

Energex AER 2025-30 Metering Expenditure Explanatory Statement



Part of the Energy Queensland Group

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EXECUTIVE SUMMARY

The Energex AER 2025-30 Metering Expenditure Explanatory Statement provides a summary of the expenditure types to be included in the 2025-30 metering expenditure modelling. This explanatory statement is to be read in conjunction with the ACS Metering Expenditure Model submitted as part of Energex's 2025-30 regulatory proposal to the Australian Energy Regulator (AER).

It is forecasted in 1 July 2025 the number of type 6 meters still managed by Energex will be approximately 1,214,000 this number will reduce to approximately 314,000 in 30 June 2030 with the implementation of the legacy meter retirement plan (LMRP). This equates to a 74% decrease in the type 6 fleet within five years.

Both the QEJP and the AEMC recommend a target of 100% Smart Meter deployment by 2030. To achieve this target, it is proposed that DNSPs develop a LMRP showing annual schedules of NMIs to be retired each year from 1 July 2025 to 30 June 2030. Each DNSP will be required to monitor, maintain and update the LMRP while it is being implemented during the 2025-30 regulatory period.

It is acknowledged from the Smart Meter deployment in Victoria that there will be up to 15% of sites that cannot transition within the timeframe and will be exempted due to a number of reasons, including among other things, switchboard constraints and access issues. To support these customers, Energex commits to maintaining its metering accreditation, type 6 metering systems and functions beyond 2030.

Assessing the manual meter reading process highlights a reduction in type 6 meter volumes. This, however, does not necessarily result in reduced meter reading costs. Unless all type 6 meters are replaced, the meter readers will still be following similar reading routes, with only slight savings in time for not needing to access and read a meter which has transitioned to a Smart Meter.

As MPs visit each type 6 site to replace the meter as part of the LMRP, it is envisaged a variety of issues such as meter installation errors or transposed meter wiring will be identified leading to an increase in the number of investigation requests per site. The increase in the number of investigation requests per sites combined with a decrease in the number of type 6 sites as Smart Meters are deployed means the expenditure for metering investigation request should stay relatively constant.

A new public lighting smart controller/meter device is noted in this document as a potential option to provide actual energy consumption metering for public lighting which are currently under unmetered type 7 supply arrangements. At this stage, it is unclear how this new device type may be treated from a regulatory perspective. Until a direction is provided by the AEMC in 2024, public lighting smart controller/meter device will not be modelled in the metering expenditures.

A review of the potential impacts with metering services classification changing from ACS to SCS indicates a change in the cost recovery approach however minimal impacts to the forecasted metering expenditures required for 2025-30.

BACKGROUND

As part of the regulatory determination process, our business is required to forecast the expenditures required to maintain functions and fulfill the obligations of a Distribution System Operator for the upcoming five years period (regulatory control period). In Queensland (QLD) the next regulatory determination is for the period covering 2025-30. This document provides a summary of the expenditure types to be included in the 2025-30 metering expenditure modelling.

The metering environment has undergone changes in the last five years starting with the “Power of Choice” reform (AEMO 2022) which came into effect in Queensland on 1 December 2017. “Power of Choice” required all new electricity meters for residential and small business customers in National Electricity Market (NEM) connected areas to be Smart Meters (type 4) and legacy accumulation meters (type 6) to be phased out and replaced over time as the meter fails or a new meter is required. The approach to wait for natural meter churn or failure has meant Smart Meters have been rolled out progressively in Queensland and the ownership and management of meters transferred from the Distribution Network Service Provider (DNSP) to the other market participants. In contrast, the approach implemented in Victoria mandated the rollout of Smart Meters to all households and small businesses in 2006 under the Advanced Metering Infrastructure (AMI) program, to leverage the benefits provided from Smart Meters.

In recent times, the evident Smart Metering benefits (Oakley Greenwood 2022), in conjunction with the accelerating energy, industry, and associated technology transition, have resulted in a review of the “Power of Choice” approach. Queensland DNSPs are being guided by the Queensland Government under the Queensland Energy and Jobs Plan (QEJP) to transition to 100% Customer Smart Meters by 2030 (Queensland Government 2022). The Australian Energy Market Commission (AEMC) is also revising “Power of Choice”, as part of the “Post-2025 market design” efforts (AEMC 2022).

TYPE 6 METERS IN ENERGEX – FUTURE STATE

Energex is the Metering Coordinator (MC), Metering Provider (MP) and Metering Data Provider (MDP) for type 6 metering fleet in South East (SE) Queensland.

The forecasted remaining type 6 meters in Energex for the period from 2025-30 are shown in Table 1. Table 1 was produced with the assumption there will be 15% of type 6 sites exempted from the transition.

Energex	Forecast 2024/25	Forecast 2025/26	Forecast 2026/27	Forecast 2027/28	Forecast 2028/29	Forecast 2029/30
Basic Type 6	1,214,076	989,044	764,012	583,987	448,968	313,949

Table 1: Energex Forecasted 2025-30 Type 6 NEM Meter Fleet Volume

Type 6 meters are read manually via contracted meter readers, with residential customers read every three months and commercial and industrial customers read monthly.

With the implementation of the accelerated rollout program for Smart Meters it is envisaged only exempted type 6 metering site will continually be managed by Energex after 2030.

QUEENSLAND ENERGY AND JOBS PLAN (QEJP) DIRECTION ON SMART METERS

To deliver a smarter grid that benefits all Queenslanders the Queensland Government, sole shareholder of Queensland DNSPs, has committed to the target of 100% customer Smart Meters by 2030.

The focus of this initiative is to enable more households to optimise their energy use by having access to consumer usage data via the Smart Meters. Smart Meters are also an important component to accelerate the effective integration of Customer Energy Resources (CER) so businesses and households can get the most out of their energy resource investments.

AEMC DIRECTION ON SMART METERS

The AEMC (2023) final guidelines recommends the target of universal uptake of smart meters by 30 June 2030 in NEM jurisdictions. The main driver for the recommendation is to recognise potentially \$69.1 million of net benefits in Queensland documented in the Oakley Greenwood (2022) report providing long-term benefits to Queensland customers.

The AEMC proposal for accelerating Smart Meter deployment involves DNSPs working with key stakeholders such as retailers, metering parties, customer bodies, other industries and jurisdictional governments to develop and publish a plan to retire its legacy meter fleet in a transparent and orderly manner. Once the plan is published, retailers will be required to replace the retired meters within a set timeframe. To monitor the progress, performance reporting will be required from the retailers on an annual basis. Customers will not be offered the option to opt out of this replacement program.

ASSUMPTIONS

The Energex AER 2025-30 Metering Expenditure Explanatory Statement includes the following assumptions:

- While the Smart Meter target is 100% by 2030, it is anticipated there will be 15% of sites exempted (based on Victorian Smart Meter rollout) and will not be transitioned by 30 June 2030 due to operational difficulties from legacy arrangements including vulnerable customers and defective customer sites.
- ICT impacts (including scale requirements for market/billing systems and data platforms) are included in the Engineering and Digital Division's forward plans and Regulatory Determination.
- Until a direction is provided by AEMC, public lighting smart controller/meter device expenses will not be included in the 2025-30 metering expenditure forecast to AER.

PURPOSE AND SCOPE OF THIS DOCUMENT

This document provides a summary of the expenditure types to be included in the 2025-30 metering expenditure modelling. The points of discussions include:

- Driving asset replacement of type 6 meters and the development and implementation of the legacy meter retirement plan (LMRP).
- Meter Data Services
- Meter Reading Operations

- Meter Investigation Request
- Meter Sample Testing
- Public Lighting Smart Controller/Meter
- Metering expenditure SCS, ACS classification implications

SCOPE EXCLUSIONS

Excluded from the scope of this document are any system or process change expenditures to realise additional benefits from Smart Meters and data obtained from Smart Meters, as envisaged by the Oakley Greenwood (2022) report.

METERING EXPENDITURE SUMMARY

DRIVING ASSET REPLACEMENT OF TYPE 6 METERS AND LMRP

From the final AEMC (2023) Review of the Regulatory Framework for Metering Services guideline it was recommended the DNSP take on the responsibility to develop the legacy meter retirement plan (LMRP) with consultation from metering market participants. The development of the LMRP will be in the 2020-25 regulatory period with the plan to start on 1 July 2025. The aim of the LMRP is to develop an annual schedule of National Meter Identifier (NMI) to be retired each year from 1 July 2025 to 30 June 2030, that is both efficient and considers the needs of different market participants. Its goal is to achieve 15 -25% type 6 fleet replacement per year for the five years. Estimated costs to maintain, monitor and potentially update the LMRP after 1 July 2025 will need to be included in the forecast 2025-30 metering expenditures to ensure costs are recovered. Any metering assets which are to be replaced as part of the LMRP but have yet to be fully depreciated in asset value, will need to be addressed as part of the program to accelerate failure of type 6 meters.

METER DATA SERVICES

Energex currently provides Metering Coordinator (MC), Metering Provider (MP) and Metering Data Provider (MDP) services to customer with a type 6 meter. From the learnings shared by the Victorian Smart Meter rollout program, Energex acknowledges there may be approximately 15% of sites that are exempted from Smart Meter rollout due to some type of difficulty in the transition, with financial hardship being potentially one of the main reasons. To ensure this group of customers are not disadvantaged, Energex will commit to maintain MC, MP and MDP systems and functions until these type 6 customers churn or alternative arrangements are available. This decision means the fixed costs to maintain these systems and functions will need to be included in the 2025-30 metering forecasted expenditures. As the number of type 6 meters reduce between 2025-30, the average system and variable cost to serve the remaining customers will increase due to the loss in economy of scale. Until all type 6 customers are churned it is envisaged only minimal savings could be achieved from meter data services.

METER READING OPERATIONS

Type 6 legacy meters must be manually read in-person (there are certain circumstances where alternative methods may be used) on a customer premises to determine their energy use and this is typically undertaken either monthly or every three months depending on the type of customer and site.

The manual reading process is to assign each meter to a route which is then given to a meter reader to either walk or drive. Routes are periodically reviewed and optimised based on the reduction of type 6 meters through time. With the targeted rollout of smart meters according to the LMRP, it is envisaged some routes may be cancelled as all meters will have moved to a Smart Meter, however there will also be routes where meters may be missed or exempted due to difficulties in the replacement. These scenarios result in the routes remaining substantially the same prior to the Smart Meter rollout, as meter readers travel past the locations of meters that have been replaced. This limits the impact of meter replacements on meter reading costs since the only cost saving relates to avoiding the need to access and read a meter on a site which they must travel past regardless.

As the number of type 6 meters reduce, the average cost to manually read a meter will increase due to the fixed system and tools costs being spread among smaller volumes of type 6 meters. With the loss in economies of scale, meter readers may be reluctant to continue providing this service unless the reward is equal or greater than the effort exerted, resulting in higher prices. The provided reasoning highlights that a reduction in type 6 meter volumes may not necessarily result in reduced cost in meter reading. Until all type 6 meters are churned it is envisaged only minimal savings could be achieved in meter reading operations.

METER INVESTIGATION REQUEST

Meter investigations are carried out on type 6 meter sites where there is an inconsistency identified between what is occurring on site, versus what is in market systems. These requests can be resolved either at a desktop level or may require a site visit depending on the complexity of the issue. With the rollout of Smart Meters, it is envisaged a variety of issues such as meter installation errors or transposed meter wiring will be identified when the MPs visits the site, leading to an increase in the number of investigation requests per site. The investigation request also encompasses revenue protection functions where the DNSP will act as a facilitator between the various disparate parties to resolve the metering issue. In the modelling, meter investigation expenditure forecasts have been kept relatively constant with the assumption that although the number of investigation requests per site will increase however the number of type 6 sites will decrease with the rollout of Smart Meters.

METER FAMILY SAMPLE TESTING

Meter family sample testing are conducted on existing type 6 metering fleet as an AEMO approved asset management strategy to ensure meters owned by the Distribution business operate within a prescribed tolerance band for metering accuracy. If the sampled meter family fails, then the meter family either needs to be further redefined based on its characteristics and resampled or the whole meter family needs to be replaced.

One of the recommendations from the AEMC guidelines is to cease meter family sample testing and inspections once the legacy meter retirement plan is approved by the AER. The reason for this

recommendation is to reduce costs for testing type 6 meters where it will be replaced with a Smart Meter within the 2025-30 period. With this direction, all meter sample testing and site inspections will cease for type 6 meters in the 2025-30 period.

PUBLIC LIGHTING SMART CONTROLLER/METER

With the advancement of technologies, a new smart control device that has the ability to control public lighting (e.g. turn them on or off, dim the light...etc) will be introduced on 1 July 2025 as part of its public lighting services. With the potential benefits offered from this device, which could also be used as a metering device, the AEMC is keen to explore if this device could be used to provide consumption metering for public lighting, which is currently treated as unmetered type 7 supply. If smart control devices were installed on each type 7 public lighting managed by Energex and Ergon Energy, the estimated volume could ultimately exceed 500,000 additional assets that would need to be managed. However, considering the current uncertainty regarding the regulatory arrangements, Energex is proposing to rollout smart control devices on a 'user-pays' basis and does not anticipate a significant uptake over the 2025-30 regulatory period.

Until a determination is made by AEMC, the costs associated with public lighting smart controller/meter devices will not be modelled in the forecast 2025-30 metering expenditures.

METERING EXPENDITURE SCS, ACS CLASSIFICATION IMPLICATIONS

It is acknowledged there have been high level discussions regarding potential metering expenditure classification changes from alternative control services (ACS) to standard control services (SCS). A main driver for this proposed change is to reduce the financial burden on an increasingly smaller number of customers who still have a type 6 meter after 30 June 2030, due to potential installation difficulties with the Smart Meter transition. Although this classification change will have an impact on the cost recovery approach for metering services, however it is believed the impact on the forecasted metering expenditure required for the 2025-30 period will be minimal. Resources may be required in the 2025-30 period to review and update the prices for metering services depending on the classification, however this cost is relatively insignificant compared to the other metering expenditure categories.

OWNERSHIP, MAINTENANCE AND EXECUTION OF THIS DOCUMENT

The owner of this document and its content is Manager Customer Metering. The document, including the assumptions on which it is based, should be reviewed prior to final submission to the AER.

APPENDICES

DEFINITIONS, ABBREVIATIONS AND ACRONYMS

ACS	Alternative Control Services
AEMC	Australian Energy Market Commission
AER	Australian Energy Regulator
DNSP	Distribution Network Service Provider
FRMP	Financially Responsible Market Participant
LMRP	Legacy Meter Retirement Plan
MC	Metering Coordinator
MDA	Master Data Administrator
MDP	Metering Data Provider
MP	Metering Provider
NEM	National Electricity Market
NMI	National Meter Identifier
POC	Power of Choice
PQ	Power Quality
QEJP	Queensland Energy and Job Plan
SCS	Standard Control Services
Smart Meter	A Smart Meter is deemed to be an electronic meter, which meets a Minimum National Specification in terms of functionality with remote communications enabled.

REFERENCES

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