NTESMO

FY2028–32 System Control and Market Operator Charges Review

Initial Proposal

May 2026

Contents

About this submission

Power and Water Corporation submits this Initial Proposal to the Utilities Commission of the Northern Territory under section 39(1) of the *Electricity Reform Act 2000* (NT) and seeks the Commission's determination of system control and market operator charges under section 20(1) of the *Utilities Commission Act 2000*.

This Initial Proposal is prepared in accordance with the regulatory framework for system control and market operator charges published by the Commission in September 2024 and as clarified in the framework and process paper published in September 2025 (the Commission's approach); and, reflecting feedback provided by the Commission on a previous draft of this Initial Proposal submitted on 27 February 2026. Our supporting regulatory business cases have been prepared under Power and Water's Investment and Delivery Framework and endorsed by our Enterprise Portfolio Management Committee.

This document sets out the Northern Territory Electricity System and Market Operator's (NTESMO's) proposed costs and regulated charges for the 1 July 2027 to 30 June 2032 regulatory period (FY2028–32 regulatory period).

Part 1 of the document provides background:

- Chapter 1 provides context for this Initial Proposal, including the services provided by NTESMO to our customers, and how NTESMO is responding to a rapidly changing energy and regulatory landscape.
- Chapter 2 explains the regulatory framework that applies to NTESMO and identifies how we have complied with the Commission's approach for the FY2028–32 regulatory period.

Part 2 of the document provides information on our actual and forecast costs, calculation of revenues including true-up of revenue, and the proposed charges for the services provided by NTESMO in the forthcoming regulatory period:

- Chapter 3 provides information on how NTESMO will continue to deliver its existing functions, including reforecasting of its capex profile in line with latest timing for the Territory Dispatch Engine project and additional expenditure in specific areas of the System Control and Market Operator function required to continue delivering these functions.
- Chapter 4 provides information on the activities required by NTESMO to implement and deliver on the Territory Electricity Market reforms in the current and the next regulatory period, including how reform uncertainty will be managed.
- Chapter 5 outlines our proposed revenue, setting out the key components of the calculation of revenue under the building block approach.
- Chapter 6 sets out our proposed design of tariffs and indicative charges.
- Chapter 7 provides information on the productivity factor and key performance indicators proposed for the next regulatory period.
- Chapter 8 outlines our proposed approach to managing uncertainty.

Annex A identifies the extent to which stakeholders have been consulted and summarises stakeholder feedback. We have responded to this feedback throughout the main body of our proposal document.

Message from the CEO

The Power and Water Corporation, through NTESMO, plays a central role in the operation of the Northern Territory's regulated electricity systems and market. The System Controller is responsible for the efficient scheduling and dispatch of generating systems and the Market Operator facilitates the efficient operation of the electricity market in the Darwin-Katherine Power System.

Although fundamental, NTESMO's current regulated functions account for less than 5% of total electricity supply costs. We are proud of our ongoing efforts to constrain our cost-to-serve and demonstrate our commitment to the reliable, secure and affordable supply of electricity to Territorians.

Over the current regulatory period, NTESMO has taken important steps to respond to the changes in the electricity market. Most notably, we have commenced implementation of the Territory Dispatch Engine – to support secure, transparent and efficient scheduling and dispatch in the Darwin Katherine Power System as solar generation and energy storage technologies expand and operational complexity increases.

Looking forward, we continue to face increasing complexity across all of the regulated systems. The rapid growth in behind-the-meter solar is contributing to declining minimum demand and increasing variability – challenges that are emerging across electricity systems nationally and require investment in improved systems to maintain system security and avoid outages.

At the same time, an ageing synchronous fleet is contributing to tighter reserve margins through reduced operating hours, lower dispatch flexibility, deratings and, in some cases, retirement. NTESMO will play a central role in supporting a secure transition as these units exit the system and new generation enters service.

Alongside this technological transformation, the Northern Territory Government has introduced legislative reform to modernise the Territory's electricity market arrangements. The 2025 reform legislation marks a major shift in how NTESMO will operate – including its separation from Power and Water and the expansion of its functions to include central planning, procurement and reformed settlement arrangements.

Through this period of change, NTESMO is focused on balancing reliability, security and affordability. Our FY2028–32 Initial Proposal presents a prudent and efficient expenditure forecast that reflects the operational needs of a system undergoing transition while maintaining a disciplined approach to cost management.

As part of developing this Initial Proposal, we actively engaged with stakeholders. This involved seeking input from a broad range of market participants and interested parties to ensure their perspectives and concerns were understood and considered. Feedback was gathered via a workshop and written submissions, allowing us to incorporate stakeholders' insights into our planning and decision-making. We remain attentive to the issues raised and have responded to this feedback.

I want to thank our stakeholders for their constructive engagement on our Initial Proposal. We are still early in the regulatory process, and we are committed to continuing the conversation. Stakeholder feedback will continue to shape our work as we refine our proposal and deliver the capabilities required to support modern, resilient and efficient electricity systems for the Northern Territory.

Executive Summary

About NTESMO

Power and Water Corporation (Power and Water) is responsible for undertaking electricity System Control and Market Operator functions in three distinct electricity systems – Darwin-Katherine, Alice Springs and Tennant Creek. Power and Water's System Control and Market Operator functions are referred to as the Northern Territory Electricity System and Market Operator (NTESMO). NTESMO is currently a ring-fenced business unit within Power and Water.

NTESMO carries out its System Control and Market Operator functions through the provision of a series of regulated and unregulated services. Costs incurred in performing NTESMO's regulated functions are recovered through charges approved by the Utilities Commission (the Commission) from market participants.

NTESMO supports the Northern Territory's economy and community by enabling the electricity system to operate reliably, securely and safely. Through its activities, NTESMO helps create the conditions for:

- **Lower long-run costs of electricity**, by enabling efficient dispatch and higher penetration of lower marginal-cost renewable generation and storage;
- **Investment confidence**, by providing clear operational requirements and predictable market processes for new entrants and existing participants; and
- **Improved customer outcomes**, by reducing the likelihood, duration and impact of outages and by supporting a secure and orderly energy transition.

Changing operating environment

NTESMO's role is becoming increasingly significant as the Northern Territory's power systems facilitate the ongoing energy transition. Nonetheless, this transition introduces several challenges to maintaining system security:

- Minimum demand levels are decreasing due to the widespread adoption of distributed solar, which lowers daytime operational demand and reduces system inertia, thereby complicating the task of sustaining essential services while preserving system balance.
- Reserve margins are narrowing. With diminished supply headroom, the system faces greater vulnerability to contingencies and this necessitates more conservative reserve management to mitigate risk.
- Rising and more unpredictable peak demands elevate the likelihood of supply shortfalls and intensify requirements for forecasting, dispatch, and operational planning.
- The synchronous generator fleet is ageing, increasing frequency of outages. Declining availability of legacy synchronous assets raises reliability and security concerns, creating a greater need for proactive operational interventions.

Collectively, these factors reduce tolerance for outages, increase forecast inaccuracies, and create rapid shifts in operating conditions. They require enhanced system operator functions, including more conservative reserve strategies, stricter outage coordination, increased use of constraints and directions, and robust real-time decision support to maintain the secure and reliable operation of the power systems.

Changing regulatory environment

Alongside responding to the changing energy landscape, NTESMO must also adapt to comply with new legislation that impacts its governance and role. In late October 2025, the Northern Territory Government passed new legislation to modernise the Territory's electricity market arrangements – the Territory Electricity Market (TEM) Reforms.

The TEM Reforms envisage substantial changes to how NTESMO operates. It requires the separation of NTESMO from Power and Water and requires NTESMO to carry out reformed settlement functions and new central planning and procurement functions.

The Northern Territory Government is targeting the completion of the market rules to underpin the reform program by the end of 2026 and the separation of NTESMO from Power and Water by mid-2027. As such, we anticipate the TEM Reforms will be in effect for the FY2028–32 regulatory period.

Content of this Proposal

This Initial Proposal for the FY2028–32 regulatory period has been prepared in accordance with the regulatory framework for System Control and Market Operator charges set by the Commission. Chapter 2 details this framework and key assumptions underpinning our proposal. Feedback from stakeholders has been incorporated throughout and is summarised in Annex A.

Due to the timing of the TEM Reforms, this Initial Proposal seeks recovery for a subset of TEM Reform costs; those that are more certain. Our preliminary estimate of total TEM Reform costs is discussed in Chapter 4 to provide stakeholders with an early view of potential overall costs. We will use the period between the Initial and Revised Proposals to further develop and substantiate these cost estimates.

Table 1 provides an overview of our expenditure for the FY2028–32 regulatory period, the sections which follow explain this requirement in further detail.

Table 1: Expenditure required for delivery of existing functions and TEM Reforms ($m, real 2026-27)

	FY28	FY29	FY30	FY31	FY32	Total
Forecast opex	**29.2**	**29.2**	**29.6**	**29.8**	**29.8**	**147.6**
Business as usual + step changes	26.5	27.1	27.5	27.8	27.8	**136.8**
Reform activities	2.7	2.0	2.0	2.0	2.0	**10.8**
Forecast capex	**16.4**	**3.3**	**1.2**	**0.8**	**0.7**	**22.4**
Other capex	15.7	3.1	1.0	0.7	0.7	21.1
Reform activities	0.7	0.2	0.2	0.1	–	1.3

Resourcing delivery of existing functions

Chapter 3 explains the expenditure required to continue carrying out NTESMO's business-as-usual activities across the FY2028–32 regulatory period, and additional resourcing (or step changes) which are required in the following five areas:

- Territory Dispatch Engine (TDE) maintenance[1];
- System Tools maintenance and expansion;
- Real-time system support services;
- Review of procedures and guidelines; and
- Market Settlement and Transfer Solution (MSATS).

These five projects may have both an opex and a capex component.

The forecast expenditure across these five areas has marginally increased from our Consultation paper estimates, while a proposed step change for additional engineering resources for system modelling, planning and incident investigations has been removed. The forecast expenditure equates to an additional $35.8 million requirement across FY2028–32 and is summarised in Table 2.

Table 2: Additional resources required for delivery of existing functions ($m, real 2026-27)

Area	Cost type	FY28	FY29	FY30	FY31	FY32	Total
TDE	Opex	2.1	3.0	3.5	3.5	3.5	**15.7**
System Tools	Opex	1.5	1.1	0.9	1.0	0.9	**5.3**
System Tools	Capex	2.4	0.2	0.0	0.0	0.0	**2.6**
Real-time system support services	Opex	1.8	1.8	1.8	1.8	1.8	**8.8**
Review of procedures and guidelines	Opex	0.3	0.3	0.3	0.3	0.3	**1.6**
MSATS	Opex	0.4	0.4	0.4	0.4	0.4	**1.9**
Total	**-**	**8.4**	**6.8**	**6.8**	**6.9**	**6.8**	**35.8**

Note: Numbers may not add due to rounding.

Reflecting NTESMO's pivotal role in underpinning the Territory's economic and social wellbeing—by ensuring reliable, secure and safe electricity supply, driving lower long-term costs, fostering investment certainty, and delivering better outcomes for customers—it is imperative that we implement the projects outlined above. These measures are essential to address the increasing complexity of our operating environment, maintain system security amid evolving demand and generation patterns, and support the

[1] TDE maintenance costs were not captured in the expenditure allowance in the FY2025–27 regulatory reset process because the operational expenditure was not forecast to be incurred until the following regulatory period (FY2028–32).

transition to a modern electricity system. By investing in enhanced tools, robust operational support, and expanded capabilities, NTESMO will be better equipped to meet emerging challenges, safeguard reliability, and enable an efficient, resilient energy future for all Territorians.

Delivering the TEM Reforms

Chapter 4 provides an overview of the activities required by NTESMO to implement and deliver on the reforms in the current and the next regulatory period; and set out how we intend to manage uncertainty related to reform.

The TEM Reforms are aimed at reducing whole-of-system costs. However, NTESMO will incur initial set-up costs associated with the separation from Power and Water, including establishing the required governance structures. There will also be new ongoing costs associated with the new functions that need to be performed. While NTESMO's costs will increase, this is required for costs in other areas, such as generation, networks and retail, to be reduced.

We have developed an early view of total reform costs ($46.6 million). This figure comprises a mix of more and less certain estimates. At this stage, we consider that $17.8 million is sufficiently well supported to include in this initial proposal for the FY2028–32 period. Our initial submission focuses on these costs which will be incurred in both the current and subsequent periods. We are proposing that $5.7 million of reform costs be incurred in the undertaking of preparatory work within the current regulatory period. This will be achieved under the existing provision within the regulatory framework for an in-period cost pass through resulting from a regulatory change event.

Cost-pass-through to implement separation

Achieving separation of NTESMO from Power and Water by mid-2027 will result in most implementation costs being incurred in the current regulatory period. These costs form the basis of NTESMO's initial pass-through claim under a regulatory change event, which the Commission has advised should be provided within this Initial Proposal. NTESMO is seeking $5.7 million as an initial cost pass-through across FY2026 and FY2027 as show in Table 3.

Table 3: Proposed expenditure from regulatory change event, ($m, real 2026-27)

	FY26	FY27	Total
Pass-through	0.1	5.6	**5.7**

Although incurred in the current period, and eligible for more rapid recovery, we propose to recover these pass-through costs evenly across the next regulatory period (FY2028–32) to smooth the impact on customers.

The proposed profile of pass-through revenue from this regulatory change event is summarised in Table 4.

Table 4 Proposed pass-through revenue from regulatory change event, smoothed ($m, real 2026-27)

	FY28	FY29	FY30	FY31	FY32	Total
Building block revenue	1.2	1.2	1.1	1.1	1.1	**5.7**

Note: Numbers may not add due to rounding.

Our approach to spreading pass-through cost recovery is intended to closely reflect past AER precedent, however some further thinking may be required to how this is included in the building block framework if the Commission accepts the principle of revenue smoothing.

This is an initial cost pass through claim. As the market rules that underpin the reform program are developed, this may result in a further pass-through claim.

Initial Proposal costs

The Commission has further advised that NTESMO should only include TEM Reform costs in its' Initial Proposal where there is sufficient clarity under the current legislation to reasonably forecast them. Consistent with this position, this proposal includes only those TEM Reform costs that can be reasonably forecast at this stage, supported by bottom-up assumptions that can be made with reasonable confidence based on the legislation as passed.

Only costs relating to resourcing to support implementation, employment of a NTESMO board and executive and development of an updated settlement system have been included for cost recovery at this stage. summarises the forecast TEM Reform costs included in this Initial Proposal. It also makes allowance for savings in corporate overheads (costs for services currently provided by Power and Water to NTESMO) which fall away as a result of separation.

Table 5: Initial Proposal (reasonable forecast) TEM Reform capital and operational expenditure ($m, real 2026-27)

	FY26	FY27	FY28	FY29	FY30	FY31	FY32	Total
Capex	-	-	0.7	0.2	0.2	0.1	-	**1.3**
Opex	-	-	3.7	3.1	3.1	3.1	3.1	**16.1**
Corporate overhead savings (opex)	-	-	(1.1)	(1.1)	(1.1)	(1.1)	(1.1)	(5.3)
Pass-through	0.1	5.6	-	-	-	-	-	**5.7**
Total	0.1	5.6	**3.4**	**2.2**	**2.2**	**2.1**	**2.0**	**17.8**

Notes: Numbers may not add due to rounding. Corporate overhead savings is a negative step change and relates to the forecast reduction in NTESMO's corporate overheads following TEM Reform compliance from no longer sharing certain corporate functions (this is further explained in Chapter 4).

TEM Reform total cost estimate

As indicated above, to provide greater transparency, NTESMO has included an early view of the potential total costs of the TEM Reforms. Elements of this estimate are highly uncertain and not yet sufficiently developed to support a request for cost recovery. For this reason and as above-mentioned, the total cost has not been formally included in the Initial Proposal, but instead only a subset of the forecast costs that can be estimated with reasonable confidence.

Our current forecast total expenditure for TEM Reform is $46.6 million across the current period and FY2028–32. This includes costs that form part of the pass-through claim for the current period, forecast costs included in this Initial Proposal for the FY2028–32 regulatory period, and our preliminary estimate of other potential reform costs that may arise in the current FY2025–27 and upcoming FY2028–32 regulatory periods. NTESMO will continue to develop robust cost estimates ahead of the Revised Proposal as relevant rules and regulations are finalised. Consistent with the Commission's advice, if TEM Reform rules and regulations are not made in time to inform the Revised Proposal, a further cost-pass-through claim will be pursued in the FY2028–32 regulatory period.

Proposed revenue

Chapter 5 outlines the forecast revenue requirement for the FY2028–32 regulatory period, including those TEM Reform costs that can be reasonably forecast at this stage, and recovery of pass-through costs.[2]

Forecast opex

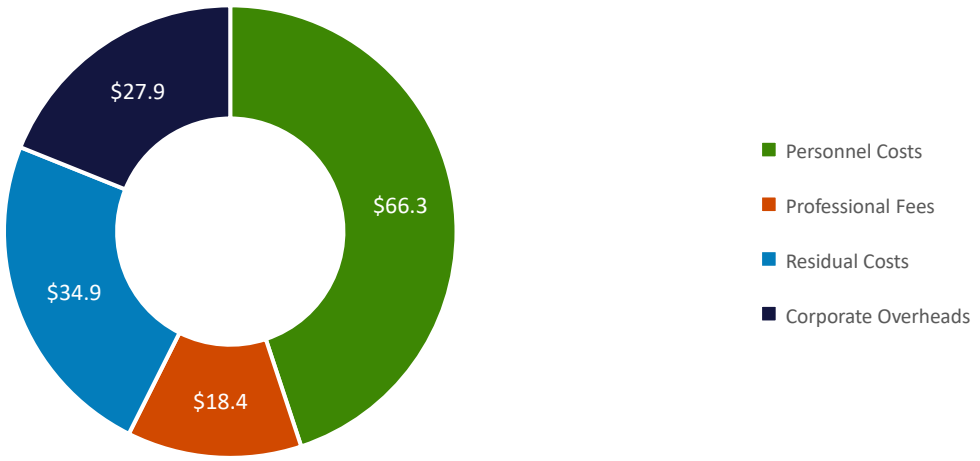
NTESMO's current forecast for opex is $147.6 million over the FY2028–32 regulatory period, or approximately $29.5 million annually:

- For business as usual activities, forecast opex totals $136.8 million.
- For reform activities, forecast opex totals $10.8 million.[3]

As Figure 1 shows, personnel costs are the dominant opex category in the FY2028–32 regulatory period in aggregate for the System Control and Market Operator functions, accounting for 45% of opex. The remaining forecast opex is split between corporate overheads, residual costs, and professional fees.

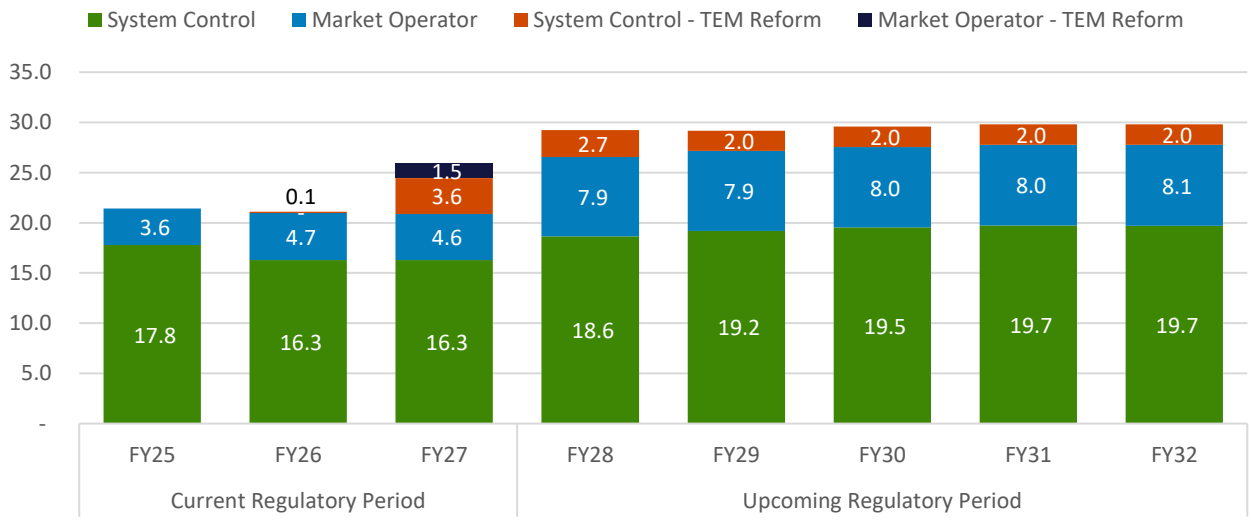
[2] Pass-through costs are captured in the total forecast revenue requirement as an adjustment.
[3] As per Table 5, FY2028–32 forecast opex is $16.1 million, however, the corporate overhead savings is a negative step change and therefore the total forecast opex summed is $10.8 million.

Figure 1: Forecast opex by cost category for FY2028–32 regulatory period ($m, real 2026-27)



Projected business-as-usual operating expenses (opex) for the FY2028–32 regulatory period shows an average increase of $8.4 million per year compared to the current period, during which NTESMO has an average opex allowance of $21.1 million per year, as depicted in Figure 2. This increase is mainly due to substantial shifts in NTESMO's operating environment, particularly driven by the move toward renewable energy sources. The rapid expansion and integration of distributed energy resources, large-scale solar PV systems, and batteries into networks and systems have put upward pressure on NTESMO's operational needs and costs. TEM Reform expenditure contributes an average of $2.2 million per year increase in costs in FY2028–32 (in addition to $5.7 million of implementation costs in the current regulatory period).

Figure 2: Allowed and forecast opex by function ($m, real 2026-27)

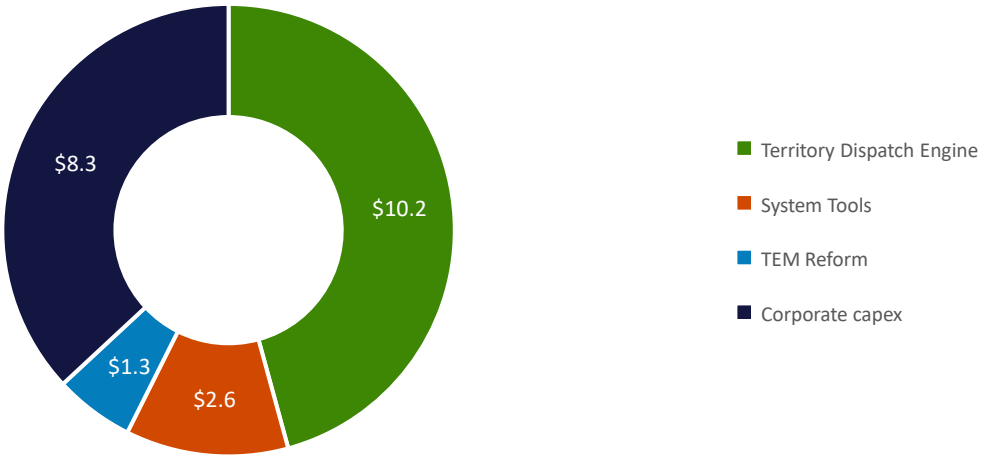


Forecast capex

NTESMO's current forecast for capex is $22.4 million over the FY2028–32 regulatory period. Figure 3 shows the four components of forecast capex: corporate capex and three capital projects that will be delivered in the FY2028–32 regulatory period:

- **Territory Dispatch Engine (TDE)**
  The Final Decision allowed $38.5 million (adjusted to real $2026-27 dollars) to implement the TDE project. These costs have been reprofiled to move $10.2 million of expenditure from the current regulatory period into the next due to the delay in implementation of the project.
- **System Tools**
  Expenditure of $2.6 million related to developing an expanded suite of system tools.
- **TEM Reform**
  Expenditure of $1.3 million related to developing an upgraded settlement system necessary for NTESMO's updated settlement function following TEM Reform.[4]

Figure 3: Forecast capex by driver ($m, real 2026-27)



For the FY2028–32 regulatory period, a key driver of capex is corporate capex costs. The $8.3 million forecast expenditure is primarily due to a large-scale programme of works originally intended to bring all Power and Water operations into a single site in Darwin. As NTESMO is now to be separated from Power and Water, this plan and its costs will need to be reviewed prior to our Revised Proposal to ensure they appropriately reflect the requirement for separation. At present, planning for NTESMO's facilities arrangements is preliminary, however this allocation represents an evidence-based cost of NTESMO's future corporate functions capex post-separation.

Table 6 sets out forecast capex by regulatory year.

[4] The total forecast capex for TEM Reform is $1.8 million, however, $0.5 million is expected to be incurred in FY2026 and FY2027 and is therefore being proposed via the cost pass through.

Table 6: Forecast capex by regulatory year ($m, real 2026-27)

Capital Project	FY28	FY29	FY30	FY31	FY32	Total
Territory Dispatch Engine	10.2	-	-	-	-	**10.2**
System Tools	2.4	0.2	-	-	-	**2.6**
TEM Reform	0.7	0.2	0.2	0.1	-	**1.3**
Corporate capex	3.1	2.8	1.0	0.7	0.7	**8.3**
Total	**16.4**	**3.3**	**1.2**	**0.8**	**0.7**	**22.4**

Note: Numbers may not add due to rounding.

Total forecast revenue requirement

NTESMO's current forecast revenue requirement for the FY2028–32 regulatory period is $196.3 million:

- $149.2 million for System Control functions; and
- $47.1 million for Market Operator functions.

Table 7 and Table 8 set out the proposed revenue requirement for each year of the FY2028–32 regulatory period. This total includes an adjustment for recovery of the cost pass-through.

Table 7: Proposed revenue requirement for System Control ($m, real 2026-27)

System Control	FY28	FY29	FY30	FY31	FY32	Total
Opex	21.3	21.2	21.6	21.8	21.7	**107.6**
Depreciation	3.6	4.5	4.7	4.9	5.1	**22.9**
Return on capital	2.7	3.4	3.2	2.9	2.5	**14.7**
Cost pass-through adjustment	0.9	0.8	0.8	0.8	0.8	**4.1**
Total	**28.4**	**30.0**	**30.3**	**30.4**	**30.1**	**149.2**

Note: Numbers may not add due to rounding.

Table 8: Proposed revenue requirement for Market Operator ($m, real 2026-27)

Market Operator	FY28	FY29	FY20	FY31	FY32	Total
Opex	7.9	7.9	8.0	8.0	8.1	**40.0**
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	0.0	0.0	0.1	0.1	**0.2**
Cost pass-through adjustment	0.3	0.3	0.3	0.3	0.3	**1.6**
Total	**9.3**	**9.3**	**9.4**	**9.5**	**9.5**	**47.1**

Note: Numbers may not add due to rounding

Regulated charges and bill impacts

Chapter 6 describes how NTESMO's proposed revenue translates into regulated charges on market participants and the corresponding impact on customer bills.

NTESMO currently recovers its costs using a relatively simple $ per kWh consumption metric, which is levied on retailers. Charges are calculated by dividing the revenue requirement in each year by the demand forecast in each year. This approach is unchanged in the Initial Proposal, however NTESMO will consider changes to tariff structure ahead of the Revised Proposal.

The indicative regulated charges for System Control and the Market Operator for each year of the next regulatory period are set out in Table 9.

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

	FY28	FY29	FY30	FY31	FY32
System Control	1.6842	1.8064	1.8699	1.9016	1.9269
Market Operator	0.6349	0.6509	0.6735	0.6921	0.7057

NTESMO's costs comprise a small proportion of NT customers' electricity bill. In the last year of approved prices (FY2027), the System Control and Market Operator's combined impact was estimated to be 3.4% of the annual electricity bill of a typical small residential customer in the DKPS. In the first year of the FY2028–32 regulatory period, we estimate this will rise to 4.9% for the same customer group.

Incentives

Chapter 7 outlines the incentive framework proposed for NTESMO across the FY2028–32 regulatory period. This includes a productivity factor to be applied to operating expenditure and a set of Key Performance Indicators (KPIs) for performance monitoring.

Productivity Factor

We propose a productivity factor of zero (0%) for NTESMO for the FY2028–32 regulatory period as the changing operating environment and recent legislative reforms are resulting in a significant shift in NTESMO's structure and operational requirements. We consider there to be limited scope for ongoing productivity gains within NTESMO's opex at present, because of the notable external changes currently faced.

KPIs

We propose seven KPIs to capture NTESMO's performance and stakeholders' needs: six of which were proposed in our consultation paper (forecast accuracy, secure and reliable operation, system black events, settlement timeliness, settlement accuracy, and system availability), and an additional one measuring how often and promptly industry updates are published.

As the new reform-related functions that NTESMO will be responsible for are clearly defined and scoped, we may propose that additional KPIs related to these new functions be included in our Revised Proposal.

Managing uncertainty

Chapter 8 outlines the framework proposed to manage uncertainty in the FY2028–32 regulatory period. We propose broadly retaining the pass-through mechanism that applies in the current FY2025–27 regulatory period. This includes:

- The 8 pass-through events that enable NTESMO to manage uncertainty; and
- A materiality threshold of 5% of NTESMO's annual revenue requirement.

However, the Commission's approach currently includes recovery of pass-through amounts through the annual revenue requirement in the year following an approved pass-through event. We propose an alternative approach which spreads revenue recovery over a longer period. Our proposed mechanism allows large or "lumpy" pass-through amounts to be recovered over more than one year where this is appropriate in order to smooth customer impacts. Under our proposed approach the recovery profile (including the recovery period and the annual amounts) would be established as part of the relevant pass-through claim.

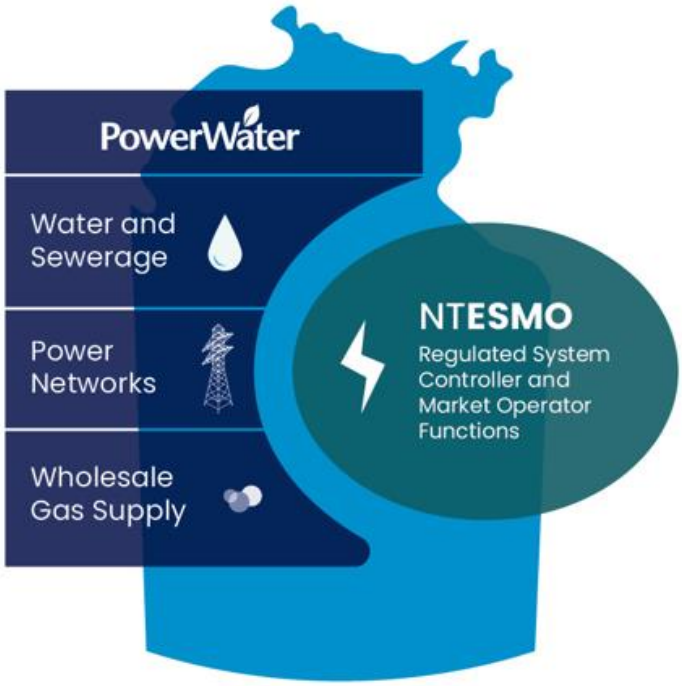
We have applied this alternative approach to our current claim and anticipate that this pass-through mechanism may also be utilised in the FY2028–32 regulatory period to manage costs associated with the uncertain elements of the TEM Reforms.

1 Current Context

1.1. NTESMO's role

Power and Water Corporation (Power and Water) is responsible for undertaking electricity System Control and Market Operator functions in the Northern Territory's distinct electricity systems in accordance with Section 38 of the *Electricity Reform Act 2000* (NT) and the System Control Technical Code (SCTC).[5] These functions are currently performed under the System Control Licence granted to Power and Water. Under the Northern Territory National Electricity Rules (NT NER), Power and Water's System Control and Market Operator functions are referred to as the Northern Territory Electricity System and Market Operator (NTESMO).[6] NTESMO is currently a ring-fenced business unit within Power and Water.

Figure 1-1: NTESMO function ring fenced within Power and Water Corporation



As System Controller, NTESMO plays a critical role in ensuring the reliability and security of the Northern Territory electricity systems in Darwin-Katherine, Alice Springs and Tennant Creek. Its primary responsibility is to ensure the efficient scheduling and dispatch of generating systems to provide sufficient energy supply to securely meet demand. As Market Operator, NTESMO is responsible for facilitating the efficient operation of the electricity market in the Darwin-Katherine Power System (DKPS).

[5] The three regulated electricity systems that Power and Water is responsible for under its System Control Licence are Darwin-Katherine Power System, Alice Springs Power System and Tennant Creek Power System.

[6] The Northen Territory National Electricity Rules (NER) refers to the Northern Territory Electricity System and Market Operator (NTESMO) as a collective term for the entity that either controls the operation of the electricity system or administers the market arrangements. The term 'NTESMO' is used in this document to refer to the system controller and market operator functions that Power and Water is currently licenced to perform under its System Control Licence.

1.2 Our current services and activities

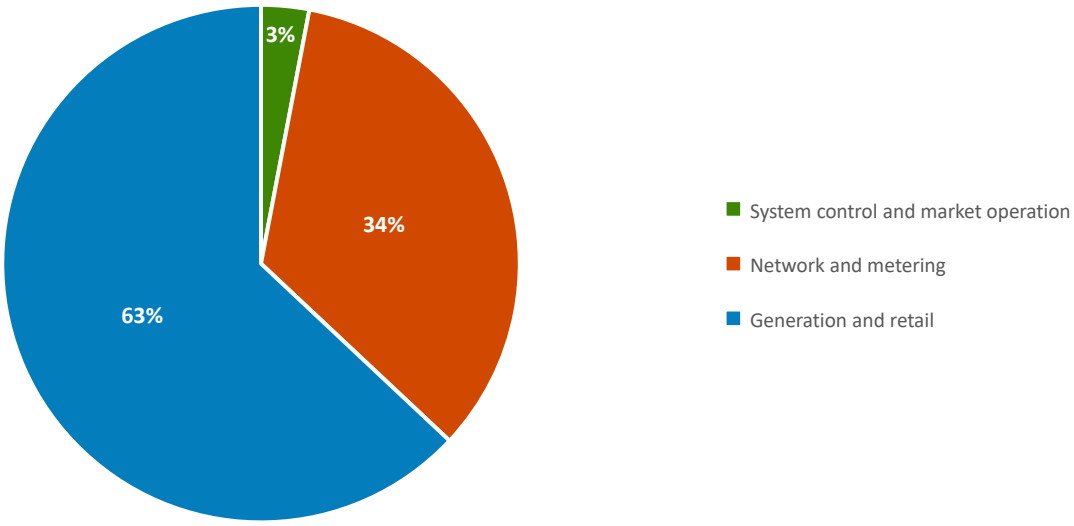
NTESMO carries out its System Control and Market Operator functions through the provision of a series of regulated and unregulated services.[7] This Regulatory Proposal relates to the regulated services only, which are currently:

- **Real-time Operations (System Control)**
  Monitors and controls the system in near real-time including dispatch activities, controlling activities, testing activities and monitoring generation and system participants.
- **Operations Planning (System Control)**
  Undertakes short term planning and reporting that assists in providing a secure electricity system, including generator connections, outage management, incident reporting, load forecasting and technical compliance, and directions.
- **Power System Evolution (System Control)**
  Enhances renewable integration, develops system tools and the Territory Dispatch Engine to support growing renewables and new operational procedures. This function also provides forecasting services to allow System Control to make informed real-time operational decisions and manage planned outages to ensure electricity system security. Reliable forecasting enables more efficient scheduling and dispatch of large-scale generators and considers the significant impact of small-scale inverter-based technologies on the electricity system.
- **Market Operations (Market Operator)**
  Registers market participants and undertakes analysis on customer energy consumption and generation output to enable retailers and generators to settle their bills. This function also supports market participants in the registration, compliance testing and commercial dispatch processes. This function provides daily generator merit orders to real-time operators based on the offers received from system participants (generators) and ensures dispatch compliance with the issued merit orders. Further, the function oversees the publication of market information in accordance with the approved market timetable procedure and publication of daily market data on the web.
- **Rule Development, Technical and Policy Advice (Market Operator)**
  Provides policy makers with technical advice on issues relevant to our functions.

Although fundamental to the effective operation of the energy system, NTESMO's current regulated functions account for a relatively small proportion (less than 5%) of electricity supply costs although our contribution to the NT economy is substantial (Figure 1-2).

[7] NTESMO provides unregulated services to Power Services, Water Services and Territory Generation. The costs of these services are not a part of this Regulatory Proposal.

Figure 1-2: Electricity supply cost breakdown for a residential customer, 2025-26



1.3 Our contribution

NTESMO supports the Northern Territory's economy and community by enabling the electricity system to operate reliably, securely and safely. By coordinating power system operations and administering market processes, NTESMO helps ensure electricity is available when and where it is needed, and that the system can respond effectively to disturbances, equipment failures and extreme conditions.

A secure and reliable power system delivers significant value to customers and the broader economy. Electricity outages impose immediate costs on households and businesses through disrupted activity, damaged goods, lost production, safety risks and reduced service delivery. The loss of value associated with an 8-hour outage in the DKPS is estimated at more than $55 million across residential and business customers.[8] This illustrates the scale of the economic value created by effective system control and market operator functions, and the importance of sustaining capability and resilience across NT electricity systems.

Through its activities, NTESMO helps create the conditions for:

- **Lower long-run costs of electricity**, by enabling efficient dispatch and higher penetration of lower marginal-cost renewable generation and storage;
- **Investment confidence**, by providing clear operational requirements and predictable market processes for new entrants and existing participants; and
- **Improved customer outcomes**, by reducing the likelihood, duration and impact of outages and by supporting a secure and orderly energy transition.

1.4 Changing energy mix and its implications

Our contribution is increasingly important as the Northern Territory's power systems support the energy transition. However, the transition also presents a series of challenges that we must address.

[8] Quantified based on the AER's 2025 Customer Value of Reliability (VCR) and 2024-2025 benchmarking RIN data to estimate average energy lost during an eight-hour outage.

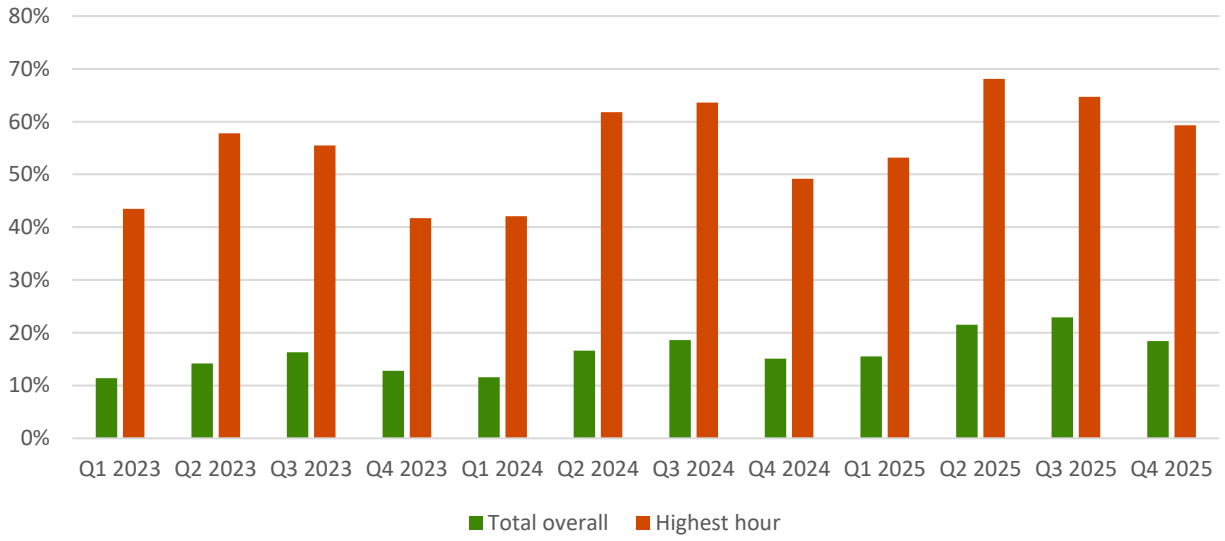
Transition to renewable technologies

Renewable technologies will continue to play a growing role in the Northern Territory's generation mix across all regulated power systems

The increase in renewable electricity generation and storage presents a significant opportunity to reduce the wholesale cost of electricity generation. These technologies will play a central role in the least cost pathway to maintaining safe, reliable and secure electricity supply in the Northern Territory. We anticipate sustained growth in the number of distributed assets and large-scale projects connecting to the network. As the existing fleet of synchronous generation continues to age, reliability challenges will become more frequent, particularly as peak electricity demand continues to rise. At the same time, growing behind the meter solar is reducing minimum demand and increasing the complexity of maintaining essential system services (ESS) during daylight hours. NTESMO will play an important role in ensuring the power systems it manages remain secure as these systems transition to new sources of generation and ESS, and continue to meet the needs of consumers.

As illustrated in Figure 1-3, renewable sources comprise a material and growing proportion of total overall generation across the Northern Territory's regulated power systems and can supply a majority of generation during the highest-renewables hours.

Figure 1-3: Estimated percentage of generation from renewables, total in quarter and highest hour in quarter (regulated systems)



Note: Renewables include distributed and utility-scale solar PV.

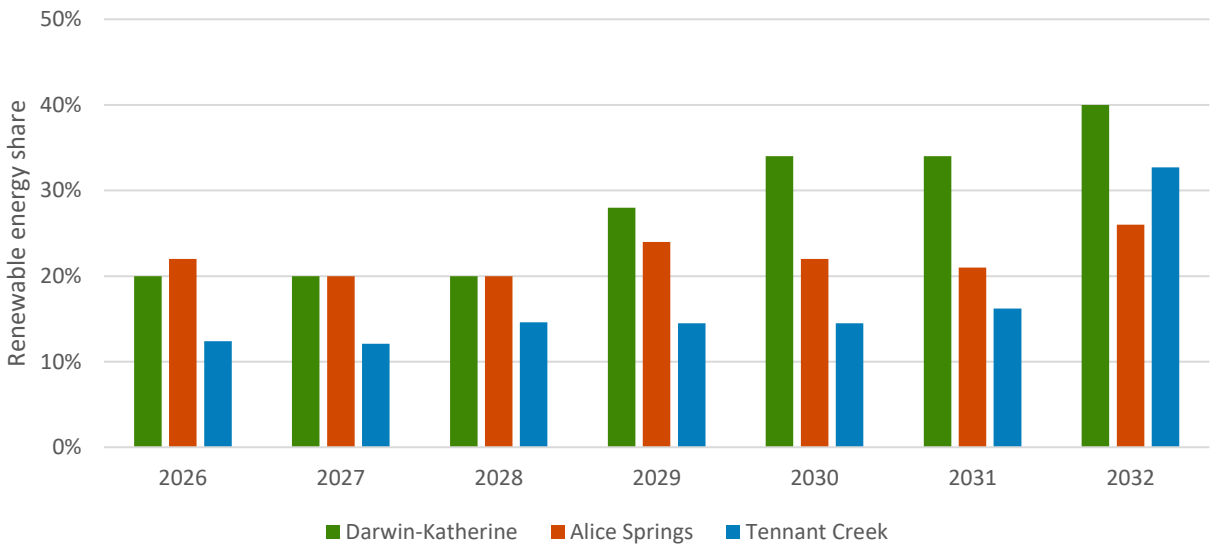
Renewable generation in the Northern Territory is almost entirely derived from utility-scale and distributed solar PV. In 2025, solar supplied 19.3% of generation, and maximum renewable power reached 184.8 megawatts (MW). In the highest hour, solar supplied 68.1% of generation. More than three quarters of solar generation comes from distributed solar PV. [9]

[9] NTESMO Data Dashboard, NT Renewables Report 2025.

Looking forward, the Commission's *2023 Electricity Outlook* forecasts continued growth in distributed PV across the regulated systems (including an additional 35.6MW over the FY2028–32 regulatory period).[10] Behind-the-meter solar and battery installations are also expected to grow with the support of government solar and battery grant programs.

According to Power and Water's internal modelling, the share of renewable energy is expected to keep growing in all regulated energy systems throughout the next regulatory period (see Figure 1-4).

Figure 1-4: Projected renewable generation share, NT regulated power systems, 2026-2032



Source: Power and Water

Utility-scale additions including the proposed Darwin Energy Hub are anticipated to add around 180–220MW of solar capacity (with associated battery storage) to the DKPS, targeting completion around 2030.[11] Large-scale battery storage projects are also anticipated, including Darwin-Katherine Battery Energy Storage System (BESS) 2 and 3 (commissioning from 2027 onwards) and the Owen Springs BESS.[12]

The Territory and Federal policy settings continue to support investment in renewable generation and storage technologies as a least cost pathway to maintaining safe, reliable and secure electricity supply which contributes to Australia's legislated net zero target by 2050.

Challenges of maintaining system security

Falling minimum demand due to increased solar generation

The rapid growth of distributed solar is causing operational issues for Northern Territory electricity systems, as increased distributed solar during sunny days reduces net load and shifts minimum demand to the middle of the day.

[10] Utilities Commission (2024), *2023 Northern Territory Electricity Outlook Report Data*, 25 June, Figures 27-29.
[11] Northern Territory Government, Dawin Energy Hub. Accessed 6 January 2026, available at: https://dme.nt.gov.au/renewables-energy-systems/renewable-energy/darwin-energy-hub
[12] Territory Generation (2025), *2024-25 Annual Report,* p. 25.

As minimum demand declines, maintaining sufficient synchronous generation online at stable operational levels becomes increasingly challenging. Despite the reduced net load during periods of high distributed solar output, synchronous generating units remain essential for the provision of critical system services. These services include frequency regulation, voltage control, and the provision of inertia – capabilities that solar generation alone, without the support of BESS, cannot deliver. Consequently, even during times of low demand, it is necessary to keep synchronous units operating to ensure continued system stability and reliability.

Minimum demand in the DKPS has already reached a level where it can be difficult to keep sufficient synchronous plant online without operational challenges arising. This is expected to worsen as distributed solar continues to connect.

At times, these conditions can result in periods where available generation exceeds demand. In these circumstances, NTESMO is required to take proactive operational interventions, including constraining utility-scale solar and other generation, to maintain secure operation and enable synchronous units to remain online to provide ESS. We note that some utility-scale solar projects are not yet operating at full capacity because of these necessary system limitations.[13]

Less room for error in tight reserve margins

We are operating in an environment with tighter reserve margins. We have seen a significant increase in the number of incidents where the system was not secure. In 2023 non-reliability notices were issued for 26 days. By September 2024, this figure increased to 38 non-reliability notice days, and 45 days in 2025, reflecting significant year-on-year increases. We expect non-reliability notice days to expand as thermal facilities are anticipated to retire (or potentially be refurbished) in the next several years. Retirement or refurbishments will impact facility availability which is anticipated to result in an increase in the number of non-reliability notice days. System reliability modelling undertaken by NTESMO indicates that system reliability is expected to deteriorate.

One driver of tight reserve margins is growing peak demand pressures. Peak demand typically occurs in the evening when solar generation ramps down, which increases reliance on dispatchable generation and reserves during critical periods. In 2025, the DKPS recorded a new maximum net demand of 294.5MW.[14]

At the same time, an ageing synchronous fleet is contributing to tighter supply margins through reduced annual operating hours, poor dispatch and ramping flexibility, derating of units and in some cases, retirement. While we expect committed life extension works at Channel Island will provide support for the DKPS, Units 1 and 2 are still expected to retire before or during the FY2028–32 regulatory period. Five units will also be retired at Tennant Creek during the regulatory period.[15]

A step change in system operation is required to manage these challenges

The combination of declining minimum demand, increasing distributed solar penetration, and tighter reserve margins is fundamentally altering the operational landscape. These developments mean that the electricity system now has reduced tolerance for forecast errors and less headroom available to handle

[13] Utilities Commission (2025), *2024 Northern Territory Electricity Outlook Report,* Final report.
[14] NTESMO Data Dashboard.
[15] Utilities Commission (2025), *2024 Northern Territory Electricity Outlook Report,* Final report.

large and frequent shifts increasing the risk of outages. As a result, it is necessary for system operator functions to step up to meet these new challenges.

Key operational responses include the adoption of more conservative reserve management approaches, the implementation of tighter outage coordination, and the more frequent application of operational constraints and directions. Additionally, there is a growing need for stronger real-time decision support to ensure the ongoing security and reliability of the electricity supply.

In this environment, NTESMO's role is critical. The organisation is responsible for continually evolving and modernising its tools, systems, and processes to ensure that generation and other system assets are scheduled and dispatched in a manner that is both optimal and secure. Once completed, the Territory Dispatch Engine (TDE) will be a foundational component, allowing NTESMO to embed necessary operational interventions within an integrated system, supporting secure and reliable electricity supply for the Northern Territory.

1.5 Legislative Reform

Alongside responding to the changing energy landscape, NTESMO must also adapt to comply with new legislation that impacts its governance and role.

In late October 2025, the Northern Territory Government passed new legislation to reform the Territory's electricity market arrangements, namely the:

- *Electricity Legislation Amendment (Market Reform) Act 2025*; and
- *Electricity System and Market Operator (NTESMO) Act 2025*.

We refer to these changes collectively as Territory Electricity Market (TEM) Reforms.

The TEM Reforms envisage substantial changes to how NTESMO operates. It requires the separation of NTESMO from Power and Water and requires NTESMO to carry out reformed settlement functions and new central planning and procurement functions which are in addition to those it already provides:

- **Settlement** – Settlement will transition to a traditional cash settlement whereby NTESMO will manage the credit risk of the DKPS using a prudential framework.
- **Central planning** – NTESMO will perform centralised system planning by periodically producing a Regulated Electricity System and Investment Plan (RESIP).
- **Procurement** – NTESMO will undertake centralised system procurement in the DKPS.

The Government is targeting the completion of the market rules to underpin the reform program by the end of 2026 and the separation of NTESMO from Power and Water by mid-2027. As such, we anticipate that the TEM Reforms will be in effect for the FY2028–32 regulatory period.

As this stage, Power and Water is considering how the requirements of the legislation can best be satisfied. Chapter 4 provides an overview of the activities required by NTESMO to implement and deliver on the reforms in both the current and the next regulatory period.

1.6 Scope of this Initial Proposal

This Initial Proposal reflects the resources required for NTESMO to continue delivering its regulated functions in this increasingly complex operating and regulatory environment.

TEM Reform will result in additional forecast expenditure associated with new functions and activities, as well as one-off costs associated with the separation of NTESMO from Power and Water. Given the timing of the TEM Reforms, there remains considerable uncertainty regarding the final scope, sequencing and implementation approach. However, implementation costs are expected to start being incurred in FY2026 and FY2027 and will require a cost pass-through for the current regulatory period.

In line with advice from the Commission, the Initial Proposal includes:

- **Costs proposed for recovery in the upcoming regulatory period (FY2028–32).** We are seeking approval to recover those TEM Reform costs we expect to incur in the current regulatory period (using a modified version of the Commission's cost pass-through mechanism) and upcoming regulatory period where we can forecast them with reasonable confidence based on the legislation, consistent with the Commission's advice to only request cost recovery for costs that we have reasonable confidence in based on the legislation as passed; and
- **Indicative total TEM Reform costs across the current and upcoming regulatory period.** We also provide a preliminary view of total TEM Reform costs we expect to incur across the current and upcoming regulatory period. This includes the TEM Reform costs we are confident in based on the legislation, and other costs which are less certain due to the likelihood they could differ materially depending on how the market rules develop.

NTESMO will continue to develop robust cost estimates of TEM Reform ahead of the Revised Proposal as relevant rules and regulations are finalised.

1.7 Stakeholder engagement

NTESMO conducted a formal consultation process comprising the publication of a consultation paper on 5 December 2025 and a stakeholder workshop held on 11 December 2025. The consultation paper sought written submissions, while the workshop enabled detailed discussion with major customers and stakeholders. Due to the short timeframe between the passing of reform legislation and publication of the paper, the consultation focused on NTESMO's existing business-as-usual activities, with reform related costs incorporated instead into this Initial Proposal.

Written submissions were received from Territory Generation, Jacana Energy and Eni Plenitude (Plenitude) with the latter providing views on a subset of the questions asked. Annex A details what we heard from stakeholders, and each chapter of this regulatory submission takes account of the views expressed by stakeholders.

2 Regulatory Framework

2.1 Regulatory context

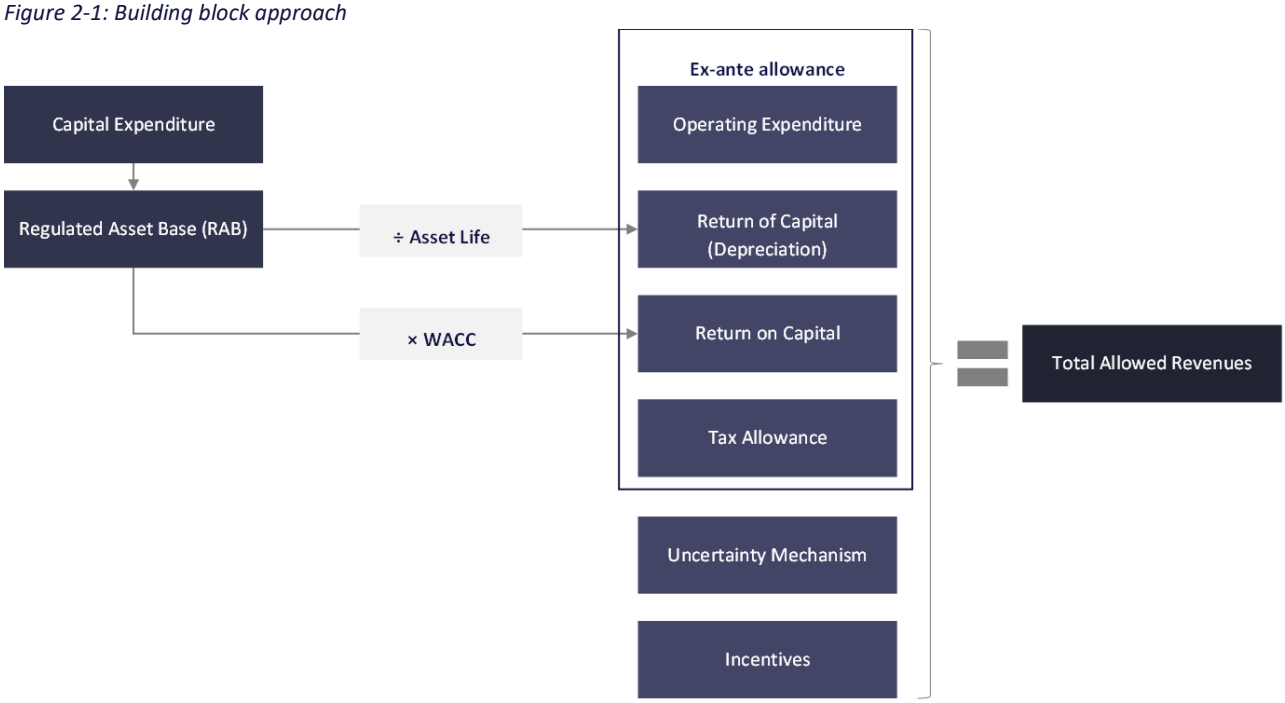
Costs incurred in performing NTESMO's regulated functions are recovered through charges approved by the Utilities Commission.[16] The Commission has the legislative authority to set NTESMO's allowed revenues and determine the annual charges that can be recovered by NTESMO from market participants in the Northern Territory for performing its functions.[17]

This Initial Proposal is prepared in accordance with the regulatory framework for system control and market operator charges published by the Commission in September 2024; as clarified in the framework and process paper published in September 2025 (the Commission's approach); and, reflecting feedback provided by the Commission on a previous draft of this Initial Proposal submitted on 27 February 2026. Where our proposed approach differs from the Commission's approach, this has been clearly stated.[18]

2.2 Regulatory process

The Commission's approach sets out the regulatory framework for system control and market operator charges. It uses the building block approach to calculate the maximum annual revenue requirement for the System Control and Market Operator functions. This maximum annual revenue requirement forms a revenue cap for each year.

Figure 2-1: Building block approach



The sum of the building blocks provides the total allowed (required) revenues of NTESMO

[16] Section 39(1) of the *Electricity Reform Act 2000* (NT).
[17] Section 39(2) of the *Electricity Reform Act 2000* (NT).
[18] The approach used in this Initial Proposal differs in how Corporate Overheads are forecast and how pass-through costs are recovered.

across the regulatory period. These building blocks include:

- **Operating expenditure** – Includes all forecast costs that NTESMO pays on a regular basis as part of the day-to-day delivery of its service(s).
- **Return of capital (depreciation)** – Annual instalments that recover the cost of capital investments over an 'asset life'.
- **Return on capital** – An allowance for a level of return on equity to NTESMO's owner and debt providers. The rate represents a regulated allowance set to reflect the efficient financing costs of a benchmark efficient entity. This rate of return is known as the Weighted Average Cost of Capital (WACC).
- **Corporate tax payments** – An allowance for tax is forecast based on the anticipated tax payments from the other building blocks.

NTESMO's regulatory framework also includes:

- **Uncertainty mechanism(s)** – A means to manage issues associated with uncertain or unforeseeable aspects of cost that arise between price controls.
- **Incentives** – To encourage NTESMO to reduce its costs and improve its performance.

2.3 Method to forecast opex

As per the Commission's framework, we have continued to forecast operating expenditure (opex) for the System Control and Market Operator functions across the four existing cost categories – personnel, professional fees, residual, and corporate functions:

- Personnel expenditure is the largest cost category. It includes Power and Water employees (performing NTESMO functions), and undergraduates and graduates sourced through contract arrangements with Charles Darwin University. It does not include employees in our corporate functions, who are included in the corporate overhead category.
- Professional fees relate to payments to external parties to procure specialist technical advice and services that are not provided by internal personnel.
- Residual costs are all operational costs not defined as personnel, professional fees and corporate overheads. This includes ICT (Information and Communication Technology), training, travel, insurance, materials, property charges, external service agreements, transfer pricing and other costs.
- Corporate overheads are shared costs that relate to administrative support functions such as financial services, billing, and human resource management. They are treated as shared costs within Power and Water that are not wholly and exclusively associated with a single business unit.[19] However, once separated, NTESMO will incur some corporate overheads separate from Power and Water.

[19] NTESMO currently operates within the Core Operations business unit at Power and Water.

We have retained the base-step-trend approach, as per the Commission's direction and the following formula from the Australian Energy Regulator (AER) Expenditure Forecast Assessment Guidelines:

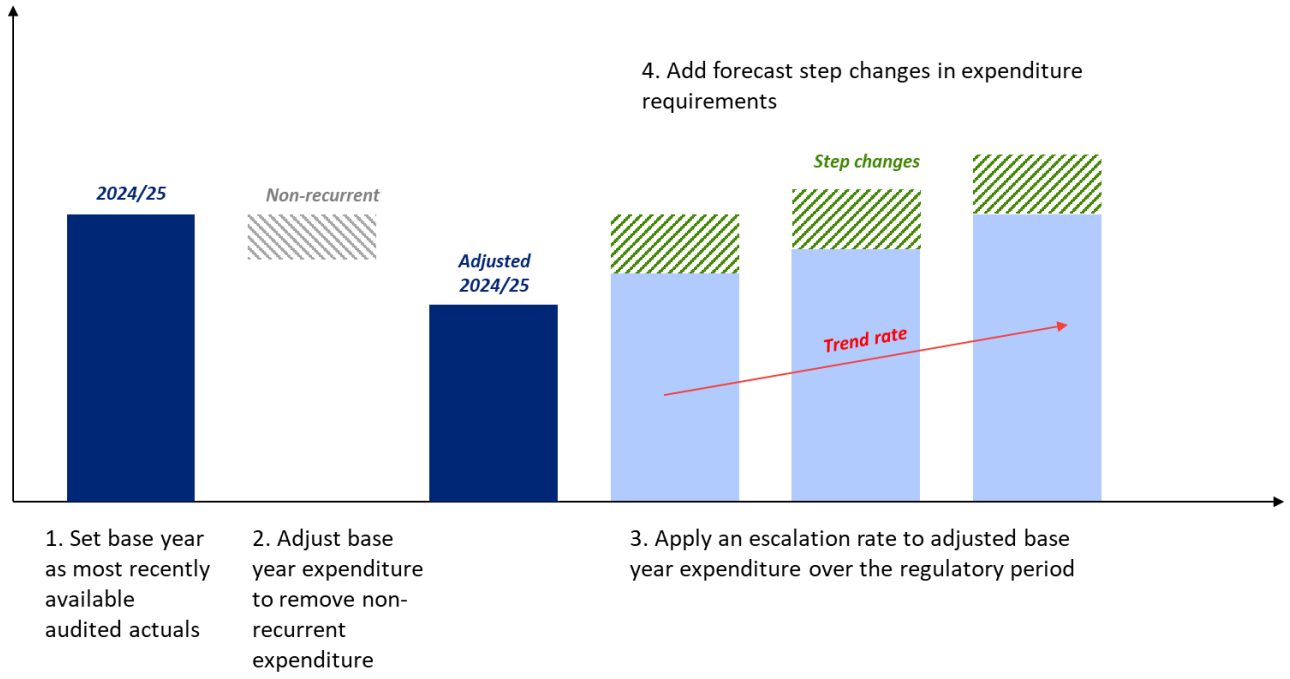
$$Opex_t = \prod_{i=1}^{t}(1 + \ rate\ of\ change_i) \times (A_f^* - efficiency\ adjustment) \pm step\ changes_t$$

Where:

- $rate\ of\ change_i$ is the annual percentage rate of change in year i
- A_f^* is the actual opex in the most recent year of the preceding regulatory control period for which audited actuals are available, termed the 'base year'
- $efficiency\ adjustment$ is the difference between efficient opex and base year opex
- $step\ changes_t$ is the determined step change in year t.

The base year for opex forecasting is set using the most recently available audited annual expenditure, with step changes applied in the years that cost is incurred. Under this approach, the base is intended to reflect current efficient costs, trends capture expected ongoing movement in costs, and step changes account for discrete, non-recurring shifts in cost levels that are not captured in the base or trend. A trend adjustment is only applied to reflect expected input cost increases that differ from general inflation.

Figure 2-2: Summary of base-step-trend approach



2.4 Regulatory timetable

We understand that the Commission will publish this Initial Proposal for consultation and that there will be a period thereafter to discuss the content and how reform costs are to be incorporated. Our Revised Proposal will include additional TEM Reform costs relative to the Initial Proposal, as implementation details are finalised. We will use the period between the Initial and Revised Proposals to further develop and substantiate these cost estimates. We also intend to retain an uncertainty mechanism (a cost pass-through

arrangement) in case these costs cannot be determined with a high degree of confidence by the deadline for the Revised Proposal to provide an avenue for recovering these costs.

2.5 Key inputs and assumptions underpinning our Initial Proposal

Our proposal is based on the following key inputs and assumptions.

Unregulated costs

NTESMO carries out its System Control and Market Operator functions through the provision of a series of regulated and unregulated services. We have excluded the costs associated with these unregulated activities when developing our forecast regulated charges.

Unregulated costs also include a portion of corporate overhead costs, ICT and professional fees, and labour costs.

Base year

The Commission's Framework and Process document requires that the base year expenditure used by Power and Water is "the most recently available audited actual expenditure, or the most appropriate actuals if issues are identified with audited expenditure".

Power and Water's 2024-25 financials are the most recently available audited record of actual expenditure and are used as the base year.

Price basis

For the Initial and Revised proposals, real 2026-27 dollars will be used as the price basis for all presented costs, as advised by the Commission in feedback provided on a previous draft of this Initial Proposal submitted on 27 February 2026.

Expected inflation

The RBA's most recently available inflation data is used. We apply the approach used in the AER's Post Tax Revenue Model (PTRM), which calculates a linear-glide-path to the mid-point of the RBA's target inflation band (2.5%) (final year of determination) from the RBA's most recently available forecast of inflation values.

Wage Price Index (WPI) forecasts

The previous NTESMO FY2025–27 Regulatory Proposal's WPI values were an average of two AER compliant WPI forecasts sourced from KPMG (commissioned by the AER) and Oxford Economics Australia (commissioned by Power and Water).

Due to the significant cost for Power and Water to procure an AER compliant WPI forecast specifically for the NTESMO FY2028–32 Regulatory Proposal, we have used the Deloitte Access Economics report on labour price growth for the electricity, gas, water and waste services (utilities) industry (Attachment 27) commissioned by the AER for the 2026–31 network service provider regulatory resets.[20] As the forecast

[20] Deloitte Access Economics (2025), *Labour price growth forecasts*, Prepared for the Australian Energy Regulator, 30 July.

only covers the period to 2030-31, the 2030-31 value is rolled over to 2031-32. Table 2-1 shows the relevant WPI forecasts.

Table 2-1: Utilities WPI forecast growth for the Northern Territory (real)

Financial Year	2027-28	2028-29	2029-30	2030-31	2031-32
WPI	0.9%	0.9%	1.0%	1.1%	1.1%

Corporate overheads

Corporate overheads have historically been forecast outside the base-step-trend approach, as they were more appropriately estimated as an allocation of Power and Water's corporate overheads to NTESMO under Power and Water's cost allocation methodologies (Attachments 25 and 26). However, we propose to forecast corporate overheads using the same base–step–trend approach applied to other operating expenditure categories. The base year is set using the audited allocation of corporate overheads to NTESMO, reflecting the share of corporate overheads that applied to NTESMO prior to the introduction of a Power and Water efficiency measure to reduce future corporate overheads. The base year is reflective of the opex approved by the Commission for the current determination period.

We then apply step changes to reflect the discrete cost impacts of separation, including costs that transfer to NTESMO as a standalone entity and any changes in corporate services received. This is because following separation, NTESMO will be responsible for managing its own corporate overheads; and Power and Water's internal overhead forecasts (including embedded efficiency targets in the forecasts) will no longer be an appropriate basis for forecasting NTESMO corporate costs.

Weighted Average Cost of Capital (WACC)

For the Initial Proposal we have adopted the WACC used for the AER Networks 2024–29 Determination, with the value from FY2029 rolled forward for the remainder of the regulatory period. We currently expect to apply the same approach for our revised proposal.

Volumes – energy consumption

The pricing model requires the total revenue requirement to be divided by the forecasted energy consumption of the DKPS, Alice Springs and Tennant Creek regulated networks. The AER compliant forecasts from the Networks 2024–29 Final Determination were used for the NTESMO FY2025–27 Regulatory Proposal.

Due to the significant cost for Power and Water to procure a set of AER compliant consumption forecasts specifically for the NTESMO FY2028–32 Regulatory Proposal, we have applied energy forecasts for the three regulated systems based on Power and Water's internal consumption forecast as accepted by the AER for Power and Water's Networks Annual Pricing Proposal for FY2027 (Attachment 28).[21]

[21] Forecast consumption from FY2030 onwards is not captured in the Annual Pricing Proposal and has been extended out for the purpose of this Initial Proposal.

Regulatory Asset Base (RAB) Roll Forward Model (RFM) depreciation approach

In the AER's RFM input tab, users can choose one of three RAB roll-forward approaches: forecast straight-line, actual year-by-year tracking, or actual weighted average remaining life (WARL) straight-line.

- **Forecast straight-line** rolls the RAB forward using approved forecast depreciation for the current regulatory control period.
- **Actual WARL straight-line** calculates depreciation within the RFM by applying standard AER asset lives to actual capital expenditure.

We used the actual WARL straight-line approach for the FY2025–27 regulatory period because there were no approved forecast depreciation values from FY2020–24. Although approved forecast depreciation values are now available for FY2025–27, we have chosen to continue using actual depreciation under the WARL method.

The AER's capital expenditure incentive guideline notes that the depreciation method affects incentives for efficient capex, and states that using actual depreciation provides stronger incentives than using forecast depreciation.[22] While the AER generally defaults to forecast depreciation, it may depart from this where the Capital Expenditure Sharing Scheme (CESS) does not apply.[23] As no capex incentive schemes (including CESS) apply to NTESMO, this supports using the actual WARL straight-line approach rather than the default forecast method.

Cost pass-through recovery

The Commission's approach currently includes recovery of pass-through amounts through the annual revenue requirement in the year following an approved pass-through event. We propose an alternative approach which spreads revenue recovery over a longer period. Our proposed mechanism allows large or "lumpy" pass-through amounts to be recovered over more than one year where this is appropriate in order to smooth customer impacts. Under our proposed approach the recovery profile (including the recovery period and the annual amounts) would be established as part of the relevant pass-through claim.

We have applied this alternative approach to our current claim and anticipate that this pass-through mechanism may also be utilised in the FY2028–32 regulatory period to manage costs associated with the uncertain elements of the TEM Reforms.

[22] AER (2025), *Capital Expenditure Incentive Guidelines for Electricity Network Service Providers*, August, p. 15.
[23] Ibid., p. 16.

3 Resourcing the Delivery of Existing Functions

This chapter provides information on how NTESMO will continue to deliver its existing functions, including derivation of its base year and trend adjustments, reforecasting of its capex profile and additional expenditure in specific areas of the System Control and Market Operator function required to continue delivering these functions.

3.1 Base year operating expenditure and trend adjustments

Derivation of NTESMO's base year operating expenditure and trend adjustments forms the foundation of the operating expenditure building block for the FY2028–32 regulatory period.

3.1.1 Derivation of base year costs

Under the Commission's framework, NTESMO's base year for the upcoming regulatory period is to be the most recent year of audited actual operating expenditure, which is FY2025. Using the most recent audited actuals provides assurance of the accuracy of our expenditure and does not require us to forecast our base year expenditure in this Initial Proposal.

Our derivation of base year operating expenditure, estimated in our Expenditure Model (Attachment 7), starts with assigning NTESMO cost centres in Power and Water's audited final ledger for FY2025 to the regulatory cost categories of personnel costs, professional fees, residual costs and corporate overheads costs.

A number of adjustments to the base year opex were then made to make it representative of the upcoming regulatory period.

Activity cost modelling

In establishing our base year expenditure, we have reviewed the allocation of personnel and corporate overhead costs between NTESMO's five regulated functions (Real-time Operations; Operations Planning; Power System Evolution; Market Operations; Rule Development, Technical and Policy Advice).

This process drew on a consultant's report on NTESMO's functional resource allocation across 21 activity types using a People-Process-Technology framework and we applied NTESMO management's estimate of how much of each activity type was dedicated to each of NTESMO's five regulated functions (Attachment 31).

Although we consider this results in a better reflection of the personnel and corporate overheads costs incurred in delivering NTESMO's System Control and Market Operator functions, it has resulted in a notable reallocation in personnel costs attributed to the System Control functions (Real-time Operations, Operations Planning, Power System Evolution) to the Market Operator functions (Market Operations; Rule Development, Technical and Policy Advice) than NTESMO's approved revenue for the current FY2025–27 regulatory period.

Removal of unregulated costs

In addition to its System Control and Market Operator functions, NTESMO undertakes a number of other unregulated activities for which its costs are recovered under fee-for-service arrangements and as noted in Section 2.5, these need to be removed when deriving our base year expenditure.

NTESMO's unregulated activities for which costs have been removed are:

- Network Operator – The NTESMO control room provides round-the-clock (24/7) monitoring and operational management of the NT's power system operations on behalf of Power and Water's Networks business under a service level agreement.
- Generator connections – NTESMO undertakes various technical assessments of new connections for which the Commission has previously determined should be charged to the relevant generators through the connections process.
- Regulated Electricity System and Investment Plan (RESIP) – NTESMO's work during the base year on an inaugural RESIP, a 10-year whole-of-system investment plan, was funded by government.[24]
- After-hours Water Services fault coordination – The NTESMO control room provides after hours call centre, dispatch and fault logging services related to Power and Water's Water Services business under a service level agreement.
- Alice Springs and Tennant Creek system consumption settlement – NTESMO provides a monthly electricity consumption settlement service to Territory Generation for the Alice Springs and Tennant Creek regulated electricity systems under a contractual agreement.

Reflecting NTESMO's unregulated services, more than a third of NTESMO's expenditure was removed when developing our regulated services base year expenditure.

Reclassification of professional fees costs between categories and removal of one-off costs

Professional fees expenditure from Power and Water's final ledger for FY2025 was manually reviewed and adjustments made to better align with NTESMO's regulated cost categories and regulated functions. This included for example, capitalising professional fees costs associated with capital projects, reclassifying professional fees costs related to ICT services as residual costs; and reallocating professional fees costs coded to the wrong NTESMO function.

Operational expenditure in the final general ledger was further reviewed to identify material expenditure items in the base year that are unlikely to continue to be incurred in the FY2028–32 regulatory period, which included expenditure associated with one-off upgrades to NTESMO's website and planning for renewables integration.

3.1.2 Comparison of base year and approved expenditure

When compared to the approved revenue requirement for opex in FY2025, NTESMO's base year is 6% lower across its functions in aggregate, reflecting NTESMO's actual expenditure relative to its forecast at the time of the FY2025–27 regulatory determination.

Table 3-1 outlines total base year expenditure for the System Control and Market Operator functions against the Commission's approved revenue requirement.

[24] Preparation of future RESIPs is anticipated to be funded through regulated charges and are factored into TEM Reform costs outlined in Chapter 4.

Table 3-1: FY2025 base year expenditure vs. approved 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	**12.5**	**17.0**	**7.6**	**4.4**	**20.2**	**21.4**

Note: Numbers may not add due to rounding.

The abovementioned activity cost reassessment undertaken to better reflect personnel and corporate overhead costs has resulted in a notional underspend by the System Control function of $4.4 million (26%), however, this has been mostly offset by a notional Market Operator overspend of $3.2 million (72%).

On a combined functions regulated cost category basis, in the FY2025 base year NTESMO spent $2.2 million (17%) less than approved on personnel and $0.4 million (19%) less on residual costs. This reflects staff vacancies as a result of difficulties retaining and recruiting staff and is somewhat offset by $0.6 million (79%) higher expenditure on professional fees. NTESMO's allocation of Power and Water's corporate overheads was also $0.8 million (15%) higher than the approved revenue.

3.1.3 Trend adjustment

Trend adjustments are factors that are applied to account for expected opex changes at a rate different to inflation.

In this Initial Proposal we have applied a trend rate to personnel costs in line with the WPI assumption outlined in section 2.5 as industry wage growth is forecast to exceed inflation. Other opex category costs are all expected to increase in line with inflation and so have not been subject to trend adjustments.

The total personnel and trend amounts for the System Control and Market Operator functions are presented in Table 3-2.

Table 3-2 Base year personnel costs and trend adjustment for System Control and Market Operator ($m, real 2026-27)

	Function	FY28	FY29	FY30	FY31	FY32
System Control	Base year personnel	$6.3	$6.3	$6.3	$6.3	$6.3
	Trend	$0.1	$0.1	$0.2	$0.2	$0.2
Market Operator	Base year personnel	$4.3	$4.3	$4.3	$4.3	$4.3
	Trend	$0.1	$0.1	$0.1	$0.1	$0.2
Total	**Base year personnel**	**10.5**	**10.5**	**10.5**	**10.5**	**10.5**
	Trend	**$0.2**	**$0.2**	**$0.3**	**$0.3**	**$0.4**

Note: Numbers may not add due to rounding.

3.2 Reforecast capital expenditure profile

As abovementioned, the Commission previously approved our forecast capital expenditure for the TDE in its Final Decision for the FY2025–27 regulatory period.[25] The Final Decision allowed $38.5 million (adjusted to real $2026-27) to implement the TDE project. Capital costs were profiled to be incurred across the current regulatory period based on best estimates of project delivery timeframes.

The TDE project involves the delivery of several functional packages by various vendors. The market testing and request for quote process for the selection of these vendors and due diligence has now been completed. We are now in the final stages of contract negotiations with these vendors and are moving towards the design and construction stage. Based on progress to date, the capital profile has been updated, as shown in Table 3-3. The TDE capex profile has shifted due to the extended timeframe required for government approvals, vendor negotiations, due diligence and final contract negotiations, however the total forecast capex remains unchanged.

Table 3-3: Territory Dispatch Engine updated capex profile ($m, real 2026-27)

	2025–27 Regulatory Period			2028–32 Regulatory Period					
Capex Profile	**FY25**	**FY26**	**FY27**	**FY28**	**FY29**	**FY30**	**FY31**	**FY32**	**Total**
Approved	2.7	21.6	14.2	-	-	-	-	-	**38.5**
Revised	2.0	9.1	17.2	10.2	-	-	-	-	**38.5**

Note: Numbers may not add due to rounding.

[25] This included expenditure to fund seven temporary FTE through project implementation.

Regulatory framework implications

The Utilities Commission's regulatory framework allows NTESMO to retain the benefits of underspends relative to the approved revenue requirement, but NTESMO bears the cost of any overspends. The regulatory framework does not include a mechanism to deal with material capex underspends due to project deferrals and subsequent project re-proposals.

Given this, the reprofiling of the TDE capex across the two regulatory periods will inadvertently lead to NTESMO recovering more revenue from consumers for depreciation and return of capital in the current period than would be warranted from its actual capex. Together with the re-proposal of the deferred $10.2 million of TDE capex in the FY2028–32 period, this would result in an estimated revenue over-recovery from consumers of approximately $1.2 million.

We acknowledge this situation reflects a gap in the current regulatory framework and does not set the right incentive for NTESMO to deliver prudent capex projects in a timely way. We propose to work with the Commission to understand the best approach to address this revenue over-recovery in NTESMO's Revised Proposal, to the benefit of consumers.

Ex-post Review

The Commission set FY2025–27 allowed revenue on the basis of estimated capex costs associated with the TDE project. This did not include the cost of additional functionality (termed 'TDE Stage 2') which is expected to be required for compliance with the TEM Reform detailed market rules, which are still under development.

The TDE ex-ante estimates will be replaced with actual expenditure if this is later approved by the Commission. The Commission intends to undertake an ex-post review of capex incurred to ensure prudency and efficiency. We will work with the Commission to establish the procedure and timing of the ex-post review, anticipated to occur once TDE goes live.

3.3 Additional resourcing for our existing functions

To continue carrying out NTESMO's existing regulated functions across the FY2028–32 regulatory period, NTESMO requires additional expenditure, beyond that provided in the current regulatory period. The additional expenditure is comprised of both opex (personnel costs, professional fees, residual costs and overheads) and capex.

This step up in expenditure is required due to significant changes in NTESMO's operating environment as a result of the transition towards a higher share of renewable generation. The scale and speed of the uptake of distributed energy resources and large-scale solar PV generation and batteries, and their integration into the existing networks and systems has resulted in upward pressure on NTESMO's operational requirements and, in turn, costs.

What we heard from stakeholders

As part of consultation, we proposed additional resource allocation for the delivery of our existing functions across six areas as prudent. Stakeholders provided mixed feedback.

Jacana Energy was concerned the changes were weighted heavily toward system security and reliability. It considered some step changes would deliver negligible or only indirect benefits for retailers and end consumers. It also noted that where benefits may be identifiable, such as potential gas price savings linked

to the TDE, efficiency gains are not clearly reflected in lower customer costs. However, Jacana also acknowledged that higher opex could improve confidence in meeting current KPIs and may deliver longer-term savings. Territory Generation broadly agreed the step changes are directionally consistent with growing operational complexity and increasing inverter-based penetration. It considered the changes are aligned with maintaining system security. However, it emphasised that each change should be clearly linked to identifiable operational risks and supported by sufficient detail to justify the additional cost.

We consider the underlying feedback was that any additional proposed expenditure should be supported by detailed analysis and demonstrated to be prudent and efficient. We have therefore prepared business cases for each proposed additional expenditure item, which accompany this Initial Proposal (Attachments 1 to 5). In developing these business cases, we made minor refinements to some cost estimates and removed a proposed step change for additional engineering resources for system modelling, planning and incident investigations from our proposal.

Changes to forecast expenditure

The forecast opex across the current five proposed areas below has marginally increased from our Consultation paper estimates, while a proposed step change for additional engineering resources for system modelling, planning and incident investigations has been removed.

3.3.1 Territory Dispatch Engine (Attachment 1)

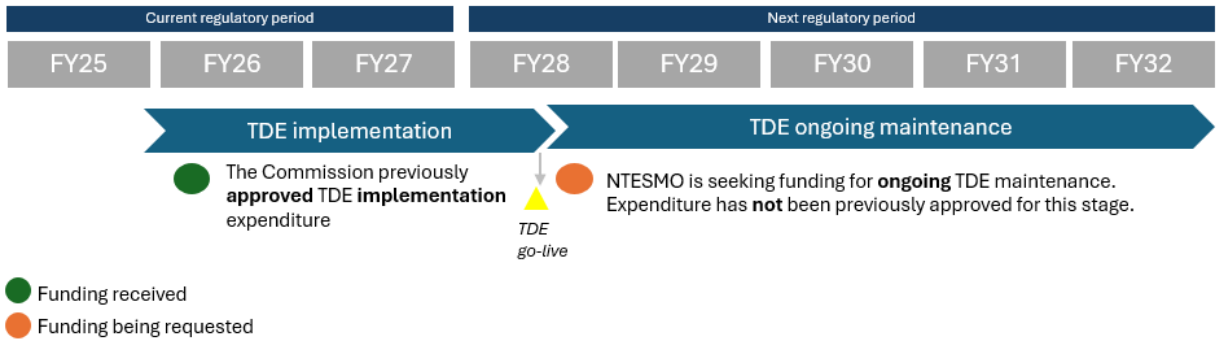
The Territory Dispatch Engine (TDE) is currently being implemented by NTESMO to support the secure, transparent and efficient scheduling and dispatch in the DKPS. The TDE replaces manual and semi-manual dispatch arrangements with an automated, auditable and scalable dispatch capability that is suitable for an electricity system experiencing increasing renewable penetration, greater operational complexity and heightened regulatory scrutiny.

The TDE integrates with Power and Water's Energy Management System (EMS) and associated system tools to determine dispatch targets for generators based on system demand, available capacity and operational constraints. Dispatch outcomes are produced in a transparent and repeatable manner, supporting both system security, system efficiency and market confidence.

Ongoing maintenance

In the FY2025–27 Regulatory Determination, expenditure in the current regulatory period for the design, build and implementation of the TDE was approved by the Commission. The TDE is expected to go live during the first year of the FY2028–32 regulatory period. As such, the focus will shift from capital delivery to ensuring the system is appropriately supported and maintained throughout its expected operational life. Figure 3-1 illustrates the transition.

Figure 3-1: TDE forecast expenditure timeline



Operational expenditure to fund TDE's ongoing maintenance was not previously proposed to the Commission in the FY2025–27 regulatory reset process. This is because the operational expenditure was not forecast to be incurred until the following regulatory period (FY2028–32), once the TDE had commenced operation. Given the above, a step change in operational expenditure is now required to enable NTESMO to fund the ongoing maintenance and operation of the TDE during the FY2028–32 regulatory period.

Ongoing maintenance funding is needed for NTESMO to maintain a complete and fully supported set of TDE environments appropriate for a mission-critical real-time operational system. It also includes comprehensive cyber security maintenance, vendor support, integration support and internal operational capability aligned with the criticality of the TDE.

The forecast expenditure for TDE ongoing maintenance over the FY2028–32 regulatory period is outlined in Table 3-4.

Table 3-4: Territory Dispatch Engine ongoing maintenance ($m, real 2026-27)

Function	Cost Category	FY28	FY29	FY30	FY31	FY32	Total
System Control	Residual Costs	2.1	3.0	3.0	3.0	3.0	**14.0**
System Control	Professional Fees	-	-	0.6	0.6	0.6	**1.7**
Total	**-**	**2.1**	**3.0**	**3.5**	**3.5**	**3.5**	**15.7**

Note: Numbers may not add due to rounding.

3.3.2 System Tools (Attachment 2)

The DKPS is experiencing a period of significant transformation, driven by structural and system changes in both supply and demand. These changes are reshaping operational requirements, increasing system volatility, and elevating the need for enhanced real-time situational awareness, automation and stability assessment tools.

Existing system tools

During the current FY2025–27 regulatory period, NTESMO has begun responding to the increasingly dynamic and challenging operating environment by enhancing system tools to ensure system security and

reliability. Five system tools (previously called transitional tools[26]) have either been implemented or will be implemented by the end of current period. These tools are integrated within NTESMO's Energy Management System (EMS) and provide critical decision-support information to control room operators. The five tools are:

1. **Capacity Forecast Dispatch System (CFDS) Tool**
   An application integrating real-time forecasts for dispatch of renewable generators which enables operators access to aggregated information on current and forecasted capacity across all generator sites.
2. **Contingency Frequency Control Ancillary Service (C-FCAS) Tool**
   Provides a quantitative assessment of system security by evaluating frequency stability and contingency response, with the objective of preventing under-frequency load shedding (UFLS) and avoiding system-wide blackouts.
3. **Proportional Energy Dispatch (PED) Tool**
   Revises generator tie-break procedure to incorporate proportional dispatch principles optimising renewable energy dispatch by evaluating network constraints, including transmission limits and operational boundaries.
4. **Real-time System Strength Monitoring (RTSSM) Tool**
   Platform for real-time system security monitoring and constraint formulation. The RTSSM tool provides insight into, and assessment of, voltage violations, system strength, and fault levels across the network.
5. **Forecasting Tool**
   Provides behind-the-meter forecasts, net demand forecasts, and gross demand forecasts, which are crucial inputs into system controller decision making. It enables real-time forecasting up to two days ahead and operational planning forecasts up to 14 days ahead.

The funding for the implementation of the above-mentioned tools was approved by the Commission in the FY2025–27 Final Determination. However, it did not include their ongoing maintenance costs, as this maintenance was not required until the tools were implemented. Maintenance activities ensure that the current tools remain functional, fit-for-purpose and up to date through incremental improvements.

Without ongoing funding to maintain them, these tools will progressively become outdated and incapable of supporting the system's operational complexity. As such, a step change in operational expenditure is therefore required.

[26] The reason for the change in nomenclature reflects the enduring nature and purpose of the system tools, particularly their integration with the Territory Dispatch Engine.

The estimated cost of this step change over the FY2028–32 regulatory period is outlined in Table 3-5.

Table 3-5: Existing system tool maintenance ($m, real 2026-27)

Function	Cost Category	FY28	FY29	FY30	FY31	FY32	Total
System Control	Professional Fees	0.7	0.6	0.6	0.6	0.6	**3.2**

Note: Numbers may not add due to rounding.

New system tools

During the FY2028–32 regulatory period, we are proposing to build on our work to date and expand our set of system tools. This is in response to the continued increasing complexity of operating the system due to increasing renewable energy and storage uptake, declining synchronous services and growing operational constraints.

Without enhancements or new applications, system operators may face limitations such as reduced visibility of critical resources (e.g., available energy in batteries or synchronous condensers), insufficient real-time monitoring, and slower response to system disturbances.

Five new systems tools are being proposed to be developed and maintained in the FY2028–32 regulatory period:

1. **Solar Forecast Uncertainty Reserve Margin (SFURM)**
   A means to quantify the extent of requirement for a third-party firming service to address solar capacity shortfalls during cloud incursions that are not forecasted. To address this, previously, strict forecasting accuracy requirements were adopted. However, solar participants have not been able to feasibly meet the Automatic Access Standard requirements for Capacity Forecasting (per network technical code). SFURM is a proposed alternative to the forecast accuracy requirements while still ensuring the solar capacity shortfalls are appropriately addressed to ensure system security is not compromised.

   This tool is being trialled in the current period with the plan to build the application on the latest version of the EMS (EMS v3.4) and implement in real-time in the next period.

2. **Enablement of general reserve monitoring**
   Reserve monitoring is a critical capability that tracks the reserve capacity of online generating units to maintain operational system security and meet NTESMO's obligations under the Secure System Guidelines. It is a critical capability that supports NTESMO to respond to unexpected events such as generator outages, sudden load changes, and cloud cover affecting solar generation.

   This functionality will replace the existing collection of calculations and tools within the Generalised Reserve Monitoring (GRM) module. The current reserve monitoring methodology is out-dated and does not align with recent updates to the System Strength Guidelines. Additionally, a lack of integration between the current data sets limits situational awareness during high-demand periods and contingency events, exposing NTESMO to compliance risks associated with grid codes that require minimum reserve levels for N-1 security criteria and system frequency response performance.

3. **Digital life cycle management**
   This proposed management discipline will enhance planning and operational coordination by ensuring asset information is current, risks are visible, and changes are well-managed. This strengthens overall system governance while reducing operational burden. Digital life cycle management provides a structured approach to planning, operating, maintaining, and retiring digital systems. It supports consistency, compliance, and efficient governance by giving system owners the tools to assess risks, track changes, manage vendor arrangements, and understand total cost of ownership.

4. **Battery information capacity tool**
   The battery information capacity tool provides system operators with critical visibility into the real-time capability of energy storage resources. By converting existing dispatch data (MW) into an energy-based forecast (megawatt hours, MWh), the tool offers a clear and intuitive view of available storage capacity, helping operators understand not just instantaneous output, but how long storage assets can sustain that output during system events.

   This tool embeds the essential functions of energy storage directly within the Automatic Generation Control (AGC) environment, ensuring that batteries and other fast-response resources are fully integrated into real-time system operations. By leveraging renewable energy source models, the tool delivers key information such as state of charge, remaining energy capacity, discharge/charge availability, and the percentage of energy remaining in each storage device.

   Since essential services will be increasingly required to be dispatched from batteries or other renewable sources, it is important to have a tool that can monitor and provide real-time insights.

5. **Renewable energy module**
   The GE EMS v3.4 Renewable Energy Module introduces a robust framework to enable grid operators to group renewable energy sources and distribute generation setpoints equitably among resources. The module supports dynamic, real-time dispatch of solar, battery, and hybrid resources. It integrates seamlessly with SCADA and AGC systems to ensure proportional adjustments across all resources, respecting network constraints and reserve requirements. This approach reduces curtailment, improves resource utilisation, and supports compliance with grid codes and renewable integration targets.

The associated expenditure for the development of the proposed new system tools includes capex for tool implementation and ongoing opex for maintenance and support. These costs are detailed in Table 3-6.

Table 3-6: New system tool capital and maintenance ($m, real 2026-27)

Function	Cost Category	FY28	FY29	FY30	FY31	FY32	Total
System Control	Professional Fees	0.8	0.5	0.3	0.3	0.3	**2.2**
System Control	Capex	2.4	0.2	-	-	-	**2.6**

Note: Numbers may not add due to rounding.

The total forecast cost of both existing and new system tool development and maintenance over the FY2028–32 regulatory period is outlined in Table 3-7.

Table 3-7: System Tools total expenditure, ($m, real 2026-27)

Function	Cost Category	FY28	FY29	FY30	FY31	FY32	Total
System Control	Professional Fees	1.5	1.1	0.9	1.0	0.9	**5.3**
System Control	Capex	2.4	0.2	-	-	-	**2.6**
Total	**-**	**3.9**	**1.3**	**0.9**	**1.0**	**0.9**	**7.9**

Note: Numbers may not add due to rounding.

3.3.3 Real-time system support services (Attachment 3)

A step change in operational expenditure is required to enable NTESMO to establish a formal real-time EMS support model that aligns with NTESMO's system security obligations and supports secure, reliable operation during the FY2028–32 regulatory period.

Real-time system security is fundamental to NTESMO's capability to perform its statutory obligations under the System Control Technical Code and Secure System Guidelines. To meet these obligations, NTESMO must have confidence that the EMS – the primary tool for real-time system monitoring, control, and dispatch – is consistently available and capable of supporting secure system operations.

NTESMO does not currently have a formal, fully funded, and accountable real-time EMS support model in place that is tailored to its system control obligations. EMS support is currently delivered informally by the Power and Water SCADA team as an ancillary part of its network responsibilities, without NTESMO specific service definitions, performance measures, or commercial accountability.

The current support model exposes NTESMO to ongoing operational and compliance risk for a mission-critical system. There is no approved funding for NTESMO to contribute to the cost of existing Power SCADA support, nor to expand the scope of services to meet the full requirements of System Control. Continued reliance on informal, unfunded, and non-contractual arrangements does not provide adequate assurance of service continuity, performance, or compliance.

Funding is required to establish a formal, accountable, and scalable real-time EMS support model, including SLAs, governance, and performance reporting, that aligns with NTESMO's system security obligations and supports secure, reliable operation throughout the FY2028–32 period. Our proposed approach involves leveraging the existing service agreement with Power and Water by extending the scope to include full real-time EMS operational support services for NTESMO. This requirement is independent of the TEM Reforms and planned structural separation of NTESMO from Power and Water and would continue following separation.

The estimated cost of this program over the FY28–32 regulatory period is outlined in Table 3-8.

Table 3-8: Real-time system support services ($m, real 2026-27)

Function	Cost Category	FY28	FY29	FY30	FY31	FY32	Total
System Control	Residual Costs	1.6	1.6	1.6	1.6	1.6	**8.2**
Market Operator	Residual Costs	0.1	0.1	0.1	0.1	0.1	**0.6**
Total	**-**	**1.8**	**1.8**	**1.8**	**1.8**	**1.8**	**8.8**

Note: Numbers may not add due to rounding.

3.3.4 Review of procedures and guidelines (Attachment 4)

A step change in operational expenditure is required to enable NTESMO to implement a structured, professionally supported program for the periodic review and amendment of its procedures and guidelines during the FY2028–32 regulatory period.

NTESMO maintains a suite of procedures and guidelines that give operational effect to its system control and market operator functions under the *Electricity Reform Act 2000* (NT), the NT NER, the System Control Licence and the System Control Technical Code (SCTC, to be superseded by the TEM rules). These instruments are relied upon by NTESMO, system participants and market participants, regulators and government to understand and comply with mandatory technical, operational and market requirements.

While the legislation and Rules do not prescribe a fixed review cycle for each instrument, NTESMO has a regulatory obligation to ensure that its procedures and guidelines remain accurate, effective and fit for purpose on an ongoing basis. These obligations require NTESMO to review and update its procedures and guidelines whenever changes in technology, system configuration, market design or operational practice occur.

Until recently, this obligation had largely been discharged on a reactive, issue driven basis, without a dedicated and sustained resourcing model for systematic review and renewal. However, this has resulted in regulatory risk, operational misalignment and document quality and usability issues. As the power system continues to evolve in complexity, these risks will increase unless a structured, ongoing review program is established.

In the FY2025–27 regulatory period, funding was approved for a Rule Development, Technical and Policy Advice function, responsible for reviewing codes, guidelines and procedures. However, this only provided funding for internal resources, not professional fees for external technical and economic support for the reviews. External technical and economic support is required to facilitate a structured review of NTESMO codes, procedures and guidelines given the increasing complexity of the power system and to enable NTESMO to continue development of an internally capable workforce that has the capacity to respond to changing needs for the industry.

The proposed step change will fund external technical and economic expertise to complement NTESMO's internal resources, ensuring reviews are timely, consultative, and consistent with best industry practice. This will deliver:

- 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.

The estimated cost of this program over the FY2028–32 regulatory period is outlined in Table 3-9.

Table 3-9: Review of NTESMO procedures and guidelines ($m, real 2026-27)

Function	Cost Category	FY28	FY29	FY30	FY31	FY32	Total
Market Operator	Professional Fees	0.3	0.3	0.3	0.3	0.3	**1.6**

3.3.5 Market Settlement and Transfer Solution (Attachment 5)

A step change in operational expenditure is required to enable NTESMO to address funding issues arising from the previously approved Northern Territory Market Settlement and Transfer Solution (MSATS) during the FY2028–32 regulatory period.

NTESMO has a regulatory obligation to develop information systems for the exchange of metering and other information, and to develop a communication guideline setting out the details of these arrangements. This obligation is delivered using AEMO's MSATS and associated procedures, implemented on 1 July 2025.

For the FY2028–32 regulatory period, two material funding issues arise.

1. A need to re-establish and update funding for MSATS service and licence fees

The Commission approved a step change for MSATS charges in the FY2025–27 Regulatory Determination. However, because MSATS only went live on 1 July 2025, this cost is not included in the 2024-25 audited base year. As a result, the step change must be reinstated in the FY2028–32 regulatory period.

Additionally, AEMO charges for use of the MSATS have increased materially since funding was agreed in the FY2025–27 Regulatory Determination.[27] These increased charges must be funded to maintain compliance with the NT NER and ensure the MSATS platform continues to support efficient, reliable market operations.

2. Additional funding for professional fees to maintain Communications Guideline

MSATS operation in the NT is supported by a Communications Guideline specifying NT specific MSATS processes. NEM MSATS Procedures are typically updated twice annually, requiring NTESMO to update the Communications Guideline. Regular updates are necessary to prevent divergence from NEM MSATS Procedures, which would create operational inefficiencies and compromise NTESMO's ability to utilise a NEM aligned MSATS instance.

Maintaining the Communications Guideline will require external specialist support from AEMO, which will be supplemented by internal NTESMO resources.

The estimated cost of this program over the FY2028–32 regulatory period is outlined in Table 3-10. The costs associated with the annual AEMO charges will be applied as a step change to the residual cost

[27] The FY2025–27 proposal was based on an indicative per NMI weekly charge of $0.032153 and 75,700 NMIs, and annual licence fees for participant access of $15,000. Actual costs are significantly higher—$275,000 per year (incl. GST) — driven by a higher per NMI rate ($0.04763 per week), higher NMI numbers (100,000 total of which 85,000 are in Darwin-Katherine and 15,000 in Alice Springs and Tennant Creek), and increased annual licence fees of $27,000.

category, and the costs associated with the specialist support will be applied to the professional fees category. These costs will be recovered from market participants across the three regulated systems.

Table 3-10: AEMO market settlement and transfer solution ($m, real 2026-27)

Function	Cost Category	FY28	FY29	FY30	FY31	FY32	Total
System Control	Residual Costs	0.3	0.3	0.3	0.3	0.3	**1.5**
System Control	Professional Fees	0.1	0.1	0.1	0.1	0.1	**0.4**
Total	**-**	**0.4**	**0.4**	**0.4**	**0.4**	**0.4**	**1.9**

Note: Numbers may not add due to rounding.

4 Delivering the TEM Reforms

The Northern Territory Government has passed legislation introducing significant changes to the way NTESMO operates, including its separation from Power and Water and an expansion of its functions.

The purpose of this chapter is to provide an overview of the activities required by NTESMO to implement and deliver on the reforms in the current and the next regulatory period; and how we intend to manage uncertainty related to reform.

What we heard from stakeholders

Stakeholders emphasised the importance of transparency, governance and scalability in implementing the reforms.

We asked for feedback on our proposed approach to include reform costs that can be quantified at this stage, and to indicate other cost categories that will be quantified as implementation detail becomes available. Stakeholders broadly supported this approach but requested stronger transparency and safeguards. Jacana preferred reform costs to be ring-fenced from other costs so the cost of market reform is clearly visible. Territory Generation supported the approach provided costs are clearly categorised as transitional or enduring through a defined cost category map. It also noted the need for a mechanism to revisit costs if reform scope materially changes, and for protections to ensure stakeholders do not fund costs that do not directly support system or market operation.

We consider the underlying feedback was that additional expenditure should be supported by detailed analysis and demonstrated to be prudent and efficient. We have therefore prepared a TEM Reform business case (Attachment 6) that identifies the costs that can be reasonably forecast and proposes these in the context of our current estimate of total TEM Reform costs, which are likely to change as implementation detail becomes available. Chapter 5 separately identifies forecast expenditure that relates to TEM Reform to provide greater transparency to stakeholders.

4.1 Overview of requirements

In late October 2025, the Northern Territory Government passed new legislation to reform the Territory's electricity market arrangements, namely the:

- *Electricity Legislation Amendment (Market Reform) Act 2025*; and
- *Electricity System and Market Operator (NTESMO) Act 2025*.

The TEM Reforms place a series of mandatory new requirements on NTESMO:

- **Separation of NTESMO and Power and Water** – NTESMO will be established as a statutory corporation to perform its new functions with transparency and market integrity. This will include the appointment of a separate board of Directors.
- **Centralised planning (new function)** – NTESMO will perform centralised system planning by periodically producing a Regulated Electricity System and Investment Plan (RESIP). This will guide new electricity infrastructure development in the regulated power systems of Darwin-Katherine, Alice Springs and Tennant Creek.

- **Centralised procurement (new function)** – NTESMO will undertake centralised system procurement in the DKPS which will introduce efficiencies in the system and reduce contracting risk.
- **Revised scheduling and dispatch process (enhanced function)** – NTESMO will revise the process to include increased generation and new technologies, including batteries and synchronous condensers, as well as optimise dispatch to achieve lowest cost security constrained outcomes based on the specification of new unbundled ESS.

The Government is targeting the completion of the market rules to underpin the reform program by the end of 2026 and the separation of NTESMO from Power and Water by mid-2027. In line with these timeframes, TEM Reform design and implementation costs are expected to be incurred largely in the current FY2025–27 regulatory period, and ongoing costs in the FY2028–32 regulatory period.

Pass-through event notification and basis for inclusion in this proposal

In line with our regulatory obligations, NTESMO notified the Commission on 27 November 2025 of the occurrence of a System Control and Market Operator pass-through event arising from the assent of the TEM Reform Acts in late October 2025. The assent of the TEM Reform Acts constitutes a regulatory change event under the uncertainty mechanism framework, allowing NTESMO to claim ex-ante expenditure relating to the pass-through event.

The Commission has requested that information that would ordinarily be included in a written statement of claim be provided instead through this Initial Proposal, for consideration as part of the upcoming FY2028–32 determination process. This includes information relevant to implementation costs expected to be incurred in FY2026 and FY2027 associated with the notified pass-through event and an approach for cost recovery.

Table 4-1 below identifies $5.7 million in costs which NTESMO is seeking as a cost pass-through across FY2026 and FY2027, which meets the materiality threshold for a pass-through event.[28] Chapter 8 identifies how NTESMO proposes to recover these costs.

4.2 How we will meet new requirements

To meet compliance with the new legislation, NTESMO will be required to structurally separate from Power and Water and expand the scope of its services. The intent of the reform is for NTESMO to be an independent entity responsible for centralised system planning, centralised resource procurement and market operation. This is a transformational change in how NTESMO operates today.

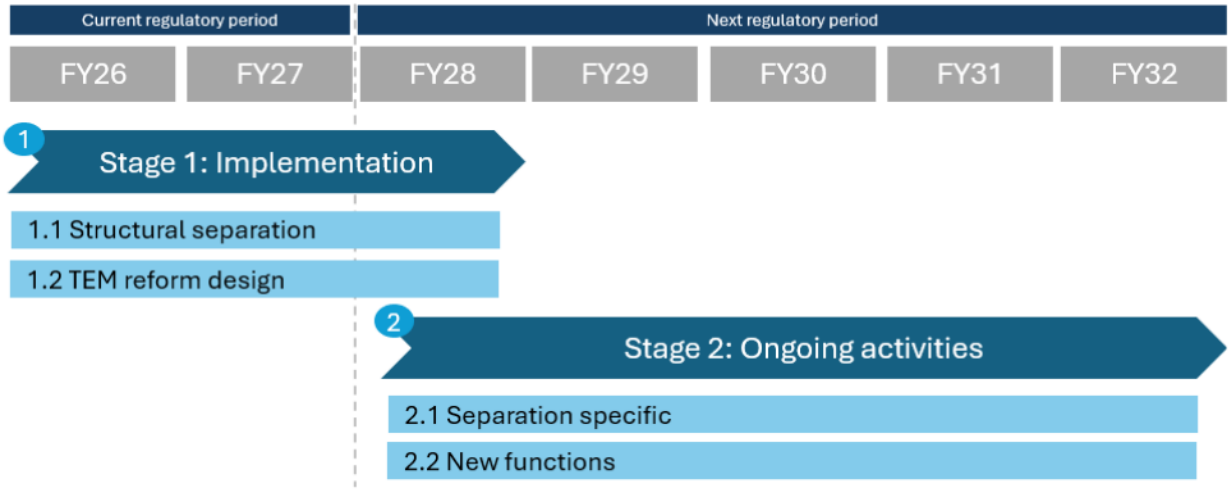
In separating from Power and Water, it is proposed that NTESMO will in-house sensitive corporate functions to ensure it operates with market integrity as a standalone entity.[29] However, to maintain existing scale efficiencies and avoid additional costs, it is proposed that NTESMO continue to benefit from select shared corporate services with Power and Water where appropriate, via service level agreements.

This breadth of change, as required by the legislation, will require a significant work program to implement and maintain. The approach to meet compliance can be split into two stages – implementation and ongoing

[28] The materiality threshold is 5%. For further information, see Chapter 8.
[29] Corporate functions identified for in-housing in NTESMO include legal, risk, compliance and audit, strategy and planning, corporate affairs and records management

activities. As shown in Figure 4-1, implementation activities will be largely in the FY2025–27 regulatory period, with ongoing activities incurred starting from the FY2028–32 regulatory period.

Figure 4-1: TEM Reform implementation timeline



Stage one (implementation) includes one-off activities required to meet compliance. Stage one is split into two broad task areas:

- **Structural separation** – comprising a review and advice on legal and regulatory matters, resources to support implementation, including appointment of an interim Chair and CEO, reviewing and establishing a standalone NTESMO governance framework and organisational structure, establishing new processes and procedures to manage risks, compliance, ICT, financial and other key matters such as splitting accounts from Power and Water, as well as matters pertaining to a successful establishment of NTESMO, including assurance reviews.
- **Reform design** – comprising changes to processes and procedures for scheduling and dispatch and ESS to accommodate new technologies and reformed legislation, as well as establishing new processes, procedures and frameworks for NTESMO's new functions and the enhanced settlement function.

Stage two (ongoing) includes enduring activities that will begin in FY2028. Stage two is also split in two broad task areas:

- **Separation specific** – recruitment of personnel for required corporate roles, procurement of new software licences (where NTESMO is unable to utilise Power and Water's existing licences), new resources required to operate NTESMO, including insurance and ICT systems and services, as well as facilities.
- **New functions** – delivery of centralised system planning, centralised system procurement and enhanced system settlements; comprising additional personnel, professional services, ICT and other resources.

4.3 TEM Reform costs and approach to recovery

The TEM Reforms are aimed at reducing whole-of-system costs. However, NTESMO will incur initial set-up costs associated with the separation from Power and Water including establishing the required governance

structures. There will also be ongoing costs associated with the new functions that need to be performed. While NTESMO's costs will increase, this is required in order for costs in other areas, such as generation, networks and retail, to be reduced.

Our process of assessing the costs associated with the reforms is ongoing, noting that the resourcing requirements on NTESMO will be influenced by the detailed reform design to be finalised by the end of 2026. NTESMO is including preliminary information on TEM Reform costs in this Initial Proposal to provide transparency and to respond to the Commission's approach to the notified pass-through event.

The Commission has advised that:

- where the Acts provide sufficient clarity to reasonably forecast efficient costs, these costs should be included in the Initial Proposal;
- where costs cannot be reasonably forecast until further detail is provided through rules and regulations, these should be developed for inclusion in the Revised Proposal; and
- where rules and regulations are not made in time to inform the Revised Proposal, NTESMO should pursue a cost pass-through.

Consistent with this position, the NTESMO Initial Proposal includes only those TEM Reform costs that can be reasonably forecast at this stage, supported by bottom-up assumptions that can be made with reasonable confidence based on the legislation as passed. This includes costs relating to resourcing to support implementation, employment of a board and executive and development of an updated settlement system which have been included for cost recovery. These activities amount to additional costs of $12.1 million[30] in the FY2028-32 regulatory period as outlined in Table 4-1 or 30% of the preliminary forecast total additional costs of reform.

It is important to note the forecast includes a $5.3 million (real $2026-27) negative step change to address the reduction in NTESMO's corporate overheads from no longer sharing certain sensitive corporate functions with Power and Water.

Table 4-1: Initial Proposal (reasonable forecast) TEM Reform capital and operational expenditure ($m, real 2026-27)

	FY26	FY27	FY28	FY29	FY30	FY31	FY32	Total
Capex	-	-	0.7	0.2	0.2	0.1	-	**1.3**
Opex	-	-	3.7	3.1	3.1	3.1	3.1	**16.1**
Corporate overhead savings (opex)	-	-	(1.1)	(1.1)	(1.1)	(1.1)	(1.1)	(5.3)
Pass-through	0.1	5.6	-	-	-	-	-	**5.7**
Total	0.1	5.6	**3.4**	**2.2**	**2.2**	**2.1**	**2.0**	**17.8**

Notes: Numbers may not add due to rounding. The majority of TEM expenditure (reasonable forecast) is allocated to System Control, with $1.48m allocated to Market operator (please see Att 6 – TEM reform business case (Appendix B) for more information).

[30] $12.1 million excludes FY26 and FY27 expenditure from Table 4-1.

NTESMO has also sought to provide transparency even where those costs are not yet sufficiently developed to support a request for cost recovery.

The total preliminary reform costs are provided in Table 4-2 for transparency only at this stage. NTESMO will continue to develop robust cost estimates ahead of the Revised Proposal as relevant rules and regulations are finalised.

Table 4-2: Total preliminary TEM Reform forecast capital and operational expenditure ($m, real 2026-27)

	FY26	FY27	FY28	FY29	FY30	FY31	FY32	Total
Capex	-	-	0.7	0.2	0.2	0.1	-	**1.3**
Opex	-	-	9.8	8.4	8.4	8.4	8.4	**43.4**
Corporate overhead savings (opex)	-	-	(1.1)	(1.1)	(1.1)	(1.1)	(1.1)	**(5.3)**
Pass-through	0.1	7.2	-	-	-	-	-	**7.3**
Total	**0.1**	**7.2**	**9.4**	**7.5**	**7.5**	**7.4**	**7.3**	**46.6**

Note: Numbers may not add due to rounding.

4.4 Pass-through cost recovery

The current (FY2025–27) regulatory framework provides a mechanism for recovery of expenditure associated with an approved cost pass-through event that meets the 5% materiality threshold. However, timing issues mean that there is no mechanism in the current determination for recovering the costs of pass-through events that occur in the FY2026 or FY2027 regulatory years.

We propose to recover pass-through costs evenly across the regulatory period to smooth the impact on customers. The proposed pass-through revenue from the regulatory change event is summarised in Table 4-3. This is consistent with the $5.7 million (real, $2026-27) on a net present value (NPV) basis and reflects efficient costs that arise solely from the event.

Table 4-3: Proposed pass-through revenue from regulatory change event, smoothed ($m, nominal)

	FY28	FY29	FY30	FY31	FY32	Total
Building block revenue	1.2	1.2	1.2	1.2	1.2	**6.2**

Note: Numbers may not add due to rounding.

Our approach to pass-through cost recovery is intended to closely reflect past AER precedent, however some further thinking may be required to how this is included in the building block framework if the Commission accepts the principle of revenue smoothing.

4.5 Timeline and dependencies

The delivery plan for our preferred option is detailed in the Initial Proposal regulatory business case and based on the Northern Territory Government developing the TEM rules by the end of 2026, and separation occurring at the proposed date of 1 July 2027. Delivery of the TEM Reform is highly dependent on the Northern Territory Government delivering against its timeline for the market design and rules development. In addition to these deliverables, reform and delivery of NTESMO's new responsibilities is subject to the following conditions:

- Sufficient funding to support implementation and the purchase and commission of new systems (e.g. settlement system, system planning modelling requirements).
- Power and Water providing the IT and OT platforms and operating infrastructure to host and enable operation of the control systems and tools that have been and will be developed and implemented by NTESMO.
- The execution of a series of service level agreements for the provision of services for the operation of NTESMO as a standalone independent statutory corporation.

4.6 Managing uncertainty

As discussed in section 4.1, a pass-through event has been initiated to recover efficient costs of TEM Reform that fall within the current FY2025–27 regulatory period as a regulatory change event.

Consistent with the Commission's advice, if TEM Reform rules and regulations are not made in time to inform the Revised Proposal, a further cost-pass-through claim will be pursued in the FY2028–32 regulatory period. This is discussed in more detail in Chapter 8.

5 Proposed Revenue

In this section, we discuss the calculations and inputs for each of the building blocks used to estimate forecast revenue for the next regulatory period. Sections 5.1 and 5.2 show the opex and capex expenditure from the FY2028-32 regulatory period, before adjusting for the cost pass-through. Section 5.3 identifies the total revenue requirement including the cost pass-through.

5.1 Operating expenditure

Opex is an annual cost that is unrelated to an asset that provides future services. The cost is passed through directly as a revenue item.

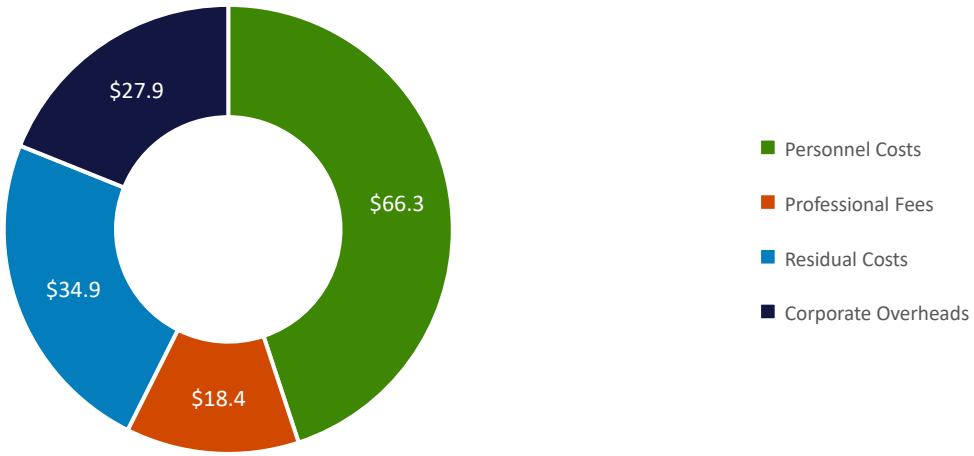
Summary of forecast opex

NTESMO's current forecast for opex is $147.6 million over the FY2028–32 regulatory period, or approximately $29.5 million annually:

- For business as usual activities, forecast opex totals $136.8 million.
- For reform activities, forecast opex totals $10.8 million.

As Figure 5-1 shows, personnel costs are the dominant opex category in the FY2028–32 regulatory period in aggregate for the System Control and Market Operator functions, accounting for 45% of opex. The remaining forecast opex is split between corporate overheads, residual costs, and professional fees.

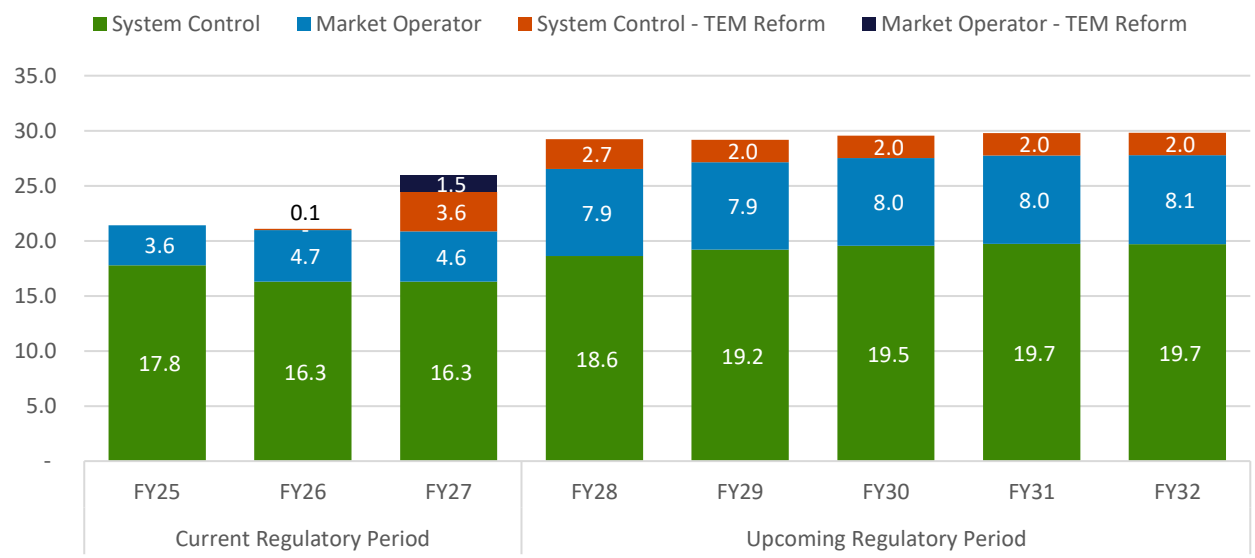
Figure 5-1: Forecast opex by cost category for FY2028–32 regulatory period ($m, real 2026-27)



Projected business-as-usual operating expenses (opex) for the FY2028–32 regulatory period shows an average increase of $8.4 million per year compared to the current period, during which NTESMO received an average opex allowance of $21.1 million per year, as depicted in Figure 5-2. This increase is mainly due to substantial shifts in NTESMO's operating environment, particularly driven by the move toward renewable energy sources. The rapid expansion and integration of distributed energy resources, large-scale solar PV systems, and batteries into networks and systems have put upward pressure on NTESMO's operational needs and costs. TEM Reform expenditure contributes an average of $2.2 million per year

increase in FY2028–32 (in addition to $5.7 million of implementation costs in the current regulatory period).

Figure 5-2: Allowed and forecast opex by function ($m, real 2026-27)



Note: TEM Reform pass-through costs are presented based on timing of expenditure incurred, as opposed to revenue recovered

Base year expenditure

The base year for opex forecasting is to be set as the most recently available audited annual expenditure, which is the 2024-25 financial year, net of adjustments. Table 5-1 outlines total base year expenditure for the System Control and Market Operator functions against the Commission's approved revenue requirement. A description of how base year costs have been derived in provided in Section 3.1.

Table 5-1: Base year expenditure (inc. corporate overheads) vs. approved revenue requirement ($m, nominal)

Function	Base year [A]	Approved revenue [B]	Difference [A-B]
System Control	11.8	15.9	**(4.1)**
Market Operator	7.2	4.2	**3.0**
Total	**18.9**	**20.1**	**(1.2)**

Note: Numbers may not add due to rounding.

Trend adjustment

A trend adjustment is applied to personnel costs to account for expected input cost increases at a rate different to inflation. Table 2-1 outlines the WPI forecast that has been used to trend personnel costs.

Productivity factor

A productivity factor is a common element of economic regulatory regimes. This is typically applied only to opex and reduces the opex allowance by a fixed percentage per year. We are proposing a productivity

factor of zero (0%) to be applied NTESMO's opex for the FY2028–32 regulatory period. We discuss the reasons for this proposal in Chapter 7.

Step changes

The total step change amounts for the System Control and Market Operator functions outlined in Chapters 3 and 4 are presented in Table 5-2.

Table 5-2 Proposed step changes for System Control and Market Operator ($m, real 2026-27)

Function	FY28	FY29	FY30	FY31	FY32	Total
System Control	8.6	8.5	8.7	8.8	8.7	**43.4**
Market Operator	0.2	0.2	0.2	0.2	0.2	**0.8**
Total	**8.8**	**8.6**	**8.9**	**9.0**	**8.9**	**44.2**

Note: Numbers may not add due to rounding. Amounts are net of the $5.3 million ($3.9 million for System Control, $1.4 million for Market Operator) negative step change to address the reduction in NTESMO's corporate overheads from no longer sharing certain sensitive corporate functions with Power and Water (see Section 4.3).

Total opex allowance

The total opex allowance for the System Control and Market Operator functions following the base-step-trend approach are presented in Table 5-3.

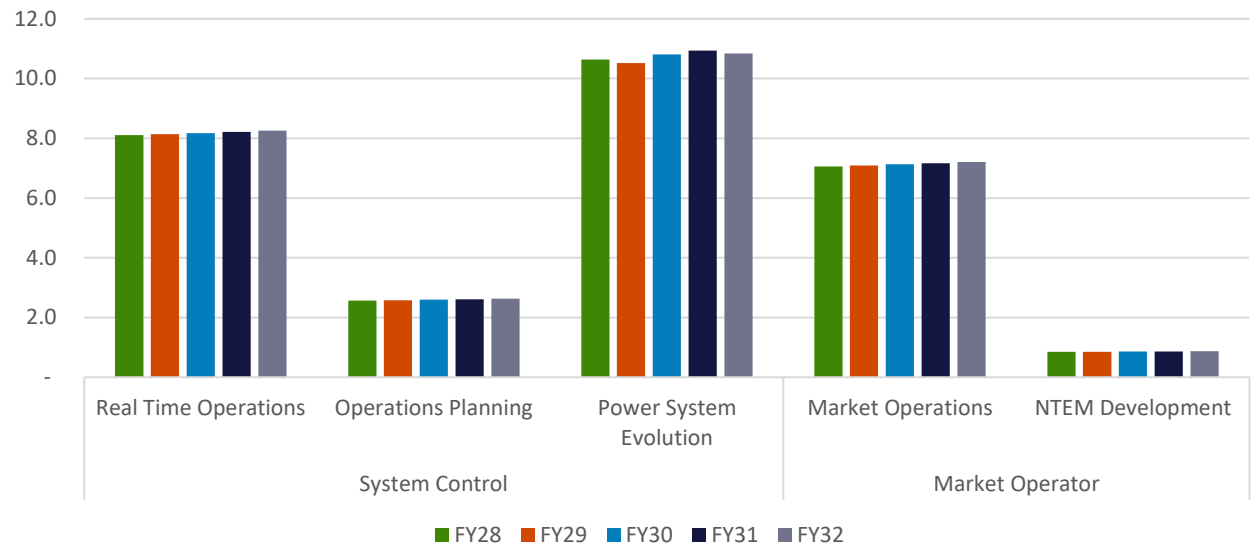
Table 5-3 Operating expenditure allowances ($m, real 2026-27)

Function	FY28	FY29	FY30	FY31	FY32	Total
System Control	21.3	21.2	21.6	21.8	21.7	**107.6**
Market Operator	7.9	7.9	8.0	8.0	8.1	**40.0**
Total	**29.2**	**29.2**	**29.6**	**29.8**	**29.8**	**147.6**

Note: Numbers may not add due to rounding.

Figure 5-3 presents the forecast opex across System Control and Market Operator functions by service. TEM Reform costs are captured under Power System Evolution, NTEM Development relates to Market Reforms, a separate cost category.

Figure 5-3: Forecast opex by Function and service ($m real, 2026-27)



5.2 Capital expenditure

Capex is a one-off cost that is recovered over the life of the asset through a return of capital (via depreciation) and return on capital (via the WACC).

Summary of forecast capex

NTESMO's current forecast for capex is $22.3 million over the FY2028–32 regulatory period. This is notably lower than approved capex for the current regulatory period ($52.2 million), which was driven largely by expenditure for the TDE, a substantial capital project, as illustrated in Figure 5-4.

Figure 5-4: Actual and forecast capex by function ($m, nominal 2026-27)

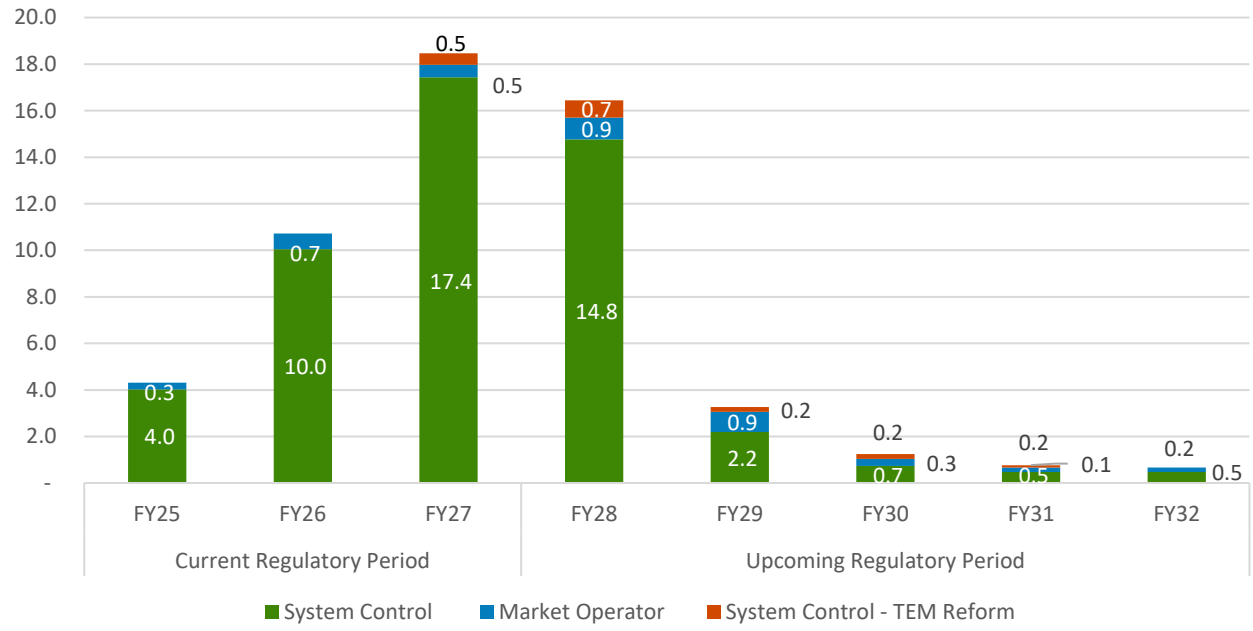
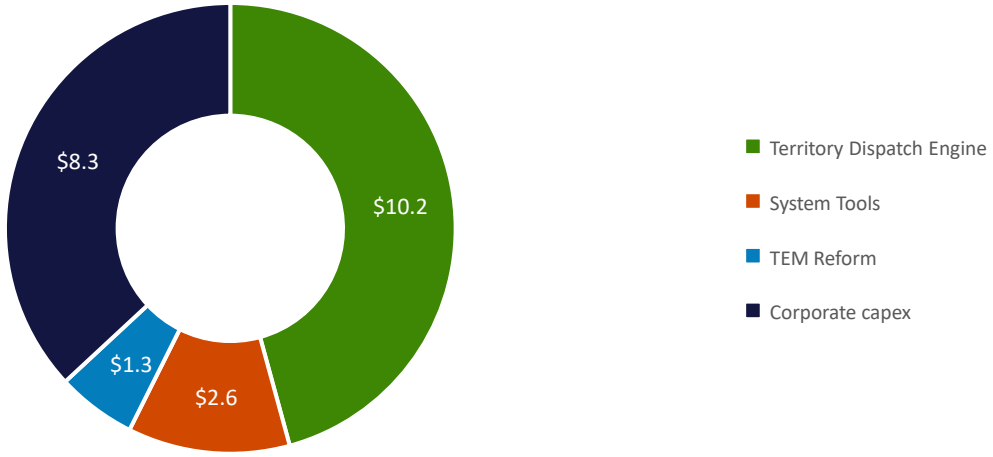


Figure 5-5 shows the four drivers of forecast capex; corporate capex, and three capital projects that will be delivered in the FY2028–32 regulatory period. These capital projects include:

- **Territory Dispatch Engine (TDE)** – The Final Decision allowed $38.5 million (adjusted to real $2026-27 dollars) to implement the TDE project. These costs have been reprofiled to move $10.2 million of expenditure from the current regulatory period due to the delay in implementation of the project.
- **System Tools** – Expenditure of $2.6 million related to developing an expanded suite of system tools.
- **TEM Reform** – Expenditure of $1.3 million related to developing an upgraded settlement system necessary for NTESMO's updated settlement function following TEM Reform.[31]

Figure 5-5: Forecast capex by driver ($m, real 2026-27)



For the FY2028–32 regulatory period, the main driver of capex is corporate capex costs. The $8.3 million forecast expenditure is primarily due to a large-scale programme of works being undertaken that was designed to bring all Power and Water operations into a single site in Darwin. As NTESMO is to be separated from Power and Water, these costs will need to be reviewed prior to our Revised Proposal to ensure they represent the true efficient cost of delivering these functions.[32] At present, planning for NTESMO's facilities arrangements is preliminary, however this allocation represents an evidence-based cost of NTESMO's future corporate functions capex post-separation. Table 5-4 sets out forecast capex by regulatory year.

Importantly, NTESMO's FY2028-32 TEM Reform cost forecast does not include any property capital costs or lease and maintenance costs for NTESMO's separation. This is in acknowledgement that the cost is notionally captured in the corporate capex forecast.

[31] Note, the total forecast capex for TEM Reform is $1.7m, however, $0.5m is expected to be incurred in FY2026 and FY2027 and is therefore being proposed via the cost-pass through.

Table 5-4: Forecast capex by regulatory year ($m, real 2026-27)

Capital Project	FY28	FY29	FY20	FY31	FY32	Total
Territory Dispatch Engine	10.2	-	-	-	-	**10.2**
System Tools	2.4	0.2	-	-	-	**2.6**
TEM Reform	0.7	0.2	0.2	0.1	-	**1.3**
Corporate capex	3.1	2.8	1.0	0.7	0.7	**8.3**
Total	**16.4**	**3.3**	**1.2**	**0.8**	**0.7**	**22.4**

Note: Numbers may not add due to rounding.

Return on and of capital

A key input to determining the return on and return of capital allowances is the value of the RAB. The RAB is the sum of the depreciated value of past capex and forecast new capex. The RAB has been rolled forward for each year of the next regulatory period using forecast capex and actual depreciation. The forecast RAB for System Control and Market Operator is provided in the table below.

Table 5-5: Value of Opening RAB ($m, real 2026-27)

Function	FY28	FY29	FY30	FY31	FY32
System Control	46.0	57.0	53.5	48.4	42.8
Market Operator	5.4	5.5	5.6	5.0	4.3
Total	**51.4**	**62.6**	**59.0**	**53.3**	**47.0**

Note: Numbers may not add due to rounding.

We have forecast a 'return on' investment allowance for each year of the regulatory period. The allowance is calculated by multiplying the nominal rate of return by the nominal value of the RAB. The nominal vanilla weighted average cost of capital (WACC) is the proportion of the return on equity and return on debt based on a defined gearing ratio of 60%. The AER's WACC for Power and Water's networks business has been used to calculate the return on capital.

Based on applying the nominal vanilla WACC to the RAB, we have derived the return on allowance for System Control and Market Operator as set out in the below table.

Table 5-6: Return on capital allowances for System Control and Market Operator ($m, real 2026-27)

Function	FY28	FY29	FY20	FY31	FY32
System Control	2.7	3.4	3.2	2.9	2.5
Market Operator	0.3	0.3	0.3	0.3	0.3
Total	**3.0**	**3.7**	**3.5**	**3.2**	**2.8**

Note: Numbers may not add due to rounding.

To calculate the return of capital (depreciation) allowance, we have used a 'straight line' approach based on the value of the asset class in the RAB and the expected remaining life. We have utilised the AER's standard asset classes and lives to undertake this calculation. The table below sets out the return on allowance for System Control and Market Operator based on the building block approach for each year of the FY2028–32 regulatory period.

Table 5-7 Return of capital allowances for System Control and Market Operator ($m, real 2026-27)

Function	FY28	FY29	FY20	FY31	FY32
System Control	3.6	4.5	4.7	4.9	5.1
Market Operator	0.7	0.7	0.8	0.8	0.8
Total	**4.3**	**5.3**	**5.5**	**5.7**	**5.9**

Note: Numbers may not add due to rounding.

As discussed above, we sought to calculate a tax allowance based on the method in the AER regulatory framework. This has a value of zero. This is because our expected taxation costs including operating expenditure and depreciation have been calculated to be higher than our revenue for each regulatory year, implying that we would not incur a positive tax liability.

5.3 Total revenue requirement

NTESMO's current forecast revenue requirement for the FY2028–32 regulatory period is $196.3 million:

- $149.2 million for System Control functions; and
- $47.1 million for Market Operator functions.

This total includes the cost recovery of the cost pass-through outlined in Section 4.4. Table 5-8 and Table 5-9 set out the proposed revenue requirements for each year of the FY2028–32 regulatory period.

Table 5-8 Proposed revenue requirement for System Control ($m, real 2026-27)

System Control	FY28	FY29	FY20	FY31	FY32	Total
Opex	21.3	21.2	21.6	21.8	21.7	107.6
Depreciation	3.6	4.5	4.7	4.9	5.1	22.9
Return on capital	2.7	3.4	3.2	2.9	2.5	14.7
Net tax allowance	0.0	0.0	0.0	0.0	0.0	0.0
Cost pass-through adjustment	0.9	0.8	0.8	0.8	0.8	4.1
Total	**28.4**	**30.0**	**30.3**	**30.4**	**30.1**	**149.2**

Note: Numbers may not add due to rounding.

Table 5-9 Proposed revenue requirement for Market Operator ($m, real 2026-27)

Market Operator	FY28	FY29	FY20	FY31	FY32	Total
Opex	7.9	7.9	8.0	8.0	8.1	40.0
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	0.0	0.0	0.1	0.1	0.2
Cost pass-through adjustment	0.3	0.3	0.3	0.3	0.3	1.6
Total	**9.3**	**9.3**	**9.4**	**9.5**	**9.5**	**47.1**

Note: Numbers may not add due to rounding.

6 Regulated Charges and Bill Impacts

The purpose of this Chapter is to identify the basis of regulated charges in the next regulatory period. We also identify the indicative regulated charge to apply to System Control and Market Operator services and the impact on customer's electricity bills.

6.1 Tariff design and billing arrangements

NTESMO currently recovers its costs using a relatively simple $ per kWh consumption metric, which is levied on retailers. The charges are calculated by dividing the revenue requirement in each year by the demand forecast in each year. In our consultation, we sought stakeholder views on the current tariff structure and on potential alternatives, including introducing a fixed monthly charge to recover some or all of NTESMO's costs. Jacana Energy preferred retaining the current fully variable approach, noting that any change could require implementation investment by retailers, but indicated it could support an alternative structure where it demonstrably improves equity and reduces cost recovery challenges. Territory Generation suggested that a combination of fixed and variable components may better reflect NTESMO's largely fixed cost base while retaining some usage-based price signal.

Across submissions, stakeholders emphasised the importance of managing equity and implementation risks associated with any move toward fixed charges and noted that additional information would be required to assess impacts and support informed feedback. In particular, stakeholders requested clearer detail on the proposed design parameters (including the billing determinant for any fixed charge) and comparative modelling of alternative structures.

Having regard to this feedback, we propose to maintain the current charge structure for this Initial Proposal. Ahead of the Revised Proposal, we will undertake further analysis and engagement to provide stakeholders with clearer information on retailer investment requirements and potential tariff structure changes, including indicative design parameters and comparative modelling of impacts, to support more informed feedback on options to improve equity and efficiency in recovering NTESMO's costs.

6.2 Indicative regulated charges

The annual price control mechanism used to convert NTESMO's forecast annual revenue requirement into regulated System Control and Market Operator charges for each year is set out in Attachment 21.

- The System Control charge is calculated by dividing the forecast System Control revenue in Chapter 5 by forecast annual energy consumption in the regulated regions of Darwin–Katherine, Alice Springs and Tennant Creek for the relevant year.
- The Market Operator charge is calculated by dividing the forecast Market Operator revenue in Chapter 5 by forecast annual energy consumption in the Darwin–Katherine regulated region for the relevant year.[33]

This section sets out indicative regulated charges in each year, applying a forecast of inflation and annual energy consumption. The annual pricing process progressively replaces forecast inflation with actual inflation and forecast annual energy consumption with actual energy consumption. Prices are then

[33] An exception to this is the AEMO MSATS costs, which are recovered from customers across all three regulated systems, like System Control costs.

updated. This ensures that total revenue collected is maintained in real terms regardless of actual inflation and energy consumption outturn.

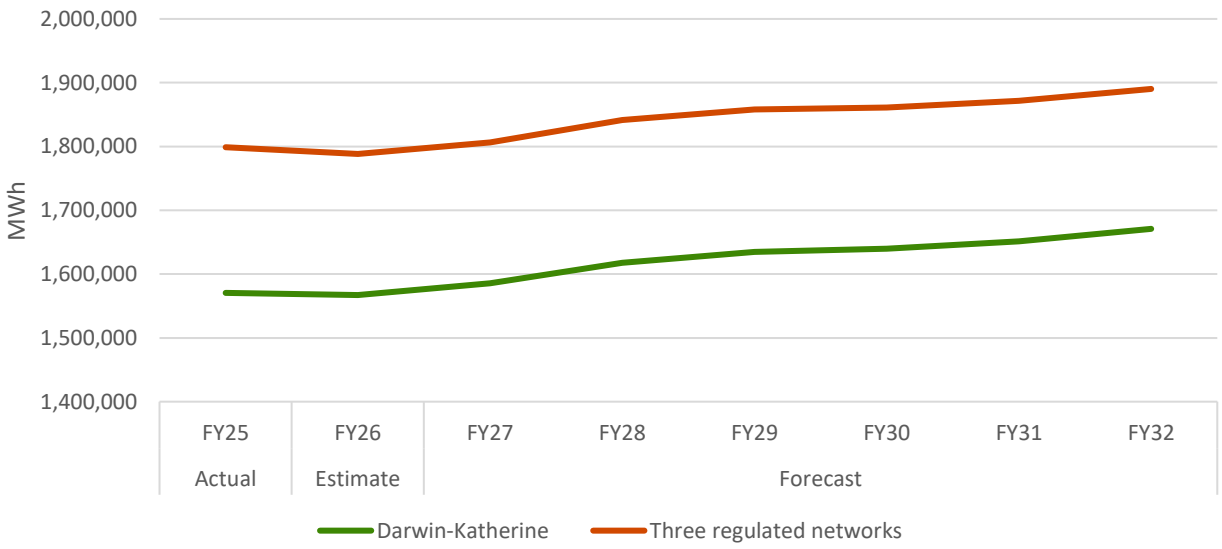
We have presented indicative regulated charges in nominal terms. We have escalated the revenue presented in real terms in Chapter 5 by applying inflation as presented in Table 6-1.

Table 6-1: Inflation series forecast

	FY28	FY29	FY30	FY31	FY32
Inflation %	2.6%	2.6%	2.6%	2.6%	2.6%

The energy consumption forecast for Darwin–Katherine and total across the three regulated networks are shown in Figure 6-1. This shows material growth in consumption driven by large customer consumption expectations in F2027 to F2029, followed by a more gradual consumption growth in FY2030 onwards. This has been based on Power and Water's internal consumption forecast that aligns with estimates in Power and Water's AER Annual Pricing Proposal for FY2027.[34]

Figure 6-1: Annual energy consumption forecast (MWh)



Source: Power and Water

The indicative regulated charges for System Control and Market Operator for each year of the next regulatory period are set out in Table 6-2.

[34] Forecast consumption from FY2030 onwards is not captured in the Annual Pricing Proposal and has been extended out for the purpose of this Initial Proposal.

Table 6-2: Indicative regulated charges for System Control and Market Operator (c/kWh, nominal)

	FY28	FY29	FY30	FY31	FY32
System Control	1.6842	1.8064	1.8699	1.9106	1.9269
Market Operator	0.6349	0.6509	0.6735	0.6921	0.7057

6.3 Bill impacts

Electricity retail prices charged to residential and commercial customers (those consuming less than 750MWh of electricity per year) are set by the Northern Territory Government.

The Electricity Pricing Order sets the maximum retail prices that customers may be charged for electricity and related services and has historically seen prices set below the actual cost of supplying electricity. The Pricing Order has not been historically indexed to changing costs in the electricity system. For this reason, our analysis has focused on what the retailer would charge the customer if NTESMO's regulated charge was fully passed through.

NTESMO comprises a small proportion of Northern Territory customers' electricity bill. In the last year of approved prices (FY2027), the System Control and Market Operator's combined impact was estimated to be less than 3.4% of the annual electricity bill of a typical small residential customer in the DKPS. In the first year of the FY2028–32 regulatory period, we estimate this would rise to 4.9% for the same customer group.

Figure 6-2 shows the expected contribution of System Control and Market Operator costs to a typical small residential customer in the DKPS, assuming all other costs in the Northern Territory regulated electricity systems stay constant in real terms.

Figure 6-2: NTESMO's contribution to typical DKPS residential electricity bill comparison (nominal $)

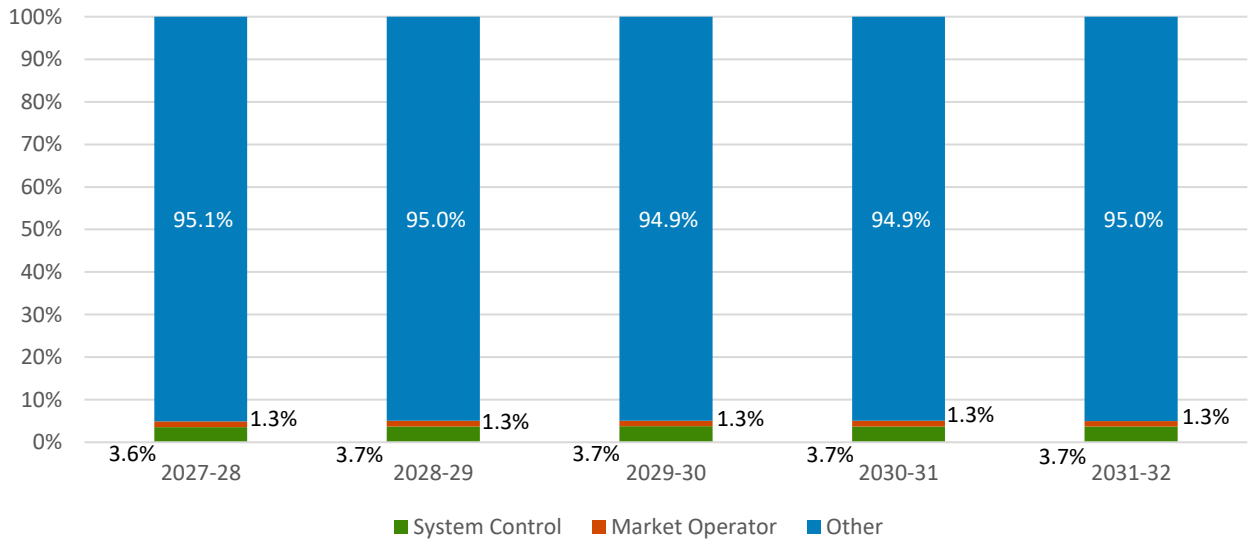


Table 6-3 shows the indicative annual change in regulated charges for a retailer's customer in Alice Springs and Tennant Creek. Charges are higher in FY2028, with smaller year-on-year increases over the remainder of the period. FY2027 shows the baseline charge at the end of the FY2025–27 regulatory period, while

FY2028 to FY2032 shows the change in regulated charges compared to the previous year. These regulated regions incur System Control regulated charges only, as Market Operator regulated charges are not applied. Customers under 750MWh will continue to be protected by the Northern Territory Government's pricing order.

Table 6-3: Annual change in System Control regulated charges for customers in Alice Springs and Tennant Creek ($, nominal)

	Volume (kWh)	FY2027 Charge	FY2028 Change	FY2029 Change	FY2030 Change	FY2031 Change	FY2032 Change
Small Residential	8,500	$102	$41	$10	$5	$3	$1
Large Residential	15,000	$181	$72	$18	$10	$6	$2
Small Medium Business	30,000	$361	$144	$37	$19	$12	$5
Medium Business	150,000	$1,807	$719	$183	$95	$61	$24
Large C&I	500,000	$6,024	$2,398	$611	$317	$204	$81
Industrial	1,000,000	$12,047	$4,795	$1,222	$634	$407	$163
Large Industrial	6,000,000	$72,282	$28,772	$7,332	$3,806	$2,442	$978

Note: FY2027 shows the baseline charge at the end of the previous regulatory period. FY2028 to FY2032 show the nominal annual change in charges relative to the previous year, not the total charge in that year.

Table 6-4 shows the indicative annual change in regulated charges for a retailer's customers in Darwin-Katherine, where both System Control and Market Operator regulated charges apply. Customers who consume less than 750MWh annually will continue to be protected by the Northern Territory Government's pricing order.

Table 6-4: System Control and Market Operator regulated charge impacts for customers in Darwin-Katherine ($, nominal)

	Volume (kWh)	FY2027 Charge	FY2028 Change	FY2029 Change	FY2030 Change	FY2031 Change	FY2032 Change
Small Residential	8,500	$133	$64	$12	$7	$5	$3
Large Residential	15,000	$235	$113	$21	$13	$9	$4
Small Medium Business	30,000	$470	$226	$41	$26	$18	$9
Medium Business	150,000	$2,349	$1,130	$207	$129	$89	$45
Large C&I	500,000	$7,830	$3,766	$691	$430	$297	$149
Industrial	1,000,000	$15,660	$7,531	$1,382	$861	$593	$299
Large Industrial	6,000,000	$93,960	$45,186	$8,290	$5,164	$3,560	$1,794

Note: FY2027 shows the baseline charge at the end of the previous regulatory period. FY2028 to FY2032 show the nominal annual change in charges relative to the previous year, not the total charge in that year.

7 Incentives

The Commission requires NTESMO to propose an explicit productivity factor to be applied to operating expenditure and a set of Key Performance Indicators (KPIs) for performance monitoring. The purpose of this chapter is to provide our proposal for how these incentive mechanisms should apply in the FY2028–32 regulatory period.

7.1 Productivity Factor

The Commission's regulatory framework for opex includes an ex-ante allowance and NTESMO bears any difference against outturn costs. A productivity factor is to be applied to the opex allowance as a further incentive for efficiency in the regulatory period. The productivity factor is often represented in regulatory determinations through a reduction to the inflation indexation that applies to annual operating expenditure allowances (i.e., CPI – X). For instance:

$$Annual\ Allowed\ Opex\ Adjustment = Inflation\ (CPI) - Productivity\ Factor\ (X)$$

Use of a productivity factor is a recent feature of the regulatory framework applied to NTESMO, introduced in the Commission's September 2024 Decision Paper. It was set as zero for the FY2025–27 regulatory period.

What is productivity?

In the context of economic regulation, productivity refers to the efficiency with which an organisation converts inputs (i.e., labour, technology, and systems) into outputs (i.e., services it delivers). Over time, a productive organisation is expected to improve how efficiently it delivers the same services. In other words, achieve more output for each unit of input, or to deliver the same output at lower cost. This is a feature of many regulatory frameworks, especially where the regulated entity is a monopoly.

A productivity factor incorporated into a regulatory determination provides a mechanism for the regulator to encourage continuous improvement. It recognises that, in the absence of external change, an efficient business should become incrementally better at performing the same functions over time. However, productivity does not imply that costs should never increase. Where there are significant reforms or structural changes, such as new regulatory obligations, technological transitions, or expanded functions, these typically constitute step changes in costs. In such cases, higher expenditure can still be consistent with efficiency if a regulated organisation is required to deliver new or enhanced outputs. The productivity factor is, therefore, not intended to offset justified increases in costs arising from new responsibilities or evolving needs of the Northern Territory electricity systems.

What we heard from stakeholders

In determining an appropriate productivity factor for the FY2028–32 regulatory period, we have considered approaches taken in other jurisdictions, the scope for achieving ongoing efficiency gains within NTESMO's operational context and stakeholder views.

Where a productivity factor is currently applied to other market and system operators, of a broadly comparable scale, as well as the approaches taken to other regulated entities in the Australian electricity sector, the rate ranges from 0.3% – 0.6%. In the case of AEMO, where no productivity factor is applied, the

view was that AEMO is responsible for delivering system-wide outcomes, which are more important than achieving efficiencies.[35]

NTESMO operates within a small jurisdictional market comprising distinct and dispersed electricity systems. This limits the scope for achieving economies of scale in operations and, by extension, some of the cost efficiencies available to larger market operators. In addition, as an asset-light organisation, NTESMO relies primarily on information technology and skilled labour to deliver its statutory functions. This structure provides limited opportunity for input substitution, or for capturing productivity gains through traditional capital-labour trade-offs. Consequently, the scope for ongoing productivity growth is more moderate than for more asset-intensive entities, such as Distribution Network Service Providers.

- **Changing operating environment**
  NTESMO's operating environment is currently undergoing significant change, namely a transition towards a higher share of renewable generation and storage. These factors are structural in nature, increasing the need for new systems, enhanced data management, and greater analytical capability to maintain compliance and system security. This evolution in NTESMO's operating environment places pressures on NTESMO's operational requirements and, in turn, impacts upon costs.

- **TEM Reforms**
  The recently passed legislative reforms place NTESMO at the centre of a new governance structure in the Northern Territory electricity sector. As a result of this legislation, NTESMO is required to establish itself as a statutory corporation, separate from Power and Water, and undertake new market arrangements and processes. In particular, the existing SCTC and NT NER, which NTESMO currently operates in accordance with, will be either replaced or amended as a result of new TEM rules. Most notably, NTESMO will be required to undertake whole-of-system planning, in relation to the Northern Territory's regulated electricity systems, and procure electricity infrastructure and services in the DKPS, in accordance with investment plans.

  The transition into a separate, standalone corporation and undertaking of central planning and procurement, will result in significant changes to both NTESMO's structure and operational approach, as well as expenditure requirements. These changes will be felt most notably over the next regulatory period, as the reforms begin to come into effect.

On the basis of the above, in our recent consultation we proposed a zero (0%) productivity factor for the FY2028–32 regulatory period, while acknowledging that there may be scope for efficiency in future periods of stability. Two stakeholders commented on our proposal for a zero productivity factor. Territory Generation supported our proposal, citing the potential for productivity offsets during transition risks under-investment in system security capability. However, Jacana Energy supported a non-zero productivity factor arguing that the Northern Territory electricity market scale and changing operating environment are business as usual in nature for the industry that NTESMO operates in but recognised that reform costs may be exempt from this.

Proposal

While we acknowledge that there may be scope for efficiency in future periods of stability, we retain our proposal for a productivity factor of zero (0%) for NTESMO for the FY2028–32 regulatory period.

[35] ERA (2024), *Australian Energy Market Operator's AR6 second in-period allowable revenue and forecast capital expenditure proposal*, Final determination, 28 June, p. 32.

The changing operating environment and recent legislative reforms are resulting in a significant shift in NTESMO's structure and operational requirements. As noted above, a productivity factor represents the notion that, in the absence of external change, a business should become more efficient in performing the same functions over time. We consider there to be limited scope for ongoing productivity gains within NTESMO's opex at present, as a result of the notable external changes currently faced. In relation to stakeholder feedback which suggests applying a productivity factor to non-reform costs, our view remains that reform is just one aspect of a wider set of changes that NTESMO must manage in the next regulatory period. Those wider changes and current scale lead us to conclude that management time, in the short term, is best focused on achieving successful change.

7.2 Key Performance Indicators

The Commission also requires NTESMO to develop a set of potential Key KPIs for inclusion in the FY2028–32 regulatory period. Our consultation paper contained Initial Proposals and stakeholders were asked to comment on these and suggest others that they considered might be beneficial.

How KPIs were developed

As indicated in our consultation paper, we consider that KPIs should provide a concise yet comprehensive picture of performance across NTESMO's Market Operator and System Control functions.

The core purpose of the Market Operator function is to administer the Northern Territory Electricity Market in an efficient and transparent manner. In parallel, System Control is focused on the secure, reliable, and efficient operation of the regulated electricity systems in the Northern Territory.

We proposed six KPIs aligned to 'good' performance across NTESMO's core functions. Together, they provide clear, measurable indicators of day-to-day service delivery and whether NTESMO is meeting its purpose and objectives, while supporting transparent and accountable performance reporting.

Our proposed KPI's focused on our existing functions to enable time for new reform functions to be integrated into our business as usual operations before KPIs were developed.

The following criteria were used to determine whether a KPI was appropriate:

- **Relevant** – to the purpose of the performance incentives and the overall objectives of NTESMO.
- **Transparent** – has a clear and unambiguous definition that allows for data to be collected in a consistent manner, and for the indicator to be easily understood.
- **Measurable** – is quantifiable and can be accurately measured.
- **Reliable** – presents a stable and consistent source of data over time.
- **Verifiable** – has a clear methodology that underpins the collection of data that can be validated.

What we heard from stakeholders

Stakeholders provided varied feedback on our proposed KPIs. The six KPIs proposed for consultation (forecast accuracy; secure, reliable and economically compliant operation; system black events; settlement timeliness; settlement accuracy; system availability) were broadly supported, however Jacana Energy did not feel the proposed KPIs adequately reflected our new reform-related functions and recommended indicators focused on economy and efficiency.

Across stakeholders, an additional 5 KPIs were proposed for consideration (see Annex A) which related to:

- Risk-adjusted cost of electricity

- Operational transparency
- Defect rates and post release stability for the TDE
- Renewable power curtailment rate
- Time to connect new generators.

In addition, we heard that stakeholders are seeking greater transparency and reporting on the progress of TDE and NTEM Reform. As a result, we have also considered how KPIs could be used to provide greater transparency of these key projects in the next regulatory period.

In considering these KPIs, we applied the same criteria used to develop our initial list. Our assessment of each additional KPI is outlined in Table 7-1. Overall, we propose adding one new project monitoring KPIs to our initial list. We consider this list achieves the right balance between introducing a set of KPIs that reflect the overall performance aims of NTESMO's existing and new functions, while maintaining a balanced and targeted set of KPIs.

Table 7-1: Assessment of stakeholder proposed KPIs

Stakeholder proposed KPI	Our assessment	Our decision
Risk-adjusted cost of electricity (Jacana Energy)	NTESMO currently has some influence of the risk-adjusted cost of electricity through the economic dispatch of system resources and the efficient delivery of its regulated functions. However, it is currently not able to influence a significant proportion of wholesale electricity costs, such as the procurement and operation of generators and their contracting by retailers. In the future, as the centralised system planner and procurer, NTESMO will have significantly more influence over the risk-adjusted cost of electricity, and we propose that consideration of such a KPI be deferred to enable time for NTESMO's new functions to be integrated into our business-as-usual operations.	Not progressed at this time.
Operational transparency (timeliness and clarity of operational notices and dispatch instructions) (Territory Generation)	The SCTC includes requirements that guide NTESMO's approach to operational notices and dispatch instructions. Further stakeholder engagement is required to understand the issues and measures to address them.	Decision deferred to Revised Proposal pending stakeholder engagement and wider consideration as part of the TEM Rules.

Stakeholder proposed KPI	Our assessment	Our decision
Change management (defect rates and post release stability for TDE and system tools) (Territory Generation)	Defect rates and post-release stability for the TDE and system tools relate to the delivery and performance of these specific projects rather than day-to-day delivery of NTESMO's ongoing regulated functions. For current major projects, such as the TDE and system tools we propose to address this through the ex-post review required by the Commission. Through consultation, stakeholders expressed a desire to be kept informed of change at NTESMO including related to major projects and reform. This is considered to be best delivered through regular published industry updates on the NTESMO website and NTESMO's performance could be measured based on the frequency of these publications.	Not progressed at this stage but considered as part of monitoring and reporting obligations in the TEM Reforms and the TEM Rules as applicable to NTESMO. An alternative industry engagement KPI is proposed.
Renewable power curtailment rate (Plenitude)	NTESMO's obligations are to ensure the efficient scheduling and dispatch of generating systems to maintain secure and reliable operation of the power system. Curtailment of renewable electricity generation is likely to be necessary to manage system security and also economically efficient. As a result, a KPI framed around minimising curtailment may not be well aligned with NTESMO's functions and obligations. We have therefore not included it as a KPI at this stage.	Not progressed at this stage.
Time to connect generators (Plenitude)	Connection and commissioning outcomes are governed by the Northern Territory National Electricity Rules and influenced by multiple parties and processes, with NTESMO having only partial control. For that reason, an end-to-end "time to connect" KPI is not included at this stage.	Not progressed at this stage.

Proposal

We are proposing 7 KPIs that in our view best reflect the overall performance aims of NTESMO's functions and stakeholders' needs. Table 7-2 outlines each KPI and how we propose to measure our performance against it. NTESMO can report on the KPIs on either a monthly or quarterly basis, alongside providing an annual summary report to the Commission.

As the new reform-related functions that NTESMO will be responsible for are clearly defined and scoped, we may propose some additional KPIs related to these new functions in our Revised Proposal. We will carefully assess any new proposed KPIs using our identified criteria.

Table 7-2: Proposed KPIs

Function	KPI	Measurement	Indicative Target	Rationale
System Control	Forecast accuracy	The mean absolute percentage error (MAPE) 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 systems. To address planning and real-time usage of forecasts, the performance of the 24-hour ahead and 4-hour-ahead forecasts will be monitored monthly. Due to Tennant Creek being such a small and concentrated system, it is affected much more by unpredictable weather events (due to weather data delays) and as such we propose it is not assessed under this KPI.	24-hour-ahead forecast: ≤ 10% variance 4-hour-ahead forecast: ≤ 5% variance	This KPI tracks the accuracy of NTESMO's demand forecasts supplied to system controller and operations planning team for real-time and day-to-day business activities. Reliable forecasting enables more efficient scheduling and dispatch, outage management planning and most importantly to provide sufficient notice (days ahead) to prepare for system security risks arising during the minimum demand period. Providing accurate forecasts is a key objective of the Power System Evolution role within System Control that allows for better informed real-time operational decisions and management of planned outages. This helps ensure system security is appropriately balanced with cost-effective operations.
System Control	Secure, reliable and economically compliant operation	Percentage of dispatch intervals where the system operates within secure and reliable limits under the System Control Technical Code (SCTC).	99.5%	This KPI monitors whether NTESMO is maintaining electricity system security, while optimising operations through new tools and automation. This is a common KPI used widely by System Controllers (Operators) in other jurisdictions.
System Control	System black events	Number of full system black events per year.	Zero	This KPI seeks to demonstrate ongoing system security performance under SCTC obligations and operational resilience. Minimising the occurrence of system black

Function	KPI	Measurement	Indicative Target	Rationale
				events is another key indicator of 'good' performance for System Control.
Market Operator	Settlement timeliness	Percentage of preliminary, final, and revision settlement statements issued on time.	100%	This KPI measures the performance of Market Operations and reliability of data. It represents a key indicator of 'good' performance for Market Operations. Strong performance in this area can ensure participants have confidence in NTESMO's financial and market outcomes.
Market Operator	Settlement accuracy	Number of settlement corrections due to NTESMO process error.	≤ 2 per year	This KPI measures the performance of Market Operations and reliability of data. It represents a key indicator of 'good' performance for Market Operations. Strong performance in this area can ensure participants have confidence in NTESMO's financial and market outcomes.
System Control and Market Operator	System availability	Percentage of time core operational and market systems are available during required operational hours.	99.99%	Confirms reliability of NTESMO's core systems, which underpin operational efficiency and continuous service delivery.
System Control and Market Operator	Industry engagement	Frequency and timeliness of publication of industry updates.	No less than 2 per year	This KPI monitors whether NTESMO is regularly providing information needed by industry to effectively participate in the market. Material covered by the updates may include operational changes, major projects, planned consultations and outcomes, and other information requested by stakeholders over time.

8 Managing Uncertainty

The purpose of this chapter is to outline our proposal for the uncertainty mechanism to apply in the FY2028–32 regulatory period.

8.1 Application of uncertainty mechanisms

NTESMO's revenue allowances are set through an ex-ante regulatory determination. However, some costs are inherently uncertain and may arise during a regulatory period due to events that are outside NTESMO's control.

A pass-through mechanism provides NTESMO an opportunity to recover sufficient revenue if an event outside of its control occurs and increases the costs of meeting our regulated functions. These costs are unaccounted for in the regulatory determination, including in the allowed revenue and resultant regulated charges.

We propose to broadly retain the pass-through mechanism that applies in the current FY2025-27 regulatory period but with an updated approach to pass-through cost recovery.

8.2 Cost pass-through events

There are eight cost pass-through events that enable NTESMO to manage uncertainty within the FY2025–27 regulatory period. These are:[36]

- Retailer failure
- Regulatory change event
- Service standards event
- Tax change event
- Insurance coverage event
- Insurance credit risk event
- Natural disaster event
- Terrorism event

The regulatory change event has been used in the current regulatory period to enable NTESMO to claim TEM Reform implementation costs. We propose retaining these same events in the FY2028–32 regulatory period.

8.3 Materiality threshold

NTESMO may notify the Commission of a pass-through event and seek approval to recover (or return) associated costs where the actual and forecast change in costs meets or exceeds the materiality threshold.

[36] Utilities Commission (2025), *Attachment C – List of pass-through events,* Revenue and Pricing Proposal - NTESMO 2024-27 Regulatory Period, 6 June.

For the FY2025–27 regulatory period, the materiality threshold is 5% of the annual revenue requirement in the year the event occurs, and may be satisfied where:[37]

- the cost impact of a single pass-through event in a single year meets or exceeds the threshold;
- the total cost impact of a single pass-through event over more than one year meets or exceeds the threshold; or
- more than one pass-through event occurs in a regulatory year and the combined cost impact of those events in that year meets or exceeds the threshold.

We propose that this materiality threshold continue to apply in the FY2028–32 regulatory period.

8.4 Pass-through cost recovery

The Commission's approach included recovery of pass-through amounts through the annual revenue requirement in the year following an approved pass-through event. We propose a different approach which allows large or "lumpy" pass-through amounts to be recovered over more than one year where this is appropriate to smooth customer impacts. The proposed recovery profile (including the recovery period and the annual amounts) would be set out in the relevant pass-through claim.

8.5 Information to be provided

NTESMO must provide, by written notice, the certain information when seeking approval for an eligible pass-through event.

For the 2025–27 regulatory period, the claim must contain the following information:

- 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 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.

We propose that these information requirements continue to apply in the FY2028–32 regulatory period.

8.6 Process timeframes

For the 2025–27 regulatory period, the following steps and timeframes 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.

[37] Utilities Commission (2025), *Attachment 11.1 – Pass-through Mechanism*, 13 May 2025.

- Within 90 business days of the pass-through event occurring, NTESMO is to provide the Commission with a written statement (claim) that meets the Commission's information requirements 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.
- 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.

We propose that these process timeframe thresholds continue to apply in the FY2028–32 regulatory period.

8.7 TEM Reforms

We consider a pass-through event may be required in the FY2028–32 regulatory period as a result of TEM Reforms if certain situations arose.

Delays to TEM Reform rules and regulations

The TEM Reform delivery plan proposed is based on the TEM rules being developed by the end of 2026, and separation occurring at the proposed date of 1 July 2027. Delivery of the TEM Reforms is highly dependent on the timeline for the market design and rules development. If a situation arose where these rules and regulations were not finalised by the end of 2026, there may be insufficient time to determine these costs for inclusion in NTESMO's Revised Proposal. If this occurred, a cost pass-through event may be required to include these efficient costs. We understand this would fall under a Regulatory change event.

Service-level agreement expectations

Our current approach to TEM Reform involves maintaining existing scale efficiencies and avoiding additional costs by entering into service level agreements whereby NTESMO will continue to benefit from select shared corporate services with Power and Water. However, if a situation arose where Power and Water is no longer willing or able to provide these services on the existing terms and conditions, any change in costs of delivering these services may result in a cost pass-through event. We are seeking Commission advice as to whether this would fall under an existing event category (for example, the regulatory change or service standard event), or whether an additional cost pass-through category is required.

Annex A: Stakeholder Engagement

This annex describes NTESMO's approach to stakeholder engagement and provides details of the responses received.

Method and approach to engagement

NTESMO is committed to engaging openly with stakeholders to ensure our regulatory proposal is well informed, evidence based and aligned with customer and industry needs. In preparing our Initial Proposal, we undertook a round of consultation.

We published a consultation paper on 5 December 2025. As a result of the short timeframe between the passing of the recent reform legislation and the scheduled publication date of the consultation paper, the activities and associated expenditure outlined in the consultation related to NTESMO's current (business as usual) functions only. The activities and estimated costs associated with TEM Reforms are additionally included in this Initial Proposal.

In the consultation paper, we described the key challenges impacting the operation of the power system and our role as System Control and Market Operator. We also set out key issues with the framework for the next regulatory proposal including our proposed productivity factor, performance incentives, our approach to accommodating reform, and the development of the TDE.

We ran a workshop on 11 December 2025 to talk through key issues outlined in the consultation paper and gather feedback from our stakeholders. We received valuable feedback on the day and also invited written submissions to be submitted by 16 January 2026. We received responses from Territory Generation, Jacana Energy (Jacana) and Eni Plenitude (Plenitude). We thank them for their contributions, and we respond to the feedback provided within the main body of our proposal document.

Feedback from stakeholders

The following provides a summary of feedback received across written submissions and the workshop.

Expenditure revenue requirement

During the consultation process, we provided stakeholders with an indication of the scale of forecast expenditure relative to the current regulatory period. We supported these forecasts with details of the step changes we intend to include in our regulatory proposal, along with the approximate expenditure associated with those changes. We also outlined our proposed capital expenditure for projects such as the TDE and System Tools.

We sought feedback on the following matters:

- Proposed opex step changes and their associated value propositions
- Thoughts on the approach used for forecasting opex
- Views on investment in the System Tools projects
- Details of forecast revenues, particularly in relation to Corporate Overheads.

Step changes

Stakeholder feedback on our proposed opex step changes was mixed. Jacana Energy was concerned the changes are weighted heavily toward system security and reliability, with some step changes delivering negligible or only indirect benefits for retailers and end consumers, and noted that where benefits may be identifiable (for example, potential gas price savings linked to the TDE), the efficiency gains are not clearly reflected in reduced customer costs, though it acknowledged that higher opex could improve confidence in meeting current KPIs and potentially deliver longer-term savings.[38] Territory Generation broadly agreed the step changes are directionally consistent with growing operational complexity and increasing inverter-based penetration and are aligned with maintaining system security, but emphasised that each change should be clearly linked to identifiable operational risks and supported by details to justify the additional cost. Territory Generation also observed no clear operational efficiency gains from the current major TDE capex. It noted that most of the annual opex uplift relates to ongoing support and maintenance for the TDE and transitional tools (including professional fees and residual costs).[39] Territory Generation noted: [40]

"As the business case was not published with the previous consultations, participants must assume that the increase in ongoing operational costs were included in the business case at the time, and the Utilities Commission was satisfied these were prudent ongoing costs."

While Jacana stated that the proposed $2.05 million investment in System Tools for efficient technical operations lacked supporting evidence on the measurable performance improvements, Territory Generation supported the investment provided the governance ensures interoperability, auditability, and measurable operational benefits. [41] [42]Jacana also stated that, while this investment may improve overall efficiency, it may not deliver value to customers unless it translates into a positive productivity factor that ultimately reduces operating costs.

In our consultation paper, we noted that investment in System Tools is necessary as the Northern Territory power system transitions to higher penetrations of solar PV, battery storage and other inverter-based resources, reducing ESS such as inertia and fault current previously provided by synchronous generation. As these stabilising characteristics decline, enhanced tools are required to maintain system security, reliability and compliance with technical standards.[43]

This feedback has been acquitted in Chapter 3 through the inclusion of more information that outlines the operational need for each step change.

Opex forecast

There were no material comments on the proposed approach to forecasting opex. Jacana noted that there was no significant variance in the base-step-trend approach for certain cost categories in aggregate

[38] Jacana (2026*), Jacana Energy Response to NTESMO Questions*, p.2
[39] Territory Generation (2026), *Territory Generation Response - NTESMO 2028-32 System Control and Market Operator Charges Regulatory Proposal Consultation*, p. 1-2
[40] Territory Generation (2026), *Territory Generation Response - NTESMO 2028-32 System Control and Market Operator Charges Regulatory Proposal Consultation*, p. 2
[41] Jacana (2026*), Jacana Energy Response to NTESMO Questions*, p.2
[42] Territory Generation (2026), *Territory Generation Response - NTESMO 2028-32 System Control and Market Operator Charges Regulatory Proposal Consultation*, p. 2
[43] https://ntesmo.com.au/__data/assets/pdf_file/0032/437738/FY2028-32-System-Control-and-Market-Operator-Charges-Review-Consultation-Paper_Clean.pdf p.25

(personnel, professional and residual costs). However, it raised concerns if the reallocations between the System Control and Market Operator functions provided a stable and efficient starting point for the five-year forecast. Jacana also raised concerns regarding the uncertainty surrounding the costs arising from the establishment of NTESMO as a standalone entity, asking: [44]

"How will NTESMO review these costs to confirm there is no double counting or overlap between the business as usual costs already provided and the new costs of establishing standalone corporate functions?"

Territory Generation supported the use of the base-step-trend methodology but sought clearer reconciliation to the adjusted base year (including removal of non-recurrent items), transparent labour escalation assumptions with sensitivity testing, and stable, predictable cost allocation rules between System Control and Market Operator functions to avoid volatility unrelated to operational activity.[45]

This feedback has been acquitted in Chapter 5 through the inclusion of more information relating to the building blocks that form NTESMO's revenue requirement for the upcoming regulatory period.

Additional information

We asked stakeholders if any specific details should be included in our Regulatory Proposal with respect to forecast revenues, particularly in relation to corporate overheads. The following information was requested by stakeholders:

- Comparative alternatives to the single-site property investment i.e. an alternative of leasing an asset.
- Breakdown between 'Business as Usual' operational costs and details on the transition of NTESMO post-separation, covering the breakdown of corporate costs.
- Transparency on which overheads are expected to fall away post-separation versus those that will persist.
- If the Cost Allocation Methodology has been updated to reflect the standalone NTESMO structure to ensure allocations are equitable.
- How corporate capex for shared Power and Water corporate assets would be treated post separation.

This feedback has been acquitted throughout the Initial Proposal by identifying expenditure that relates to business as usual and reform activities. At present, planning for NTESMO's facilities arrangements is preliminary and has not been captured as part of the Initial Proposal.

Productivity factor

In our consultation paper we proposed a 0% productivity factor for NTESMO for three main reasons – the scale of NT's electricity market and NTESMO which makes economies of scale more challenging, the rapidly changing operating environment and the NT electricity market reforms.

[44] Jacana (2026*), Jacana Energy Response to NTESMO Questions*, p.2
[45] Territory Generation (2026), *Territory Generation Response - NTESMO 2028-32 System Control and Market Operator Charges Regulatory Proposal Consultation*, p. 2

Stakeholders had a mixed response to the suggested productivity factor. Jacana considers a non-zero productivity factor should be adopted to incentivise NTESMO to minimise opex over time and to help realise efficiency benefits from investments in system tools and people. While Jacana accepts that the Territory Electricity Market Reforms are an external factor affecting NTESMO, it does not agree with two of NTESMO's three reasons for a zero-productivity factor and does not view the market reforms alone as sufficient justification for a 0% factor.[46] In contrast, Territory Generation supports the proposed 0% productivity factor for FY2028–32, noting that major capital projects such as the TDE and other tools are underway and should drive future operational efficiency and stability, consistent with more mature, similarly sized operators that apply a productivity factor.[47]

We also asked stakeholders to recommend any alternative approaches or jurisdictions we should consider. While no substantive suggestions were raised, Jacana proposed ring-fencing costs associated with market reform and applying a productivity factor only to non-reform costs.[48] Territory Generation advised that benchmarking should be used as contextual evidence only, noting the Northern Territory is small, isolated and security-constrained; economies of scale achieved by National Electricity Market operators are not directly transferable; and asset-light market operators in small systems require higher per-unit costs to maintain a minimum viable capability.[49]

This feedback has been acquitted in Chapter 7.

Performance incentives

In our consultation paper, we carefully considered what 'good' performance looks like across each of NTESMO's core functions. This guided the selection of indicators that provide comprehensive coverage of NTESMO's responsibilities, reflect the intended outcomes of both the Market Operator and System Control functions and focus on aspects of performance that matter most to stakeholders. We sought feedback from our stakeholders on the proposed KPIs, the indicative targets and the number of KPIs proposed.

Feedback from stakeholders varied on the proposed KPI framework. Plenitude supported the proposed KPIs, particularly those relating to forecast accuracy and secure system operations and considered the Market Operator indicative targets to be reasonable.[50]

Territory Generation supported a limited, focused set of KPIs, provided they are clearly defined, measurable and independently verifiable, and that targets appropriately balance system security obligations with efficient market outcomes. Jacana, on the other hand, did not agree with the proposed approach, stating,

"the KPIs only cover NTESMO's existing functions. It is unclear whether NTESMO's new functions have been considered when setting the KPIs. Jacana Energy recommends this be clarified within the proposal."

[46] Jacana (2026*), Jacana Energy Response to NTESMO Questions*, p.3
[47] Territory Generation (2026), *Territory Generation Response - NTESMO 2028-32 System Control and Market Operator Charges Regulatory Proposal Consultation*, p. 3
[48] Jacana (2026*), Jacana Energy Response to NTESMO Questions*, p.3
[49] Territory Generation (2026), *Territory Generation Response - NTESMO 2028-32 System Control and Market Operator Charges Regulatory Proposal Consultation*, p. 3
[50] Plenitude (2026), *Eni Plenitude Response to NTESMO Questions*, p. 1

Jacana recommended the inclusion of cost effective KPIs that focus on economic, effective and efficient solutions, including a KPI that considers the risk-adjusted cost of electricity, to incentivise NTESMO to focus on economic dispatch.[51]

Territory Generation suggested the inclusion of KPIs that focus on operational transparency such as timeliness and clarity of operational notices and dispatch instructions. Territory Generation also recommended the inclusion of KPIs to monitor upcoming changes due to major capital projects – System Tools and TDE implementation.[52]

Plenitude recommended that we could consider at least a KPI to monitor effectiveness in integrating renewable energy generators. For example, introduce a 'renewable power curtailment rate' which might incentivise NTESMO to minimise curtailments of solar generation, indirectly maximising economic and environmental benefits and supporting renewable energy integration. Plenitude suggested the measurement of the KPI as a percentage of available renewable power curtailed for any reason with an indicative target of <5% annually. Plenitude suggested two additional KPIs in relation to new generators' connection time.[53]

The tables below summarise KPIs proposed in consultation and those suggested by stakeholders.

Table A1 KPIs proposed by NTESMO in the consultation paper

Function	KPI	Rationale
System Control	Forecast accuracy	This KPI tracks the accuracy of NTESMO's demand forecasts supplied to system controller and operations planning team for real-time and day-to-day business activities. Reliable forecasting enables more efficient scheduling and dispatch, outage management planning and most importantly to provide sufficient notice (days ahead) to prepare for system security risks arising during the minimum demand period. Providing accurate forecasts is a key objective of the Power System Evolution role within System Control that allows for better informed real-time operational decisions and management of planned outages. This helps ensure system security is appropriately balanced with cost-effective operations.
	Secure, reliable and economically compliant operations	This KPI monitors whether NTESMO is maintaining electricity system security, while optimising operations through new tools and automation. This is a common KPI used widely by System Controllers (Operators) in other jurisdictions.
	System black events	This KPI seeks to demonstrate ongoing system security performance under SCTC obligations and operational resilience.

[51] Jacana (2026*), Jacana Energy Response to NTESMO Questions*, p.3
[52] Territory Generation (2026), *Territory Generation Response - NTESMO 2028-32 System Control and Market Operator Charges Regulatory Proposal Consultation*, p. 3
[53] Plenitude (2026), *Eni Plenitude Response to NTESMO Questions*, p. 1-2

		Minimising the occurrence of system black events is another key indicator of 'good' performance for System Control.
Market Operator	Settlement timeliness Settlement accuracy	These KPIs measure the performance of Market Operations and reliability of data. Both represent key areas of 'good' performance for the Market Operator. Strong performance in these areas can ensure participants have confidence in NTESMO's financial and market outcomes.
	System availability	Confirms reliability of NTESMO's core systems, which underpin operational efficiency and continuous service delivery.

Table A2 KPIs recommended by stakeholders

KPI	Rationale	Proposed by
Indicator that considers risk-adjusted cost of electricity	Need to include cost effective KPIs that focus on economic, effective and efficient solutions. Such KPIs would potentially incentivise NTESMO to focus on economic dispatch.	Jacana
Indicators focussing on timeliness and clarity of operational notices and dispatch instructions	Improve operational transparency.	Territory Generation
Indicators focussing on defect rates and post release stability for TDE	Improve change management for major System Tools and TDE implementation.	Territory Generation
Renewable power curtailment rate	This KPI incentivises NTESMO to minimise curtailments of solar generation, indirectly maximising economic and environmental benefits and supporting renewable electricity integration.	Plenitude
Time from: • **formal commitment to connect a new generator to full readiness of the point of connection for the new generator's energisation** • **start of network compliance testing to achieving full compliance of a new generator in accordance with the Network Technical Code**	The exact rationale is not provided. We understand they were suggested to monitor new generators' connection time.	Plenitude

This feedback has been acquitted in Chapter 7.

Accommodating reform

Reform in the Northern Territory market will significantly impact NTESMO in the upcoming regulatory period. As stated in the consultation paper, legislative reform envisages substantial changes and assigns significant responsibility to NTESMO for new functions.

We asked our stakeholders to submit any questions regarding the impacts on NTESMO arising from the TEM Reforms. Stakeholders asked for information on:[54] [55]

- The pre and post reform business structure to support understanding of the future operating model/size of NTESMO
- The proportion of reform activities that will be recovered through regulated charges versus government funding
- How transitional duplication between legacy arrangements and new structures would be avoided
- How cost overruns or scope changes will be managed from a regulatory perspective

To accommodate the reforms, stakeholders emphasised transparency, governance and scalability. Jacana recommended clarity on the summarisation of known and unknown reform costs, including expected timeframes for unknown costs being quantified, and agreed that reform costs should be included in the Regulatory Proposal.[56] Territory Generation recommended establishing well-defined governance milestones, transparently tracking reform costs against approved budgets, and using a transition cost tracker with frequent reporting, alongside a preference for scalable, fit-for-purpose solutions rather than bespoke or over-engineered systems[57].

We also asked stakeholders for their feedback to the proposed approach to including reform costs in the Regulatory Proposal which is to include those which can be quantified at this stage and indicate further categories of cost to be quantified. They generally supported this approach but sought greater transparency and safeguards. Jacana preferred reform costs to be ring-fenced from other costs to clearly show the cost of market reform.[58]

Territory Generation agreed with the approach provided costs are clearly categorised as transitional or enduring through a defined cost category map, there is a mechanism to revisit costs if reform scope materially changes, and if stakeholders are protected from costs that do not directly support system or market operation.[59]

This feedback has been acquitted in Chapter 4.

Tariff structure

NTESMO currently recovers its costs using a relatively simple $ per kWh consumption metric, which is levied on retailers. We asked stakeholders about their preference for the structure of the tariff and any

[54] Jacana (2026*), Jacana Energy Response to NTESMO Questions*, p.4
[55] Territory Generation (2026), *Territory Generation Response - NTESMO 2028-32 System Control and Market Operator Charges Regulatory Proposal Consultation*, p. 3
[56] Jacana (2026*), Jacana Energy Response to NTESMO Questions*, p.4
[57] Territory Generation (2026), *Territory Generation Response - NTESMO 2028-32 System Control and Market Operator Charges Regulatory Proposal Consultation*, p. 4
[58] Jacana (2026*), Jacana Energy Response to NTESMO Questions*, p.4
[59] Territory Generation (2026), *Territory Generation Response - NTESMO 2028-32 System Control and Market Operator Charges Regulatory Proposal Consultation*, p. 4

concerns about moving from a fully variable charge to recovering some or all NTESMO's costs using a fixed monthly charge.

Jacana prefers the current tariff structure, noting that changes could require retailers to make additional investments, but would support an alternative if it delivers a fairer and more equitable cost distribution and reduces cost recovery challenges for retailers. Jacana also acknowledged shortcomings in the current approach, particularly that rooftop solar customers are not equitably charged for network usage, while noting most rooftop solar is from residential customers covered by the Electricity Pricing Order and bundled consumption-based rates.[60] Territory Generation suggested a tariff with both fixed and variable components to reflect NTESMO's largely fixed cost base while retaining some usage-based price signal.[61]

Concerns were raised about equity, implementation and a lack of detail regarding resulting from any shift to fixed monthly charges per connection point. Jacana noted that moving away from a fully variable charge would redistribute costs, potentially increasing charges for some and prompting adverse reactions - though customers covered by the Electricity Pricing Order would not be directly affected, with impacts mainly falling on larger users. Jacana also indicated that it considers there is insufficient information on the proposed fixed/variable split to assess end-user impacts and encouraged NTESMO to include comparative modelling of alternative tariff structures in the next proposal.[62] Territory Generation similarly emphasised the need to manage implementation and equity risks, including clearly defining connection points, avoiding disproportionate impacts on infrequently dispatched but security-critical generation, and phasing any transition supported by robust impact analysis.[63]

This feedback has been acquitted in Chapter 6.

Territory Dispatch Engine

We stated that the Commission determined that TDE capital expenditure will be included in the FY2025–27 regulatory period and that the project will be subject to ex-post review to confirm the actual expenditure is prudent and efficient. We also included a high-level TDE planning, design and implementation timeline.

We did not receive any substantial comments from our stakeholders on the ongoing development of the TDE. Territory Generation sought clarity on participant readiness requirements, parallel run and testing arrangements and fallback procedures if implementation timelines shift. [64]Jacana and Territory Generation both recommended regular progress updates on the implementation of TDE. Territory Generation further recommended clearly identifying scope, schedule and cost changes, and the provision of on-going technical working groups with generators.

This feedback has been acquitted in Chapter 3 and through the new KPI proposed in Chapter 7.

[60] Jacana (2026*), Jacana Energy Response to NTESMO Questions*, p.4
[61] Territory Generation (2026), *Territory Generation Response - NTESMO 2028-32 System Control and Market Operator Charges Regulatory Proposal Consultation*, p. 4
[62] Jacana (2026*), Jacana Energy Response to NTESMO Questions*, p.4
[63] Territory Generation (2026), *Territory Generation Response - NTESMO 2028-32 System Control and Market Operator Charges Regulatory Proposal Consultation*, p. 4
[64] Territory Generation (2026), *Territory Generation Response - NTESMO 2028-32 System Control and Market Operator Charges Regulatory Proposal Consultation*, p. 4

Attachment list

Attachment No.	Description
Regulatory business cases	
1	Territory Dispatch Engine ongoing costs regulatory business case
2	System Tools regulatory business case
3	Real-time system support services regulatory business case
4	Review of procedures and guidelines regulatory business case
5	Market Settlement and Transfer Solution regulatory business case
6	Territory Electricity Market reform regulatory business case
Models	
7	Expenditure model
8	Forecast step changes model
9	Opex base and overheads model
10	Forecast capex model
11	Opex model
12	Capex model
13	Roll forward model – market operator
14	Roll forward model – system control
15	Depreciation model – market operator
16	Depreciation model – system control
17	Post-tax revenue model – market operator
18	Post-tax revenue model – system control
19	Charges
20	Proposal tables and charts

Extensions to the proposal	
21	Annual pricing control mechanism
22	List of pass-through events
Supporting information	
23	Revenue Model Suite User Guide
24	Expenditure Model User Guide
25	AER approved regulatory cost allocation methodology
26	Core operations cost allocation methodology
27	Labour price growth forecasts – Deloitte
28	Energy Consumption Forecast
29	Energy Consumption Forecast Methodology [CONFIDENTIAL]
30	NTESMO Functional Capability Review [CONFIDENTIAL]
31	NTESMO Functional Activity Allocator
32	Investment delivery framework management standard [CONFIDENTIAL]
33	Confidentiality assessment

Abbreviations

Acronym	Description
AEMO	Australian Energy Market Operator
AER	Australian Energy Regulator
MSATS	Market Settlement and Transfer Solution
AGC	Automatic Generation Control
ASPS	Alice Springs Power System
BESS	Battery Energy Storage System
CESS	Capital Expenditure Sharing Scheme
CFDS	Capacity Forecast Dispatch System
C-FCAS	Contingency Frequency Control Ancillary Service
COH	Corporate Overheads
DKPS	Darwin-Katherine Power System
ESS	Essential system services
EMS	Energy Management System
I-NTEM	Interim Northern Territory Electricity Market
KPIs	Key Performance Indicators
MW	Megawatts
NPV	Net Present Value
NTESMO	Northern Territory Electricity System and Market Operator
NT	Northern Territory
NT NER	Northern Territory National Electricity Rules
PED	Proportional Energy Dispatch
Power and Water	Power and Water Corporation

PTRM	Post Tax Revenue Model
RAB	Regulated Asset Base
RESIP	Regulated Electricity System and Investment Plan
RFM	Roll Forward Model
RTSSM	Real-time System Strength Monitoring
SCTC	System Control Technical Code
SFURM	Solar Forecast Uncertainty Reserve Margin
TCPS	Tennant Creek Power System
TDE	Territory Dispatch Engine
TEM	Territory Electricity Market
WACC	Weighted Average Cost of Capital
WARL	Weighted Average Remaining Life
WPI	Wage Price Index

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