UTILITIES COMMISSION
OF THE NORTHERN TERRITORY

2027-32 Review of System Control and Market Operator Charges - Draft Decision

November 2026

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Abbreviations and acronyms

2024-27 Review	the Commission's review of system control and market operator charges for the period from 1 July 2024 to 30 June 2027
2027-32 Review	the Commission's review of system control and market operator charges for the period from 1 July 2027 to 30 June 2032
AEMO	Australian Energy Market Operator
AER	Australian Energy Regulator
c/kWh	cents per kilowatt hour (kWh)
CAM	cost allocation methodology
capex	capital expenditure
C-FCAS	contingency frequency control ancillary services
CFDS	Capacity Dispatch Forecast System
Commission	Utilities Commission of the Northern Territory
CPI	Consumer Price Index
draft decision	this document - the Commission's 2027-32 Review of System Control and Market Operator Charges – Draft Decision
EMS	energy management system
DKPS	Darwin Katherine Power System
ER Act	*Electricity Reform Act 2000*
final decision	the Commission's final decision following consideration of NTESMO's revised proposal
Frontier Economics	Frontier Economics Pty Ltd
GST	goods and services tax
ICT	information and communications technology
initial proposal	the proposal submitted by the Power and Water Corporation (PWC) on behalf of NTESMO on 17 May 2026, including supporting attachments and models
KPI	key performance indicator
kWh	kilowatt hour
MSATS system	Market Settlement and Transfer Solutions system
NEM	National Electricity Market
NTEM	Northern Territory Electricity Market
NTESMO	Northern Territory Electricity System and Market Operator
NTESMO's proposal	the initial proposal, supplemented by the request for information (RFI) responses and amended by the October update
NT NER	Northern Territory National Electricity Rules
opex	operating expenditure
October update	the updated expenditure requirements and models submitted on 13 October 2026 following the RFI process
PED	proportional energy dispatch
PTRM	post-tax revenue model

PWC	Power and Water Corporation
RAB	regulatory asset base
Reform Acts	*Electricity Legislation Amendment (Market Reform) Act 2025* and *Electricity System and Market Operator Act 2025*
REM	Renewable Energy Module
regulated charge	c/kWh charge approved by the Commission and levied by NTESMO
RESIP	Regulated Electricity System and Investment Plan
revised proposal	the proposal to be submitted by NTESMO no later than 26 February 2027 in response to this draft decision
RFI	request for information
RTSSMT	Real-time System Security Monitoring Tool
SCTC	System Control Technical Code
SFURM	solar forecasting and uncertainty reserve margin
SLA	service level agreement
TDE	Territory Dispatch Engine
TEM	Territory electricity market
WACC	weighted average cost of capital
WEM	Western Australia's Wholesale Electricity Market
WPI	weighted price index

Overview and draft decision

The Northern Territory Electricity System and Market Operator (NTESMO) carries out system control functions in the Territory's three major power systems: Alice Springs, Darwin-Katherine and Tennant Creek, including the operation of a wholesale electricity market in the Darwin-Katherine power system (market operator functions). In addition to its regulated functions, NTESMO also undertakes unregulated functions on behalf of PWC's electricity networks and water services businesses and Territory Generation.

Section 39(1) of the *Electricity Reform Act 2000* (ER Act) provides for a system controller to impose and recover charges relating to the operations of system control. Section 39(2) provides for the Commission to approve the schedule of charges to be applied for the purpose of remunerating the system controller.

The Commission's regulatory framework for system control and market operator charges applies revenue cap regulation and requires use of a building block model to determine costs and calculate the maximum amount of allowable revenue for each year (annual revenue requirement) in a regulatory period.[1] Only costs that are prudent and efficient, and related to NTESMO's regulated functions are reimbursed through the annual revenue requirement. The annual revenue requirement is recovered through a regulated charge based on a forecast of annual electricity consumption.

The current regulatory period for system control and market operator charges ends 30 June 2027. The next (2027-32) regulatory period spans the five years from 1 July 2027 to 30 June 2032. In May 2026, PWC submitted NTESMO's initial regulatory proposal for the 2027-32 regulatory period (initial proposal) to the Commission for approval. In June 2026, the Commission released NTESMO's initial proposal along with a consultation paper seeking stakeholders' views.

From July to September 2026, NTESMO provided additional information and explanations in response to the Commission's request for information (RFI responses). This process identified amendments needed to the initial proposal and supporting models. On 13 October 2026, NTESMO submitted updated expenditure requirements and models incorporating the changes arising from the RFI process (October update), which were subsequently published on the Commission's website.

This draft decision assesses the initial proposal, supplemented by the RFI responses and amended by the October update (collectively, NTESMO's proposal). Where a forecast or position was amended, the Commission assesses the amended forecast or position, otherwise the initial proposal continues to apply. The Commission also considered stakeholders' submissions on the initial proposal and expert advice from Frontier Economics Pty Ltd (Frontier Economics), which was engaged to assist the Commission with its 2027-32 Review of System Control and Market Operator Charges (2027-32 Review).

The draft decision sets out the Commission's findings, decisions and reasoning on whether to accept NTESMO's proposed annual revenue requirements, indicative charges and other information in NTESMO's proposal. It also sets out refinements needed to ensure the Commission's regulatory framework for system control and market operator charges operates effectively over the 2027-32 and future regulatory periods.

Summary of NTESMO's proposed revenue requirements and charges

NTESMO proposes revenue of up to $37 million ($real 2026-27) per annum (a total of $177.3 million over five years), comprising up to $27 million per annum ($129.9 million over five years) for system control functions and up to $9.6 million per annum ($47.4 million over five years) for market operator functions (Table 1).

[1] The regulatory framework is set out in the Commission's September 2024 Decision Paper for the 2024-27 Review available at https://utilicom.nt.gov.au/__data/assets/pdf_file/0004/1445251/2024-27-Review-of-system-control-and-market-operator-charges-Decision-paper-regulatory-framework.pdf.

Table 1 NTESMO's proposed annual revenue requirements, 2027-32 regulatory period ($m real 2026-27)

	2027-28	2028-29	2029-30	2030-31	2031-32	Total
Revenue requirement	32.6	34.8	36.5	36.7	36.7	177.3
System Control	23.3	25.4	27.0	27.1	27.1	129.9
Market Operator	9.3	9.4	9.5	9.6	9.6	47.4

Note: Numbers may not add up due to rounding

Source: NTESMO October update, Tables 1 and 2.

NTESMO proposes to continue to recover its annual revenue requirement through a cents per kilowatt hour charge (regulated charge, c/kWh) imposed on retailers. The regulated charge for system control is calculated based on forecast annual energy consumption for the Alice Springs, Darwin-Katherine and Tennant Creek power systems while the market operator charge is based on forecast annual energy consumption for the Darwin-Katherine power system (DKPS) only.

As shown in Table 2, NTESMO proposes a substantial increase in system control and market operator charges in the 2027-32 regulatory period compared with actual charges in 2026-27 (the final year of the 2024-27 regulatory period). NTESMO is to submit an indicative pricing proposal for 2027-28 charges based on the required revenue sought in its revised proposal. Its formal pricing proposal for 2027-28 charges is to be submitted to the Commission for approval once the Commission's final decision has been published, unless directed otherwise.

Table 2 NTESMO's proposed system control and market operator charges, 2026-27, and indicative charges, 2027-32 regulatory period (c/kWh, nominal)

	2026-27[a]	2027-28[b]	2028-29[b]	2029-30[b]	2030-31[b]	2031-32[b]
System Control	1.2047	1.2982	1.4412	1.5660	1.6052	1.6265
Market Operator	0.3613	0.6011	0.6165	0.6383	0.6563	0.6695

Note: System control charges apply to all consumption in the regulated power systems, but market operator charges only apply to consumption in the DKPS.

[a] Actual charges. Utilities Commission, Notice of Approval 2026-27 system control and market operator charges, available at: https://utilicom.nt.gov.au/__data/assets/pdf_file/0011/1609580/Notice-of-Approval-2026-27-System-Control-and-Market-Operator-charges.pdf.

[b] Indicative charges. NTESMO October update, Table 6-2.

The proposed revenue requirements and charges exclude uncertain expenditure for Territory Electricity Market (TEM) reform implementation activities. NTESMO proposes to refine its forecast costs and associated revenue requirements as costs and other information becomes available as it develops its revised proposal due in February 2027.

Draft decision

The Commission's review has been undertaken at a time of important and substantial change for NTESMO associated with the Northern Territory (Territory) Government's TEM reforms. Under the reforms:

- NTESMO is being established as a stand-alone statutory corporation separate from PWC. This is due to occur from 1 July 2027, but it may take some time to finalise the separation arrangements including establishment of proposed service level agreements (SLA) with PWC where required.
- NTESMO will deliver a range of new functions and services including central system planning and procurement and cash settlement (for the DKPS) with a need for new systems, tool and capabilities to deliver these functions.

However, there is currently considerable uncertainty about key aspects of the TEM reforms, including NTESMO's future operating model, detailed market rules and service requirements, which has presented challenges for NTESMO in preparing its proposal and for the Commission in verifying the scope, timing and efficient costs of NTESMO's expanded activities.

Overall, the Commission does not accept NTESMO's proposal in the current form on the basis that the proposed maximum revenue requirements for system control and market operator functions have not been demonstrated to be prudent and efficient. While some aspects of NTESMO's proposal have been accepted, the elements that are not capable of acceptance will require further supporting evidence to be provided in NTESMO's revised proposal.

The delay to the TEM reform processes also means that elements of the reform costs are too uncertain to approve at this time and will need to be considered within the 2027-32 regulatory period. The Commission proposes to introduce a Temporary Separation and TEM Reform Uncertainty Mechanism to allow NTESMO to apply to recover prudent and efficient reform costs within the 2027-32 regulatory period. Details of the proposed mechanism is provided in Chapter 3.

The key elements of the Commission's draft decision on NTESMO's proposal are as follows:

- Base year operating expenditure: While the Commission accepts the total proposed base year operating expenditure of $19.4 million ($real 2026-27), the Commission considers that it has not been appropriately allocated between system control and market operator functions and has proposed modifications to this cost allocation. These changes are important to ensure the beneficiary pays principle applies. That is, only those customers receiving a service pay for it, noting that market operator services are only provided in the DKPS.

  Corporate overheads have been accepted as the best available estimate at this time. However, NTESMO will need to undertake further reconciliation of system tools expenditure to clearly demonstrate that there is no double counting between the base allowance, and this proposed step change.

- Separation and TEM reform expenditure: The proposed operating and capital expenditure relating to separation and TEM reforms is not accepted at this stage because its prudency and efficiency have not been sufficiently demonstrated. Uncertainty about the future operating model, detailed market rules and service requirements limits the ability to verify the scope, timing and extent of costs at this stage. The revised proposal should include only sufficiently developed and evidenced costs. It is likely that the prudent and efficient costs will not be sufficiently certain by the time of NTESMO's revised regulatory proposal. Costs that cannot be adequately substantiated by then can be considered during the regulatory period under a new Temporary Separation and TEM Reform Uncertainty Mechanism.

- Operating expenditure step changes and trend adjustment: The Commission accepts the proposed step change for operating expenditure associated with the Territory Dispatch Engine (TDE) from 2028-29, when the project is forecast to be completed and support and maintenance requirements commence. The step change associated with the Market Settlement and Transfer Solutions (MSATS) system is accepted subject to removing goods and services tax (GST), together with the revised allowance for business-as-usual reviews of procedures and guidelines. The Commission does not accept the proposed step changes for existing system tools, new system tools and real-time support services because NTESMO has not provided sufficient information to demonstrate that these costs are efficient. In addition, the Commission considers that NTESMO's proposed personnel cost trend adjustment needs to be revised using a more recent wage growth forecast.

- Capital expenditure: The Commission accepts NTESMO's reprofiling of the TDE capital expenditure, recognising that the primary cause of the delay was reasonably outside NTESMO's control. The 2024-27 regulatory asset base (RAB) will be rolled forward using allowed rather than actual depreciation, with the completed project subject to an ex-post review in the Commission's next NTESMO charges review in 2032. NTESMO's proposed capital expenditure for new system tools is not accepted because the high-level estimates provided by NTESMO are not sufficient to demonstrate that the proposed costs are prudent and efficient, noting there is uncertainty regarding what system tools will be required depending on the final design of the TEM reforms and the systems adopted by NTESMO. Corporate capital expenditure is also not accepted because it was largely based on PWC corporate costs that are no longer appropriate with NTESMO being separated, and post-separation arrangements remain insufficiently clear. These costs are likely to need to be considered under the proposed Temporary Separation and TEM Reform Uncertainty Mechanism.

- Productivity, weighted average cost of capital (WACC), tax allowance and key performance indicators (KPIs): The Commission accepts NTESMO's proposed productivity factor of zero for the 2027-32 regulatory period, reflecting the changing operating environment and TEM reforms, although it expects a non-zero factor will be applied in future regulatory periods. The Commission has updated the return on debt used in the WACC to reflect more recent information and the retirement of older debt tranches and included tax losses carried forward from the 2024-27 regulatory period when calculating the tax allowance building block. In addition, the Commission accepts NTESMO's proposed KPIs as a starting point, but the revised proposal must specify how data will be collected and performance measured, monitored and reported transparently.
- Pricing formulas and pass-throughs: The Commission does not accept NTESMO's pricing formulas and proposes changes to allow approved cost pass-through amounts to be recovered in the following regulatory year and to incorporate amounts approved under the proposed Temporary Separation and TEM Reform Uncertainty Mechanism. Recovery may be smoothed across years where approved, with appropriate time-value-of-money adjustments. The proposed eight pass-through events are accepted, and NTESMO must use the amended formulas in its revised proposal.
- Tariff structure: NTESMO's initial proposal indicated that it would consider introducing an amended tariff structure in its revised proposal. However, the Commission's draft decision is that changes to tariff structures will not be considered for the 2027-32 regulatory period, and the existing volumetric charging arrangements must be retained. Introducing material changes at the revised proposal stage would leave insufficient opportunity for stakeholder consultation and assessment of distributional impacts.

The Commission has modelled the effect of its draft decision in all years of the 2027-32 regulatory period for system control and market operator functions, as shown in Table 3 and Table 4.

Table 3 Indicative effect of draft decision, annual revenue requirement and charges, system control, 2027-32 regulatory period

System Control	2027-28	2028-29	2029-30	2030-31	2031-32
NTESMO's proposal					
Annual revenue requirement ($m real 2026-27)	23.3	25.4	27.0	27.1	27.1
Indicative charge (c/kWh, nominal)	1.2982	1.4412	1.5660	1.6052	1.6265
Commission draft decision					
Annual revenue requirement ($m real 2026-27)	16.3	19.7	21.4	21.4	21.4
Indicative charge (c/kWh, nominal)	0.9083	1.160	1.2411	1.2666	1.2880

Table 4 Indicative effect of draft decision, annual revenue requirement and charges, market operator, 2027-32 regulatory period

Market Operator	2027-28	2028-29	2029-30	2030-31	2031-32
NTESMO's proposal					
Annual revenue requirement ($m real 2026-27)	9.3	9.4	9.5	9.6	9.6
Indicative charge (c/kWh, nominal)	0.6011	0.6165	0.6383	0.6563	0.6695
Commission draft decision					
Annual revenue requirement ($m real 2026-27)	9.9	9.9	9.9	9.0	10.0
Indicative charge (c/kWh, nominal)	0.6386	0.6500	0.6663	0.6803	0.6940

The Commission notes that the actual charges to apply in the 2027-32 regulatory period will be determined after NTESMO submits its revised proposal. Should NTESMO provide further evidence of the efficiency of a range of proposed costs that were excluded in the draft decision, then NTESMO's final approved revenue requirement and proposed charges may be higher than those shown above. In addition, actual charges from

2029-30 onwards may also increase if the Commission approves recovery of additional separation and TEM reform costs as part of the Commission's proposed Temporary Separation and TEM Reforms Uncertainty Mechanism.

The Commission requires NTESMO to submit a revised proposal for approval by no later than 26 February 2027.

The revised proposal should address the information gaps and requirements identified in this draft decision. NTESMO should prioritise the development of evidence to support expenditure the Commission has indicated may be approved if it can be adequately justified, particularly for real time support services, existing and new system tools, and some separation implementation costs. Proposed costs should be sufficiently developed and supported to demonstrate that they are prudent and efficient. Given the tight timeframe for finalising charges and significant number of issues raised in this draft decision, the Commission recommends that NTESMO does not devote resources to refining expenditure estimates that are likely to remain speculative at the time of the final decision given the ongoing uncertainty around the details of the TEM reforms. Separation and TEM reform costs that cannot be adequately substantiated by February 2027 may instead be proposed for cost recovery during the regulatory period through the proposed Temporary Separation and TEM Reform Uncertainty Mechanism.

Given time constraints between the expected timing of the Commission's final decision and the commencement of charges on 1 July 2027, NTESMO is required to also submit along with its revised regulatory proposal, an indicative annual pricing proposal for 2027-28 based on its revised revenue proposal. Noting the issues identified with the annual pricing formulas proposed in the initial proposal and discussed at Chapter 10, the Commission recommends NTESMO adopts the amendments to the formulas detailed in Appendix A in its revised proposal and indicative annual pricing proposal.

For the purposes of clarity, if NTESMO is unable to submit a suitable revised proposal and pricing proposals within the required timeframes that are based on costs the Commission is able to accept as prudent and efficient, it may not be possible for the Commission to approve NTESMO's proposed system control and market operator charges for 2027-28 and provide sufficient advance notice to retailers for those charges to take effect on 1 July 2027. The Commission advises that this may result in there being no charges that NTESMO can levy from 1 July 2027 onward until a schedule of charges is approved by the Commission including a period of advance notice to retailers before those charges take effect.

Stakeholder feedback

The Commission invites feedback from stakeholders on matters raised in this draft decision. The Commission will consider stakeholder feedback in making the final decision on NTESMO's proposed revenue requirements for the 2027-32 regulatory period and 2027-28 system control and market operator charges.

Submissions are sought by Friday 22 January 2027.

1 | Introduction

The current (2024-27) regulatory period for system control and market operator charges ends 30 June 2027. The Commission's 2027-32 Review will determine NTESMO's revenue requirements and charges for the 2027-32 regulatory period, which covers the five-year period from 1 July 2027 to 30 June 2032.

Background

NTESMO is currently a ring-fenced entity within PWC, which is a government-owned corporation.[2] NTESMO carries out system control functions for the Territory's three major power systems: Alice Springs, Darwin-Katherine and Tennant Creek, and since 2015, NTESMO has also been the market operator for the Darwin-Katherine Interim Northern Territory Electricity Market.

The services provided through these functions are regulated and NTESMO is entitled, in accordance with section 39(1) the ER Act, to impose and recover charges to undertake its functions. Under section 39(2) of the ER Act, the Commission is required to approve the schedule of charges to be applied for the purpose of renumerating the system controller for its operations.

The ER Act does not provide specific criteria for the Commission to consider in making its decision; however, section 21(2) of the *Utilities Commission Act 2000* requires the Commission, in making a determination relating to prices for goods and services, to have regard to:

- the general factors specified in Part 2 of the *Utilities Commission Act 2000* with key factors of relevance being to promote competitive and fair market conduct and economic efficiency; prevent the misuse of monopoly or market power; facilitate maintenance of the financial viability of NTESMO; and ensure an appropriate rate of return on regulated infrastructure assets
- the costs of making, producing or supplying the goods or services including complying with laws or regulatory instruments
- any relevant interstate and international benchmarks for prices, costs and return on assets in comparable industries
- the financial implications of the determination and
- any other factors that the Commission considers relevant.

In broad terms, the Commission has operationalised these considerations to mean the charges imposed by NTESMO are to recover sufficient revenue to reimburse costs that are prudent and efficient. Furthermore, the revenue recovered is to reimburse costs incurred in performing system control and market operator functions; it is not to refund costs associated with unregulated activities that NTESMO undertakes for PWC's networks and water services businesses and Territory Generation.

As part of the 2024-27 Review of System Control and Market Operator Charges (2024-27 Review), the Commission established a regulatory framework for the calculation of system control and market operator charges. This responded to increased complexity in the calculation charges, including recovery of capital costs. The next chapter evaluates the compliance of NTESMO's initial proposal with the regulatory framework.

The Commission engaged Frontier Economics to assist in conducting the 2027-32 Review. Elements of Frontier Economics' assessment and recommendations regarding NTESMO's initial proposal and models are included, as relevant, and the Commission has relied on Frontier Economics' expert advice in preparing this draft decision.

[2] Information on the Northern Territory Ring-fencing Code and its application to PWC is available on the Commission's website at https://utilicom.nt.gov.au/electricity/codes-and-guidelines/electricity-ring-fencing-code.

Context to the draft decision

TEM reforms

In October 2025, the Territory Government passed the *Electricity Legislation Amendment (Market Reform) Act 2025* and *Electricity System and Market Operator Act 2025* (the Reform Acts). The Acts establish NTESMO as a statutory corporation separate from PWC and give it several new or expanded functions, including:

- centralised planning – producing a Regulated Electricity System and Investment Plan to guide new infrastructure development in the three regulated power systems
- centralised procurement in the DKPS
- revised scheduling and dispatch processes to integrate more generation and new technologies and optimise dispatch.

The Territory Government is developing market rules and regulations which will underpin the reform program. These supporting regulatory instruments are expected to be progressively completed over the next two years. The separation of NTESMO from PWC is expected to take effect from 1 July 2027. As such, the separation has implications for NTESMO's cost base during the 2027-32 regulatory period.

The Reform Acts amend the provisions related to approval of NTESMO's charges, including making minor amendments to section 39 in relation to market operator and system control charges and adding a new section 40S related to recovery of NTESMO's costs for performing its Regulated Electricity System and Investment Plan (RESIP) functions. The charges approved by the Commission as part of this 2027-32 Review are intended to apply under both the current section 39 and the amended section 39 and new section 40S. NTESMO has not proposed to set a separate charge for recovery of its costs related its RESIP functions, and costs related to those functions are instead included in the system control and market operator charges as discussed in Chapter 5.

NTESMO's initial proposal

PWC submitted a draft initial proposal to the Commission for review in February 2026. The Commission identified several issues with the proposal that required addressing before it could be accepted for public consultation and assessment. Following amendments to address these issues, PWC submitted NTESMO's initial proposal on 17 May 2026, which was accepted by the Commission for the purposes of consultation and assessment.[3]

The Commission released NTESMO's initial proposal, along with a consultation paper, for stakeholder feedback on 9 June 2026. The consultation paper posed seven sets of questions to stakeholders to help guide feedback on matters including:

- the proposed increase in annual revenue requirements
- the level of base year expenditure and proposed step changes in operating expenditure
- proposed capital expenditure
- the application of productivity factors
- proposed KPIs and
- the impact on customers of the proposed regulated charges.

[3] NTESMO's initial proposal uses the term FY2028-32 rather than 2027-32 as used by the Commission with this referring to the period from 1 July 2027 to 30 June 2032.

The consultation was open for an eight-week period ending on 4 August 2026. A total of three submissions were received and are available on the Commission's website https://utilicom.nt.gov.au/. Respondents to the consultation were:

- Jacana Energy (Jacana)
- Territory Government
- Rimfire Energy (Rimfire)

RFI on NTESMO's initial proposal and submission of updated expenditure requirements

Following Frontier Economics' assessment of NTESMO's initial proposal, NTESMO was requested to provide additional information to enable the Commission to assess the prudency and efficiency of the forecast expenditure included in the initial proposal. A workshop was also conducted to examine aspects of NTESMO's modelling.

The RFI process identified amendments were needed to NTESMO's initial proposal and models. On 13 October 2026, NTESMO submitted updated expenditure requirements and models addressing matters found in the RFI process). These were published on the Commission's website on 27 October 2026.

NTESMO's October update amends the relevant forecasts and models in the initial proposal. It does not replace the initial proposal in its entirety. The initial proposal, RFI responses and October update are collectively referred to in this draft decision as NTESMO's proposal.

Structure of the draft decision

The remainder of this draft decision is structured as follows:

- Chapter 2 evaluates the initial proposal's compliance with the Commission's regulatory framework
- Chapter 3 presents draft decisions on changes to the regulatory framework
- Chapter 4 summarises NTESMO's initial proposal, incorporating RFI responses and the October update
- Chapter 5 presents the Commission's findings on NTESMO's proposed base year expenditure
- Chapter 6 presents the Commission's findings on NTESMO's proposed expenditure relating to TEM reforms
- Chapter 7 presents the Commission's findings on NTESMO's proposed operating expenditure step changes and trend adjustments (excluding TEM reform operating expenditure)
- Chapter 8 presents the Commission's findings on NTESMO's proposed capital expenditure (excluding TEM reform capital expenditure)
- Chapter 9 presents the Commission's findings on NTESMO's proposed productivity factors, WACC, tax allowance and KPIs
- Chapter 10 presents the Commission's decisions on NTESMO's proposed pricing formulas and pass-through events
- Chapter 11 presents the Commission's findings on NTESMO's tariff structure and assessment of customer impacts
- Chapter 12 presents the Commission's decisions on NTESMO's proposed revenue requirements and regulated charges.

How to make a submission on the draft decision

All interested parties (stakeholders) are invited to make submissions on this draft decision by **5pm Friday 22 January 2027.** Responses to the draft decision will inform the Commission's final decision, which is expected to be released in April/May 2027.

To facilitate publication, submissions can be submitted either by:

- email to utilities.commission@nt.gov.au in Adobe Acrobat or Microsoft Word format; or
- mail to GPO Box 915, DARWIN NT 0801.

Any questions regarding the draft decision or the 2027-32 Review should be directed to the Commission at the above email and mail address, or by telephone: +61 8 8999 5480.

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.

Next steps

The Commission will engage further with NTESMO, as may be needed, on matters raised in this draft decision. The Commission's final decision will provide the accepted revenue requirements and associated approved system control and market operator charges and explain any differences from the draft decision.

Given the short timeframe between the expected timing of the Commission's final decision and the commencement of charges on 1 July 2027, NTESMO is required to submit an indicative annual pricing proposal of the 2027-28 charges based on the required revenue sought in its revised proposal to manage the time constraints associated with approving charges for 2027-28. The formal annual charges proposal is to be submitted within five business days of the Commission's final decision being published, unless otherwise indicated by the Commission.

Stage	Estimated timing
Draft decision released	20 November 2026
Consultation on draft decision ends (submissions due)	22 January 2027
NTESMO revised proposal due and indicative annual pricing proposal 2027-28 charges	February 2027
Final decision on 2027-32 system control and market operator charges	April/May 2027
NTESMO final 2027-28 annual pricing proposal due	April/May 2027
Current 2026-27 system control and market operator charges end	30 June 2027
2027-28 system control and market operator charges approved by the Commission commence	1 July 2027

2 | Compliance assessment of NTESMO's initial proposal

This chapter discusses the Commission's draft findings on the alignment between NTESMO's initial proposal and the regulatory framework for the calculation of system control and market operator charges as well as other requirements specific to the 2027-32 Review. Box 1 presents the Commission's draft findings.

Box 1 Draft findings on the compliance of NTESMO's initial proposal

The Commission considers NTESMO's initial proposal is largely compliant with the regulatory framework and other requirements for the 2027-32 Review, but the following matters require addressing in NTESMO's revised proposal due in February 2027:

- **KPIs – process for data collection, performance monitoring and reporting** – NTESMO must provide detail on how data for its proposed KPIs will be collected, performance monitored and outcomes reported in a regular and transparent manner.
- **actual 2024-27 capital expenditure** – NTESMO's revised proposal is to include a comparison of ex-ante approved capital expenditure (real and nominal values) and actual expenditure (nominal values) for Transitional Tools stage 2, capitalised overheads and corporate capital from the 2024-27 regulatory period. Where there is a substantial overspend compared to approved expenditure, NTESMO must provide reasons for the variation and demonstrate the additional expenditure was prudent and efficient.
- **actual 2024-27 operating expenditure** – NTESMO's revised proposal is to include a comparison of approved and actual operating expenditure for 2025-26 (based on audited expenditure) and approved and estimated operating expenditure for 2026-27. Major variations between actual and approved expenditure are to be explained.

The regulatory framework and requirements are set out in the Commission's September 2024 Decision Paper for the 2024-27 Review and further clarifications were made in the September 2025 Framework, Process and Timelines paper for the 2027-32 Review.[4]

Table 5 lists the key elements of the regulatory framework and requirements and the Commission's assessment of NTESMO's initial proposal's compliance each element. The Commission considered the initial proposal was largely compliant with the regulatory framework and therefore suitable for assessment.

Table 5 Summary of compliance against regulatory framework and other requirements for 2027-32 Review

Requirement	Compliant
5-year regulatory period	Yes
Capped revenue	Yes
Building block model used	Yes
Base year	
Based on audited actual expenditure	Refine framework
Adjusted to remove non-recurring expenditure	Yes
Variations from actual explained	Yes
Personnel costs, professional fees and residual costs	
Costs mapped based on regulatory obligations and activity allocations	Partial
Base-step-trend model used	Yes
Corporate overheads based on forecast PWC costs and allocated in accordance with CAM	Refine framework
Productivity factor proposed, justified and applied	Yes
Opex and revenue requirement are end-of-period values	Yes
Depreciation – straight line depreciation and AER standard asset lives used	Yes
Return on capital – AER WACC for PWC networks business used	Yes*

[4] The September 2024 Decision Paper and September 2025 Framework, Process and Timelines paper can be found on the project pages for the 2024-27 and 2027-32 Reviews on the Commission's website at https://utilicom.nt.gov.au/projects.

Requirement	Compliant
Tax allowance building block	Yes*
Ex-ante uncertainty mechanism – excludes capital projects and includes 5% materiality threshold	Yes
KPIs proposed including process for data collection, performance monitoring and reporting	Partial
Capital expenditure	
Separate identification of capitalised corporate costs and corporate capital expenditure	Yes
RAB at 1 July 2027 is depreciated actual expenditure at closing of 2024-27 regulatory period	Partial
Mid-period figures are escalated to end-period figures using half-year WACC	Yes
Business cases submitted for new capital expenditure	Yes
Revenue smoothing	N/A
Formula for calculating regulated charges	
Adjustment for inflation	Yes
Under/over recovery amounts from previous years (including 18-month WACC adjustment)	Yes
Recovery of any approved pass-through amounts	Yes
Per kWh charge based on consumption forecast from PWC networks AER pricing proposal	Yes
Uncertainty mechanism claims in written form and follows the process	N/A
Other requirements	
Indicative charges for regulatory period	Yes
Comparison of approved and actual expenditure for 2023-24	No
Compliance summary for Dispatch Engines project	Partial
No speculative operating or capital expenditure	Yes
No recovery of ex-post capital expenditure	Yes
Changes to method for calculating regulated charges discussed and justified in proposal	Yes
Changes to list of pass-through events discussed and justified in proposal	N/A
Use of AER-based models developed for 2024-27 regulatory period	Yes
Submission of template and forecast spreadsheets with underlying calculations	Yes
Included feedback from stakeholder engagement and NTESMO response to feedback	Yes

*Modelling related issues – refer Chapter 9.

NTESMO does not propose to smooth its revenue requirement over the 2027-32 regulatory period however does seek to spread the impact of a revenue adjustment to recover TEM reform expenditure incurred in the 2024-27. As advised by the Commission, NTESMO has included TEM reform expenditure in its proposal rather than submitting a pass-through application because there was insufficient time remaining in the current regulatory period to approve a pass-through. Proposed expenditure relating to TEM reforms is assessed in Chapter 6.

The Commission notes NTESMO provided a list of pass-through events, and this is unchanged from the list for the 2024-27 regulatory period. Pass-through events are reviewed in Chapter 10.

The Commission identified five areas of partial or non-compliance in NTESMO's initial proposal. These are discussed in the following sections, along with requirements for addressing these matters in NTESMO's revised proposal. The Commission also identified that several clarifications and refinements to some elements of the regulatory framework. These are discussed separately in the next chapter.

Operating expenditure - personnel costs, professional fees, and residual costs

The regulatory framework requires costs to be mapped between regulated and unregulated activities based on regulatory obligations and activity allocations and a base-step-trend model used to forecast expenditure.

NTESMO did not map its activities to regulatory obligations in its initial proposal but undertook this work in the 2024-27 Review, mapping activities to legislative obligations, the Northern Territory National Electricity Rules (NT NER), licence conditions and requirements under the System Control Technical Code. NTESMO did, however, provide the outcomes of a functional capability review (Attachment 30 to the initial proposal), which assessed and benchmarked its functions, capability and capacity (including those associated with TEM reforms) against operations and functions in the National Electricity Market (NEM) and Western Australian's Wholesale Electricity Market (WEM). NTESMO used the 21 functions identified in the review in its Functional Activity Allocator, which apportions resources across its five operational areas and unregulated activities (Attachment 31 to the initial proposal).

Given the mapping done in the 2024-27 Review and coming changes under the TEM reforms, the Commission does not consider further mapping is required for the 2027-32 Review. It will, however, be required in future regulatory periods following implementation of the reforms.

The Commission notes NTESMO's work to improve the classification and apportionment of expenditure. Assessment of the expenditure allocation model is discussed in Chapter 5, which considers NTESMO's proposed base year expenditure.

KPIs – process for data collection, performance monitoring and reporting

The regulatory framework requires NTESMO to propose a set of KPIs and advise on how data for the KPIs will be collected and performance will be monitored including reporting timeframes.

NTESMO has proposed a set of KPIs (evaluated in Chapter 9) but has not provided information on how data on the KPIs will be collected, monitored and reported. The Commission requires NTESMO to provide this information as part of its revised proposal in February 2027. NTESMO should articulate how data will be collected, performance measured and monitored and how it will report on outcomes. Reporting should be regular and transparent to all stakeholders.

Actual capital expenditure 2024-27 regulatory period

The Commission's September 2025 Framework, Process and Timelines paper required NTESMO to provide a compliance summary for the Dispatch Engines project. This project comprised expenditure on the TDE and Transitional Tools stage 2. The opening balance of the RAB on 1 July 2027 is the closing balance for the 2024-27 regulatory period, after replacement of ex-ante allowances (approved for inclusion in the 2024-27 Review) for the Dispatch Engines project with actual efficient expenditure, where known.

The compliance summary was to provide the profile of actual expenditure during the 2024-27 regulatory period (as known) compared to ex-ante estimates and include reasons for any substantial variance between actual and ex-ante expenditure and, in the case of overspends, provide justification that the process undertaken and additional expenditure is prudent and efficient, and did not go beyond the original scope of the project. The compliance summary was to also discuss any significant differences between actual and forecast timeframes to undertake the project (or stages) and the benefits achieved compared with benefits forecast in the business case.

NTESMO is seeking to reprofile the TDE capital expenditure and provided a business case for this purpose. A compliance summary has not been provided for the Transitional Tools component of the Dispatch Engines project ($2 million, real mid-period 2023-24).

The initial proposal also contains no information on approved ex-ante allowances and actual expenditure for capitalised overheads and corporate capex in 2024-27. Actual and forecast capital expenditure from 2023-24 to 2026-27 can be found in NTESMO's models, but this is not easily located, nor does it explain variances. The Commission notes the framework does not specify that this is needed (as it does for the Dispatch Engines project), but this is an oversight and the regulatory framework will be amended to make this clear (refer next chapter).

There is discussion on Transitional Tools as part of NTESMO's system tools business cases indicating these will be completed in 2026-27. The Commission does not intend to enforce the requirement for a compliance summary for Transitional Tools stage 2, but NTESMO is required as part of its revised proposal to include a table comparing ex-ante approved capital expenditure (real and nominal values) and actual expenditure (nominal values) for Transitional Tools stage 2. The Commission also requires NTESMO to provide the same comparison for capitalised overheads and corporate capital.

Where there is a substantial overspend compared to approved expenditure, NTESMO must provide reasons for the variation and demonstrate the additional expenditure is prudent and efficient.

2023-24 actual expenditure

The September 2025 Framework, Process and Timelines paper advised (emphasis added):

"The initial proposal is to include a comparison of approved and actual expenditure for regulated system control and market operator functions for 2023-24 and subsequent years, as available, broken down by expenditure type (that is, personnel costs, professional fees, residual costs, corporate overheads, depreciation and cost of capital). Any major variations between actual expenditure and the approved revenue requirement are to be explained."

The Commission notes there is no information on 2023-24 operating expenditure in NTESMO's initial proposal. Estimated values were provided in NTESMO's April 2025 revised proposal for the 2024-27 Review (in various graphs on operating costs by cost type and total operating expenditure), but no subsequent information has been provided.

The Commission does not propose to require NTESMO to provide information for 2023-24, noting it relates to the previous (2018-24) regulatory period. However, NTESMO's revised proposal is to provide a comparison of approved and actual operating expenditure for 2025-26 (based on audited expenditure). NTESMO should also provide a comparison of approved and estimated expenditure for 2026-27, noting six months of expenditure for that year will be available at that time. Any major variations between actual operating expenditure and the approved revenue requirement are to be explained.

The Commission proposes to change the regulatory framework so information on actual operating and capital expenditure is provided on a more regular, timely basis. The proposed changes are discussed in the next chapter.

3 | Changes to the regulatory framework

In assessing NTESMO's initial proposal and considering how to address expenditure relating TEM reforms, the Commission has identified the need to make clarifications and modifications to its regulatory framework to improve its operation. Box 2 presents the Commission's draft decisions with the issues to be addressed and the reasons for the Commission's decisions discussed in following sections of the chapter.

Box 2 Draft decisions on changes to the regulatory framework

The Commission proposes the following changes to the regulatory framework:

- base year expenditure – while 2024-25 audited actual expenditure will be the base year for the 2027-32 regulatory period, going forward base year expenditure is to be the most recently available audited actual expenditure at the time of NTESMO's revised proposal (that is, actual audited expenditure for year 4 in a five-year regulatory period is the base year for the next regulatory period), or the most appropriate actuals if issues are identified with audited expenditure.
- actual revenue and expenditure – as part of its annual pricing proposal, NTESMO is required to provide a comparison of approved and actual revenue, total operating expenditure, capital expenditure by project, total capitalised overheads and total corporate capex for the previous financial year.
- corporate expenditure estimation – the approach to forecasting corporate overhead costs will change due to NTESMO's separation from PWC with more clarity on the approach expected in NTESMO's revised proposal.
- treatment of actual capital expenditure in RAB – the regulatory framework adopts the AER's approach of rolling the RAB forward from the current regulatory period using the allowed depreciation in that period but replacing the ex-ante capital allowances with actual capital expenditure.
- introduce a Temporary Separation and TEM Reform Uncertainty Mechanism - while there is certainty that material costs will be incurred to implement changes associated with the TEM reforms in the 2027-32 regulatory period and beyond, currently, the timing and level of the costs is highly uncertain. This mechanism will allow NTESMO to apply to the Commission to include prudent and efficient separation and TEM reform costs in its revenue allowance within a five-year regulatory period and recover the costs through the system control and market operator charges. Any separation and TEM reform costs sought via this mechanism would be subject to prudency and efficiency tests in the usual manner before being approved for recovery. This specific mechanism would be a temporary and separate mechanism in addition to the existing, permanent cost pass-through mechanism.
- existing permanent cost pass-through mechanism – the process for cost pass-throughs is amended as follows:
  - any pass-through event occurring in the final 18 months of the regulatory period must be notified within 20 business days, but the claim must be incorporated in the proposal for the subsequent regulatory period
  - approved cost pass-through amounts can be recovered in the regulatory year following the year of the cost pass-through approval
  - cost pass-through application may include operating costs and capital costs, and costs that have already been incurred and forecast future costs
  - the regulatory change and service standards events do not include any costs that are covered by the new Temporary Separation and TEM Reform Uncertainty Mechanism and
  - approved cost pass-through amounts that are included in expenditure allowances within a regulatory period will be treated in the same manner between regulatory periods as the other elements of the operating and capital expenditure allowances.

Base year - audited actual expenditure

The regulatory framework states base year expenditure is to be the most recently available audited actual expenditure, or the most appropriate actuals if issues are identified with audited expenditure. NTESMO has used 2024-25 as the base year as it is the most recent audited expenditure at the time of the initial proposal. This contrasts with the approach of the Australian Energy Regulator (AER), which is to use the most recent audited expenditure at the time of the revised proposal, which would have meant 2025-26 would have been the base year for the 2027-32 Review.

The AER base year approach would require NTESMO to use the six months of actual expenditure to forecast full year expenditure for 2025-26, and this would be the placeholder in the initial proposal for base year expenditure. NTESMO would then have replaced this estimate with audited actual expenditure for 2025-26 in its revised proposal.

It is not proposed to request NTESMO to use 2025-26 audited expenditure for the base year as it is likely to require greater adjustments to remove one off expenditure associated with reforms and projects. It may also be more beneficial for NTESMO to direct its resources toward addressing other matters including providing evidence of the efficiency of its proposed step changes for real time support services, as well as existing and new system tools.

Notwithstanding this, it is preferable to use audited expenditure that is as close as possible to the beginning of a regulatory period as the best indication of business-as-usual costs. Accordingly, the Commission proposes to modify the regulatory framework to require use of the most recently available audited actual expenditure at the time of NTESMO's revised proposal, or the most appropriate actuals if issues are identified with audited expenditure, effective from the next regulatory period.

Based on 5-year regulatory periods, this means year 4 actual audited expenditure will be the base year for the next regulatory period. That is, the base year expenditure for next (2032-37) regulatory period will be based on 2030-31 (as year 4) audited actual expenditure.

Commission's draft position

The Commission proposes to amend the regulatory framework to specify that from the next review (for the 2032-37 period) base year expenditure is to be the most recently available audited actual expenditure at the time of the revised proposal (i.e., year 4 actual audited expenditure), or the most appropriate actuals if issues are identified with audited expenditure. This change does not alter the base year accepted for this review.

Provision of information on actual revenue and expenditure

There is no requirement under the regulatory framework for NTESMO to regularly report actual expenditure during a regulatory period. Instead, the Commission relies on information provided by NTESMO in its regulatory proposals. This differs from AER processes where information is obtained annually.

The Commission could formally request this information each year under section 25 of the *Utilities Commission Act 2000* or through the annual return process associated with NTESMO's system control licence; however, the Commission considers this would create an unnecessary administrative burden and does not ensure the information is readily available to stakeholders.

NTESMO provides information on actual revenue as part of its annual pricing proposal in April each year. This feeds into the under/over recovery adjustment and calculation of NTESMO's total annual revenue requirement; however, the information is usually provided in the pricing model without any accompanying commentary in the annual pricing proposal.

The Commission considers the annual pricing proposal is an appropriate avenue for NTESMO to report actual revenue and expenditure for the previous financial year. The annual pricing proposal is published on the Commission's website, thereby ensuring transparency.

The Commission proposes to enhance the regulatory framework to require NTESMO's annual pricing proposal to include the following comparisons for the previous financial year, separately for its system control and market operator functions:

- Total Annual Revenue (TAR) and actual revenue
- approved operating expenditure (real and nominal values) and actual operating expenditure
- approved ex-ante capital allowance (real and nominal values) and actual capital expenditure by
  - approved capital project
  - capitalised overheads (total expenditure)
  - corporate capex (total expenditure).

Commission's draft position

The Commission proposes to enhance the regulatory framework by requiring NTESMO to provide, as part of its annual pricing proposal, a comparison of approved and actual revenue, operating expenditure and capital expenditure (capital projects, capitalised overheads and corporate capex) for the previous financial year.

Approach to determining corporate overheads

In the 2024-27 regulatory period, NTESMO's corporate overheads were forecast as a share of PWC's corporate overheads using PWC's cost allocation methodology. NTESMO considers this approach will no longer be appropriate following its separation from PWC as it will be responsible for its own corporate functions and costs. Instead, NTESMO proposes to forecast corporate overheads using the same base-step-trend approach applied to other operating expenditure.

The Commission's consultation paper sought stakeholders' views on whether the proposed approach to estimating corporate overheads is reasonable and efficient. Stakeholders considered a change in approach was necessary, but comments focussed on estimation of the quantum rather than the proposed forecasting approach. Jacana recommends NTESMO provide greater clarity on the transition to standalone corporate costs and clearer articulation of the forecast methodology post-separation. Feedback on the quantum (base and step changes) of corporate costs are discussed in Chapters 5 and 6.

Commission's draft position

The Commission notes the approach to forecasting corporate overhead costs will change due to NTESMO's separation from PWC with more clarity on the approach expected in NTESMO's revised proposal.

The Commission agrees a change in approach will be needed, but uncertainty regarding post-separation arrangements means it is not possible to specify the methodology for estimating and forecasting corporate overheads in this draft decision. The Commission expects NTESMO's revised proposal will provide more clarity but notes post-separation arrangements may take time to negotiate and formalise.

Treatment of actual capital expenditure and reprofiling of capital expenditure

The regulatory framework requires the closing RAB for 2024-27 to reflect the depreciated actual expenditure, with NTESMO foregoing the return on capital overspends and retaining return on underspends. However, it does not address circumstances such as the TDE project, where delays have shifted substantial approved expenditure from 2024-27 into the next regulatory period (refer Chapter 8). NTESMO therefore benefits from recovering depreciation and return on capital before incurring in the expenditure.

The Commission estimates the TDE project delay results in over-recovery in the 2024-27 regulatory period of approximately $2.4 million out of a total revenue requirement over the 3-year period of $72 million ($nominal).

The Commission's consultation paper identified the need for a mechanism to prevent double recovery, as the current framework does not expressly address the situation. It also noted NTESMO's acknowledgement of the need for incentives to ensure timely delivery of approved projects and proposed working with the Commission to address the over-recovery in a way that benefits consumers.

Stakeholders were supportive of this work with Jacana stating the regulatory framework needs to create a stronger incentive for timely project delivery in future regulatory periods.

The Commission considers there is a need for clarification and enhancement in how actual capital expenditure is treated in the regulatory framework. The Commission also notes that the requirement for annual reporting of actual capital expenditure will assist in identifying where there may be delays in delivering approved capital projects and early engagement on how potential variances in capital expenditure will be managed.

For the purposes of clarification, the Commission proposes to adopt the AER's approach of rolling the RAB forward from the current regulatory period using the allowed depreciation in that period but replacing the

ex-ante capital allowances with actual capital expenditure where available and a forecast of capital expenditure for the final year of the regulatory period. If the Commission were to use NTESMO's proposed of actual depreciation, it would result in the opening RAB for the 2027-32 regulatory being higher than if allowed depreciation was used. This would mean that NTESMO would earn a higher revenue requirement as a result of its underspend on the TDE than if allowed depreciation was used. The Commission considered advice from Frontier Economics on the causes of the delay for the TDE project and potential approaches for addressing the over-recovery of revenue in the 2024-27 regulatory period. The Commission considers that NTESMO should not benefit from a higher opening RAB for the 2027-32 regulatory period associated with the delay in the TDE project and proposes to use the allowed depreciation for rolling forward all capital expenditure.

Commission's draft position

The Commission confirms the regulatory framework adopts the AER's approach of rolling the RAB forward from the current regulatory period using the allowed depreciation in that period but replacing the ex-ante capital allowances with actual where available and forecast capital expenditure for the final year.

New Temporary Separation and TEM Reform Uncertainty Mechanism

Over coming years, NTESMO will incur significant change to its costs due to:

- separation from PWC: NTESMO is being established as a stand-alone entity separate from PWC. This is due to occur from 1 July 2027, but it may take some time to finalise the separation arrangements including establishment of proposed SLAs with PWC where required.
- TEM reforms: NTESMO will deliver a range of new functions and services under the TEM reforms including system planning and system procurement and cash settlement (for the DKPS), and will need new systems, tool and capabilities to deliver these functions.

While it is certain material costs will be incurred to implement these changes in the 2027-32 regulatory period (and beyond), at present the timing and quantum of the costs is highly uncertain. It is also possible that some categories of costs will decrease as a result of separation. The introduction of the reforms, and hence an understanding of the efficient costs that can reasonably be recovered from customers, is likely to occur in stages over coming years.

To manage these changes, the Commission proposes to introduce a new Temporary Separation and TEM Reform Uncertainty Mechanism. This mechanism would only apply for the 2027-32 regulatory period.

The proposed Temporary Separation and TEM Reform Uncertainty Mechanism will allow NTESMO to apply to the Commission to include prudent and efficient separation and TEM reform costs in its revenue allowance within the 2027-32 regulatory period and recover the costs through the system control and market operator charges. It is not common in ex-ante regulatory frameworks to allow a frequent re-opening within the regulatory period to consider new costs given that this can undermine efficiency incentives. However, in this instance the objective is to establish a short-term mechanism that can efficiently consider new material costs in a timely manner. Any separation and TEM reform costs sought via this mechanism would be subject to prudency and efficiency tests in the usual manner before being approved for recovery. This mechanism would also be used to account for any decreases in NTESMO's costs related to separation such as reductions in corporate overhead costs.

For clarity, the Temporary Separation and TEM Reform Uncertainty Mechanism would be a temporary and separate mechanism additional to the existing, permanent cost pass-through mechanism. It will operate like a pass-through mechanism but will only apply to defined types of costs. It will operate on an annual basis rather than following occurrence of a pass-through event, and will only apply for the 2027-32 period. The permanent cost pass-through mechanism is designed to address infrequent exogenous events (an event outside of the NTESMO's control) that materially changes costs.

The proposed features of the Temporary Separation and TEM Reform Uncertainty Mechanism are set out below.

Timing of applications and incorporation in revenue allowance

NTESMO may apply to the Commission in years 2, 3 and 4 of the regulatory period for the pass-through of separation and TEM reform costs, where costs are sufficiently understood and the cost estimates are capable of being shown to be efficient.

Applications under the mechanism for in-period cost pass-through must be received by the first business day in September of Year 2, Year 3 and Year 4 of the 5-year regulatory period for inclusion in the prices in the following and subsequent years, to the extent approved. This is shown in Table 6.

Table 6 Applications under the Temporary Separation and TEM Reform Uncertainty Mechanism

	2027-28	2028-29	2029-30	2030-31	2031-32
Apply	-	Sept	Sept	Sept	-
In prices	-	-	Yr 3 →	Yr 4 →	Yr 5 →

It is not proposed to accept applications in Year 1 or Year 5 of the regulatory period. An application in year 1 would not be appropriate because it would be submitted very shortly after the Commission's final determination and material new information is not likely to be available by that date. An application in year 5 is not appropriate because it is too late to be included in prices for this regulatory period and should instead be included in the regulatory proposal for the 2032-37 period.

In any year in which an application is made under this mechanism, the Commission may seek to defer consideration of applications made under the permanent cost pass-through mechanism so that all applications are considered concurrently.

Any approved costs will be incorporated into the expenditure allowances in the same manner as the expenditure included at the commencement of the regulatory period.

The Commission may apply smoothing arrangements or longer recovery periods to manage price impacts where required.

Scope of costs

The costs to be recovered under this mechanism must only relate to NTESMO's separation and TEM reform activities. Other activities outside of these costs that meet the current defined cost pass-through event definitions are specifically excluded from consideration under this mechanism.

Therefore, any applications under this mechanism must be demonstrated to be incurred as a direct result of the legislated reforms to separate NTESMO and to establish new market functions. That is:

- separation costs must be clearly linked to the *Electricity System and Market Operator Act 2025* and the requirements of this legislation or related regulations.
- TEM reform implementation costs must be clearly linked to the *Electricity Legislation Amendment (Market Reform) Act 2025* and the relevant Territory Electricity Market (TEM) Rules or related regulations that set out the specific requirements that give rise to the pass-through costs.

The costs to be recovered may include ex-post costs that have already been incurred and ex-ante forecasts of expected costs. This would include costs incurred at the end of the 2024-27 regulatory period that have not been approved in the 2027-32 regulatory determination.

For the avoidance of doubt, corporate capital expenditure that is incurred following separation could be recovered under this mechanism.

An application must also include any reductions in NTESMO's forecast costs that have occurred as a result of these reforms.

Materiality threshold

A materiality threshold will apply and will be defined in the same manner as the materiality threshold defined under the permanent cost pass-through mechanism. That is, the materiality threshold is defined as 5% of the Annual Revenue Requirement (ARR), applying the ARR in the year the application is made. Cumulative separation and TEM reform costs incurred over multiple years and for multiple separation and reform activities may be combined for the purpose of meeting the materiality threshold.

Information to be provided to the Commission

The required information that NTESMO must provide to the Commission is similar to that which applies under the permanent cost pass-through mechanism.

Under the Temporary Separation and TEM Reform Uncertainty Mechanism, it is proposed that NTESMO will be required to provide, by written notice, the following information:

- the link between the costs and the separation and TEM reform requirements
- evidence of the actual and likely change in costs and that these costs occur solely as a consequence of the separation and TEM reform requirements and
- information on NTESMO's decisions and actions in relation to mitigating the magnitude of costs and that the costs sought are prudent and efficient.

The list of requirements is intended to ensure the Commission receives the necessary information to enable it to confirm the prudency and efficiency of the costs to be passed on to customers. The Commission notes that only incremental costs and costs associated with efficient decisions and actions are to be passed on.

Mechanism process and timelines

NTESMO may submit a claim on the first business day in September of year 2, 3 or 4.

The Commission may request additional information by written notice in relation to a claim and the Commission proposes to undertake a public consultation process to allow for stakeholder consideration of the claim.

Within 90 business days after receipt of a claim that meets the Commission's requirements, the Commission will approve or not approve the amount and the year (or years) in the regulatory period in which that amount is to be passed through to customers. Where a claim is not approved, the Commission will provide the reasoning for its decision.

During the 90-business day period the Commission may extend the time for its assessment of the claim by up to a further 90 business days by written notice to NTESMO if the Commission considers the complexity or difficulty of the application justifies the extension.

Within 5 business days of notifying NTESMO of its decision to approve or not approve the claim, the Commission will publish its decision on the Commission's website.

Other mechanisms considered but not pursued

Based on advice from Frontier Economics, the Commission considered a range of possible mechanisms to manage the uncertain separation and TEM reform costs. The range of mechanisms considered, but rejected by the Commission, are shown and discussed in Table 7.

Table 7 Uncertainty mechanisms considered and not proposed

Option	Description	Reason for rejection
Ex-post true up of expenditure at following regulatory period	NTESMO incurs necessary separation and TEM reform costs in period. NTESMO may apply to recover these costs in future prices at the subsequent regulatory period, with cost recovery allowed for those costs found to be efficient and prudent.	The separation and TEM reform costs are likely to be material and are already being incurred. This may delay the recovery of valid costs for a significant period. An ex-post mechanism for the recovery of the separation and TEM reform costs would need to allow for consideration of all costs incurred in the 2028-32 period and recovered where found to be prudent and efficient. This is different to the BAU ex-post treatment of costs under the NTESMO regulatory framework.
Re-opener mechanism (mid-period or trigger)	A re-opener allows the regulator to revisit all or part of the regulatory determination in period as required. The re-opener could be at a set time (e.g. at mid period) or a based on a defined trigger / event.	If a trigger were defined in terms of when reforms are made/implemented, this would be likely to result in too many re-openers which would be too onerous for NTESMO and the Commission to resource. The mid period re-opener would also be a significant process. The re-opener would need to modify the current treatment of overspends to allow for recovery of prudent and efficient separation and TEM reform costs.
Shorter regulatory period	Set a regulatory determination period that is shorter than the current 5-year period.	This would re-open the full regulatory determination including all building block elements. This would be too onerous for NTESMO and the Commission to resource and the costs would not justify the benefits. This option would also need to modify the current treatment of overspends to allow for recovery of prudent and efficient separation and TEM reform costs incurred in period.
Existing cost pass-through mechanism	Use the current cost pass-through mechanism defined under the regulatory framework using the Regulatory change event and Service standards event definitions.	This option could result in multiple applications over the period which would be too onerous for NTESMO and the Commission to resource. The timing of applications would also be uncertain, further challenging resourcing. In addition, the current cost pass-through mechanism would require amendment to allow for efficient cost recovery over time.
Stage-gated approval (cost pass-through)	Regulator approves funding in successive stages as uncertainty is resolved.	This option could result in multiple applications over the period which would be too onerous for NTESMO the Commission to resource and the costs would not justify benefits.
Use it or lose it allowance	Allowance made up front in regulatory decision that can fund investment avoiding the time and resource burden of subsequent in period approvals. Used where the need is identified but specific nature of work and costs are uncertain. Unspent allowance is returned to consumers at the end of the period.	This would impose cost on consumers in advance of certainty about costs and there is an incentive to spend the available allowance.
Contingent allowance	Creates a conditional placeholder for funding that is reasonably foreseeable, but the timing and costs are uncertain. Costs are excluded from allowed revenue initially and the allowance is available / included once a trigger has been met and the costs are verified.	This option could result in multiple applications over the period which would be too onerous for the Commission to resource.

Commission's draft position

The Commission's draft position is to propose the introduction of a Temporary Separation and TEM Reform Uncertainty Mechanism to apply in the 2027-32 Regulatory Period, as outlined above.

It is not common in ex-ante regulatory frameworks to allow frequent re-opening within the regulatory period to consider new costs given that this can undermine efficiency incentives. However, given that NTESMO is entering a short period of intense reform that makes it difficult to forecast prudent and efficient costs for the regulatory period, the objective is to establish a short-term mechanism that can efficiently consider new material costs in a timely manner.

This mechanism is proposed to be separate to the permanent cost pass-through mechanism to retain the integrity and incentives created by the design of that mechanism. The permanent cost pass-through mechanism is designed to address infrequent exogenous events (an event outside of the NTESMO's control) that materially changes costs but with strong limitations that ensure that efficiency incentives are maintained (e.g. limitations on the nature of the defined events and a materiality threshold).

The Commission has determined not to accept NTESMO's proposed expenditure (operating or capital expenditure) relating to the TEM reforms at this stage (see Chapter 6). It considers that further information is needed to allow NTESMO to prepare accurate cost forecasts and for the Commission to assess whether the proposed costs are prudent and efficient as outlined above. If further detail is provided in the revised proposal, it is possible that some of these costs may be capable of acceptance.

However, with the delay to determining the detail on the ongoing arrangements for a separated NTESMO, and on the design of the TEM reforms, it is unlikely to be possible for NTESMO to be able to accurately forecast the majority of these costs and provide evidence to demonstrate that these forecast costs are prudent and efficient within the timelines of the final decision.

NTESMO should ensure that it only proposes costs in the revised proposal that are sufficiently developed and evidenced to be capable of being found to be prudent and efficient. Otherwise, NTESMO should wait until it has more reliable information and apply for recovery of these costs in-period via the proposed Temporary Separation and TEM Reform Uncertainty Mechanism.

Amendments to the existing permanent cost pass-through mechanism

The Commission is proposing to clarify and amend elements of the existing permanent cost pass-through mechanism. These relate to:

- when cost pass-through applications can be made to the Commission
- when cost recovery of approved pass-through amounts commence
- how approved costs are included in the regulatory allowance and
- aligning the treatment of cost recovery between regulatory periods with other elements of the regulatory framework.

Clarifying when cost pass-through applications can be made

Under the current cost pass-through mechanism, NTESMO must notify the Commission within 20 business days of a pass-through event occurring and submit its claim within 90 business days (Figure 1). The Commission may therefore receive a notification and claim at any time during the regulatory period, including its final day. This timing is, however, unworkable for late-period pass-through applications made near the end of the regulatory period. NTESMO must have time after the event to lodge its application, and the Commission must assess and approve it before final-year (year 5) prices are approved. Otherwise, the additional costs cannot be recovered during the current regulatory period.

The Commission is proposing to modify the cost pass-through mechanism so that any pass-through event occurring in the final 18 months of the regulatory period must be notified within 20 business days, but the claim must be incorporated in NTESMO's proposal for the subsequent regulatory period.

Figure 1 Cost pass-through process timeframes for eligible events

The Commission has determined that the following steps and timeframes will apply in relation to notifications and approvals of pass through events and associated claims:

- Within 20 business days of a pass through event occurring, NTESMO is to notify the Commission that the event has occurred.
- Within 90 business days of the pass through event occurring, NTESMO is to provide the Commission with a claim that meets the Commission's information requirements (as listed above) for approval.
- Within 60 business days after receipt of a claim that meets the Commission's requirements, the Commission will approve or not approve the amount and the year (or years) in the regulatory period in which that amount is to be passed through to customers. Where a claim is not approved, the Commission will provide the reasoning for its decision.
- The Commission may request additional information by written notice in relation to a claim.
- During that 60 business day period, the Commission may extend the time for its assessment of NTESMO's claim by a further 60 business days by written notice to NTESMO if the Commission considers the complexity or difficulty of assessing or quantifying the effect of the pass through event justifies the extension.
- Within 5 business days of notifying NTESMO of its decision to approve or not approve the claim, the Commission will publish its decision on the Commission's website.

Source: 2024-27 Review of system control and market operator charges, Decision paper – regulatory framework, September 2024, p. 36.

Clarifying when recovery of approved pass-through amounts will commence

The final decision for the 2024-27 Review establishes a 2-year lag between approval of a cost recovery amount and its recovery in prices.

The Commission proposes to modify the cost pass-through mechanism so that approved cost recovery amounts can be recovered in the regulatory year following the year of the cost pass-through approval.

Clarifying how approved costs are included in the regulatory allowance

The Commission proposes to clarify that a cost pass-through application may include:

- operating cost and capital costs and
- costs that have already been incurred and forecast future costs.

Any approved cost pass-through amounts are included in the relevant expenditure allowance (operating or capital expenditure) and recovered in prices by applying the building block model via the annual pricing mechanism. The regulatory framework and building block model will not include a stand-alone uncertainty mechanism building block.

Cost recovery between regulatory periods

The Commission's September 2024 Decision Paper for the 2024-27 Review (p. 36 – 37) indicates that:

> *Once a claim is approved, NTESMO can include the approved pass-through amount in its annual pricing proposal for relevant years in the regulatory period and the recovery of that amount will be approved by the Commission as part of the annual pricing process. The Commission notes that the amounts claimed are forecast amounts (except for costs known at the time the claim is lodged). The approved amount will not be reassessed or revised in accordance with actual costs and NTESMO will bear the risk of any difference between forecast and actual costs.*

The Commission proposes to clarify that approved cost pass-through amounts that are included in expenditure allowances within a regulatory period will be treated in the same manner between regulatory periods as the other elements of the operating and capital expenditure allowances.

The Decision Paper (p. 40) outlines that the relevant treatment is as follows:

> *NTESMO will retain the benefits of underspends, but bear the cost (actual operating expenditure and return on capital expenditure) of overspends, although depreciated actual capital expenditure will added to the RAB (subject to any applicable ex-post review).*

Commission's draft position

The Commission's draft position is to propose the following changes to the design of the cost pass-through mechanism:

- any pass-through event occurring in the final 18 months of the regulatory period must be notified within 20 business days, but the claim must be incorporated in the proposal for the subsequent regulatory period
- approved cost pass-through amounts can be recovered in the regulatory year following the year of the cost pass-through approval
- cost pass-through application may include:
  - operating costs and capital costs, and
  - costs that have already been incurred and forecast future costs
- the regulatory change and service standards events do not include any costs that are covered by the new Temporary Separation and TEM Reform Uncertainty Mechanism and
- approved cost pass-through amounts that are included in expenditure allowances within a regulatory period will be treated in the same manner between regulatory periods as the other elements of the operating and capital expenditure allowances.

This will align the cost pass-through mechanism more closely with the original intended design, as set out in the Commission's September 2024 Decision Paper for the 2024-27 Review.

4 | Summary of NTESMO's proposed revenue requirement

This chapter provides a high-level summary of NTESMO's proposed revenue and indicative charges. Subsequent chapters provide detail on the underlying expenditure and the Commission's assessment of the justification for, and prudency and efficiency of that expenditure.

NTESMO submitted its initial proposal in May 2026, setting out its revenue requirements and indicative charges. Unless otherwise stated, the proposed expenditure, revenue requirements and indicative charges presented in this and subsequent chapters reflect the October update. Earlier forecasts and positions are identified where relevant to explain the assessment. Table 8 sets NTESMO's proposed revenue requirements by function, revenue type and regulatory year.

Table 8 Proposed NTESMO revenue requirements 2027-28 to 2031-32 ($m real 2026-27)

	2027-28	2028-29	2029-30	2030-31	2031-32	Total
System Control						
Operating expenditure	17.4	17.8	19.0	19.3	19.4	93.0
Depreciation	3.1	4.0	4.4	4.6	4.7	20.8
Return on capital	2.2	3.0	3.0	2.7	2.4	13.3
Net tax allowance	-	-	-	-	-	-
Revenue adjustments[1]	0.6	0.6	0.6	0.5	0.5	2.8
Total	23.3	25.4	27.0	27.1	27.1	129.9
Market Operator						
Operating expenditure	8.1	8.2	8.2	8.2	8.3	41.0
Depreciation	0.7	0.7	0.8	0.8	0.8	3.8
Return on capital	0.3	0.3	0.3	0.3	0.3	1.5
Net tax allowance	-	-	0.0	0.1	0.1	0.2
Revenue adjustments[1]	0.2	0.2	0.2	0.2	0.2	0.9
Total	9.3	9.4	9.5	9.6	9.6	47.4
Total NTESMO						
Operating expenditure	25.6	26.0	27.2	27.5	27.7	134.0
Depreciation	3.8	4.8	5.2	5.4	5.5	24.6
Return on capital	2.5	3.3	3.3	3.0	2.6	14.8
Net tax allowance	-	-	0.0	0.1	0.1	0.2
Revenue adjustments[1]	0.8	0.8	0.7	0.7	0.7	3.7
Total	32.6	34.8	36.5	36.7	36.7	177.3

Note: Numbers may not add up due to rounding

[1] Revenue adjustments reflect the proposed cost pass-throughs associated with TEM reforms

Source: NTESMO October update, Tables 5-8 and 5-9, and post-tax revenue models (Attachments 17 and 18)

NTESMO proposes revenue of up to $37 million ($real 2026-27) per annum (a total of $177.3 million over five years), comprising up to $27 million per annum ($129.9 million over five years) for system control functions and up to $9.6 million per annum ($47.4 million over five years) for market operator functions. For comparison, the approved annual revenue requirement for 2026-27 is $21.7 million for system control functions and $5.6 million for market operator functions (a total of $27.3 million).[5]

[5] Refer the Commission's notice of approval for 2026-27 System Control and Market Operator charges

In seeking to justify its revenue requirements, NTESMO notes the complexities and uncertainties it is facing now and into the next regulatory period. NTESMO identifies several system security challenges with the ongoing energy transition across the Territory's power systems which require enhanced system operator functions and robust real time decision support to maintain security and reliability. NTESMO also points to the ongoing TEM reforms, which are expected to result in the establishment of NTESMO as a standalone entity at the commencement of the 2027–32 regulatory period. According to NTESMO, this transition creates uncertainty regarding the future scope of its functions, including the extent of any new or expanded activities and compliance obligations that may arise as the reforms are implemented.

NTESMO's proposed revenue requirements will result in system control and market operator charges from 2027-28 onward (Table 9) being substantially higher than those in the 2024-27 regulatory period:

- The indicative system control charge for 2027-28 is 1.2982 c/kWh, a 7.8% increase from the 2026-27 charge of 1.2047 c/kWh. By the end of the 2027-32 regulatory period, the system control charge is forecast to be 35% higher than the current charge.
- The indicative market operator charge for 2027-28 is 0.6011 c/kWh, a 66.4% increase from the 2026-27 charge of 0.3613 c/kWh. By the end of the 2027-32 regulatory period, the market operator charge is forecast to be 85.3% higher than the current charge.

Table 9 Indicative System Control and Market Operator charges (c/kWh, nominal)

c/kWh	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32
System Control	0.5527	1.1230	1.2047	1.2982	1.4412	1.5660	1.6052	1.6265
Market Operator	0.0585	0.3769	0.3613	0.6011	0.6165	0.6383	0.6563	0.6695

Source: NTESMO October update, Table 6-2 (reproduced)

The impact from the increase in charges will flow through to large customers (about 1% of the customer base); however, residential and small business customers consuming less than 750 megawatt hours per annum will be largely insulated from the impact of the increase as the price they pay for electricity is capped under the Territory Government's Electricity Pricing Order. The increase will, however, have an indirect impact with the additional cost passed on to government and ultimately taxpayers in the Territory through community service obligation payments made to electricity retailers, which compensate for the shortfall between the Electricity Pricing Order tariff and the cost of electricity supply.

5 | Base year expenditure

This chapter discusses the Commission's draft findings on the amount of base year (2024-25) expenditure, which are presented in Box 3.

Box 3 Draft decisions on base year expenditure

The Commission proposes to accept NTESMO's total base year operating expenditure totalling $19.4 million ($real 2026-27), subject to the allocation revisions outlined below.

Base year allocation

The Commission is generally satisfied with NTESMO's Functional Activity Allocator model (Attachment 31 to its initial proposal) for allocating base year personnel costs. However, NTESMO should update the model in its revised proposal to:

- allocate activity **2.5 Supply Procurement** entirely to the market operator function, and
- reflect other changes arising from the RFI process.

Corporate Overheads

The base year expenditure includes $6.5 million in corporate overheads, representing the best available estimate. In its revised proposal, NTESMO should refine its estimates of savings associated with separation and explain how these affect its forecast corporate overheads. The Commission will only consider additional corporate overhead expenditure through the Temporary Separation and TEM Reform Uncertainty Mechanism where NTESMO can demonstrate that costs are not already provided for and cannot be accommodated within the total base year allowance. Any claim must also satisfy the requirements of the applicable mechanism.

NTESMO has used 2024-25 as the base year for the 2027-32 regulatory period as the most recent year of audited actual operating expenditure. As noted in Chapter 3, the Commission accepts use of the 2024-25 audited expenditure for this review, but for future regulatory periods, the Commission expects NTESMO to use the most recent audited expenditure available at the time of its revised proposal (that is, audited actual expenditure for year 4 of a five-year regulatory period).

NTESMO adjusted the base year expenditure to remove unregulated and one-off costs and to reallocate expenditure across cost categories and functional areas. The initial proposal included base year expenditure of $20.2 million ($real 2026-27). Following the RFI process, NTESMO reduced this amount to $19.4 million in the October update (Table 10). The base year expenditure is lower than the 2024-25 operating expenditure requirement approved in the 2024-27 Review. There is also a substantial reallocation of costs from system control to market operator functions.

Table 10 Proposed base year operating expenditure versus 2024-25 revenue requirement ($m real 2026-27)

	System Control		Market Operator		Total	
	Base Year	Approved Revenue	Base Year	Approved Revenue	Base Year	Approved Revenue
Personnel costs	6.3	10.3	4.3	2.4	10.5	12.7
Professional fees	1.2	0.7	0.1	0.0	1.3	0.7
Residual costs	1.2	1.3	0.7	1.0	1.9	2.3
Corporate overheads	3.9	4.6	2.6	1.1	6.5	5.7
Total	11.7	17.0	7.6	4.4	19.4	21.4

Source: NTESMO October update, Att 20 - NTESMO - Proposal Tables and Charts, Tab 3.

Adjustments to base year costs

NTESMO confirmed that the audited financial statements used as the basis for determining base year costs were allocated according to its Cost Allocation Methodology (CAM). To derive base year expenditure for its regulated functions, NTESMO applied adjustments to the audited actual expenditure to remove any expenditure relating to unregulated services and expenditure that will not recur in the next regulatory period (one-off expenditures). These adjustments included:

- removing unregulated costs for monitoring and managing PWC's network and after-hours Water Services fault coordination (funded through a service level agreement), generator connections (charged to generators through connections process), system and investment planning (funded by the Territory Government) and consumption settlement services provided to Territory Generation (funded through a contractual agreement)
- capitalising professional fees associated with capital projects, reclassifying costs related to information and communications technology (ICT) services as residual costs and reallocate costs coded to the wrong NTESMO function and
- removing one-off expenditures for upgrades to NTESMO's website and planning for renewables integration.

The Commission sought clarification from NTESMO on the level and nature of these adjustments through the RFI process. This prompted NTESMO to reconsider its costs and ensure that expenditure had been appropriately classified as operating or capital expenditure and that any proposed operating expenditure on its System Tools step change is incremental to the base year. In the October update, NTESMO identified further base year adjustments that were required to ensure that all expenditure in the base year on System Tools had been appropriately capitalised. NTESMO advised that the updated adjustments are indicative and further analysis will be undertaken prior to the revised proposal.

The Commission's consultation paper did not pose specific questions on the base year adjustments and no stakeholders commented on the adjustments.

At this stage, the Commission considers that NTESMO's adjustments to base year costs are reasonable. However, it notes that NTESMO will undertake further analysis and review of the interaction between its base year level of expenditure on System Tools and proposed step change in its revised proposal to ensure that there is no double counting of expenditure between these two items.

Allocation of base year operating expenditure between system control and market operation

NTESMO proposed a modified allocation of base year personnel and corporate overhead costs between the system control and market operator functions. The new allocation was based on a functional capability review by CutlerMerz (Confidential Attachment 30) and the application of the functional capability review within a Functional Activity Allocator model (Attachment 31). The Functional Activity Allocator model reflects NTESMO's view on the extent of activity that would be undertaken by the three system control groups (real-time operations, operations planning and power system evolution) and the two market operator groups (market operations and rule development, technical and policy advice [NTEM Development]).

The Functional Activity Allocator model establishes allocations for existing activities undertaken by NTESMO, expanded activities under the TEM reforms and new activities under the TEM reforms. When applying the Functional Activity Allocator model for this first time, NTESMO has:

- only reallocated those costs that reflect the scope of activities undertaken in the base year. Based on this, the Commission has assessed the allocators applied and whether these are accepted.
- not yet allocated the costs of new activities as they are not reflected in base year cost, but the allocator model would allocate new activity costs in future periods. As a result, the Commission has assessed the allocators that are specified in the model but not yet applied.
- advised in the RFI process that the Functional Activity Allocator model has not been used to allocate TEM reform costs between system control and market operator, only for assigning current costs within the base year. The TEM reform costs were allocated directly. However, it is necessary that the same activities are allocated consistently between the Functional Activity Allocator model and the direct allocation.

The reallocation resulted in 61% of base year expenditure being allocated to system control and 39% to the market operator. This compares to the approved revenue requirement for 2024-25 which allocated 79% to system control and 21% to the market operator. The Commission's consultation paper advised the

Commission would seek to better understand the drivers behind the reallocation of costs, including by understanding any changes to functions and activities arising from market and reform changes. This was supported by the Territory Government.

Consultation and submissions

While the consultation paper did not pose specific questions about the reallocation of base year costs, Jacana expressed concern about the efficiency of the base year expenditure and sought assurance the reallocations do not obscure cost inefficiencies, and the allocation methodology is stable and predictable. Jacana also observed the underspend on personnel costs, which NTESMO attributes to difficulties retaining and recruiting staff.

Jacana recommends the Commission seek explanation of how vacancy rates will be addressed and whether NTESMO's assumption that it will fill vacancies is credible. More broadly, Jacana considers NTESMO needs to demonstrate the base year expenditure represents efficient costs not just actual costs.

Analysis and assessment

The Commission notes that the system control and market operator functions are only defined at a high level in legislation, with more details expected to be provided in the TEM Rules at a later date. As a result, there is currently uncertainty regarding the relationship between statutory functions and operational responsibilities of system control and the market operator, which makes it challenging to allocate some costs to the relevant function.

While the Commission understands that the TEM reforms will rebalance activities and resources across functions, the approach proposed by NTESMO may allocate costs to some Territory customers for services that they do not receive. In particular, the Commission wants to ensure that the cost of market operator services that are provided exclusively to the DKPS are not paid for by customers in the Alice Springs and Tennant Creek systems. This accords with the principle of beneficiary pays, where costs are allocated to individuals or groups in proportion to the benefits they derive from the services or activities being provided. Where it is not clear whether an activity relates to the system control or market operator function, or where the activity supports both functions, the Commission's approach to cost allocation has been guided by this beneficiary-pays-principle.

Accordingly, the Commission recommends that:

- Where it is clear that an activity and the associated costs solely relate to either the system control or market operator function, those costs are allocated 100% to the relevant function.
- Where an activity and its associated costs support both the system control and market operator functions and therefore provides benefits to customers in all 3 systems, costs should be allocated 50% to system control and 50% to market operator.
- Where it is not clear which function an activity and its associated costs relate to, but the function provides benefits relevant to customers in all 3 systems, costs should be allocated 50% to system control and 50% to market operator.
- Where it is not clear which function an activity and its associated costs relate to, but the function only relates to the DKPS and provides benefits to Darwin-Katherine customers, costs should be allocated 100% to market operator.

This approach should apply consistently in the allocation of base year operating expenditure and proposed step changes, including the TEM reform step changes.

In this draft decision, the Commission has made a small number of modifications to the activity allocations for base year operating expenditure and for future step changes to apply this principle, and to ensure consistency in the allocation between base and step change expenditure.

For base year operating expenditure that has a relevant allocator applied, the Commission recommends that NTESMO modify its allocation of activity 2.5 Supply procurement from 100% system control to 100% market operator as this service is only provided to the DKPS.

NTESMO should also reassess the each of the activity allocators in the Functional Activity Allocator model to ensure that they are consistent with the principles above. This will ensure that the activity allocators are appropriate going forward and are consistent with the allocations applied to step changes.

As the market framework matures and the associated rules, procedures and instruments are finalised, NTESMO should review these allocations and propose refined cost allocation methodologies were supported by clear evidence of beneficiary impacts and functional responsibilities. Any departure from the interim allocation approach should be justified in the revised regulatory proposal.

Corporate overheads

The base year expenditure includes $6.5 million ($real 2026-27) in PWC corporate overhead expenditure allocated to NTESMO. NTESMO proposes to use this as the base for its corporate overhead expenditure going forward (see Chapter 3 for discussion on the change of approach to estimating corporate overheads). NTESMO notes the expenditure allocation excludes application of a PWC efficiency measure to reduce corporate overheads in future years.

NTESMO's initial proposal proposed savings to corporate costs via a negative step change for TEM reforms, but as discussed in the next chapter, uncertainty regarding the savings has resulted in these being withdrawn along with other uncertain expenditures related to separation and TEM reforms.

Consultation and submissions

Respondents to the consultation paper commented on the quantum of corporate overheads. Jacana expressed concern about the uncertainty of the amount of the costs, whether the estimated savings are achievable and the risk of double counting. Jacana recommends NTESMO provide greater clarity on the transition to standalone corporate costs and clearer articulation of the forecast methodology post-separation. Jacana also considers the Commission should require a detailed reconciliation between current and proposed standalone corporate costs. Jacana questions whether the estimated savings are achievable and the basis for the savings. More generally, Jacana considers any allocations of corporate expenditure from PWC post-separation should be equitable and transparent.

The Territory Government considers forecast corporate costs should be based on the actual cost of service provision and those from historical allocation methodologies developed prior to separation. The Territory Government advises the costs of corporate services provided by PWC under SLAs should reflect the efficient incremental cost of providing those services to NTESMO and not present an opportunity for cost recovery beyond direct prudent expenditure. The Territory Government considers this enables assessment of whether procuring services from PWC represents a more efficient outcome than developing equivalent capabilities internally or purchasing services from third parties.

Rimfire did not comment specifically on the base year expenditure, but its view that the costs of establishing NTESMO a standalone entity require closer scrutiny and testing for necessity, efficiency and to avoid duplication are relevant.

Analysis and assessment

The Commission notes that NTESMO's corporate overhead costs in the base year are around 17% higher than the allowance set for the 2024-27 Review. In addition, its corporate capital expenditure is also higher than the allowance for this period. The Commission requires NTESMO to provide a further explanation of these differences in its revised proposal.

The Commission acknowledges the uncertainty on the quantum of corporate overheads for NTESMO to operate as standalone entity and stakeholders' concerns about the costs of operating as a standalone entity. There needs, however, to be a provision in the base year expenditure for these costs. The Commission

considers NTESMO's actual allocation of PWC's corporate overheads to be the best available estimate of the likely quantum of base year corporate overheads.

In its initial proposal, NTESMO included corporate overhead saving of $1.1 million per annum ($real 2026-27) associated with separation and TEM reform costs. NTESMO subsequently advised the Commission that the size of this saving estimated proposed in the initial proposal is now subject to review and removed this negative step change from its October update.

Once the separation and TEM reform cost forecasts are further developed, the Commission considers that any additional costs sought must be net of future overhead savings. The Commission also expects that greater detail will be provided to ensure that any proposed separation and TEM reform-related overheads are demonstrated to be incremental to the corporate overheads included in base year operating expenditure.

Draft position

The Commission proposes to accept NTESMO's base year operating expenditure totalling $19.4 million ($real 2026-27). However, the Commission requires NTESMO to adjust its proposed base year allocation between system control and market operator functions in its revised proposal.

The Commission is generally satisfied with NTESMO's Functional Activity Allocator (Attachment 31 to its initial proposal) to apportion base year personnel costs; however, the following allocation requires revision, consistent with a beneficiary-pays principle, and the allocator requires update to reflect other changes from the RFI process:

- 2.5 Supply Procurement – 100% allocation to market operator

Corporate overheads totalling $6.5 million are included in the base year expenditure as the best available estimate. The Commission expects NTESMO to refine its estimates of savings in its revised proposal. Going forward, the Commission will only consider uncertainty applications for increased corporate overhead expenditure where NTESMO can demonstrate that costs are not accounted for or cannot be accommodated within the total base year allowance. If NTESMO's forecast corporate overheads reduce as a result of separation, NTESMO must include this cost reduction in any application it submits under the new Temporary Separation and TEM Reform Uncertainty Mechanism.

6 | Proposed expenditure – TEM reforms

This chapter outlines the Commission's draft decisions on proposed and indicative (uncertain) expenditure relating to the TEM reforms. The Commission's draft decisions are set out in Box 4.

Box 4 Draft decisions on proposed expenditure relating to TEM reforms

The Commission's draft position is that only costs that are sufficiently certain to be required to deliver NTESMO's regulated functions with sufficient supporting evidence, will be approved in its draft and final 2027-32 decisions. Further information is needed to allow the Commission to assess whether the proposed TEM reform costs are prudent and efficient.

Accordingly, the Commission's finding is not to accept the proposed expenditure (operating or capital expenditure) relating to the TEM reforms in this draft decision.

NTESMO should ensure that it only proposes TEM reform costs in the revised proposal that are sufficiently developed and supported to demonstrate that they are prudent and efficient. NTESMO should not devote resources to refining expenditure estimates that are likely to remain speculative at the time of the final decision.

Recovery of separation and TEM reform costs that cannot yet be adequately substantiated may instead be sought during the 2027-32 regulatory period through the proposed Temporary Separation and TEM Reform Uncertainty Mechanism, subject to its requirements.

As discussed in Chapter 1, the Territory Government's TEM reforms will result in the separation of NTESMO from PWC and give NTESMO new and expanded functions. NTESMO's initial proposal includes recovery of costs it expects to incur in the current regulatory period as well as operating and capital costs it can reasonably forecast for the 2027-32 regulatory period. NTESMO advises these are not the full costs of reforms and provides an indicative estimate of the total costs. These estimates were updated as part of the RFI process and in NTESMO's October update.

This chapter explores NTESMO's proposed TEM reform expenditure and provides a summary of stakeholder feedback on that expenditure given its significance. It then presents the Commission's assessment and draft decisions on the proposed expenditure.

Proposed TEM reform expenditure

As set out in NTESMO's initial proposal and Attachment 6 - Territory Electricity Market Reform Program Regulatory Business Case, the TEM reforms will add to the costs currently incurred by NTESMO. Under the reforms, NTESMO will be separated from PWC and established as an independent statutory corporation. NTESMO will also perform additional functions including:

- system planning for the three power systems
- central procurement of capacity and services to supply the DKPS
- introduction of cash settlement for the DKPS, and
- continuing to improve the functionality of scheduling and dispatch processes for the DKPS, which has increasing levels of small and large scale renewable generation.

The reforms are supported by 2025 legislative instruments, namely, the *Electricity Legislation Amendment (Market Reform) Act 2025* and *Electricity System and Market Operator Act 2025*.

NTESMO is due to be established as a separate entity by mid-2027. The detail of the reform design and hence the nature of the new services and obligations for NTESMO is being developed by the Territory Government, including via the development of market rules. At the time the initial proposal was submitted the market rules were expected by the end of 2026. However, this process is ongoing and substantially delayed.

In the initial proposal, NTESMO sought to recover a "reasonable forecast" of the new separation and TEM reform cost, where the reasonable forecast is defined as forecasts where the:

- scope of the required activity is known from current legislation and government policy and

- scope of the activity is not expected to be materially altered based on expected legislative or government policy changes prior to the activity taking place.

The initial proposal sought to recover the following costs ($m real 2024-25):

- $5.4 million in incremental operating expenditure that would be incurred in the current 2024-27 period associated with separation and TEM reforms, and proposing that this be recovered over the 2027-32 period;
- $1.2 million in capital expenditure in the 2027-32 period for the cash settlement system upgrade; and
- $15.1 million incremental operating expenditure in the 2027-32 period for ongoing separation and reform activities, offset by an expected $5.0 million reduction in operating expenditure due to expected corporate overhead savings.

As discussed in the assessment below, modifications were made to the reasonable forecasts during the RFI process and incorporated into the October update.

The initial proposal also indicated that there are significant additional TEM reform costs that it has not been able to estimate with certainty at this stage. The initial proposal indicated that these uncertain costs could be in the order of an additional $30 million in incremental operating expenditure. These estimates were updated as part of the RFI process and incorporated in the October update.

Consultation paper and submissions

The Commission's consultation paper sought stakeholders' views on:

- whether NTESMO adequately justifies the TEM reform-related expenditure for recovery, noting that only efficient costs clearly linked to known regulatory obligations and that can be reasonably forecast should be included in the proposal;
- whether NTESMO demonstrates the costs to be recovered are prudent and efficient;
- whether additional safeguards are needed to manage uncertainty relating to reform scope, timing and future cost pass-throughs;
- how risks associated with reform implementation should be allocated between NTESMO and consumers.

All stakeholders expressed strong concerns about the TEM reform expenditure.

Jacana did not agree NTESMO had adequately justified the TEM reform expenditure or demonstrated the costs to be recovered are prudent and efficient. Jacana considers recovery of costs before detailed market rules are finalised to be premature. Jacana believes additional safeguards are needed to manage uncertainty and the risks associated with reform implementation should be allocated to the party best able to manage them.

Jacana's recommendations included:

- ring-fencing TEM reform costs so the cost of market reform is clearly visible, regular reporting on progress against budget and governance milestones and an independent prudency review similar to the TDE ex-post review
- costs are clearly categorised as transitional or enduring through defined cost category mapping
- costs depending on yet-to-be-developed rules are recovered through cost pass-throughs
- more detailed breakdown, justification and evidence of competitive tendering for TEM reform costs as well as customer impact assessments
- NTESMO bears the risk of inefficient implementation and delays except where caused by scope changes or external factors beyond NTESMO's control
- establishment of an independent third-party readiness assessment prior to operationalising expanded functions, binding go-live gates and a contingency framework pre-approved by the Commission.

Jacana considers the Commission should establish criteria for TEM reform pass-throughs, risk allocation principles for TEM reform implementation and reporting requirements and approve a readiness and contingency framework ahead of NTESMO operationalising its expanded functions.

In relation to capital expenditure for the settlement system upgrade Jacana seeks reassurance that the scope of the system would be clearly defined and only progress if the reforms are implemented, alternative solutions were considered and it will deliver tangible benefits to market participants.

The Territory Government acknowledges delays in the development and publication of exposure drafts of the TEM Rules creates uncertainty for reform related expenditure as does on-going organisation design work. Given this, NTESMO should forecast the minimum viable resourcing/operating model with refinement in the revised proposal and cost pass-through available for costs not reasonably foreseen. The Territory Government considers material cost pass-through applications should be subject to independent assessment and stakeholder consultation. A conservative and consultative approach to cost pass-throughs would help ensure consumers do not face unlimited exposure to implementation, forecasting and scope risks.

The Territory Government considers elements of the NTESMO's TEM reform related expenditure did not appear to be adequately justified. It pointed to weaknesses relating to uncertainty about NTESMO's future operating model and service delivery arrangements as well as a lack of clarity about the extent to which proposed costs are incremental to existing activities and funding allowances and potential overlap between expenditure proposals.

The Territory Government also considers the regulatory business cases could be strengthened through greater assessment of alternative delivery models. It notes the regulatory business case concludes that separation with SLA support is preferable to either maintaining the status quo or establishing a fully independent operating model but further should demonstrate the preferred model represents the lowest-cost means of delivering the required outcomes.

The Territory Government also notes NTESMO has proposed significant ongoing expenditure on professional services, including legal, technical and economic advisory support. While this may be required to support implementation of new functions, further information should be provided regarding the expected frequency, volume and complexity of some recurring activities and rather than professional services, lower-cost alternatives, including greater reliance on internal capability, could be considered.

Rimfire's submission focusses on the substantial and uncertain cost of the TEM reforms and the risk of this being transferred to market participants and customers before the full scope, benefits and efficient implementation of the reforms have been demonstrated. Rimfire considers a higher evidentiary threshold should apply to these costs and NTESMO's expenditure proposals should be tested against the objective of the reform program to deliver secure, reliable, competitive electricity at least cost.

Rimfire considers the Commission should only approve substantiated, prudent and efficient reform costs with these tied to accountability measures. Rimfire also urges the Commission to ensure:

- customers are protected from bearing the cost of policy and implementation uncertainty
- separation and governance costs are rigorously scrutinised and
- future pass-through mechanisms are tightly controlled.

Analysis and assessment

Frontier Economics assessed the evidence provided by NTESMO in the initial proposal, in subsequent responses to RFIs and in the October update. The initial proposal documents predominantly relied on by Frontier Economics were Chapter 4 of the NTESMO's initial proposal, and Attachment 6: Territory Electricity Market Reform Program, Regulatory Business Case.

During the RFI process, NTESMO updated the TEM reform forecast expenditure and provided additional information on the forecasting methods and processes.

NTESMO's October update included revised TEM reform costs into four key categories:

- Implementation costs - Separation: Costs relating to separation from PWC, which include costs incurred in the current 2024-27 regulatory period and the 2027-32 period.

- Implementation costs – TEM reform design: Cost relating to implementing new systems and functions under the TEM reforms, which include costs incurred in the current 2024-27 regulatory period and the 2027-32 period.
- Ongoing costs - Separation: Ongoing costs of separating from PWC, with these costs incurred in the 2027-32 period.
- Ongoing costs – New functions: Ongoing costs to deliver new functions that will be assigned to NTESMO under the TEM reforms including procurement and cash settlement functions for the DKPS, with these costs incurred in the 2027-32 period.

Frontier Economics' analysis was limited to the expenditure that NTESMO defines as a "reasonable forecast". This is defined as forecasts where the:

- scope of the required activity is known from current legislation and government policy, and
- scope of the activity is not expected to be materially altered based on expected legislative or government policy changes prior to the activity taking place.

Frontier Economics' analysis of the reasonable forecasts under the four cost categories is that they are not yet sufficiently certain or evidenced to be capable of being found to represent prudent and efficient costs. Further detail is provided below.

Implementation costs - Separation

In the October update, NTESMO sought $1.85 million of current period (2024-27) operating expenditure, and $0.35 million of 2027-32 period operating expenditure ($real 2024-25). Analysis of these costs is provided in Table 11 below. This shows that further detail is required to establish the efficiency of these proposed costs.

Table 11 Reasonable forecast Separation implementation ($real 2024-25)

Separation cost	Comment
Review and advice on regulatory and legislative amendments ($200,000)	This relates to legal advice on a range of areas including director registration and review of TEM rules. As the TEM rules are delayed, it is expected that a portion of this expenditure would be delayed. Also the basis of the cost estimate requires further verification.
Transitional service agreements/service level agreement ($50,000)	This relates to legal advice on SLAs, which is underway. However, the cost is based on a staff member estimate without supporting evidence.
Resourcing to support post separation ($200,000)	For project leadership and SLA development. High level estimate based on internal staff classification levels, but NTESMO has indicated that costs may be higher.
Interim Board Chair and CEO remuneration ($450,000)	Board Chair remuneration will be incurred, but NTESMO advised that the CEO commencement date is not yet determined. Separate amounts for Board Chair and CEO remuneration are required to verify the level and timing of the costs.
Licensing electricity system control: Power factory licence, IT/OT, real time systems ($625,000)	The cost is described as for the purchase of Power Factory licence. The most significant element of this cost relates to full-time equivalent staff to support implementation rather than licence costs. Hence, further verification of costs required.
Maximo controls/ chart of accounts investigation ($50,000)	Consultancy on accounts systems. However, the cost is based on a staff member estimate without supporting evidence.

Separation cost	Comment
Develop forms and templates ($30,000)	Estimate based on recent similar contract, which appears to be reasonable
Branding ($50,000)	Nearly half of this cost is associated with 3 vehicle wraps, which is not considered to be prudent expenditure for NTESMO. NTESMO has not provided any information to demonstrate how this expenditure is required to perform its functions or why a monopoly system controller and market operator should undertake branding activities paid for by customers.
Governance framework ($100,000)	Estimated consultancy cost of $2,500 per day 40 days. While this appears reasonable further detail is sought on the relative sharing of this task and cost between the Territory Government and NTESMO.
ICT systems and services ($100,000)	While described as ICT systems and service, this cost relates to the NTESMO boardroom set up including approx. $89,000 for a Boardroom videoconference facility and $20,000 for boardroom table and chairs. Further clarity is needed on the assumed premises where the new boardroom is being established.
Compliance ($60,000)	Set up CAMS, including initial purchase of module, based on recent internal costings. Basis of the cost estimate is unclear.
Risk and audit ($100,000)	Consultant engaged to complete a strategic risk review workshop with NTESMO's Board to develop risk register as well as develop internal audit plan. Required timing requires verification.
Assurance reviews (post separation) ($150,000)	Further detail needed on the purpose of this review, and the appropriate alignment with the timing of reform implementation.

Source: NTESMO October update, Att 7 Tab 15,16.

Implementation costs – TEM reform design

In the October update, NTESMO sought $1.1 million of current period operating expenditure, and $0.9 million of 2027-32 period operating expenditure ($ real 2024-25). These costs relate to new functions that NTESMO will undertake as a result of the TEM reforms, including cash settlement and procurement.

The work being led by the Territory Government to develop the detailed design and requirements of these functions, and specification in TEM rules, is delayed. This means that there is insufficient detail on the design of NTESMO's functions and hence the resulting costs. This lack of clarity on the reforms, combined with the high-level costs estimates provided to date, mean it is not possible to verify the prudency and efficiency of these costs in time for the draft decision.

Ongoing costs – Separation

In the October update, NTESMO sought $1.6 million of 2027-32 period operating expenditure ($real 2024-25).

The costs sought relate to compliance and audit activities. As for the implementation separation costs above that included these cost categories, further information is required on the nature, timing and estimation of these costs before they can be found to be prudent and efficient.

Ongoing costs – New functions

In the October update, NTESMO sought $1.5 million of 2027-32 period operating expenditure ($real 2024-25) for the development of the RESIP.

As with the other reform costs, the lack of clarity on the functional specifications combined with the high-level cost estimations provided to date, mean it is not possible to verify the prudency and efficiency of these costs in time for the draft decision.

Cash settlement system upgrade

In the October update, NTESMO sought $1.7 million of 2027-32 period capital expenditure ($real 2024-25) to upgrade the existing settlement system to allow for cash settlement.

However, NTESMO advised during the RFI process that this cost estimate requires further refinement due to the ongoing work on policy design and TEM rule development including for the settlement function. NTESMO has flagged that a firm costing may not be available until within the 2027-32 regulatory period and hence may need to be addressed via the proposed uncertainty mechanism to manage in-period reform costs.

Overhead savings

As discussed in Chapter 6, the uncertainty about the timing and quantity of likely separation and TEM reform costs also means that NTESMO has advised the Commission that the estimated corporate overhead saving of $1.1 million per annum ($real 2026-27) proposed in the initial proposal is now subject to review.

Once the separation and TEM reform cost forecasts are further developed, it is the expectation of the Commission that this will include overhead savings. The Commission also expects that greater detail will be provided to ensure that any proposed separation and TEM reform-related overheads are demonstrated to be incremental to the corporate overheads included in base year operating expenditure.

Proposed allocation of TEM reform expenditure between system control and market operator

While NTESMO has not applied the allocators in its Functional Activity Allocator model to allocate the proposed TEM reform costs between system control and market operator, the Commission consider that the allocation factors used for base and step changes should be consistent and applied to both.

The Commission recommends the following changes outlined in Table 12 to the activity allocators contained in the Functional Activity Allocator model that related to the TEM reform services/activities. In making its recommendations, the Commission has applied the same principles applied to the base year expenditure in Chapter 5, including the beneficiary pays principle where it is unclear which function activities relate to, or activities which support both the system control and market operator functions.

While not included as a category within the existing Functional Activity Allocator model, the Commission recommends that NTESMO's separation costs should be allocated equally (50%/50%) between system control and market operators and this change serves all three power systems.

While the Commission recommends that expenditure should be allocated in accordance with the beneficiary pays principle as outlined above, the Commission notes that there remains some uncertainty regarding the relationship between statutory functions and operational responsibilities of system control and the market operator that may warrant some departures from this strict application in the short term but would be expected to increasing align in future as the reforms and statutory functions are aligned.

Any departure from the proposed allocation approach should be justified in the revised regulatory proposal.

Table 12 Recommended changes to activity allocators relevant to TEM reform activities

Allocator	Recommended change
1.1 System and operational planning	For the new RESIP planning function, costs should be allocated equally (50%/50%) to system control and market operator as this function relates to all three power systems. This is consistent with the allocation in the current Functional Activity Allocator model.
2.2 Dispatch scheduling	For the enhanced dispatch and scheduling function, costs should be allocated equally (50%/50%) to system control and market operator as this function relates to all three power systems. This will differ to the base dispatch scheduling allocator which, as advised in the RFI process, is 40% Real Time Operations/30% Operations Planning (system control) and 30% Market Operations (market operator). The Commission is not proposing to change this base allocation.
2.4 Settlements	For the new cash settlement function which will only be undertaken for the DKPS, this should be allocated entirely (100%) to the market operator and recovered from customers in the DKPS. This will differ to the base settlement allocator which is 15% Power System Evolution (system control) and 70% Market Operations/15% NTEM Development (market operator) as this relates to the current settlements which includes a settlement statement function for Alice Springs and Tennant Creek systems.
2.5 Supply procurement	The allocation in Attachment 31 for 2.5 Supply Procurement is 15% Real Time Operations/15% Operations Planning/70% Power System Evolution, all of which are system control sub-functions. The new centralised capacity procurement is undertaken solely for the benefit of the DKPS and supports the operation of the market. Consistent with the beneficiary-pays principle, the associated expenditure should be allocated entirely (100%) to the market operator and recovered from customers in the DKPS. The Commission has adopted this allocation in determining NTESMO's operating expenditure allowance in its draft decision.
2.7 Market rules	For the new rules relating to the TEM reforms, these costs should be allocated equally (50%/50%) to system control and market operator as this reform relates to all three power systems. This will differ to the base market rules allocator which is 5% Real Time Operations/5% Operations Planning /75% Power System Evolution (system control) and 5% Market Operations/10% NTEM Development (market operator). The Commission is not proposing to change this base allocation.

Commission's draft position and reasoning

The Commission proposes to not accept NTESMO's proposed expenditure (operating or capital expenditure) relating to the TEM reforms in this draft decision.

Further information would be required for the Commission to assess the prudence and efficiency of the proposed separation implementation costs as outlined above. If further detail is provided in the revised proposal, some of these costs may be capable of acceptance. However, the Commission considers that NTESMO would need to provide substantial new supporting evidence about the basis of its forecasts to allow the Commission to determine the prudency and efficiency of the proposed costs.

With the delay to government determining the detail on the ongoing arrangements for a separated NTESMO, and on the design of the TEM reforms, it is unlikely to be possible to provide sufficiently robust evidence to support these cost forecasts within the timelines of the final decision.

NTESMO should ensure that it only proposes costs in the revised proposal that are sufficiently developed and evidenced to be capable of being found to be prudent and efficient. Otherwise, NTESMO may apply for costs in-period via the proposed Temporary Separation and TEM Reform Uncertainty Mechanism outlined in Chapter 3.

7 | Proposed operating expenditure step changes (excl. TEM reforms) and trend adjustment

This chapter discusses NTESMO's proposals for new operating expenditure and the trend adjustment that is applied to operating expenditure. The Commission's draft decisions are set out in Box 5.

Box 5 Draft findings on operating expenditure steps and trend adjustments

The outcome of the Commission's assessments of NTESMO's business cases for new operating expenditure in the 2027-32 regulatory period is as follows:

- **TDE recurrent operating expenditure** – The Commission proposes to accept the step change from 2028-29 because ongoing support and maintenance are necessary for secure and reliable operation of the TDE and the forecast costs are supported by competitive procurement outcomes and reasonable cost estimates
- **Existing system tools** – The Commission has not accepted the step change because NTESMO has not demonstrated that the forecast costs are efficient and incremental to the base year allowance or sufficiently justified maintaining PED separately from the TDE.
- **New system tools** – The Commission has not accepted the step change because the high-level estimates do not establish efficient costs or demonstrate that each tool is required at the proposed scope and timing without duplicating other allowances.
- **Real time system support** – The Commission has not accepted the step change because, although formal EMS support arrangements are prudent in principle, the indicative external quote does not demonstrate the efficient incremental cost of services to be provided by PWC.
- **MSATS** – The Commission proposes to accept the step change, subject to removing GST, because service and licence fees and updates to the Communications Guideline are necessary for compliance with the NT NER and the forecast costs have a reasonable basis. NTESMO's revised proposal should use GST-exclusive fees.
- **Review procedures and guidelines** – The Commission proposes to accept the revised step change because a planned review program supports NTESMO's ongoing regulatory obligations and the reduced review schedule and professional services panel rates provide a reasonable basis for the forecast.

The Commission proposes to approve the following operating expenditure step changes:

$m real 2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	Total
TDE	0.0	2.1	3.5	3.5	3.7	**12.7**
Existing system tools	0.0	0.0	0.0	0.0	0.0	**0.0**
New system tools	0.0	0.0	0.0	0.0	0.0	**0.0**
Real time system support services	0.0	0.0	0.0	0.0	0.0	**0.0**
MSATS	0.3	0.3	0.3	0.3	0.3	**1.7**
Review procedures and guidelines	0.3	0.3	0.3	0.3	0.3	**1.3**
Total operating expenditure step change (excl. TEM reforms)	0.6	2.6	4.0	4.1	4.3	15.7

The Commission may be able to approve some of the expenditure that is not accepted above if NTESMO provides additional evidence to demonstrate the prudence and efficiency of the forecast expenditure in its revised regulatory proposal. The Commission recommends that this is a priority area of focus for NTESMO in its revised proposal.

The Commission proposes not to accept NTESMO's proposed WPI forecast used to trend personnel costs. It has applied a more recent forecast of WPI produced by Deloitte Access Economics, which was commissioned and considered in the AER's draft decision for Powerlink's 2027–32 electricity transmission determination.

Excluding expenditure related to TEM reforms, NTESMO proposes step changes in operating expenditure of up to $6.9 million per annum ($29.9 million over five years, $real 2026-27). The proposed changes are discussed separately in the following sections. The chapter concludes with a review of NTESMO's application of a trend adjustment to operating expenditure.

TDE – recurrent operating expenditure

The TDE is a scheduling and dispatch process and system intended to support system controllers in managing an increasingly dynamic and complex power system by producing transparent and repeatable dispatch outcomes to support system security, operational efficiency and market confidence. The Commission approved capital funding for the TDE in the 2024-27 Review, and the project is expected to be completed with the TDE operational early in the 2027-32 regulatory period (capital investment in the TDE is discussed in the next chapter).

NTESMO advises operating expenditure to fund support and maintenance of the TDE was not included in the 2024-27 Review as these costs were not expected to be incurred until the next regulatory period. NTESMO's initial proposal estimated operating expenditure would be required from 2027-28 onward, but this has been revised to 2028-29 in the October update.

NTESMO proposes an operating expenditure step change (professional fees and residual costs for system control) of up to $3.7 million per annum (a total of $12.7 million over the four years from 2028-29, $real 2026-27). The proposed expenditure will fund software licensing, cyber security, information and operational technology services, system maintenance, integration services and hardware and infrastructure maintenance to support the ongoing operation of the TDE.

Consultation paper and submissions

The Commission's consultation paper sought stakeholders' views on whether the proposed step change is reasonable, prudent and efficient.

Jacana views the ongoing maintenance as necessary once the TDE is operational but believes the cost of $3.5 million from 2029-32 onward to be high. Jacana recommends the Commission require evidence that competitive procurement processes have been applied in determining these costs. Jacana also questions why NTESMO's proposal does not explain why internal capability cannot be developed at lower cost than external vendor support.

On a broader note, Jacana is concerned NTESMO's proposed step changes are weighted toward system security and reliability with some delivering only negligible or indirect benefits for retailers and customers. Jacana considers NTESMO's initial proposal does not adequately quantify:

- the customer benefit per dollar invested
- the efficiency gains (e.g., potential savings) linked to investments like the TDE
- the impact on wholesale electricity costs or retail costs.

Jacana recommends the Commission request a more detailed cost-benefit analysis for each step change, evidence that competitive procurement processes have been applied for major contracts and disallow step changes where customer benefits are not clearly demonstrated.

The Territory Government observes NTESMO's chosen option is the highest cost option. While the business case outlines a range of qualitative benefits of that option, the Territory Government considers a breakdown of quantifiable benefits should be provided to enable assessment of whether the additional expenditure compared to the second-best option is justified. It also points out that expected operational efficiencies from the TDE are not reflected in the expenditure forecast.

Rimfire did not directly address the proposed step change but raised potentially relevant concerns about customer impacts from cost increases, higher evidentiary thresholds, and stronger reporting and accountability to demonstrate realised customer benefits and measurable investment outcomes.

Analysis and assessment

Frontier Economics requested further information from NTESMO on the nature of its step change components and the basis for which costs were determined.

The step change relates to activities including:

- Cyber security maintenance: regulatory patching, vulnerability management and monitoring are required to address evolving cyber threats and maintain compliance with applicable cyber and information security standards. This is important due to TDE's role as a real-time operational system with multiple internal and external faces.
- Software licensing: maintain lawful access to the proprietary dispatch, optimisation and forecasting components that underpin the TDE. Active licences and vendor support arrangements enable NTESMO to receive updates, security fixes and specialist technical assistance.
- Software and integration support: ensure ongoing compatibility between the TDE, the energy management system (EMS) and associated forecasting and system monitoring tools. As system conditions, interfaces and procedures evolve, configuration updates, testing and validation are required.
- Hardware and infrastructure maintenance: maintenance of hosting environments, disaster recovery capability and associated hardware licensing to ensure continuity of operations in the event of failures or incidents

Frontier Economics considered that the proposed ongoing TDE support activities are prudent for meeting NTESMO's statutory obligations to operate the power system securely, reliably and efficiently.

Frontier Economics also considered that the information provided by NTESMO to support the efficiency of cost estimates is reasonable. Most of the cost estimates derive from competitive tenders. Where internal cost estimates are applied these are based on assumptions about staffing numbers and rates which are reasonable. NTESMO's step change for 'Software integration and support costs' ($1.05 million per annum) is based on the quote from the supplier who subsequently withdrew its bid (see Chapter 8 for further information). However, NTESMO considers this to be the best estimate for these costs until it tenders for this service again in 2028.

NTESMO's proposal was based on components of the step change commencing in 2027-28. More recently NTESMO advised that this would be delayed by a further year. Therefore, the timing for this step change needs to move out by another year to 2028-29.

Commission's draft position and reasoning

The Commission proposes to accept the operating expenditure step changes for the TDE outlined in the October update. NTESMO's proposed expenditure and the Commission's draft decision on those costs ($m real 2026-27) are set out below.

TDE	2027-28	2028-29	2029-30	2030-31	2031-32	Total
NTESMO proposal	0.0	2.1	3.5	3.5	3.7	12.7
SC - Professional fees	0.0	0.0	0.5	0.5	0.5	1.5
SC - Residual costs	0.0	2.1	2.9	3.0	3.2	11.2
Commission draft decision	0.0	2.1	3.5	3.5	3.7	12.7
SC - Professional fees	0.0	0.0	0.5	0.5	0.5	1.5
SC - Residual costs	0.0	2.1	2.9	3.0	3.2	11.2

The Commission considers that ongoing support and maintenance of the TDE will be necessary once the system is operational. The proposed activities – including cyber security maintenance, software licensing, integration support and infrastructure maintenance – are required to preserve the TDE's availability, security and functionality and to support NTESMO in meeting its system control obligations. On this basis, the Commission is satisfied that the nature of the proposed step change is prudent.

The Commission is also satisfied that NTESMO has provided a reasonable basis for the forecast costs. Most cost estimates are supported by competitive procurement outcomes, while internally estimated costs are based on reasonable assumptions about staffing requirements and rates. The estimate for software integration and support remains less certain because it relies on a quote from a supplier that subsequently withdrew its bid. Nevertheless, the Commission considers it is the best available estimate pending NTESMO's proposed retender in 2028. NTESMO should update this estimate in its revised proposal if more reliable information becomes available.

In response to stakeholder concerns, the Commission agrees that expenditure of this scale requires transparent evidence of efficient procurement, consideration of internal delivery where practicable and clear accountability for outcomes. However, the Commission does not consider that an inability to quantify every customer benefit means the expenditure should be rejected. Maintaining a secure and reliable dispatch system provides an essential system-wide benefit and is required to deliver NTESMO's legislated functions, even where that benefit cannot readily be expressed as a monetary saving to individual customers. The Commission expects NTESMO to report on procurement outcomes, service performance and realised benefits so that the efficiency of the expenditure can be assessed over time.

The Commission has also adjusted the timing of the step change to reflect NTESMO's latest advice that the relevant costs will not commence until 2028-29. This ensures customers do not fund the expenditure before the services are required. Subject to that timing adjustment and any updated evidence provided with the revised proposal, the Commission proposes to accept the TDE operating expenditure step change shown above.

Existing system tools

In the 2024–27 Review, the Commission approved both retrospective funding for the 2019-24 regulatory period and ex-ante funding for a suite of transitional tools for the DKPS (now referred to as "system tools" in NTESMO's initial proposal).[6] NTESMO advises these tools have either been implemented or will be implemented by the end of current regulatory period. The tools are integrated within PWC's EMS, which is used by NTESMO for real-time system monitoring and control, and provide critical decision-support capability for system controllers.

NTESMO advises ongoing maintenance costs were not included in the 2024-27 Review because these costs were not expected to be incurred until the tools were implemented. NTESMO advises maintenance, support and incremental improvements are required to ensure the tools remain functional, fit for purpose and capable of supporting an increasingly complex operating environment.

Accordingly, NTESMO has requested professional fees expenditure of about $0.6 million per annum (a total of $3.2 million over the 2027-32 regulatory period, $real 2026-27) to maintain and enhance the five system tools. Table 6 of Attachment 2 to NTESMO's initial proposal sets out key proposed maintenance activities and supporting justification for the expenditure. The table also outlines proposed operating and capital expenditure for new system tools, which are discussed in the next section of this chapter.

Consultation paper and submissions

The Commission's consultation paper sought stakeholders' views on whether the proposed step change is reasonable, prudent and efficient.

Jacana and the Territory Government's concerns regarding the proposed step changes and investments in system tools are discussed in the next section and in the following chapter (in relation to capital expenditure).

Rimfire did not specifically comment on this step change but its desire for higher evidentiary thresholds may be relevant.

[6] The approved tools were: demand forecasting and compliance tools (Capacity Forecast Dispatch System [CFDS] tool; Demand Forecasting Tool stage 1 and 2; Forecast Compliance Tool); Contingency Frequency Control Ancillary Services [C-FCAS] tool; Proportional Energy Dispatch [PED] tool; and Real time System Security Monitoring tool [RTSSMT].

Analysis and assessment

Frontier Economics assessed the prudency of the proposed expenditure by considering:

- whether there is an ongoing operational need for the function performed by each tool
- whether that function is likely to be duplicated by the TDE and
- whether comparable functionality is used in the NEM and WEM.

Frontier Economics' assessment indicated that there is a reasonable basis for retaining functionality provided by four of the five existing tools. However, further information is required in relation to the Proportional Energy Dispatch (PED) tool. An assessment of each of the existing system tools is provided below.

Capacity Forecast Dispatch System (CFDS) Tool

The CFDS provides short-term forecasts for large-scale solar generators in the DKPS and automates renewable-energy dispatch using PED assessments. NTESMO has stated that CFDS is currently the energy management system (EMS) that enables it to dispatch utility-scale photovoltaic generation.

Frontier Economics considered there is a continuing operational requirement for this functionality. Variable renewable generation creates a need for short-term estimates of available generation to inform dispatch. Equivalent functionality exists in more developed electricity markets. In the NEM, Australian Energy Market Operator's (AEMO's) operational arrangements include forecasting requirements for wind and solar generators, while semi-scheduled generation is dispatched through the NEM's central dispatch arrangements. It also considers the CFDS as complementary to, rather than duplicative of, the TDE. The TDE is intended to perform scheduling and dispatch functions, whereas CFDS provides short-term renewable-generation forecasting that can inform dispatch.

Frontier Economics assessed the continued maintenance of the CFDS function prudent. It recommended NTESMO ensure that its future architecture clearly establishes how CFDS outputs will interface with the TDE and that functionality incorporated directly within the TDE is not separately maintained in CFDS.

Contingency Frequency Control Ancillary Services (C-FCAS) tool

The C-FCAS tool assesses post-contingency frequency security, including frequency stability, inertia and reserve adequacy. The functional assessment indicates that C-FCAS provides an input to the TDE, while the TDE performs the optimisation function. The functional capability review similarly identifies C-FCAS as providing predictive monitoring intended to strengthen system-security outcomes.[7] There is strong evidence that the underlying function is necessary. The NEM addresses frequency-security requirements through FCAS arrangements and incorporates relevant constraints within central dispatch. The comparable WEM framework incorporates Contingency Reserve and Rate of Change of Frequency control within its dispatch arrangements.

Frontier Economics considered the proposed functionality prudent and complementary to the TDE, insofar as C-FCAS establishes security requirements that the dispatch optimisation must respect rather than independently optimising generator dispatch. This is also consistent with the way mature electricity markets integrate security requirements with dispatch.

Real-Time System Security Monitoring Tool (RTSSMT)

The RTSSMT provides real-time monitoring of voltage, system strength and fault levels and supports contingency analysis. The Dispatch System Roadmap indicates that RTSSMT combined the proposed Contingency Analysis in EMS and Real-Time System Strength Assessment projects and was intended to be incorporated into the EMS upgrade.

Frontier Economics considered that the underlying system-security monitoring function is required. Similar security considerations are incorporated into the operation of both the NEM and WEM, although the implementation is not identical. There is less evidence demonstrating the boundary between RTSSMT and

[7] CutlerMerz, *NTESMO Functional Capability Review*, July 2025, p 63.

the TDE than there is for C-FCAS. NTESMO's general position is that the system tools perform discrete monitoring, forecasting and assessment functions, while the TDE performs dispatch optimisation, but the material reviewed does not clearly document the RTSSMT-TDE interface.

On balance, Frontier Economics considered retaining the system-security monitoring capability prudent, because the function is distinct from dispatch optimisation and is consistent with functions undertaken in other power systems.

Forecasting

The Forecasting tool provides forecasts of behind-the-meter generation, rooftop PV and electricity demand, including five-minute and seven-day demand forecasts made available to market participants.

Forecasting is a core input to efficient and secure system operation. Comparable functions are undertaken by AEMO in both the NEM and WEM. The NEM comparison identifies AEMO's operational demand and distributed-PV forecasting as the relevant analogue, while AEMO undertakes demand forecasting for the South West Interconnected System in the WEM. The forecasting tool should principally generate information that can be consumed by dispatch processes rather than replicate the optimisation undertaken by those processes. Accordingly, the underlying forecasting function is prudent and is not inherently duplicative of the TDE.

Proportional Energy Dispatch (PED)

PED undertakes continuous real-time dispatch optimisation, proportionally allocating generation across solar farms within network limits. Frontier Economics considered the PED's function is closer to the core function of a dispatch engine compared to the other existing system tools.

The closest NEM comparator is the National Electricity Market Dispatch Engine, which AEMO uses to conduct central dispatch and maximise the value of trade subject to system constraints. In the WEM, the Wholesale Electricity Market Dispatch Engine produces dispatch schedules and dispatch instructions, including dispatch targets and caps for facilities. The WEM's dispatch algorithm similarly incorporates an optimisation formulation, constraints and market clearing.

This comparison shows that in the NEM and WEM, the analogous dispatch optimisation function is substantially integrated into the central dispatch engine rather than operating as a distinct parallel dispatch optimiser. This does not establish that PED will necessarily be redundant once the TDE is operational. For example, PED may continue to perform a lower-level real-time allocation or control function that is not performed by the TDE. However, Frontier Economics considered that the information reviewed does not yet provide sufficient evidence to demonstrate why these functions need to remain separate once the TDE is operational.

The Commission therefore requests that NTESMO demonstrate in its revised proposal the respective dispatch functions, operating timescales and data flows of PED and the TDE, and explain why PED functionality cannot be incorporated into, or superseded by, the TDE following commissioning.

Frontier Economics also assessed the efficiency of the proposed step change. NTESMO advised that its cost estimation for C-FCAS, RTSSMT, PED, Solar Forecasting and Uncertainty Reserve Margin (SFURM), and CFDS was developed using a forecasting methodology aligned with the RESIP roadmap. The assessment identified that NTESMO's forecasts rely on historical costs and expected changes in the DKPS. However, the supporting historical cost data was not provided, limiting the ability to test whether the forecast expenditure represents the efficient cost of the proposed tools.

A further issue is whether the proposed step change is genuinely incremental to expenditure already reflected in the base year. NTESMO has acknowledged that its initial proposal incorrectly stated that no allowance had been provided for ongoing system tools maintenance in the current regulatory period. The existence of a prior allowance does not establish what was actually spent or included in the adjusted base year, but it makes a clear reconciliation necessary. Without that reconciliation, there is a risk that adding the proposed step change to base year expenditure would provide for the same maintenance activities twice.

On the information available, Frontier Economics considered that the efficiency of the proposed step change has not been demonstrated.

Commission's draft position and reasoning

The Commission proposes not to accept NTESMO's step change for existing system tools. The Commission considers that incurring some expenditure to maintain four of the five tools is prudent, but more information is required to assess whether maintaining the PED is prudent. However, the Commission considers that NTESMO has not yet demonstrated that the forecast costs for any of the system tools are efficient and are additional to the base year expenditure. NTESMO's proposed step change for existing system tools and the Commission's draft decision on those costs ($m real 2026-27) are set out below.

Existing system tools	2027-28	2028-29	2029-30	2030-31	2031-32	**Total**
NTESMO proposal – SC – Existing System Tools	0.7	0.6	0.6	0.6	0.6	**3.2**
Commission draft decision	0.0	0.0	0.0	0.0	0.0	0.0

The Commission has not accepted the proposed step change for existing system tools because NTESMO has not demonstrated that the forecast costs are efficient and additional to expenditure already included in the base year.

The Commission agrees with Jacana that the business case should provide stronger evidence of efficient procurement, consideration of alternative delivery models and customer benefits. It also agrees with the Territory Government that incremental expenditure should be linked to new obligations or improved consumer outcomes. Although there is a reasonable basis for the prudency of retaining the functionality of four of the five tools, this does not establish the efficient level of expenditure and therefore the appropriate level of additional funding.

Supporting historical cost data and a reconciliation of actual base year maintenance expenditure are needed to test the forecast and rule out double counting, while further justification is required for maintaining PED separately from the TDE.

The decision is also consistent with Rimfire's broader call for stronger supporting evidence, noting that Rimfire did not comment specifically on this step change. The Commission's decision not to accept these forecasts in the draft decision reflects that NTESMO has provided insufficient evidence to support the allowance, rather than a conclusion that ongoing maintenance of these system tools is unnecessary.

In its revised proposal, NTESMO should provide:

- for PED, documentation of the respective dispatch functions, operating timescales and data flows of PED and the TDE and justify any continuing need for separate applications following commissioning.
- a tool-by-tool reconciliation of actual base year expenditure, identifying any costs capitalised, removed or retained in the base allowance, and explain precisely how the proposed step change is incremental to that allowance.

Forecast costs should be supported by the scope, frequency and timing of maintenance and enhancement activities, the staff or contractor effort required, and the rates applied, with historical cost evidence, supplier quotations or relevant benchmarks. NTESMO should also explain the procurement approach, compare practicable alternative delivery models and identify the expected operational, market and customer benefits.

This information would enable the Commission to reassess the efficient incremental expenditure for the final decision.

New system tools

Attachment 2 to NTESMO's initial proposal includes expenditure to expand the suite of system tools used to support operation of the DKPS. The capital investment for these tools is discussed in the next chapter. Additionally, NTESMO has proposed professional fees expenditure totalling $2.2 million ($real 2026-27) over the 2027-32 regulatory period for on-going development, maintenance and support services of these tools.

Consultation paper and submissions

The Commission's consultation paper sought stakeholders' views on whether the proposed step change is reasonable, prudent and efficient.

Jacana considers the system tools business case needs to be improved by inclusion of cost-benefit analysis, evidence of competitive procurement processes, consideration of alternative service delivery models and demonstration of customer benefits.

The Territory Government noted new investments and operational expenditure should be tied to either new obligations and functions or improved outcomes for consumers. The benefits are described in the business case, but the Territory Government considers additional information is required regarding the expected operational, market and customer outcomes to support an informed assessment of whether the incremental expenditure associated with NTESMO's chosen option is efficient and prudent.

Although Rimfire did not directly address the proposed step change, its submission raised potentially relevant issues, including the impact of cost increases on customers and the need for higher evidentiary thresholds.

Analysis and assessment

Frontier Economics assessed the prudency of the proposed step change by considering whether the new system tools would support an identifiable operational need as the DKPS evolves. Its high-level, non-technical review found a reasonable basis for the proposed functionality, while noting that this conclusion depends on the assumed development of the power system. Each of the new systems tools, its function and prudency assessment is summarised below.

- SFURM: This determines the reserves needed to manage solar forecast uncertainty, including unexpected cloud cover. Requirements vary with system conditions, time of day and season. Frontier Economics considered that a reasonable case exists for managing solar forecast uncertainty and setting appropriate firming reserves.
- General Reserve Monitoring: This gives operators real-time visibility of spinning, non-spinning and regulating reserves, replacing existing ad hoc calculations with a dedicated EMS module. A reasonable operational need exists for reliable visibility of available reserves and replacing ad hoc calculations with a dedicated module supports more consistent monitoring.
- Digital Life Cycle Management Tool: This provides a platform for reporting faults, requesting enhancements and tracking maintenance activities and responsibilities for system tools. There is a reasonable governance case for tracking faults, enhancements and maintenance responsibilities. NTESMO describes it as dedicated to operational system tools, rather than general corporate activities.
- Battery Information Capacity Tool: This improves operators' visibility of battery capacity so storage can be used effectively to support frequency control, reserve adequacy and system stability. A reasonable case exists for these functions, with scope and timing depending on battery deployment and operational requirements.
- Renewable Energy Module (REM): Enables coordinated dispatch of solar, battery and hybrid resources through the EMS, distributing generation targets while respecting network constraints and reserve requirements. A reasonable case exists for coordinating solar, battery and hybrid resources within system limits. However, its dispatch role warrants clear separation from PED and the TDE before concluding that all proposed functionality is necessary and non-duplicative.

This prudency assessment is conditional on the scope and timing of changes assumed in the RESIP roadmap. If renewable generation and other developments occur more slowly, or differ materially from those assumptions, the need for particular tools and their associated expenditure may change. NTESMO should therefore explain in its revised proposal, how alternative development scenarios would affect the scope, timing and cost of the proposed step change, rather than treating the forecast as independent of those developments.

NTESMO has explained that the proposed operating expenditure covers ongoing maintenance, support and functional enhancements associated with changes in network configuration. These activities may reasonably

be required to keep the new tools fit for purpose following implementation. The expenditure forecast should nevertheless distinguish development activities from recurrent operating costs and demonstrate that maintenance allowances commence when the relevant tools enter service.

Frontier Economics has not established the efficiency of the forecast costs because the estimates remain high-level and their underlying basis requires further substantiation. A description of the activities and anticipated benefits is insufficient to demonstrate that the proposed allowance represents an efficient cost. NTESMO should provide a transparent breakdown linking each tool's maintenance and enhancement requirements to the expected workload, resources and unit costs, supported by historical evidence, supplier quotations or relevant benchmarks.

The assessment should also distinguish genuinely separate activities from potentially overlapping expenditure. NTESMO advised that PED expenditure relates to maintaining and enhancing automated dispatch functionality, while REM expenditure relates to renewable-source models and EMS database updates. It also describes the Digital Life Cycle Management Tool as a dedicated platform for reporting issues, managing enhancement requests and tracking maintenance responsibilities. These explanations clarify the intended functions but do not, by themselves, demonstrate the prudency and efficiency of the separate allowances.

On balance, there is a reasonable, qualified case for the prudency of the proposed functionality, but insufficient evidence to support the efficiency of the operating expenditure step change. In its revised proposal, NTESMO should substantiate the tool-by-tool cost estimates, distinguish development from ongoing support, demonstrate that expenditure does not duplicate other allowances and explain the implications of different implementation scenarios. This would enable the Commission to reassess the efficient expenditure required for the final decision.

Commission's draft position and reasoning

The Commission proposes not to accept NTESMO's proposed new system tools step change. The Commission considers that NTESMO has demonstrated that investing in each of the proposed new tools is prudent. However, NTESMO has not yet provided sufficient information to demonstrate that the proposed cost forecasts represent efficient costs. NTESMO's proposed new system tools step change and the Commission's draft decision on those costs ($m real 2026-27) are set out below.

New system tools	2027-28	2028-29	2029-30	2030-31	2031-32	Total
NTESMO proposal – new system tools	0.8	0.5	0.3	0.3	0.3	2.2
Commission draft decision	0.0	0.0	0.0	0.0	0.0	0.0

The Commission acknowledges Jacana's request for stronger cost-benefit analysis, evidence of competitive procurement and consideration of alternative delivery models. It also agrees with the Territory Government that additional expenditure should be linked to new obligations or improved operational, market and customer outcomes. The assessment identifies a reasonable basis for the proposed functionality, subject to the assumed evolution of the DKPS. However, this qualified prudency finding does not establish that each tool is required at the proposed scope and timing, or that its forecast costs are efficient.

The Commission's non-acceptance of the proposed step change reflects these unresolved evidentiary issues. The high-level estimates do not sufficiently demonstrate the relationship between the proposed activities, required resources and forecast expenditure. NTESMO's explanations of the separate functions of PED, the REM and the Digital Life Cycle Management Tool clarify their intended roles but do not substantiate the separate allowances or eliminate potential duplication.

This approach is consistent with Rimfire's broader concerns about customer exposure to cost increases and the need for stronger supporting evidence, noting that Rimfire did not comment specifically on this step change.

In its revised proposal, the Commission requires NTESMO to address these concerns through a tool-by-tool breakdown of scope, timing, maintenance activities, resource requirements and rates, supported by historical

evidence, supplier quotations or relevant benchmarks. It should compare practicable delivery alternatives, explain the preferred approach and identify expected operational, market and customer benefits, quantifying them where practicable. It should also distinguish development from ongoing support, demonstrate that costs do not duplicate other allowances and explain how alternative renewable-generation and battery-development scenarios would affect each tool's scope, timing and cost. These requirements would enable reassessment of the proposed expenditure for the final decision.

Real time system support services

PWC's EMS is the primary platform used for real time system monitoring, control and dispatch. NTESMO advises any unplanned outage or loss of EMS functionality could affect its ability to monitor network conditions, manage contingencies and maintain system security. NTESMO also notes that low and predictable system latency (time delay between operator action and system response) is required to ensure operators receive timely and accurate information and dispatch and control actions are executed within acceptable operational timeframes.

NTESMO advises it does not have a real-time EMS support model aligned to its system control obligations. Instead, EMS support is presently delivered through arrangements with PWC's Power Services and Power SCADA team, supplemented by NTESMO's internal capability and external vendor services. According to NTESMO, there is no approved funding to contribute to the cost of PWC's support or to expand support arrangements to meet NTESMO's full operational requirements.

Attachment 3 to the initial proposal sets out the case for establishing a real-time EMS support model aligned to NTESMO's system control obligations. NTESMO proposes residual costs expenditure of $1.8 million per annum (a total of $8.8 million over the 2027-32 regulatory period, $real 2026-27) to fund these the support services.

NTESMO proposes to leverage off existing support arrangements with PWC, as owner of the EMS, rather than engage a third-party provider. NTESMO considers this approach would provide continuity of service, utilise staff with system familiarity and lower transition risk. NTESMO advises it is working with PWC Power Services to establish service level agreements defining operational requirements and formalising service levels and governance arrangements.

Consultation paper and submissions

The Commission's consultation paper sought stakeholders' views on whether the proposed step change is reasonable, prudent and efficient.

While Jacana states formalising support arrangements is paramount and comes with a degree of urgency, Jacana is concerned this may be a result of prior under-investment and could have been addressed earlier. This suggests Jacana accepts the need for support arrangements, but Jacana's broad recommendations on the need for better cost-benefit analysis, competitive procurement and demonstration of customer benefit may be relevant.

The Territory Government raised three matters with the proposed expenditure:

- it is unclear why an external market quote would be an efficient estimate of the cost rather than an assessment of the actual cost to PWC of providing the service.
- additional information should be provided on the extent to which the proposed expenditure relates to existing business-as-usual services versus new or enhanced service obligations.
- the Commission should satisfy itself that the proposed cost allocation methodology distinguishes between costs recovered through network revenue and costs recovered through NTESMO's regulated charges to ensure costs are only recovered once.

Rimfire did not specifically comment the proposed step change, but its submission raised potentially relevant matters, including the impact of cost increases on customers, the need for higher evidentiary thresholds, and stronger reporting and accountability mechanisms to demonstrate realised customer benefits and measurable investment outcomes.

Analysis and assessment

On the information presented, Frontier Economics considers there is a reasonable basis for establishing formal real-time EMS support arrangements. The EMS is central to NTESMO's monitoring, control and dispatch functions, and a loss of availability or deterioration in response times could compromise its ability to manage contingencies and maintain system security. Support arrangements with clearly defined responsibilities, service levels and escalation procedures would help manage these risks.

Building on PWC's existing support capability is a credible delivery option because PWC owns the EMS and its personnel have relevant system knowledge. Continuity and reduced transition risk are legitimate considerations when assessing alternatives.

However, NTESMO advised that the information provided in the initial proposal on the scope and specification of required services, and the likely efficient cost of the services under an SLA has not been determined at this stage. As a result, NTESMO has indicated that the forecast costs in the initial proposal should be viewed as indicative only.

Information on market-based costs were provided for an alternative option where real time support services are provided via a competitive contract. NTESMO has advised that the third-party quote is also indicative at this stage, as it does not reflect the full scope of required services.

This means that the costs of the real time support services are not accepted, as they cannot be found to be prudent or efficient at this early stage.

In the revised proposal, NTESMO should ensure that cost estimates for the options put forward for the provision of real time system support services cover all services required.

For the option based on the SLA with PWC, the cost forecast should:

- demonstrate that it is limited to the incremental cost that PWC would incur to provide the specified real time system support services to NTESMO, including incremental labour and vendor costs
- the methodology used to allocate shared costs that form any part of the proposed service costs, and the value of the shared costs
- reflect the scope and level of services specified in the service level agreement, and
- demonstrate that costs are not recovered elsewhere in PWC's network revenue or other elements of NTESMO's proposed costs. To do this, NTESMO should demonstrate that the proposed real time support SLA cost is incremental to:
    - costs already included in PWC's network revenue allowance, and
    - NTESMO's base year expenditure, corporate overheads, TDE maintenance and system-tool maintenance costs.

The presentation of alternative service provision options in the revised proposal should also compare whole-of-service costs, operational resilience impacts, transition risks and the ability to meet required response times.

Commission's draft position and reasoning

The Commission proposes not to accept NTESMO's proposed step change for real-time support services. The Commission accepts that establishing real-time EMS support services is prudent. However, the cost forecasts provided by NTESMO are stated to be indicative only and are too uncertain and unsubstantiated to be assessed as efficient. NTESMO's proposed step change for real-time support services and the Commission's draft decision on those costs ($m real 2026-27) are set out below.

Real time support services	2027-28	2028-29	2029-30	2030-31	2031-32	Total
NTESMO proposal	1.8	1.8	1.8	1.8	1.8	8.8
SC – Residual costs	*1.6*	*1.6*	*1.6*	*1.6*	*1.6*	***8.2***
MO – Residual costs	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	***0.6***
Commission draft decision	0.0	0.0	0.0	0.0	0.0	0.0
SC – Residual costs	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	***0.0***
MO – Residual costs	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	***0.0***

The Commission considers the need for formal, reliable real-time EMS support prudent in principle, but is not satisfied that the efficiency of the proposed expenditure has been demonstrated. It therefore proposes not to accept the step change at this stage.

The Commission understands that these services will be provided under a service level agreement with PWC. NTESMO advised that the service level agreement specification is to be completed in October 2026. In its revised proposal, the Commission requires NTESMO to clearly describe the specification of service to be provided under the SLA and provide clarity on where these costs are recorded in its regulatory accounts to ensure that there is no double counting of overhead costs. These requirements would enable reassessment of the proposed expenditure for the final decision.

MSATS

Under the NT NER, NTESMO is required to have information systems for the exchange of metering and other information. This is met using the Australian Energy Market Operator's (AEMO's) MSATS system. NTESMO is also required to have a Communication Guideline that documents these arrangements including Territory-specific MSATS processes.

In the 2024-27 Review, the Commission approved residual costs for MSATS service and licence fees of $0.1 million in 2025-26 and 2026-27 ($real 2023-24) under NTESMO's Market Operations function. NTESMO requests reinstatement of this expenditure as it is not in the base year expenditure given the MSATS system did not commence operation until 1 July 2025 and to allocate these to System Control's Power System Evolution function. NTESMO also seeks increase the amount of expenditure to meet increased AEMO charges associated with use of the MSATS system. In total, NTESMO proposes a step change in residual costs of $0.3 million per annum (a total of $1.4 million over the 2027-32 regulatory period, $real 2026-27).

Additionally, NTESMO proposes professional fees of $0.1 million per annum (a total of $0.4 million over the 2027-32 regulatory period, $real 2026-27) for external specialist support from AEMO to maintain its Communications Guideline. NTESMO advises MSATS procedures for the NEM are typically updated twice each year. This requires NTESMO to update its Communications Guideline to maintain alignment and avoid operational inefficiencies and other risks rising from divergence from the NEM-aligned MSATS framework.

Consultation paper and submissions

The Commission's consultation paper sought stakeholders' views on whether the proposed step change is reasonable, prudent and efficient.

Jacana acknowledges maintaining MSATS is necessary for effective market operations and that AEMO charges have increased materially. Jacana considers the increases should be subjected to prudency review.

The Territory Government advises no material issues were identified with NTESMO's regulatory business case and Rimfire did not comment on the proposed step change.

Analysis and assessment

Frontier Economics considered that both the MSATS service fees and the professional fees to maintain communications guidelines are prudent. Funding MSATS service fees is necessary for NTESMO to maintain

compliance with the NT NER and ensure the MSATS platform continues to support efficient, reliable market operations.

MSATS operation in the Territory is supported by the Communications Guideline that specifies Territory-specific MSATS processes. AEMO updates the NEM MSATS Procedures periodically in response to regulatory and market changes and this requires NTESMO to update the Communications Guideline. These updates are necessary to prevent divergence from NEM MSATS Procedures.

Frontier Economics also considered that NTESMO provided reasonable evidence that its proposed expenditure is efficient.

- MSATS service and licence fees are set by AEMO and passed through by NTESMO. NTESMO has forecast these fees based on averaging AEMO's monthly invoices. While the Commission considers the approach taken by NTESMO to forecast these fees is reasonable, the fees should be GST-exclusive
- Maintaining the Communications Guideline requires external specialist support from AEMO and supplemented by internal NTESMO resources. NTESMO has used a bottom-up approach to estimate the cost of each update at $70,000, based on the estimated time and unit cost per hour for the resources involved in each update. The Commission considers NTESMO's assumptions to be reasonable.

Frontier Economics also considered an allowance based on two MSATS Procedure update cycles per year to be a reasonable planning assumption, noting that the timing and frequency of AEMO updates varies over time.

Commission's draft position and reasoning

The Commission proposes to accept NTESMO's proposed step change relating to MSATS subject to removing GST and the Commission's draft decision on those costs ($m real 2026-27) are set out below.

MSATS	2027-28	2028-29	2029-30	2030-31	2031-32	Total
NTESMO proposal	0.4	0.4	0.4	0.4	0.4	1.8
SC - Professional fees	0.1	0.1	0.1	0.1	0.1	0.4
SC - Residual costs	0.3	0.3	0.3	0.3	0.3	1.4
Commission draft decision	0.3	0.3	0.3	0.3	0.3	1.7
SC - Professional fees	0.1	0.1	0.1	0.1	0.1	0.4
SC - Residual costs	0.3	0.3	0.3	0.3	0.3	1.3

Source: NTESMO revised initial proposal, Att 20 - NTESMO - Proposal Tables and Charts, Tab 3 and Utilities Commission analysis. Totals may not add due to rounding.

The Commission considers the step change prudent because MSATS is required to exchange metering and other market information and to support NTESMO's compliance with the NT NER. Ongoing service and licence fees are necessary to keep the platform available, while specialist support to update the Communications Guideline is required to maintain alignment with AEMO's MSATS Procedures and avoid operational inefficiencies and risks arising from divergence.

The Commission considers the forecast efficient because the service and licence fees are set by AEMO and NTESMO has estimated them using average monthly invoices which provides a reasonable basis for future costs. The allowance for two procedure-update cycles each year is also a reasonable planning assumption given the frequency of AEMO updates. In response to Jacana's request for prudency scrutiny, the Commission has reviewed the need for each cost component and the basis of the forecast. The approved allowance is exclusive of GST so that customers do not fund GST for which NTESMO can claim an input tax credit.

The Commission considers NTESMO's allocation of MSATS expenditure to system control to be appropriate, noting MSATS is used for the exchange of information for customers in all three power systems. As a result, costs should be recovered from all customers, rather than solely from customers in the DKPS as would occur if costs remained attributed to the Market Operator.

Review procedures and guidelines

NTESMO advises that funding approved in the 2024-27 Review for a Rule Development, Technical and Policy Advice (Market Operator) function was limited to internal resources and did not include provision for external technical and economic expertise. NTESMO therefore proposes a step change in professional fees of $0.3 million per annum (a total of $1.3 million over the 2027-32 regulatory period $real 2026-27) to support a structured program of periodic reviews of its codes, procedures and guidelines during the 2027-32 regulatory period (Attachment 3 to the initial proposal sets out the business case for the proposed expenditure).

NTESMO notes legislation does not prescribe fixed review cycles for these instruments but considers it has an ongoing regulatory responsibility to ensure they remain accurate, effective and fit for purpose. NTESMO advises that, to date, this responsibility has largely been met on a reactive, issue-driven basis, without dedicated and sustained resourcing resulting in regulatory risk, operational inconsistencies and issues with document quality and usability.

NTESMO proposes funding for professional fees for four reviews annually, comprising two Market Operator and two System Control reviews. NTESMO notes, however, that the implementation of the TEM reforms may affect systematic review program and require its business case to be revised.

Consultation paper and submissions

The Commission's consultation paper sought stakeholders' views on whether the proposed step change is reasonable, prudent and efficient.

Jacana considers periodic review appropriate, but questions whether external technical and economic expertise is required in addition to internal resources funded in the current regulatory period.

The Territory Government advised that under the TEM reforms it is expected that rule development will be undertaken by the government and NTESMO is expected to have less of a role in administering rules. The Territory Government noted NTESMO's preferred option is the engagement of external consultants to support review and consultation activities, but additional evidence is needed to demonstrate why this level of external support is necessary or why a lower-cost level of support would not be sufficient to meet NTESMO's regulatory obligations for business-as-usual operations, particularly given the changes to NTESMO's statutory obligations under the TEM reforms.

Rimfire did not specifically comment on the proposed step change, but its submission raised potentially relevant matters, including the impact of cost increases on customers, and the need for higher evidentiary thresholds.

Analysis and assessment

Frontier Economics agreed with NTESMO that it has a regulatory obligation to ensure that its procedures and guidelines remain accurate, effective and fit for purpose on an ongoing basis. This requires NTESMO to review and update its procedures and guidelines when material changes in the market, operations or technology occur.

The power system is increasingly complex and updating procedures and guidelines likely requires expertise and experience beyond NTESMO's internal capability. The Commission considers it reasonable that NTESMO would seek external technical or economic advice to ensure its procedures and guidelines remain aligned with good practice.

As noted by NTESMO, the benefits of this include:

- reduced risk of non-compliance with regulatory obligations
- improved quality and usability of operational documents
- enhanced internal capability through collaboration with industry experts and
- greater transparency and stakeholder confidence in NTESMO's processes.

NTESMO's estimate cost was based on the average hourly rate of a Principal Consultant across the six panel consultants contracted to the NTESMO Professional Services Panel. NTESMO allowed for 701 hours or around 88 days per annum. The Commission sought further information from NTESMO on the proposed schedule of guideline and procedure reviews. NTESMO provided this Commission with an indicative schedule for the 2028–32 period. In developing the schedule, NTESMO revised downwards the number of reviews which reduced the proposed step change by around 20%.

The Commission also asked whether the Territory Government would fund the review and amendment of procedures and guidelines, given that reviews will arise from the TEM reforms and the roles of government and the Commission to review codes and rules. NTESMO advised the Commission that the Territory Government will not fund any of NTESMO's implementation activities, including the review and amendment of guidelines and procedures impacted by the TEM reform program. Procedures and guidelines that will need to be amended following implementation of the TEM rules will be captured in the TEM reform program regulatory business case for targeted amendment/revision.

Commission's draft position and reasoning

The Commission proposes to accept NTESMO's proposed step change relating for review of procedures and guidelines and the Commission's draft decision on those costs ($m real 2026-27) are set out below.

Review procedures and guidelines	2027-28	2028-29	2029-30	2030-31	2031-32	Total
NTESMO proposal – MO – Professional fees	0.3	0.3	0.3	0.3	0.3	1.3
Commission draft decision	0.3	0.3	0.3	0.3	0.3	1.3

The Commission considers the step change prudent because NTESMO has an ongoing obligation to keep its procedures and guidelines accurate, effective and fit for purpose. A planned review program will reduce the regulatory and operational risks associated with relying on reactive, issue-driven updates, particularly as the power system, market arrangements and supporting technologies become more complex. External technical and economic advice is also reasonable where the specialist expertise required is not available internally and will support higher-quality, usable documents and greater transparency and stakeholder confidence.

The Commission considers the revised forecast efficient. NTESMO based the consultant rate on the average Principal Consultant rate across its professional services panel. This provides a more targeted allowance for business-as-usual reviews rather than an automatic entitlement to undertake four reviews each year.

In response to Jacana's and the Territory Government's concerns, the Commission accepts that internal resources should undertake work within their existing capability and that external support should be engaged only where specialist input is necessary. The allowance does not fund rule-development functions expected to be undertaken by government, and amendments arising specifically from implementation of the TEM reforms will be considered separately through the TEM reform regulatory business case. These safeguards address the risk of duplication and ensure customers fund only reviews required for NTESMO's regulatory functions.

Trend adjustment

The trend adjustment accounts for changes in input costs that are over and above inflation. NTESMO forecasts industry wage growth to exceed inflation and therefore, a trend adjustment is applied for higher growth in its personnel costs. NTESMO considers other operating costs will increase in line with inflation.

In the 2024-27 Review, NTESMO used an average of two AER compliant wage price index (WPI) forecasts sourced from KPMG (commissioned by the AER) and Oxford Economics Australia (commissioned by PWC) for its trend adjustment. For the trend adjustment in the 2027-32 regulatory period, NTESMO proposes to use the Deloitte Access Economics report on labour price growth for the electricity, gas, water and waste services (utilities) industry commissioned by the AER for the 2026–31 network service provider regulatory resets (Attachment 27 to NTESMO's initial proposal). This is due to the significant cost for PWC to procure an AER compliant WPI forecast specifically for the NTESMO initial proposal.

The WPI forecast ranges from 0.9% in 2027-28 to 1.1% in 2031-32. Table 13 shows the value of the trend adjustment, which totals $2.5 million ($real 2026-27) over the five-year period.

Table 13 Trend adjustment ($m real 2026-27)

Trend adjustment	2027-28	2028-29	2029-30	2030-31	2031-32	Total
Total – NTESMO model	0.3	0.4	0.5	0.6	0.7	2.5
System Control	*0.2*	*0.2*	*0.3*	*0.4*	*0.4*	***1.5***
Market Operator	*0.1*	*0.2*	*0.2*	*0.2*	*0.3*	***1.0***

Source: NTESMO October update, Att 20 - NTESMO - Proposal Tables and Charts - 2028-32 - IP – Con.xls, Tab Inputs

Consultation paper and submissions

The Commission's consultation paper did not pose specific questions on the trend adjustment and no stakeholders commented on the adjustment.

Analysis and assessment

Frontier Economics considered that a WPI forecast applied to personnel costs is a reasonable basis for the trend adjustment. The forecast was prepared for the AER for electricity network regulatory determinations and is therefore relevant to labour cost movements in the utilities industry. Although it was not commissioned specifically for NTESMO, it provides an independent estimate of wage growth for the industry in which NTESMO operates.

However, forecasts of the consumer price index (CPI) and WPI have changed considerably since June 2025. Relying on a more recent forecast would therefore provide a better estimate of the expected difference between wage growth and inflation over the 2027-32 regulatory period.

Commission's draft position and reasoning

The Commission proposes to not accept NTESMO's proposed trend adjustment and the Commission's draft decision on those costs ($m real 2026-27) are set out below.

Trend adjustment	2027-28	2028-29	2029-30	2030-31	2031-32	Total
NTESMO proposal	0.3	0.4	0.5	0.6	0.7	2.5
System Control	*0.2*	*0.2*	*0.3*	*0.4*	*0.4*	***1.5***
Market Operator	*0.1*	*0.2*	*0.2*	*0.2*	*0.3*	***1.0***
Commission draft decision	0.1	0.2	0.3	0.4	0.5	1.5
System Control	*0.1*	*0.1*	*0.1*	*0.2*	*0.2*	***0.7***
Market Operator	*0.1*	*0.1*	*0.1*	*0.2*	*0.2*	***0.7***

Source: NTESMO October update, Att 20 - NTESMO - Proposal Tables and Charts - 2028-32 - IP – Con.xls, Tab Inputs and Utilities Commission Analysis. Totals may not add due to rounding.

The Commission proposes to not to accept NTESMO's proposed WPI forecast used to trend personnel costs. In the draft decision, it has applied a more recent forecast of WPI produced by Deloitte Access Economics commissioned and considered in the AER's draft decision for Powerlink's 2027–32 electricity transmission determination and published in March 2026.

The WPI forecast ranges from -0.3% in 2025-26 to 0.9% in 2027-28, before decreasing and remaining flat at 0.7% from 2028-29 onwards.

The Commission considers that NTESMO should apply the more recent forecast of WPI in its revised proposal unless a more up to date forecast becomes available.

8 | Proposed capital expenditure (excl. TEM reforms)

This chapter discusses NTESMO's proposals for reprofiling of capital expenditure on the TDE and new capital expenditure. The Commission's draft decisions are set out in Box 6.

Box 6 Draft findings on capital expenditure

The outcome of the Commission's assessments of NTESMO's business cases for reprofiled and new capital expenditure in the 2027-32 regulatory period is as follows:

- TDE – Accept the reprofiled TDE capital expenditure, noting that the primary cause of the delay was reasonably outside NTESMO's control. Roll forward the 2024–27 RAB using allowed rather than actual depreciation, with the completed project subject to an ex-post review in the Commission's 2032-37 review.
- New System Tools – Do not accept the capital expenditure for new system tools because the high-level estimates do not sufficiently demonstrate the efficiency of the proposed costs. The Commission may be able to accept this proposed expenditure in its final decision if NTESMO provides more evidence in its revised regulatory proposal to demonstrate the efficiency of its expenditure forecasts.
- Corporate capital expenditure – Do not accept the corporate capital expenditure because post-separation arrangements remain insufficiently clear to establish efficient capital expenditure requirements. The Commission will reassess the expenditure based on NTESMO's revised proposal or the proposed Temporary Separation and TEM Reform Uncertainty Mechanism.

The Commission proposes to approve the following capital expenditure:

$m real 2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	Total
TDE - Reprofiled capital expenditure	11.7	3.2				14.9
New system tools	0.0	0.0				0.0
Corporate capital expenditure	0.0	0.0	0.0	0.0	0.0	0.0
Total capital expenditure	11.7	3.2	0.0	0.0	0.0	14.9

NTESMO proposes to reprofile $14.9 million of capital expenditure approved for the TDE in the 2024-27 regulatory period to the 2027-32 regulatory period. NTESMO also proposes $2.6 million in new capital expenditure for new system tools and $8.3 million for corporate investments.

TDE – reprofiled capital expenditure

Capital funding of $38.5 million ($real 2026-27) for the design, build and implementation of the TDE was approved in the 2024-27 Review. The approved capital expenditure was expected to be fully incurred in the 2024-27 regulatory period, but NTESMO advises the project has been delayed due to the time required to obtain government approvals and complete vendor negotiations, due diligence and final contract negotiations. A failure in contract negotiations means the delivery model for the TDE project has now changed to an internally driven model.

NTESMO's October update changed the profile of expenditure and indicates a lower total level of expenditure of $35.9 million ($real 2026-27) compared to the previously approved capital expenditure for the project. (Table 14). NTESMO proposes to update the capital expenditure in the RAB to reflect the new profile.

Table 14 Proposed reprofiling of TDE expenditure ($m real 2026-27)

Reprofiled TDE expenditure	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	**Total**
Commission approved profile 2024-27 Review	2.7	21.6	14.2						**38.5**
NTESMO reprofiled	2.0	2.7	16.3	11..7	3.2				**35.9**

Source: NTESMO October update, Att 20 - NTESMO - Proposal Tables and Charts - 2028-32 - IP – Con.xls, Tab 3, Table 3-3

Consultation paper and submissions

The Commission's consultation paper sought stakeholders' views on the treatment of reprofiled TDE expenditure.

Jacana is concerned customers may pay twice for the same capital and supports NTESMO's proposal to work with the Commission to address the over-recovery. More generally, Jacana advocates for stronger oversight of the TDE expenditure including recommending an independent audit of NTESMO's handling of the TDE investment to date and conduct of the ex-post review promptly upon implementation.

Jacana recommends the ex-post review assess whether the TDE has delivered expected benefits and evaluate proposed stage 2 functionality and costs. Jacana is concerned by NTESMO's advice that TDE stage 2 functionality will be required for compliance with TEM reform market rules, noting the uncertainty since the rules are still under development, and the risk of "scope creep" where additional functionality is added beyond what is strictly necessary.

The Territory Government considers NTESMO should reprofile the capital expenditure to align with specific TEM reform elements where applicable, for example, any planned changes to scheduling and dispatch processes or systems under the TDE would benefit from an alignment review with the timing of release of the relevant tranche of draft TEM Rules. The Territory Government advises additional costs incurred as a result of delays to the project should be absorbed by NTESMO and not passed through to consumers.

Rimfire did not specifically comment on the TDE, but over recovery of revenue is relevant to its concerns that additional charges erode savings from competition.

Analysis and assessment

Further information was requested from NTESMO on the circumstances causing the delay in project delivery to determine whether the delayed implementation of the TDE project could have been avoided through enhanced project and risk management. Based on the business case and supplementary information, Frontier Economics considers the timeframes to gain approvals was optimistic, but most of the delay in business case approval related to contract negotiations. Frontier Economics advised the failure in negotiations appeared reasonably outside NTESMO's control.

NTESMO's original plan was for the TDE project business case to receive Board, Commission and Territory Government approvals by May 2025. The Commission's September 2024 Decision Paper flagged a final decision for system control and market operator charges in April or May 2025, however the final decision ended up being released in June 2025. NTESMO also advised that approval by the Territory Government Shareholding Minister was gained in August 2025, four months later than originally forecast.

The Commission considers NTESMO's original timeframes to gain all approvals were optimistic, however the more significant cause of the delay related to NTESMO's contract negotiations. The TDE projects required contract negotiations with a dispatch engine software supplier and an integration services supplier.

These negotiations were originally planned to be finalised by August 2025, three months after all approvals were obtained. While contract negotiations with the dispatch engine software supplier were finalised in December 2025, negotiations with the integration services supplier were extensively delayed due to concerns over the supplier's ability to meet its fixed price offer. On 30 March 2026, the supplier formally withdrew its fixed-price offer.

The Commission considers that the primary cause of the delay is reasonably outside NTESMO's control. While the profile and timing of TDE capital expenditure has changed, the overall expenditure remains the same as previously deemed efficient by the Commission.

The TDE project now has a revised delivery model. The revised delivery approach for the TDE project involves a mix of different resourcing and procurement strategies to retain the ability to operate within the original budget. NTESMO advised an external assurance review was undertaken on the comprehensiveness of the move from external to internal-led integration and program management of the TDE project.

As discussed in Chapter 3, reprofiling the TDE capital expenditure across two regulatory periods creates an issue under the current regulatory framework. The framework does not contemplate capital projects where expenditure was approved for one regulatory period but project delays mean a substantial amount of

expenditure will not be incurred under the next regulatory period. In this situation, NTESMO benefits from recovering revenue for depreciation and cost of capital in advance of expenditure while there is no benefit to customers for the increase in charges. To address this, the Commission is proposing to roll forward NTESMO's 2024–27 RAB using allowed depreciation rather than actual depreciation.

Commission's draft position and reasoning

The Commission proposes to accept the reprofiled TDE capital expenditure. NTESMO's proposed reprofiling of TDE capital expenditure and the Commission's draft decision ($m real 2026-27) are set out below.

Reprofiled TDE expenditure	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	Total
NTESMO Proposal	2.0	2.7	16.3	11..7	3.2				35.9
Commission draft decision	2.0	2.7	16.3	11..7	3.2				35.9

The Commission reaffirms its position (and approval) from the 2024-27 Review that expenditure on the TDE is justified and necessary. The Commission is satisfied that the delay in progressing the project is due to factors outside of NTESMO's control and notes the reprofiled expenditure is lower than the total expenditure previously assessed as efficient.

The Commission acknowledges stakeholder concerns about double-counting and considers that rolling forward NTESMO's 2024–27 RAB using allowed depreciation represents an appropriate and proportionate regulatory treatment in the circumstances. It ensures that NTESMO bears most of the financial consequences associated with the reprofiling of expenditure, while providing customers with a measure of protection against the financial consequences of expenditure being deferred between regulatory periods. It also provides a practical means of addressing the issue within the existing regulatory framework. The TDE project will also be subject to ex-post review once the project is complete as part of the next regulatory period.

New system tools

NTESMO proposes to expand the suite of system tools used to support operation of the DKPS, seeking capital expenditure of $2.6 million ($real 2026-27) for five additional tools (outlined in Table 7 of Attachment 2 to the initial proposal). NTESMO advises the proposed system tools would leverage functionality available in the new version of PWC's EMS[8], and improve system visibility, automation and decision-support capabilities for system controllers. Additional operating expenditure for tool development, maintenance and support.

Consultation paper and submissions

The Commission's consultation paper sought stakeholders' views on whether NTESMO has demonstrated the capital expenditure for system tools is reasonable, prudent and efficient.

Jacana considers the business case for system tools does not sufficiently demonstrate the operational benefit of each system tool. Jacana observes the tools focus on system security with limited evidence of benefits in terms of more efficient dispatch and reduced wholesale costs and the flow from these to customers.

[8] PWC's energy management system is transmission network management tool with wider system control functions. Upgrades to the system are funding through PWC's network business proposals to the AER.

Jacana considers NTESMO should implement system tools in a staged manner prioritising investments based on operational urgency, quantum of customer benefit and its readiness to deploy and utilise the investment. Jacana believes NTESMO has not sufficiently demonstrated that competitive tension has been applied to major contracts, and it needs to demonstrate that competitive procurement processes have been followed. Jacana also observes there is no evaluation of alternative service delivery models such as shared services with government entities or AEMO and using cloud-based or software-as-a-service solutions rather than bespoke system builds.

As discussed in the previous chapter, the Territory Government considers NTESMO has not sufficiently demonstrated the expected operational, market and consumer outcomes to evidence the investment in new system tools is efficient and prudent.

Analysis and assessment

Frontier Economics also considered the prudency and efficiency of NTESMO's proposed capital expenditure on new system tools. As discussed in Chapter 7, Frontier Economics considers that NTESMO has not established the efficiency of the forecast costs for these tools because the estimates remain high-level and their underlying basis requires further substantiation.

Frontier Economics considered that a description of the activities and anticipated benefits is insufficient to demonstrate that the proposed allowance represents an efficient cost. NTESMO should provide a transparent breakdown linking each tool's maintenance and enhancement requirements to the expected workload, resources and unit costs, supported by historical evidence, supplier quotations or relevant benchmarks.

The assessment should also distinguish genuinely separate activities from potentially overlapping expenditure. NTESMO advised that PED expenditure relates to maintaining and enhancing automated dispatch functionality, while REM expenditure relates to renewable-source models and EMS database updates. It also describes the Digital Life Cycle Management Tool as a dedicated platform for reporting issues, managing enhancement requests and tracking maintenance responsibilities. These explanations clarify the intended functions but do not, by themselves, demonstrate the prudency and efficiency of the separate allowances.

Commission's draft position and reasoning

The Commission proposes not to accept NTESMO's capital expenditure for new system tools. The high-level information provided by NTESMO to date is not sufficient to demonstrate that this proposed expenditure is prudent and efficient. NTESMO's capital expenditure for new system tools and the Commission's draft decision on those costs ($m real 2026-27) are set out below.

New system tools	2027-28	2028-29	2029-30	2030-31	2031-32	Total
NTESMO proposal	2.4	0.2				2.6
Commission draft decision	0.0	0.0				0.0

The Commission proposes to not accept NTESMO's capital expenditure for new system tools. The Commission considers that the high-level estimates and descriptions provided by NTESMO do not sufficiently demonstrate the prudency and efficiency of the costs.

Corporate capital expenditure

NTESMO has included $8.3 million in corporate capital expenditure in its proposed capital costs for the 2027-32 regulatory period. The forecast is based on PWC corporate capital expenditure and primarily relates to a program of works to consolidate PWC operations at a single Darwin site. While planning for NTESMO's future accommodation requirements is at an early stage, NTESMO considers this allocation provides an evidence-based estimate of the corporate capital expenditure likely to be required following separation.

NTESMO notes its TEM reform cost forecast does not include any separate allowances for property-related capital expenditure or lease and maintenance of accommodation. Instead, these costs are assumed to be captured in the forecast of corporate capital expenditure. NTESMO advises this will be reviewed as part of its revised proposal to ensure proposed expenditure reflects the efficient cost of delivering its corporate functions.

Consultation paper and submissions

The Commission's consultation paper sought stakeholders' views on the estimate of corporate capital expenditure given NTESMO's proposed separation from PWC.

Jacana is not satisfied the estimate of corporate capital expenditure is appropriate and recommends any expenditure related to PWC facility consolidation be deferred until separation arrangements are finalised and there is a standalone facilities plan for NTESMO including comparative analysis of options (e.g., lease vs purchase, shared vs standalone). More generally, Jacana considers any allocations of corporate expenditure (overheads or capital) from PWC post-separation should be equitable and transparent.

The Territory Government observed a final decision on where NTESMO will be located will be made prior to the time for submission of its revised proposal, allowing NTESMO to revisit its corporate capital expenditure estimate to ensure it reflects the efficient cost of delivering its functions. The Territory Government advised capital contributions to broader PWC corporate projects should only be recovered from NTESMO customers where it can be clearly demonstrated that such arrangements represent the lowest-cost and most efficient means of delivering the relevant services.

While not specifically commenting on this matter, Rimfire's views that consumers should only fund the corporate liability a prudent standalone operator genuinely requires and the need for strong scrutiny of separation and governance costs may be relevant.

Analysis and Assessment

Additional information was sought through the RFI process, on the nature and basis for estimation of these costs with NTESMO advising more than 50% of the proposed corporate capital expenditure related to PWC's planned single site consolidation. Given the separation from PWC, NTESMO advised it will review the proposed expenditure in its revised proposed to ensure it represents the efficient cost of delivering corporate functions.

Frontier Economics considered that there is insufficient clarity on NTESMO's corporate arrangements post-separation to forecast efficient corporate capital requirements. All corporate capital expenditure will change once NTESMO is established as a separate entity.

Commission's draft position and reasoning

The Commission proposes not to accept the proposed corporate capital expenditure. NTESMO's proposed expenditure was based on PWC corporate costs that will no longer be relevant post-separation and NTESMO has therefore not demonstrated that the forecast costs are prudent and efficient. NTESMO's proposed corporate capital expenditure and the Commission's draft decision on those costs ($m real 2026-27) are set out below.

Corporate costs	2027-28	2028-29	2029-30	2030-31	2031-32	Total
NTESMO proposal	3.1	2.8	1.0	0.7	0.7	8.3
Commission draft decision	0.0	0.0	0.0	0.0	0.0	0.0

Consistent with stakeholders' views, the Commission considers there is insufficient clarity on NTESMO's corporate arrangements post-separation to forecast efficient corporate capital requirements. Although NTESMO has indicated it will reassess this expenditure in its revised proposal, the Commission notes that it may be necessary to consider corporate capital expenditure under the proposed Temporary Separation and TEM Reform Uncertainty Mechanism.

9 | Productivity, WACC, tax allowance and KPIs

This chapter discusses the Commission's draft decisions on NTESMO's proposed productivity factor, WACC, tax allowance revenue requirement and KPIs with these set out in Box 7.

Box 7 Draft decisions on the proposed productivity factior, WACC, tax allowance and KPIs for the 2027-32 regulatory period

The Commission accepts NTESMO's proposed productivity factor of zero.

For the WACC, the Commission recommends that NTESMO update the return on debt and remove the effect of outdated return on debt forecasts and retired debt tranches in its revised proposal.

The Commission recommends that NTESMO include the tax loss carried forward from the 2024-27 regulatory period when calculating the net tax allowance for the market operator function in its revised proposal.

The Commission accepts NTESMO's proposed KPI's, listed below:

- **forecast accuracy –** mean absolute percentage error for the 24 hours ahead rolling forecast and 4 hour ahead rolling forecast for each 30-minute interval across the Darwin Katherine and Alice Springs power systems.
- **secure, reliable economically compliant operation –** percentage of dispatch intervals where the system operates within secure and reliable limits under the System Control Technical Code
- **system black events –** number of full system black events per year
- **settlement timeliness –** percentage of preliminary, final and revision settlement statements issued on time
- **settlement accuracy –** number of settlement corrections due to NTESMO process error
- **system availability –** percentage of time core operational and market systems are available during required operational hours
- **industry engagement –** frequency and timeliness of publication of industry updates.

The Commission recommends NTESMO's revised proposal provides information on how data for the KPIs will be collected and performance monitored and reported to the Commission.

Productivity factor

In its September 2024 Decision Paper, the Commission decided that a productivity factor, set at zero, would apply to operating expenditure forecasts for the 2024-27 regulatory period. However, both the Decision Paper and the September 2025 Framework, Process and Timelines paper required to NTESMO to propose and justify an explicit productive factor in future regulatory periods.

For the 2027-32 regulatory period, NTESMO proposes a productivity factor of 0%. NTESMO argues that the Territory's small market comprising distinct and dispersed electricity systems limits the scope for achieving economies of scale in operations and, as an asset-light organisation, it relies primarily on information technology and skilled labour to deliver its statutory functions, which provides limited opportunity for input substitution, or for capturing productivity gains through traditional capital-labour trade-offs. NTESMO also considers the evolution in its operating environment and reform-related changes do not support application of a positive productivity factor.

Consultation paper and submissions

The Commission's consultation paper sought stakeholders' views on whether:

- a productivity factor of zero is appropriate for the 2027-32 regulatory period.
- reform and non-reform costs should be treated differently when applying productivity expectations.

Jacana observes NTESMO's initial proposal does not include meaningful benchmarking against comparable system and market operators, noting these have productivity factors of 0.3% to 0.6%. Jacana notes that while AEMO may have a productivity factor of zero because it is more important to deliver system-wide outcomes than achieve efficiencies, Jacana doesn't consider NTESMO has demonstrated it faces similar constraints.

Jacana does not accept NTESMO's justifications relating to scale and changing operating environment for a productivity factor of zero as they are business-as-usual for the industry NTESMO works within. While Jacana accepts the TEM reforms as an external factor impacting NTESMO, Jacana considers there is scope for productivity improvement in process efficiency, use of technology to reduce manual effort and leveraging lessons from other jurisdictions. Jacana also observes a productivity factor of zero may become increasingly inappropriate in outer years as systems mature and efficient opportunities emerge.

Jacana considers a non-zero productivity factor should be applied and reform and non-reform costs should be treated differently. Jacana considers this would incentivise NTESMO to realise the benefits from its investments and pass these to customers. For non-reform operating expenditure, Jacana recommends application of a factor in the range of 0.3% to 0.6%, with a higher factor in outer years when associated with major investments are realised. Jacana believes a transitional arrangement could apply to reform costs with productivity expectations introduced in outer years.

The Territory Government advises applying a productivity factor is appropriate where costs relate to business-as-usual activities. It expects costs for these activities would become more stable and predictable over time and productivity should improve over time, consistent with other regulated sectors and efficiency requirements applying to Territory Government agency budgets. The Territory Government considers a 0% productivity factor may be appropriate for expenditure associated with new functions and reform implementation activities, except where:

- NTESMO is seeking for technological, organisational and process changes intended to improve efficiency and automate manual tasks and
- functions to be undertaken by NTESMO (for example, procurement of generation services) were previously undertaken by market participants operating in environments subject to greater commercial discipline than a regulated monopoly service provider.

The Territory Government suggests testing the sensitivity of applying productivity factors to NTESMO's proposal using with a range of productivity assumptions.

Assessment

Frontier Economics agreed that NTESMO's scope for ongoing productivity savings is more moderate than electricity distribution network providers. This is the result of two key factors:

- Changing operating environments: NTESMO's operating environment is currently undergoing significant change, namely a transition towards a higher share of renewable generation and storage. This places pressure on operational requirements and in turn, impacts costs.
- TEM Reforms: NTESMO is required to establish itself as a statutory corporation, separate from PWC, and undertake new market arrangements and processes.

Commission's draft position and reasoning

The Commission proposes to accept productivity factor of zero for the 2027-32 regulatory period.

The Commission has considered advice from Frontier Economics and feedback from stakeholders on NTESMO's productivity factor. On balance, the Commission agrees that NTESMO's changing operating environment and the impact of the TEM reforms limits its ability to achieve productivity savings and has accepted a productivity factor of zero for the 2027-32 regulatory period. However, it expects NTESMO to propose a non-zero productivity factor in future regulatory periods.

WACC

The Commission's September 2024 Decision Paper requires that NTESMO uses the AER's WACC for PWC's network businesses to calculate the return on capital for the calculation of system control and market operator charges in the 2024-27 regulatory period. In its initial proposal, NTESMO adopted the WACC used for the AER Networks 2024-29 Determination, with the value from 2028-29 rolled forward for the remainder of the regulatory period.

Analysis and assessment

The WACC is made up of a weighted average return on debt and return on equity. Frontier Economics considered the NTESMO's approach to forecasting the return on debt and recommended changes to reflect more up to date information:

- NTESMO applied the 2027-28 and 2028-29 return on debt forecasts from the AER's PWC 2024-29 decision post tax revenue model (PTRM) released in April 2024. However, these placeholder forecasts were constructed by assuming that the 2024-25 prevailing rate (5.95%) would be maintained for the four years from 2025-26 to 2028-29. Since the release of the April 2024 PTRM, actual return on debt rates have been observed and applied in the most recent AER PWC PTRM return on debt update. These should be applied by NTESMO to align with the PWC cost of debt. The placeholder prevailing rate for 2027-28 and 2028-29 should be updated, using the 2026-27 prevailing rate (5.74%) rather than the 2024-25 prevailing rate (5.95%).
- NTESMO proposed setting the return on debt forecasts for the three years from 2029-30 to 2031-32 equal to the 2028-29 trailing average return on debt forecast. This approach keeps the prevailing rates for the 2019-20 to 2021-22 period in the trailing average, even though they would drop out of the trailing average calculation for the 2029-30 to 2031-32 period, rather than replacing with prevailing 2029-30 to 2031-32 rates. This is problematic as the 2019-20 to 2021-22 prevailing rates (4.21%, 3.1% and 2.55%) are materially lower than reasonable forecasts of 2029-30 to 2031-32 prevailing rates (5.74% proposed), leading to a difference between NTESMO's proposed return on debt and a return on debt reflecting more recent information.

Frontier Economics proposed making changes to address these issues and remove the effect of outdated return on debt forecasts and retired debt tranches from the WACC.

Commission's draft position and reasoning

The Commission proposes NTESMO update the return on debt used in its WACC for 2027-32 regulatory period.

The Commission considers that the WACC should reflect updated information on the return on debt and remove the effect of outdated return on debt forecasts and retired debt tranches. The Commission's draft decision on the return on debt compared to NTESMO's initial proposal is shown in Table 15.

Table 15 Return on debt

Return on debt (%)	2027-28	2028-29	2029-30	2030-31	2031-32
NTESMO October update	4.71%	4.89%	4.89%	4.89%	4.89%
Commission draft decision	4.66%	4.81%	4.97%	5.23%	5.55%

Tax allowance revenue requirement

In accordance with section 33 of the *Government Owned Corporations Act 2001*, NTESMO would be expected to make income tax equivalent payments to the Territory Government based on its taxable income. Given this, the regulatory framework includes a tax allowance building block in conjunction with a post-tax WACC to ensure that NTESMO's shareholder receives the required after-tax return.

There is no tax allowance for NTESMO's system control function, but there is a proposed net tax allowance totalling $0.2 million ($real 2026-27) for its market operator function (Table 16).

Table 16 Proposed market operator net tax allowance 2027-28 to 2031-32 ($m real 2026-27)

Market operator	2027-28	2028-29	2029-30	2030-31	2031-32	Total
Net tax allowance	0.0	0.0	0.0	0.1	0.1	0.2
Total	0.0	0.0	0.0	0.1	0.1	0.2

Source: NTESMO October update, Table 5-9

Consultation paper and submissions

The Commission's consultation paper did not discuss, and no comments were received, regarding the proposed tax allowance revenue requirement.

Assessment

Frontier Economics identified that NTESMO's modelling for the market operator excluded the impact of tax losses calculated for the 2024-27 regulatory period that need to be carried forward when calculating the tax allowance for the 2027-32 regulatory period. There was no tax loss to be carried forward in the system control function. Frontier Economics considered that these amounts need to be included in NTESMO's market operator modelling. After this correction, the market operator tax allowance is zero until 2031-32 when there is a small tax allowance requirement of less than $500,000.

Commission's draft position and reasoning

The Commission recommends that NTESMO amend its market operator model to include the tax loss carried forward from the 2024-27 regulatory period.

KPIs

As required by the September 2025 Framework, Process and Timelines paper, NTESMO proposes seven KPIs and associated targets as follows:

- **forecast accuracy** – mean absolute percentage error for the 24 hours ahead rolling forecast and 4 hour ahead rolling forecast for each 30-minute interval across the Darwin Katherine and Alice Springs power systems. Proposed target: 24-hour-ahead: ≤10% variance; 4-hour-ahead: ≤5% variance.
- **secure, reliable economically compliant operation** – percentage of dispatch intervals where the system operates within secure and reliable limits under the System Control Technical Code. Proposed target: 99.5%.
- **system black events** – number of full system black events per year. Proposed target: zero.
- **settlement timeliness** – percentage of preliminary, final and revision settlement statements issued on time. Proposed target: 100%.
- **settlement accuracy** – number of settlement corrections due to NTESMO process error. Proposed target: ≤2 per year.
- **system availability** – percentage of time core operational and market systems are available during required operational hours. Proposed target: 99.9%.
- **industry engagement** – frequency and timeliness of publication of industry updates. Proposed target: no less than 2 per year.

The September 2025 Framework, Process and Timelines paper also required NTESMO to advise on how data for the KPIs will be collected and performance will be monitored including reporting timeframes. As identified in Chapter 2, this information was not provided in the initial proposal and will need to be submitted in NTESMO's revised proposal.

Consultation paper and submissions

The Commission's consultation paper sought stakeholders' views on:

- whether the proposed KPIs provide an appropriate and balanced representation of performance.
- the clarity, measurability and relevance of the proposed KPI targets.
- whether additional KPIs should be considered, including measures of benefits from investment in the TDE and new TEM-related reforms.

Jacana does not agree the proposed KPIs provide an appropriate and balanced representation of performance. Jacana is concerned the KPIs focus on existing functions; do not assess efficiency, value for money or electricity costs; inadequately capture meaningful stakeholder engagement and exclude measurement of TDE benefits. Jacana recommends NTESMO add a KPI measuring the risk-adjusted cost of electricity to incentivise a focus on economic dispatch and efficient outcomes. Jacana also recommends there should be KPIs developed and included to measure the benefits of the TDE and new TEM functions.

Jacana's views on the clarity, measurability and relevance of the proposed KPI targets are mixed. Jacana questions whether the targets for compliant operation, settlement accuracy and industry engagement are sufficient to incentivise improvement. Jacana also queries the achievability of the target for settlement timeliness given recent compliance performance. Jacana recommends NTESMO provide a clear methodology for measuring each KPI.

The Territory Government observes the proposed KPIs are heavily weighted towards operational compliance and administrative outputs, and less focused on efficiency, customer outcomes and delivery of NTESMO's investment program. The Territory Government considers that at a minimum reporting of system cost outcomes is required as NTESMO's future planning, procurement and operational functions are intended to influence long-term system outcomes and support lower whole-of-system costs.

The Territory Government also considers there should be KPIs for key step change and capital expenditure proposals. It provided examples including reductions in solar curtailment and manual operational interventions, improvements in dispatch efficiency, achievement of TEM reform implementation milestones and a specific project delivery KPI for NTESMO's capital program and public procurement model projects. The Territory Government is of the view that from the outset, NTESMO should develop KPIs for on-budget, on-time delivery of new functions (unless exogenous factors require otherwise), and identify and measure specific activities that will be improved.

Rimfire did not specifically comment on the proposed KPIs but wants accountability mechanisms to be strengthened. Rimfire recommends enhanced public reporting of TEM implementation costs, actual versus forecast expenditure, delivery milestones and realised customer benefits. Rimfire also recommends NTESMO demonstrate measurable outcomes from reform investments including operational efficiencies, reduced dispatch costs, improved reliability outcomes, support for competition and reduced whole-of-system costs.

Analysis and assessment

Frontier Economics compared NTESMO's proposed KPIs with those used by peers including the AEMO and the UK's National Energy System Operator. Its analysis indicates that the proposed measures are broadly comparable with those used by other system and market operators. However, comparisons should be interpreted with care, given differences in system size, measurement definitions, regulatory settings and incentive arrangements.

Frontier Economics agreed with stakeholders that the industry engagement KPI could be strengthened. A target based only on the frequency and timeliness of industry updates provides a limited measure of engagement. Frontier Economics suggested supplementing this with a measure of responsiveness, such as the response to and resolution of helpdesk enquiries, to better capture the service provided to industry participants.

Frontier Economics did not support requiring additional KPIs specifically for economic efficiency or investment delivery. Its view is that these metrics would duplicate the incentives already provided through the overall regulatory framework. In addition, the proposed Separation and TEM Reforms Uncertainty Mechanism will address stakeholder concerns associated with the delivery of step changes and capital expenditure proposals.

Commission's draft position and reasoning

The Commission proposes to accept NTESMO's proposed KPIs.

The Commission requires NTESMO's revised proposal to provide information on how data for the KPIs will be collected and performance monitored and reported to the Commission.

The 2027-32 regulatory period is the first time that NTESMO will be required to collect information and report on a set of KPIs. The Commission considers that, given the coming changes associated with NTESMO's separation and the TEM reforms, the proposed KPIs provide a useful starting point for providing greater transparency around NTESMO's performance. It therefore made a draft decision to accept NTESMO's proposed KPIs for the 2027-32 regulatory period. The Commission expects that NTESMO will assess the effectiveness of the KPIs as part of its proposals in subsequent regulatory periods and propose changes to improve them over time.

Although NTESMO has proposed a set of KPIs, it has not provided information on how data on the KPIs will be collected, monitored and reported. The Commission requires NTESMO to provide this information as part of its revised proposal. NTESMO should articulate how data will be collected, performance measured and monitored and how it will report on outcomes. Reporting should be regular and transparent to all stakeholders.

10 | Pricing formulas and pass-through events

The Commission's draft decisions on the formulas for calculating annual pricing and eligible pass-through events for the 2027-32 regulatory period are set out in Box 8.

Box 8 Draft decisions on pricing formulas and pass-through events

The Commission recommends that NTESMO's proposed formulas for deriving annual system control and market operator charges are amended as set out in Appendix A, to adjust for inflation using a lagged indicator and for past under/over recovery of revenue and cost pass-throughs.

Subject to its query about the retailer failure event, the Commission's draft position is to accept NTESMO's proposed list of pass-through events, with recommended consequential change to exclude events that are covered by the proposed Temporary Separation and TEM Reform Uncertainty Mechanism, as set out in Appendix B.

Proposed pricing formulas

Attachment 21 to NTESMO's initial proposal sets out its proposed annual pricing control mechanism (formulas) to translate approved maximum revenue requirements into system control and market operator charges in nominal terms. NTESMO's proposed formulas are reproduced in Appendix A to this draft decision.

Consistent with decisions in the 2024-27 Review, NTESMO's pricing formulas continue to:

- adjust revenue requirements (in real $2026-27) to a nominal value;
- adjust for under or over recovery of revenue in previous years through the application of a formula including an 18-month WACC adjustment. The adjustment reflects the lag between the occurrence of the under/over recovery and its recoupment and the assumption that the under/over recovery occurs in the middle of the regulatory year, but its recoupment two years later occurs at the beginning of that regulatory year;
- there is no materiality threshold is applied to under/over recovery of revenue.

The formulas also provide for inclusion of pass-through amounts rising from an approved pass-through event. NTESMO's proposed approach allows large or lumpy pass-through amounts to be recovered over multiple years, smoothing the price impact on customers.

The final adjusted revenue requirement, incorporating the factors described above, is divided by forecast annual electricity consumption to derive a volumetric charge (c/kWh). Forecast consumption is the energy consumption forecast submitted in PWC's annual network pricing proposal to the AER.

For system control charges, forecast consumption is that of customers across all three regulated networks. For market operator charges, forecast consumption is limited to customers in the DKPS, consistent with the application of charges. Accordingly, customers in the Alice Springs and Tennant Creek power systems are subject only to system control charges while customers in the DKPS are subject to both system control and market operator charges.

NTESMO's initial proposed noted that due to the significant cost for PWC to procure a set of AER compliant consumption forecasts specifically for its regulatory proposal, it applied energy forecasts for the three regulated systems based on PWC's internal consumption forecast as accepted by the AER for PWC's Networks Annual Pricing Proposal for 2026-27. Forecast consumption from 2029-30 onwards is not captured in the annual pricing proposal and has been extended out for the purpose of NTESMO's initial proposal.

Consultation paper and submissions

The Commission's consultation paper did not pose any questions, and no comments were received, regarding the proposed pricing formulas.

Analysis and assessment

The Commission has identified two issues with NTESMO's annual pricing control mechanism. Both issues relate to the definition of the Total Annual Revenue Requirement (TAR_t).

- Applying NTESMO's proposed product operator is inconsistent with the current approach of using a lagged December quarter Australian Bureau of Statistics (ABS) Consumer Price Index (CPI). NTESMO's proposed formula included a product operator that multiplies the annual revenue requirement for a year by the cumulative effect of CPI in each year. Under NTESMO's formula, if t = FY2029 then the annual revenue requirement is adjusted by:

  $$(1 + \Delta CPI_{2027}) \times (1 + \Delta CPI_{2028}) \times (1 + \Delta CPI_{2029})$$

  This is inconsistent with the approach used in the 2024-27 regulatory period. To maintain the approach used in the 2024-27 regulatory period the product operator would need to be adjusted to:

  $$\prod_{k=FY2027}^{t-1}$$

  This means that if t = FY2029 the annual revenue requirement is adjusted by:

  $$(1 + \Delta CPI_{2027}) \times (1 + \Delta CPI_{2028})$$

  The full details of this proposed amendment are contained in Appendix A.

- NTESMO's costs pass-through terms maintain the two-year lag between approval of a cost recovery amount and its recovery in prices. As noted in Chapter 3 the Commission is proposing to clarify and amend elements of the existing permanent cost pass-through mechanism so that that approved cost recovery amounts can be recovered in the regulatory year following the year of the cost pass-through approval and clarify that both costs already incurred and forecast future costs may be included.

  To implement these changes, the balance of any costs pass-throughs in NTESMO's cost pass-through calculation could be simplified to the inclusion of a term, C_t, where:

  C_t = the balance of any cost pass-throughs to be recovered in year t. This may include the value of any cost pass-through approved for year t in year t-1.

  The value of any cost pass-throughs approved by the Commission may include adjustments for the time value of money by applying the allowed nominal vanilla WACC. In addition, the Commission may approve NTESMO smoothing the recovery of cost pass-through amounts across years, including an adjustment for the time value of money.

  The full details of this proposed amendment are contained in Appendix A.

In addition to these two issues, the Commission is proposing an additional term is included in the annual pricing control mechanism to allow for the recovery of accost approved through the Temporary Separation and TEM Reform Uncertainty Mechanism. The details for this additional term are contained in Appendix A.

Commission's draft position and reasoning

The Commission recommends changes to NTESMO's proposed formulas for deriving annual system control and market operator charges, as set out in Appendix A, to adjust for inflation using a lagged indicator and for past under/over recovery of revenue, cost pass-throughs and the Temporary Separation and TEM Reform Uncertainty Mechanism.

Pass-through events

Pass-through events for the purposes of system control and market operator charges are those set out in Attachment 22 of NTESMO's initial proposal and reproduced in Appendix B of this draft decision with one minor amendment. The list of events is unchanged from the eight pass-through events approved in the 2024-27 Review and are retailer failure, regulatory change, service standards, tax change, insurance coverage, insurer's credit risk, natural disaster and terrorism.

A 'retailer failure event' is defined as:

> The failure of a retailer during a regulatory period, to pay NTESMO an amount to which NTESMO is entitled for the provision of system control or market operator services, if:
>
> a) an insolvency official has been appointed in respect of the retailer; and
>
> b) NTESMO is not entitled to payment of that amount in full under the terms of any local support in respect of that retailer.

The Commission queries whether the use of 'local support' in sub paragraph b) is correct, noting that the corresponding event in the National Electricity Rules which this event appears to mirror, uses 'credit support'. If 'local support' is the correct term, PWC should explain its meaning in the revised proposal. Otherwise, PWC should amend the event definition accordingly.

As discussed in Chapter 3, the Commission proposes a new Temporary Separation and TEM Reform Uncertainty Mechanism for costs related to separation and TEM reforms. Under NTESMO's proposed pass-through event definitions, these costs would fall within the definition of a regulatory change event. That is, the Reform Acts (and TEM Rules) establishing NTESMO as a statutory corporation and giving it new and expanded functions constitute regulatory change, the change will occur in the current and next regulatory periods with substantial impacts on the manner in which NTESMO provides its services and the costs of providing those services. To avoid overlap between the new temporary uncertainty mechanism and the pass-through mechanism, the Commission considers that the regulatory change event definition needs to be amended to exclude any costs that are eligible for recovery under the Temporary Separation and TEM Reform Uncertainty Mechanism.

Consultation paper and submissions

The Commission's consultation paper did not pose any questions, and no comments were received, on NTESMO's list of pass-through events.

Commission's draft position

Subject to its query on its query about the retailer failure event, the Commission's draft decision is to accept NTESMO's proposed the pass-through events, noting these are unchanged from the current regulatory period. The Commission proposes an amendment to the definition of a regulatory change event and service standards event a set out in Appendix B to exclude any costs covered by the Temporary Separation and TEM Reform Uncertainty Mechanism.

11 | Tariff structure and customer impacts

The Commission's findings on NTESMO's analysis of customer impacts are set out in Box 9.

Box 9 Draft findings on NTESMO analysis of customer impacts

The Commission's draft decision is to not consider changes to tariff structures for the 2027-32 regulatory period.

To assess the impact of the proposed increase in its volumetric charges, NTESMO showed the proportionate contribution of its charges to a bill for a typical residential customer in the DKPS (Figure 6-2 in the initial proposal). NTESMO also showed the annual increase in the bill for customers with different levels of consumption in the Alice Springs and Tennant Creek power systems (system control charge impact only) and DKPS (system control and market operator charges) (Table 6-2 and 6-3 in the initial proposal). The tables show the size of the annual increase moderates over time, but do not show the total increase over the five-year period or the total amount of charges in any year.

NTESMO advises it has retained the existing volumetric (c/kWh) charging arrangements for its initial proposal but intends looking further at whether tariffs should move to some or all costs being recovered using a fixed monthly charge. NTESMO advised that, during consultation when developing its initial proposal, it sought stakeholders' views on alternatives to the current tariff structure, including the introduction of a fixed monthly charge to recover some or all of its costs. While NTESMO has retained the existing tariff structure in its initial proposal, it indicates further work will be undertaken on potential tariff structure changes ahead of its revised proposal.

Consultation paper and submissions

The Commission's consultation paper sought feedback on:

- the distributional impacts of proposed charges across different customer classes;
- whether alternative tariff structures should be explored including options for fixed monthly charges;
- the adequacy of NTESMO's analysis of bill impacts.

Jacana and Rimfire raised concerns about the implications of increased costs for customers particularly large commercial and industrial (C&I) customers, the Territory Government's retail electricity customer service obligation, competition and the economy. Jacana advises there is a need for price certainty by end of March to adequately communicate price changes to customers and update billing systems.

Jacana prefers to retain the current tariff structure but could support an alternative structure if it improves equity, reduces cost challenges, is implemented with adequate notice and consultation and there is a detailed impact assessment including of the implementation cost for retailers. Rimfire did not comment on alternatives to the current tariff structure.

The Territory Government notes the current uniform volumetric charges may not appropriately reflect cost causation, or whether some customer classes should pay more where they materially increase NTESMO costs. It advocates for future determinations to consider more granular, cost-reflective charging arrangements to improve transparency, reduce cross-subsidies and support efficient electricity use. It points to the possibility charges could vary by customer class, connection type, demand, fixed charges or market participant type. The Territory Government also pointed to the national and Western Australia energy markets where system and market operator costs are recovered through participant fee frameworks, as an alternative charging arrangement.

The Territory Government notes NTESMO is considering moving to a fixed and variable charge as part of its revised proposal and considers this could improve cost reflectivity. However, it considers this would need a detailed assessment of distributional impacts and should be subject to further consultation.

Jacana recommends NTESMO undertake a more comprehensive bill impact analysis including all customer segments and the broader Territory economy as well as considering the interaction with network and generation cost increases. Jacana also recommends the Commission consider affordability for vulnerable customers who face increased costs without additional support.

Commission's draft findings and reasoning

The Commission's draft decision is to not consider changes to tariff structures for the 2027-32 regulatory period.

As observed the Commission's consultation paper, NTESMO's proposal to potentially change to tariffs in the revised proposal would be a material change late in the review process. This would provide limited opportunity for Commission assessment and stakeholder input prior to the Commission releasing its final decision. It would also be difficult for NTESMO to present price impacts and implications for customer groups when the costs of separation and TEM reforms are uncertain.

Accordingly, the Commission will not consider changes to tariff structures in the 2027-32 Review. NTESMO should engage with the stakeholders and the Commission during the 2027-32 regulatory period as its functions and costs become more certain. Any changes should be put forward as part of NTESMO's initial proposal for the 2032-37 regulatory period following consultation by NTESMO with customers, industry participants and government.

12 | Revenue requirements and regulated charges

The Commission's draft decisions on the revenue requirements and regulated charges for the 2027-32 regulatory period are set out in Box 10.

Box 10 Draft decisions on revenue requirements and regulated charges

The Commission's draft decision is to not accept NTESMO's proposed revenue requirements for its system control and market operator functions for the 2027-32 regulatory period.

As a result of its draft decision not to accept NTESMO's proposed maximum revenue requirements, under section 39(2) of the ER Act, the Commission's draft decision is to not approve NTESMO's draft 2027-28 system control and market operator charges.

For its revised proposal, NTESMO will need to provide additional evidence and improve its estimates of efficient expenditure for issues the Commission has indicated it will consider further in its final decision. It will also need to correct issues found in its modelling. Where NTESMO is unable to provide evidence of the prudence and efficiency of its forecast expenditure in time for its revised proposal, NTESMO should exclude that expenditure from its revised proposal and rely on uncertainty mechanisms to propose additional funding when more information becomes available, for example in relation to separation and TEM reform costs.

NTESMO is to submit a revised regulatory proposal and supporting models and attachments that address matters raised in this draft decision no later than **Friday 26 February 2027.** At the same time, NTESMO is to submit an indicative annual pricing proposal and associated model for 2027-28 system control and market operator charges based on the maximum revenue requirements in its revised regulatory proposal and the formulas for calculating the annual charges as set out in Appendix A.

Revenue requirements and charges

NTESMO proposes revenue of up to $27 million per annum ($129.9 million over five years) for system control functions and up to $9.6 million per annum ($47.4 million over five years) for market operator functions. This results in estimated charges in the first year of the 2027-32 regulatory period of 1.2982 c/kWh for system control services and 0.6011 c/kWh for market operator services. These charges are 7.8% and 66.4% higher, respectively, than the corresponding charges in 2026-27 of 1.2047 c/kWh for system control services and 0.3613 c/kWh for market operator services.

Consultation paper and submissions

The Commission's consultation paper noted the proposed combined revenue requirement of about $39 million per annum (from the initial proposal) represents a substantive increase and asked stakeholders on whether:

- NTESMO's proposed expenditure is commensurate with the services required over the 2027-32 regulatory period, given operational and regulatory changes outlined in its initial proposal.
- NTESMO has demonstrated its proposed expenditure is reasonable (i.e., justified), prudent (i.e., necessary) and efficient (i.e., lowest cost).
- alternative approaches could better manage costs while maintaining system security and service outcomes.

As discussed in prior chapters, submissions were critical of the expenditure proposals with benefits, options and lowest cost delivery not sufficiently demonstrated. Stakeholders argued for higher evidentiary thresholds and strong scrutiny by the Commission and that cost pass-throughs should not create uncapped exposure for customers. Stakeholders also sought greater transparency and accountability throughout the regulatory period.

Commission's draft position and reasoning

The Commission's draft decision is to not accept NTESMO's proposed revenue requirements for its system control and market operator functions for the 2027-32 regulatory period.

As a result of its draft decision not to accept NTESMO's proposed maximum revenue requirements, under section 39(2) of the ER Act, the Commission's draft decision is to not approve NTESMO's draft 2027-28 system control and market operator charges.

For its revised proposal, NTESMO will need to provide additional evidence and improve its estimates of efficient expenditure for issues the Commission has indicated it will consider further in its final decision. It will also need to address other issues identified with modelling its forecast total annual revenue requirement (e.g. the return on debt used in the WACC and tax allowance).

NTESMO is to submit a revised regulatory proposal and supporting models and attachments that address matters raised in this draft decision no later than cob Friday 26 February 2027. At the same time, NTESMO is to submit an indicative annual pricing proposal and associated model for 2027-28 system control and market operator charges based on the maximum revenue requirements in its revised regulatory proposal and the formulas for calculating the annual charges as set out in Appendix A.

As outlined in prior chapters, the Commission has not accepted the majority of NTESMO's expenditure proposals and therefore, the Commission does not accept the maximum revenue requirements proposed in NTESMO's initial proposal. The impact of the Commission's draft decisions on NTESMO's revenue requirement is set out in Table 17.

Table 17 Commisssion's draft decision on NTESMO revenue requirements 2027-28 to 2031-32 ($m real 2026-27)

	2027-28	2028-29	2029-30	2030-31	2031-32	Total
System Control						
Operating expenditure	11.2	13.3	14.7	14.9	15.0	69.1
Depreciation	3.0	3.8	4.1	4.2	4.3	19.4
Return on capital	2.1	2.6	2.6	2.3	2.1	11.7
Net tax allowance	0.0	0.0	0.0	0.0	0.0	0.0
Revenue adjustments[1]	0.0	0.0	0.0	0.0	0.0	0.0
Total	16.3	19.7	21.4	21.4	21.4	100.2
Market Operator						
Operating expenditure	8.9	8.9	8.9	9.0	9.0	44.7
Depreciation	0.7	0.7	0.7	0.8	0.8	3.7
Return on capital	0.3	0.3	0.2	0.2	0.1	1.2
Net tax allowance	0.0	0.0	0.0	0.0	0.0	0.0
Revenue adjustments[1]	0.0	0.0	0.0	0.0	0.0	0.0
Total	9.9	9.9	9.9	9.9	10.0	49.6
Total NTESMO						
Operating expenditure	20.1	22.2	23.7	23.8	24.1	113.8
Depreciation	3.7	4.5	4.8	5.0	5.1	23.2
Return on capital	2.4	2.9	2.8	2.5	2.2	12.8
Net tax allowance	0.0	0.0	0.0	0.0	0.0	0.0
Revenue adjustments[1]	0.0	0.0	0.0	0.0	0.0	0.0
Total	26.2	29.6	31.3	31.3	31.4	149.8

Note: Numbers may not add up due to rounding
[1] Revenue adjustments reflect the proposed cost pass-throughs associated with TEM reforms
Source: Utilities Commission Analysis

Indicative charges based on the Commission's draft decisions are set out in Table 18.

The Commission's indicative charges for system control are around 21-30% lower than NTESMO's proposed charges largely because of its draft decisions not to approve TEM reform costs and NTESMO's proposed step changes for existing and new system tools.

The Commission's indicative charges for market operator are 4-6% higher than NTESMO's proposed charges largely because of its draft decision to reallocate costs in the base year from system control to market operator.

The Commission notes that the actual charges to apply in the 2027-32 regulatory period will be determined after NTESMO submits its revised proposal. Should NTESMO provide further evidence of the efficiency of costs that were excluded in the draft decision, then NTESMO's final approved revenue requirement and proposed charges may be higher than those shown below. In addition, actual charges to apply in each year from 2029-30 onwards may also include costs approved as part of the Temporary Separation and TEM Reforms Uncertainty Mechanism, *which* may also result in charges higher than those shown below.

Table 18 Actual system control and market operator charges, 2026-27, and indicative charges, 2027-32 regulatory period (c/kWh, nominal)

	2026-27[a]	2027-28[b]	2028-29[b]	2029-30[b]	2030-31[b]	2031-21[b]
NTESMO proposed						
System Control	1.2047	1.2982	1.4412	1.5660	1.6052	1.6265
Market Operator	0.3613	0.6011	0.6165	0.6383	0.6563	0.6695
Commission draft decision						
System Control	1.2047	0.9083	1.1160	1.2411	1.2666	1.2880
Market Operator	0.3613	0.6386	0.6500	0.6663	0.6803	0.6940

Note: System control charges apply to all consumption in the regulated power systems, but market operator charges only apply to consumption in the DKPS.

[a] Actual charges. Utilities Commission, Notice of Approval 2026-27 system control and market operator charges, available at: https://utilicom.nt.gov.au/__data/assets/pdf_file/0011/1609580/Notice-of-Approval-2026-27-System-Control-and-Market-Operator-charges.pdf.

[b] Indicative charges. NTESMO October update, Table 6-2 and Utilities Commission analysis.

For the purposes of clarity, if NTESMO is unable to meet the due date for submitting a compliant revised regulatory proposal, it may not be possible for the Commission to approve NTESMO's proposed system control and market operator charges for 2027-28 and provide sufficient advance notice to retailers for those charges to take effect on 1 July 2027. The Commission advises that this may result in there being no charges that NTESMO can levy from 1 July 2027 onward until a schedule of charges is approved by the Commission including a period of advance notice to retailers before those charges take effect.

Appendix A – NTESMO's Annual Pricing Control Mechanism

This appendix reproduces Attachment 21 from NTESMO's initial proposal, with amendments as described in Chapter 11.

1. Overview

This attachment sets out the mechanism for setting annual prices for the 1 July 2027 to 30 June 2032 regulatory period.

2. Revenue requirement

The Total Annual Revenue (TAR) for each year of the FY2027–32 regulatory period is to be calculated separately for each of System Control and Market Operator as:

$$TAR_t = AR_t \prod_{k=FY2027}^{t-1} (1 + \Delta CPI_k) + B_t + C_t + U_t$$

Where:

t = the regulatory year for which *TAR* is being calculated.

TAR_t = total annual revenue to be recovered in year t, expressed in nominal dollars.

AR_t = the annual revenue requirement for year t approved by the Commission in the determination, expressed in real FY2027 dollars.

ΔCPI_k = the annual percentage change in the ABS CPI (All Groups, Weighted Average of Eight Capital Cities) for the December quarter in year k.

$\prod_{k=FY2027}^{t-1}$ = the product operator, meaning multiply (1+ΔCPI_k) for each year k from FY2027 up to and including year t-1.

B_t = the balance of over/under recoveries from the previous years adjusted for the time value of money in accordance with the calculation outlined in section 2.1.

C_t = the sum of approved cost pass-through amounts to be included in in year t in accordance with section 2.2.

U_t = the sum of cost pass-through amounts approved under the Temporary Separation and TEM Reform Uncertainty Mechanism to be included in year t in accordance with section 2.3.

2.1 Under and over recoveries calculation

The balance of any under and over recoveries is calculated as.

$$B_t = (TAR_{t-2} - D_{t-2}) \times (1 + WACC_{t-2})^{0.5} \times (1 + WACC_{t-1})$$

Where:

B_t = the unders/overs amount included in prices in year t.

$TAR_{t\text{-}2}$ = the approved expected revenue (Total Annual Revenue) for year $t - 2$, calculated in accordance with the TAR formula for that year.

$D_{t\text{-}2}$ = the actual system control (or market operator) revenue recovered in year $t - 2$.

$WACC_{t\text{-}1}$ and $WACC_{t\text{-}2}$ = the allowed nominal vanilla WACC values for years $t - 2$ and $t - 1$, respectively, used to adjust the under/over recovery for the time value of money.

The WACC adjustment applies an 18-month time value of money factor, reflecting that under/over recovery is assessed on a two-year backward-looking basis (i.e. the difference between approved expected revenue

and actual revenue in year $t - 2$ is recovered through prices in year t). The exponent 0.5 applies a half-year WACC adjustment for year $t - 2$, and the remaining factor applies a full-year WACC adjustment for year t - 1.

2.2 Cost pass-through calculation

C_t = the balance of any pass-throughs approved by the Commission to be recovered in year t. The Commission may approve a cost pass-through to be recovered in a single year, or over multiple years.

The value of any cost pass-throughs approved by the Commission may include adjustments for the time value of money by applying the allowed nominal vanilla WACC. In addition, the Commission may approve NTESMO smoothing the recovery of cost pass-through amounts across years, including an adjustment for the time value of money. The balance of any pass-through amounts may include costs already incurred and forecast future costs.

The specification of the cost pass-through mechanism is contained in Appendix B.

2.3 Approved amounts under the Temporary Separation and TEM Reform Uncertainty Mechanism

U_t = the amounts approved by the Commission under the Temporary Separation and TEM Reform Uncertainty Mechanism to be recovered in year t. The Commission may approve an amount to be recovered in a single year, or over multiple years.

The specification of the Separation and *TEM Reform Uncertainty Mechanism* is contained in Appendix C.

The value of any amount approved by the Commission under the Temporary Separation and TEM Reform Uncertainty Mechanism may include adjustments for the time value of money by applying the allowed nominal vanilla WACC. In addition, the Commission may approve NTESMO smoothing the recovery of amounts under the Temporary Separation and TEM Reform Uncertainty Mechanism across years, including adjustments for the time value of money by applying the allowed nominal vanilla WACC.

3. Price setting

The TAR is converted to a System Control (or Market Operator) charge in accordance with the following equation:

$$P_t = TAR_t \div Q_t$$

Where:

P_t = the system control (or market operator) charge in year t, expressed in $/kWh.

TAR_t = the total annual revenue for system control (or market operator) to be recovered in year t.

Q_t = is the system control (or market operator) forecast quantity of energy consumption (kWh) consistent with the energy consumption forecast submitted in Power and Water's network pricing proposal to the AER in year t.

System Control charges are recovered from customers across all three regulated networks and Q_t is the sum of forecast energy consumption across the three regulated networks.

Market Operator charges are recovered from customers in the Darwin–Katherine regulated network only. For Market Operator charges, Q_t is the forecast energy consumption for the Darwin–Katherine regulated network.

The consumption proportion for the Darwin–Katherine network will be updated annually based on Power and Water's consumption forecasts by regulated network.

Appendix B – Pass-through mechanism

A cost pass through mechanism will apply for the 2027-32 regulatory period with the following specification.

Pass-through events

The following events are pass-through events for the purposes of system control and market operator charges:

Retailer failure

The failure of a retailer during a regulatory period, to pay NTESMO an amount to which NTESMO is entitled for the provision of system control or market operator services, if:

a) an insolvency official has been appointed in respect of the retailer; and

b) NTESMO is not entitled to payment of that amount in full under the terms of any local support in respect of that retailer.

Regulatory change event

A change in a regulatory obligation or requirement that:

a) falls within no other category of pass-through event;

b) does not fall within the Temporary Separation and TEM Reform Uncertainty Mechanism;

c) occurs during the course of a regulatory period; and

d) substantially affects the manner in which NTESMO provides system control or market operator services; and

e) materially increases or materially decreases the costs of providing those services.

Service standards event

A legislative or administrative act or decision that:

a) has the effect of:

i) substantially varying, during the course of a regulatory period, the manner in which NTESMO is required to provide a system control or market operator service; or

ii) imposing, removing or varying, during the course of a regulatory period, minimum service standards applicable to system control or market operator services; or

iii) altering, during the course of a regulatory period, the nature or scope of the system control or market operator services provided by NTESMO;

b) does not fall within the Temporary Separation and TEM Reform Uncertainty Mechanism; and

c) materially increases or materially decreases the costs to NTESMO of providing system control or market operator services.

Tax change event

At tax change event occurs if:

a) any of the following occurs during the course of a regulatory period for NTESMO:

i. a change in a relevant tax, in the application or official interpretation of a relevant tax, in the rate of a relevant tax, or in a way a relevant tax is calculated;

ii. the removal of a relevant tax;

iii. the imposition of a relevant tax; and

b) in consequence, the costs to NTESMO of providing system control or market operator services are materially increased or decreased.

Insurance coverage event

An insurance coverage event occurs if:

1. NTESMO:
   a) makes a claim or claims and receives the benefit of a payment or payments under a relevant insurance policy or set of insurance policies; or
   b) would have been able to make a claim or claims under a relevant insurance policy or set of insurance policies but for changed circumstances; and
2. NTESMO incurs costs:
   a) beyond a relevant policy limit for that policy or set of insurance policies; or
   b) that are unrecoverable under that policy or set of insurance policies due to changed circumstances; and
3. The costs referred to in paragraph 2 above materially increase the costs to NTESMO in providing system control or market operator services.

For the purposes of this insurance coverage event:

- 'changed circumstances' means movements in the relevant insurance liability market that are beyond the control of NTESMO, where those movements mean that it is no longer possible for NTESMO to take out an insurance policy or set of insurance policies at all or on reasonable commercial terms that include some or all of the costs referred to in paragraph 2 above within the scope of that insurance policy or set of insurance policies.
- 'costs' means the costs that would have been recovered under the insurance policy or set of insurance policies had:
  - the limit not been exhausted; or
  - those costs not been unrecoverable due to changed circumstances.
- A relevant insurance policy or set of insurance policies is an insurance policy or set of insurance policies held during the regulatory period or a previous regulatory period in which NTESMO was regulated; and
- NTESMO will be deemed to have made a claim on a relevant insurance policy or set of insurance policies if the claim is made by a related party of NTESMO in relation to any aspect of NTESMO's network or business; and NTESMO will be deemed to have been able to make a claim on a relevant insurance policy or set of insurance policies if, but for changed circumstances, the claim could have been made by a related party of NTESMO in relation to any aspect of NTESMO's functions.

Note for the avoidance of doubt, in assessing an insurance coverage event, the Commission will have regard to:

i. the relevant insurance policy or set of insurance policies for the event
ii. the level of insurance that an efficient and prudent regulated entity would obtain, or would have sought to obtain, in respect of the event;
iii. any information provided by NTESMO to the Commission about NTESMO's actions and processes; and
iv. any guidance published by the Australia Energy Regulator (AER) on matters the AER will likely have regard to in assessing any insurance coverage event that occurs for an equivalent event under the National Electricity Rules.

Insurer's credit risk event

An insurer's credit risk event occurs if an insurer of NTESMO becomes insolvent, and as a result, in respect of an existing or potential claim for a risk that was insured by the insolvent insurer, NTESMO:

a) is subject to a higher or lower claim limit or a higher or lower deductible than would have otherwise applied under the insolvent insurer's policy; or

b) incurs additional costs associated with funding an insurance claim, which would otherwise have been covered by the insolvent insurer.

Note: in assessing an insurer credit risk event pass-through application, the Commission will have regard to, among other things:

i. NTESMO's attempts to mitigate and prevent the event from occurring by reviewing and considering the insurer's track record, size, credit rating and reputation; and

ii. in the event that a claim would have been covered by the insolvent insurer's policy, whether NTESMO had reasonable opportunity to insure the risk with a different provider.

Natural disaster event

Natural disaster event means any natural disaster including but not limited to cyclone, fire, flood or earthquake that occurs during the FY2028-32 regulatory period that changes the costs to NTESMO in providing system control or market operator services, provided the cyclone, fire, flood, earthquake or other event was:

a) a consequence of an act or omission that was necessary for NTESMO to comply with a regulatory obligation or requirement or with an applicable regulatory instrument; or

b) not a consequence of any other act or omission of NTESMO.

Note: In assessing a natural disaster event pass-through application, the Commission will have regard to, among other things:

i. whether NTESMO has insurance against the event;

ii. the level of insurance that an efficient and prudent regulated entity would obtain in respect of the event.

Terrorism event

Terrorism event means an act (including, but not limited to, the use of force or violence or the threat of force or violence) of any person or group of persons (whether acting alone or on behalf of or in connection with any organisation or government), which:

1. from its nature or context is done for, or in connection with, political, religious, ideological, ethnic or similar purposes or reasons (including the intention to influence or intimidate any government and/or put the public, or any section of the public, in fear); and

2. changes the costs to NTESMO in providing system control or market operator services.

Note: In assessing a terrorism event pass-through application, the Commission will have regard to, among other things:

i. whether NTESMO has insurance against the event

ii. the level of insurance that an efficient and prudent regulated entity would obtain in respect of the event; and

iii. whether a declaration has been made by a relevant government authority that a terrorism event has occurred.

Requirements of a cost pass-through application

Materiality threshold

A materiality threshold applies to cost pass-through claims. Materiality means five percent or more of the combined Annual Revenue Requirement for system control and market operator services in the year in which the pass-through application is made.

However, for the purposes of the threshold, costs may comprise of the total cost impact of:

- a single or multiple pass-through events; and/or
- cost impacts in a single or multiple years.

Information to be provided to the Commission

The Commission will require NTESMO to provide, by written notice, the following information when seeking approval for an eligible pass-through event:

- the details of the pass-through event including the date on which the event occurred;
- the increase in costs that have been incurred and are likely to be incurred, allocated between system control and market operator, in each regulatory year during the current regulatory period (and future regulatory periods where relevant) and the amount NTESMO proposes should be passed through to customers;
- evidence of the actual and likely increase in costs and that these costs occur solely as a consequence of the event; and
- information on NTESMO's decisions and actions in relation to mitigating the risk of, and reducing the magnitude of costs associated with, the pass-through event.

The list of requirements is intended to ensure the Commission receives necessary information to enable it to confirm the eligibility of the pass-through event and to assess the prudency and efficiency of the costs to be passed on to customers. The Commission notes that only incremental costs and costs associated with efficient decisions and actions are to be passed on. Further, NTESMO must evidence how it has forecast costs and the decisions and actions it took in relation to reducing the risk of, and cost impacts from, the pass-through event.

The Commission expects that pass-through claims will typically be positive in nature (that is, the claim is to cover additional costs); however, it is possible that a negative claim could be made (savings being passed through to customers). Regardless, the same information requirements for a negative pass-through claim apply.

Timing of notification and assessments

Within the period from the commencement of a regulatory period up to 18 months prior to the end of the regulatory period, the following steps and timeframes apply:

- Within 20 business days of a pass-through event occurring, NTESMO is to notify the Commission that the event has occurred.
- Within 90 business days of the pass-through event occurring, NTESMO is to provide the Commission with a claim that meets the Commission's information requirements (as listed above) for approval.
- Within 60 business days after receipt of a claim that meets the Commission's requirements, the Commission will approve or not approve the amount and the year (or years) in the regulatory period in which that amount is to be passed through to customers. Where a claim is not approved, the Commission will provide the reasoning for its decision.
- The Commission may request additional information by written notice in relation to a claim. During that 60 business day period, the Commission may extend the time for its assessment of NTESMO's claim by a further 60 business days by written notice to NTESMO if the Commission considers the complexity or difficulty of assessing or quantifying the effect of the pass-through event justifies the extension.

- Within 5 business days of notifying NTESMO of its decision to approve or not approve the claim, the Commission will publish its decision on the Commission's website.

From 18 months prior to the end of the regulatory period to the end of the regulatory period, the following steps and timeframes apply:

- Within 20 business days of a pass-through event occurring, NTESMO is to notify the Commission that the event has occurred.
- The pass-through application with the information specified above is to be included with NTESMO's regulatory proposal for the subsequent regulatory period.

Timing of recovery of approved pass-through amounts

Approved cost recovery amounts can be recovered from the regulatory year following the year of the cost pass-through approval.

Recovery may be smoothed across multiple years, and multiple regulatory periods, where approved by the Commission, with appropriate time-value-of-money adjustments.

Incorporating approved costs into the revenue allowance

An approved cost pass-through application may include:

- operating costs and/or capital costs, and
- ex post costs that have already been incurred and ex ante forecasts of expected costs.

Any approved cost pass-through amounts are included in the relevant expenditure allowance (opex, capex) and recovered in prices by applying the building block model and recovered in annual amounts in accordance with the annual pricing mechanism.

Over and under-spends of approved cost pass-throughs

Any over or underspends of approved cost pass-through amounts that are included in expenditure allowances within a regulatory period will be treated in the same manner as the other elements of the operational expenditure and capital expenditure allowances.

Appendix C – Temporary Separation and TEM Reform Uncertainty Mechanism

A Temporary Separation and TEM Reform Uncertainty Mechanism will apply for the 2027-32 regulatory period with the following specification.

Scope of costs

The costs to be recovered under this mechanism must only relate to NTESMO's separation from PWC and the TEM reforms. Other events that meet the cost pass-through event definitions are specifically excluded from consideration under this mechanism.

Therefore, any applications under this mechanism must be demonstrated to be incurred as a direct result of the legislated reforms to separate NTESMO from PWC and to establish new market functions under the TEM reforms. That is:

- Separation costs must be clearly linked to the *Electricity System and Market Operator Act 2025* and the requirements of this legislation or related Regulations.
- TEM reform costs must be clearly linked to the *Electricity Legislation Amendment (Market Reform) Act 2025* and the relevant Territory Electricity Market (TEM) Rules or related Regulations.

The costs to be recovered may include ex post costs that have already been incurred and ex ante forecasts of expected costs.

For the avoidance of doubt, the following costs could be recovered under the temporary mechanism:

- costs incurred at the end of the 2024-27 regulatory period that have not been approved in the 2027-32 regulatory determination; and
- corporate capital expenditure that is incurred following separation.

An application under the mechanism must also include any reductions in NTESMO's forecast costs that have occurred as a result of NTESMO's separation and the TEM reforms.

Requirements for an application under the temporary Separation and TEM Reform Uncertainty Mechanism

Materiality threshold

A materiality threshold applies to claims under the Temporary Separation and TEM Reform Uncertainty Mechanism. Materiality means five percent or more of the combined Annual Revenue Requirement for system control and market operator services in the year in which the application is made.

However, for the purposes of the threshold, costs may comprise of the defined separation and TEM reform costs incurred:

- in a single year or over multiple years; and
- for single separation or TEM reform activity, or multiple activities combined.

Information to be provided to the Commission

The Commission will require NTESMO to provide, by written notice, the following information when seeking approval for separation and TEM reform costs under the Separation and TEM Reform Uncertainty Mechanism:

- the link between the costs and the separation and TEM reform requirements;
- evidence of the actual and likely change in costs, allocated between system control and market operator, and that these costs occur solely as a consequence of the separation and TEM reform requirements;
- evidence that the costs are incremental;

- information on NTESMO's decisions and actions in relation to mitigating the magnitude of costs and that the costs sought are prudent and efficient; and
- an application must also include any reductions in NTESMO's forecast costs that have occurred as a result of the separation and TEM reforms.

Timing of notification and assessments

The following timeframes will apply for applications under the Temporary Separation and TEM Reform Uncertainty Mechanism:

- NTESMO may submit a claim on the first business day in September of year 2, 3 or 4 of the 2027-32 regulatory period.
- The Commission may request additional information by written notice in relation to a claim.
- The Commission intends to undertake a public consultation process to allow for stakeholder consideration of the claim.
- Within 90 business days after receipt of a claim that meets the Commission's requirements, the Commission will approve or not approve the amount and the year (or years) in the regulatory period in which that amount is to be passed through to customers. Where a claim is not approved, the Commission will provide the reasoning for its decision.
- During the 90 business day period the Commission may extend the time for its assessment of the claim by up to a further 90 business days by written notice to NTESMO if the Commission considers the complexity or difficulty of the application justifies the extension.
- Within 5 business days of notifying NTESMO of its decision to approve or not approve the claim, the Commission will publish its decision on the Commission's website.

Timing of recovery of approved amounts

Approved cost recovery amounts can be recovered from the regulatory year following the year of the approval.

Recovery may be smoothed across multiple years, and multiple regulatory periods, where approved by the Commission, with appropriate time-value-of-money adjustments.

Incorporating approved costs into the revenue allowance

An approved application may include:

- operating costs and/or capital costs, and
- ex post costs that have already been incurred and ex ante forecasts of expected costs.

Any approved amounts are included in the relevant expenditure allowance (operating and capital expenditure) and recovered in prices by applying the building block model and recovered in annual amounts in accordance with the annual pricing mechanism.

Over and under-spends of approved cost pass-throughs

Any over or underspends of approved amounts that are included in expenditure allowances within a regulatory period will be treated in the same manner as the other elements of the operating and capital expenditure allowances.



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