periods where larger revenue increases occur and is something that could be considered for the subsequent regulatory period commencing in 2027-28.

The Commission's initial view is to accept NTESMO's proposal for calculating regulated charges, other than with the half-WACC adjustment on the under/over recovery and uncertainty mechanism elements removed.

Question 18

Do stakeholders agree with NTESMO's proposed approach for calculating regulated charges? Why or why not?

4 | Recovery of previous overspends

This chapter considers the recovery of costs that NTESMO has included within its regulatory proposal related to overspends in its allowed expenditure for the current regulatory period and outlines the Commission's initial views on how these cost areas should be approached. These are considered 'one-off' events that lie outside of the regulatory framework to be applied going forward.

Recovery of historical overspend

There are two elements of NTESMO's proposal that are considered in this section – the opening RAB value to be used for the current 5-year regulatory period (2019-2024), and the amount of overspend to be recovered. All figures are in real prices (2023) unless otherwise stated.

Establishment of Opening RAB

The revenue allowance for the current 5-year regulatory period was based on operating expenditure only. The regulatory proposal for the 2019-2024 period did not propose any forecast capital expenditure, nor any past capital investment, and, as a result, did not include a RAB value. NTESMO notes that, in hindsight amounts relating to the historical depreciated value of corporate assets allocated to NTESMO should have been included in the regulatory proposal for the current period, along with a capital expenditure forecast.

NTESMO has established a RAB for the depreciated value of capital expenditure incurred before the start of the current regulatory period. The proposed opening RAB value for 1st July 2019 has been set by updating a 2014 PWC corporate-wide RAB valuation, which included allocating a portion of the existing regulatory value of corporate assets to the system control function.

The RAB represents the amount that future consumers must pay back to past investors (the shareholding Minister in the case of PWC and NTESMO). The Commission sees no value in re-visiting the opening RAB for the current 5-year regulatory period, as it does not provide any incentive effects and only serves to result in a windfall gain to NTESMO. It would also be extremely difficult to accurately set the value of NTESMO's existing capital assets as at 1 July 2019.

As such, the Commission's initial view is not to accept NTESMO's proposal regarding its opening RAB value for the current 5-year regulatory period (2019-2024), and instead set the value as zero. In other words, the Commission would not look back at the period preceding the 2019 regulatory determination.

Question 19

Do stakeholders agree with the Commission's initial view not to accept NTESMO's proposal regarding its opening RAB value for the current 5-year regulatory period (2019-2024), and instead set the value as zero? Why or why not?

Cost recovery amount

NTESMO has forecast that total expenditure will exceed the Commission's allowance by ~\$40 million by the end the current regulatory period. NTESMO are seeking to recover a portion of these unfunded costs.

In the 2019 determination, NTESMO proposed the amount of expenditure that it considered it required to meet its obligations for the coming 5-year regulatory period. Subject to some minor adjustments, the Commission approved this proposed expenditure and NTESMO's proposed prices.

The Commission also included in its decision a pass through mechanism to allow NTESMO to seek approval for changes to its prices to address additional unforeseen costs that met certain requirements, for example a change to NTESMO's regulatory obligations that required it to incur additional costs. NTESMO did not apply for any such pass throughs and the reasons for its increased costs do not appear to relate to any matters that were covered by the pass through provisions.

NTESMO is now seeking to recover additional costs that exceeded its approved revenue allowance and prices.

There are a range of different options that could be selected when considering how much of NTESMO's overspend should be recovered. The following three specific options are being considered, noting there are options 'in between' these three.

Option 1: None

Under this option, NTESMO would not be able to recover any historic operating or capital expenditure over spend and the opening RAB for the upcoming 3-year period would be set as zero.

Option 2: NTESMO Proposal

NTESMO has requested recovery of \$17 million of overspend, comprised of \$4.25 million in operating expenditure, and capital expenditure of \$12.75 million. NTESMO proposes:

- The capital expenditure is retrospectively added to the RAB in the years incurred and recovered via depreciation across the 'asset life', along with a return on capital. The resulting opening RAB value in 2024-25 would be ~\$12 million.
- That 50% of the sum of requested operating expenditure, unrecovered depreciation, and return on capital (~\$5.7m) is recovered across the latter two years of the upcoming 3-year period, and the remaining 50% is deferred to the subsequent regulatory period, via addition to the opening RAB with an asset life of three years.

NTESMO's proposal regarding how much of the overspent expenditure is recovered appears somewhat arbitrary. If the Commission was to adopt an approach of this nature where it allowed a certain proportion of the overspend to be recovered, it would likely need to undertake an efficiency review to determine how much, if any, of the overspend should be recovered. Such an efficiency review is likely to be challenging and costly to undertake and the required information may not be available.

Option 3: Application of ongoing cost incentive

Under this option, the cost incentive approach that the Commission proposes to apply to the 2024-2027 regulatory period would also apply to NTESMO's overspend in the current 2019-2024 regulatory period.

The application of this approach would result in:

- All operating expenditure overspend (\$19.2m) is foregone. This is consistent with the proposed approach to the 2024-27 regulatory period and standard incentive-based economic regulation, where an operating expenditure allowance is set for the regulatory period and pass through mechanisms are set for dealing with uncertainty, and then any under or overspend compared with the allowance and any approved pass throughs is borne by NTESMO.
- The opening RAB in 2019 would be set as zero and all capital expenditure incurred across the 5-year period would be added to the RAB as incurred, and then depreciated using the standard asset lives. This is consistent with the proposed approach to the 2024-27 regulatory period and the approach adopted by the AER for PWC's network business.
- Recovery of the depreciation of this capital expenditure across the 5-year period would be foregone, as would any return on this expenditure. This is consistent with the proposed approach to the 2024-27 regulatory period and the approach adopted by the AER for PWC's network business.
- The closing value of the RAB, which would be the opening value of the RAB for the upcoming 3-year regulatory period, would be equal to depreciated outturn capital expenditure. This is consistent with the proposed approach to the 2024-27 regulatory period and the approach adopted by the AER for PWC's network business.

According to NTESMO's revenue model, the total amount of capital expenditure overspend across the current 5-year period is \$19.75 million. Under the application of this approach, operating expenditure

overspend, depreciation, and return of capital would be foregone, but NTESMO would have an opening RAB value in 2024-25 of ~\$18 million.

Noting NTESMO's proposed approach appears arbitrary, the Commission considers the most straightforward and consistent option would be to apply the same approach to NTESMO's requested amount of historic overspend that will apply to future overspend. While this results in recovery of a similar amount of revenue as proposed by NTESMO for the current determination, the Commission considers that this approach is more justifiable and sends a more effective efficiency incentive to NTESMO for future regulatory periods.

The Commission are minded to apply the proposed cost incentive approach to NTESMO's full overspend, consistent with the proposed approach to future any future overspends.

Question 20

Do stakeholders agree with the Commission's initial view to apply the proposed cost incentive approach to NTESMO's full overspend, consistent with the proposed approach to future any future overspends? Why or why not?

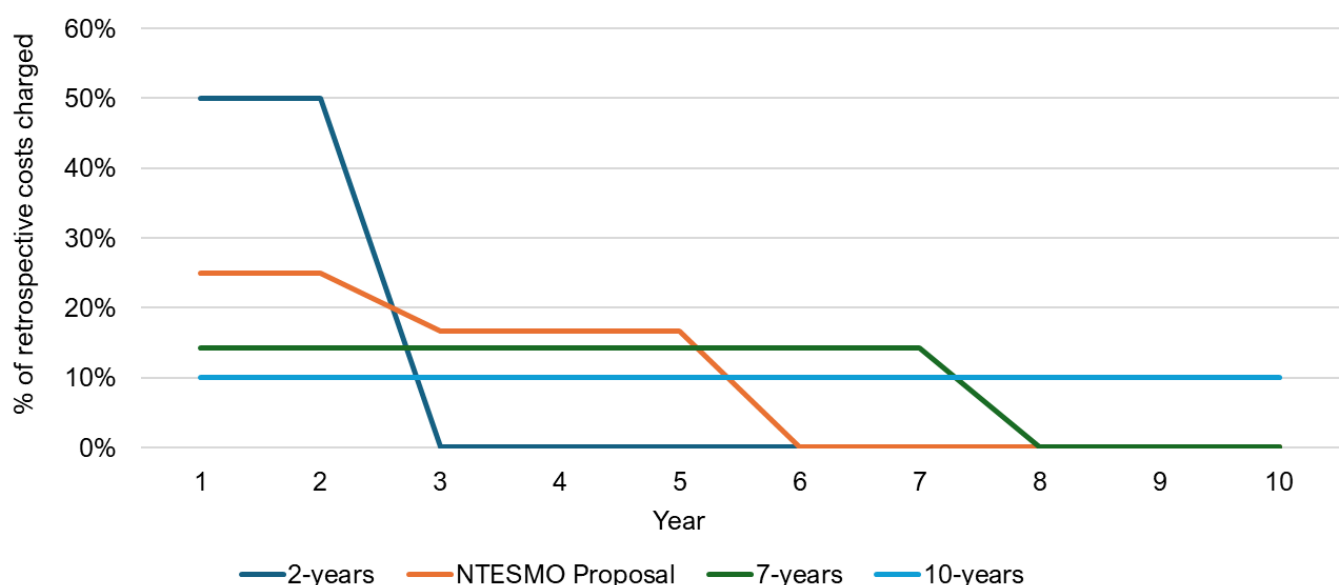
True-up of 2024-25 revenue

Due to delays in developing its regulatory proposal for the upcoming regulatory period, NTESMO agreed with the Commission to submit a pricing proposal for 2024-25 that was a roll forward of the approved 2023-24 regulated prices adjusted for inflation. The Commission subsequently approved this.

As a result, NTESMO estimates a shortfall in revenue between the building block model forecast of allowed revenues and the notionally approved revenues for 2024-25. NTESMO requests that this shortfall should be recovered via a 'true-up' of the under recovery in 2024-25. NTESMO has also proposed to defer 50% of this recovery to the following regulatory period. This would result in 50% being recovered in the latter two years of the upcoming regulatory period, and the remaining 50% in the first three years of the subsequent regulatory period through inclusion in the opening RAB with an asset life of three years.

Options of how best to recover those costs over time have been considered. The RAB is a standard mechanism used to smooth cost recovery, with costs recovered via depreciation across the 'asset life'. The longer the period of recovery (i.e., asset life), the smaller the impact on consumer bills in the short term, as illustrated by the figure below. Ultimately, the rationale for choosing an asset life is the resulting effect it has on the profile of consumer charges.

Figure 3: Illustrative profile of cost recovery across different time periods



Source: CEPA analysis

The Commission's initial view is to allow NTESMO to recover the difference between actual revenues in 2024-25 and allowed revenues determined by the Commission through the assessment of NTESMO's regulatory proposal.

The Commission's initial view is to allow the approved costs to be added to the RAB and depreciated across a set 'asset life', which the Commission propose to be seven years on the basis this covers the rest of the upcoming period and the expected length of the next (five years). This would allow for the cost recovery to be smoothed out, reducing price impacts for current consumers, but also does not result in a longer period of recovery that may overly impact future consumers.

Question 21

Do stakeholders agree that the difference between actual revenues in 2024-25 and allowed revenues (as determined by the Commission) be added to NTESMO's RAB and depreciated across a set 'asset life' or seven years? Why or why not?

Appendix A – Summary of consultation questions

- Q1 Do stakeholders agree the building block model is an appropriate method to calculate NTESMO's allowed revenues for the upcoming and future regulatory periods? Why or why not?
- Q2 Do stakeholders agree NTESMO's proposed 3-year regulatory period (for the upcoming period only) is reasonable? Why or why not?
- Q3 Do stakeholders agree NTESMO's proposed approach to corporate overheads reasonable? Why or why not?
- Q4 Do stakeholders consider NTESMO's proposed base-step-trend approach to forecasting operating expenditure, with the base year to be set as the most recent year of audited actual operating expenditure is reasonable? Why or why not?
- Q5 Do stakeholders agree NTESMO's application of CPI to escalate professional fees, residual costs, and graduate and undergraduate contracts over the upcoming regulatory period is not appropriate? Why or why not?
- Q6 Do stakeholders support inclusion of a productivity factor within the regulatory framework, to be applied in future regulatory periods? Why or why not?
- Q7 Do stakeholders support NTESMO's proposed approach to capitalisation? Why or why not?
- Q8 Do stakeholders agree that the third capital expenditure assessment approach is the best option given the electricity market reform uncertainties as they relate to NTESMO? Why or why not?
- Q9 Are there any other approaches the Commission should consider in terms of assessing NTESMO's proposed capital expenditure?
- Q10 Do stakeholders have any concerns regarding NTESMO's proposed capital (depreciation) approach? If so, what are the concerns?
- Q11 Do stakeholders agree the WACC value calculated by the AER for PWC's regulated electricity networks should be used rather than that proposed by NTESMO? Why or why not?
- Q12 Do stakeholders have any concerns regarding NTESMO's proposal regarding the tax allowance?
- Q13 What are stakeholder's views on the application of the list of information, requested under the NT NER, for the Commission to determine whether an uncertainty mechanism event has occurred? Is there anything additional that should be included?
- Q14 What are stakeholder's views on the application of the list of events, used by the AER, to NTESMO? Are there any additional events that should be considered?
- Q15 What are stakeholder's views on the application of a materiality threshold? If supported, what would a reasonable materiality threshold be given NTESMO is an 'asset light' entity?
- Q16 Do stakeholders agree with the Commission views to not consider NTESMO performance incentives for the upcoming regulatory period? Why or why not?
- Q17 Do stakeholders support the proposed cost incentive approach? Why or why not?
- Q18 Do stakeholders agree with NTESMO's proposed approach for calculating regulated charges? Why or why not?
- Q19 Do stakeholders agree with the Commission's initial view not to accept NTESMO's proposal regarding its opening RAB value for the current 5-year regulatory period (2019-2024), and instead set the value as zero? Why or why not?

- Q20 Do stakeholders agree with the Commission's initial view to apply the proposed cost incentive approach to NTESMO's full overspend, consistent with the proposed approach to future any future overspends? Why or why not?
- Q21 Do stakeholders agree that the difference between actual revenues in 2024 25 and allowed revenues (as determined by the Commission) be added to NTESMO's RAB and depreciated across a set 'asset life' or seven years? Why or why not?



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