

Appendix 3.2

Smart meter opex step change

Revised regulatory proposal for the
Evoenergy electricity distribution
determination 2024 to 2029

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1. Executive summary

Evoenergy's smart meter step change proposal provides a comprehensive view of the incremental costs we expect to incur over the 2024–29 regulatory period to meet new regulatory obligations relating to the accelerated deployment of smart meters in the ACT. The smart meter step change is driven by new obligations arising from the Australian Energy Market Commission's (AEMC) review of metering services and recommendation to target a universal uptake of smart meters by 2030 in the National Electricity Market (NEM), which includes the Australian Capital Territory (ACT).¹ A fast-tracked rule change request has been submitted to the AEMC for accelerating the deployment of smart meters and unlocking their benefits.²

The new regulatory obligations will require Evoenergy to:

- develop and deliver a Legacy Metering Requirement Plan (LMRP) to rapidly retire our fleet of Type 5 and Type 6 meters in coordination with electricity retailers and Metering Coordinators (MC) who will replace legacy meters with new smart meters; and
- implement proposed power quality data arrangements, including receiving, storing, and processing smart meter data for network billing purposes. The volume of data received by Evoenergy from smart meters compared with manual meters will result in a 26,280-fold increase in data storage and management requirements.

The AEMC's metering review was not completed at the time of Evoenergy's regulatory submission. As such, Evoenergy's regulatory submission noted that a smart meter step change would be considered in the revised expenditure forecast based on the outcomes of the AEMC's review of the regulatory framework for metering services.³ Given that the AEMC's metering review has been completed, and proponents have submitted a fast-tracked rule change, our revised opex forecast includes a smart meter step change.

The AER's Expenditure Forecast Assessment Guideline and Better Resets Handbook sets out the criteria the AER will consider in relation to operating expenditure (opex) step changes. Our revised proposal includes a smart metering step change that meets the expectations set out by the AER. Specifically, the additional costs:

- are required to meet a new binding regulatory obligation;
- reflect efficient forecast expenditure required to meet the new regulatory obligations; and
- are not reflected in our 2022/23 base year opex and are not captured elsewhere in the revised expenditure forecast, including any of the rate of change components.

The smart metering step change includes some costs for the procurement of basic power quality data (PQD) required to undertake neutral safety analysis until the data becomes free of charge for DNSPs. The detection of neutral integrity failure is a significant benefit identified as part of the AEMC's metering review.⁴

¹AEMC media release 30 August 2023, available here. Note that Victoria already had smart meters rolled out, so is not included in this Rule Change.

²Intellihub, SA Power Networks, and Alinta energy, Accelerating the deployment of smart meters and unlocking their benefits, 22 September 2023

³Evoenergy, Attachment 2: Operating expenditure 2024–29, January 2023, p. 26

⁴Oakley Greenwood, Costs and Benefits of Accelerating the Rollout of Smart Meters, September 2022

We have included costs for the procurement of basic power quality data and the software and necessary Information Technology (IT) system integrations to improve network safety outcomes for our customers related to neutral safety. Importantly, all voltage data, load detection, and Consumer Energy Resources (CER) compliance (processing, analytics, and software) expenditure has been accounted for in the CER step change, ensuring that costs are not double counted.

Facilitating the accelerated deployment of smart meters in the ACT to meet our new responsibilities is expected to cost \$8.96m, as shown in Table 1. Evoenergy is confident that the forecasts reflect the prudent and efficient costs required to meet our new responsibilities relating to the accelerated deployment of smart meters in the ACT and deliver the intended benefits identified in the AEMC’s metering review.

Table 1 Smart meter step change by component (\$ million, \$2023/24)

	2024/25	2025/26	2026/27	2027/28	2028/29	Total
Legacy meter retirement plan	████	████	████	████	████	████
Program management	████	████	████	████	████	████
Information technology	████	████	████	████	████	████
Compliance management	████	████	████	████	████	████
Data procurement and storage	████	████	████	████	████	████
Software	████	████	████	████	████	████
Total smart meter step change	\$2.20	\$2.19	\$1.80	\$1.37	\$1.40	\$8.96

Note: Totals may not sum due to rounding.

2. Introduction

2.1 AEMC final report and rule change process

On 30 August 2023, the AEMC published its final report on its review of the regulatory framework for metering services. The AEMC's final report recommended a rule change to target the universal uptake of smart meters by 2030 in the NEM, including the ACT.⁵

The AEMC's review of the regulatory framework for metering services considered the future requirements of metering services in a transitioning energy system. The outcome of the review:

"... sets out the new reform agenda, enabling an accelerated deployment of smart meters to consumers in a timely and cost-effective way, to maximise benefits for all consumers. Faster replacement of legacy meters will enable consumers to access the benefits that smart meters can provide sooner."⁶

The AEMC commissioned Oakley Greenwood to undertake a cost benefit analysis (CBA) for the accelerated deployment of smart meters.⁷ The CBA found that the overall benefits of an accelerated deployment of smart meters are greater than the costs, with a positive net present value (NPV) of \$256 million (\$2021/22) for NSW and the ACT.⁸ A key driver of the outcomes of the AEMC's metering review relates to the market benefits of higher smart meter penetration rates, including:^{9,10}

- enabling the energy transition and greater uptake of consumer energy resources (CER) such as solar photovoltaic systems, home batteries, and electric vehicles (EVs);
- reducing information asymmetry between customers and market participants as customers will gain improved visibility and control of electricity consumption and costs;
- improving customer safety outcomes by enabling distribution network service providers (DNSPs) to detect neutral integrity faults and voltage excursions at customer premises;
- improved DNSP network outage management;
- increased DNSP visibility of the low voltage (LV) network, enabling dynamic network envelopes (DOEs);
- optimal network investment and operational evidence-based decisions to defer network augmentation, improving asset utilisation;
- reduced costs for routine meter readings and special reads;
- potential to remotely de-energise and re-energise premises; and
- more granular data to better inform tariff design and incentivise efficient network utilisation, optimising allocative efficiency in the NEM.

⁵ AEMC media release 30 August 2023, available [here](#)

Note that Victoria already had smart meters rolled out, so is not included in this Rule Change.

⁶ AEMC, Review of the regulatory framework for metering services | AEMC

⁷ Oakley Greenwood report September 2022, available [here](#)

⁸ Oakley Greenwood, Costs and Benefits of Accelerating the Rollout of Smart Meters, September 2022, p. 2. Available [here](#)

⁹ AEMC, Review of the regulatory framework for metering services, final report, 30 August 2023. Available [here](#)

¹⁰ ESB, Benefits of increased visibility of networks, consultation paper, July 2023. Available [here](#)

The AER broadly support the AEMC’s recommendation for the 100 per cent roll-out of smart meters:

“Because smart meters provide more granular consumption information, they can facilitate better price signals and tailored tariffs, providing benefits to stakeholders across the energy supply chain. ... Network businesses will also directly benefit from the provision of more granular usage information, which should help them manage network constraints and curtailment risks. This information should assist network businesses in making decisions about how they manage congestion and constraints, including through network investment or network services agreements. In addition, networks will benefit through having increased visibility of life support customers. ... We broadly support the AEMC’s recommendation. In our view the 2030 target will enable the benefits of tariff reform, integration of CER and associated new markets and services to be realised within a timeframe that supports the rapid transition to a flexible, decentralised energy system.”¹¹

The AER also noted “that the introduction of a new role for the AER in approving legacy meter plans will have cost and funding implications.”¹² Evoenergy also considers that it will have an uplift in costs to develop and deliver a legacy meter retirement plan in consultation with retailers, metering coordinators, and other market participants.

On 29 September 2023, a consortium (including South Australia Power Networks (SAPN), Alinta Energy and Intellihub) submitted a rule change request to the AEMC.¹³ The rule change request largely mirrors the AEMC’s review findings and follows the AEMC’s rule change drafting advice set out in its final report. The rule change proponents have requested a fast-tracked rule change that would allow for only one round of public consultation. Following public consultation, which is expected in early 2024, the final rule change is expected to be published in late 2024. It is expected to give effect to an accelerated roll-out of smart meters in NEM jurisdictions, including the ACT, from 1 July 2025.

2.2 New obligations on Evoenergy

The rule change, once complete, will require Evoenergy to incur increased opex to facilitate the accelerated deployment of smart meters. To enable an accelerated smart meter roll-out, Evoenergy needs to implement data management arrangements to receive, store and process additional data for network billing purposes.

Legacy meter replacement program obligations

The rule change will require DNSPs to develop a LMRP outlining the timing and sequence of legacy meter retirements by 2030. DNSPs will need to:

- Develop a schedule of meter replacements by geographic location (such as postcode, zone substation and meter reading route) for each year of the five-year program, which meets the LMRP objectives and principles while reflecting stakeholder engagement outcomes.
- Facilitate engagement with retailers, metering parties, and other affected industry stakeholders to reconcile different participants’ points of view in developing the LMRP.

¹¹ AER, Draft report – review of the regulatory framework for metering services, 7 February 2023, pp. 1, 2, 3, 9.

¹² AER, Draft report – review of the regulatory framework for metering services, 7 February 2023, p. 4
¹³ Intellihub, SA Power Networks, and Alinta energy, Rule change request: Accelerating the deployment of smart meters and unlocking their benefits, 22 September 2023. Rule change request: Available [here](#)

- Submit a LMRP proposal to the AER by early 2025 for approval, including explaining how industry participant proposals are consistent with the LMRP objective and principles, describing how the DNSP has engaged with stakeholders, identifying relevant concerns resulting from engagement, and outlining how the DNSP has sought to address those concerns.
- Provide information on the roll-out schedule to industry participants using a consistent, standardised, and accessible format. This includes coordinating development and agreement on the format across industry participants in the jurisdiction and across DNSPs.
- Provide detailed information to retailers and metering coordinators (MCs), including the National Meter Identification (NMI) number, location, age, type of meter, make of the meter, building type (residential or business), a description of issues that may hinder safe access (such as the presence of menacing animals and industry locks), the likely configuration of the meter board, and a high-level assessment to identify shared fusing or site remediation issues (such as the presence of asbestos).
- Retire the legacy meters in coordination with retailers and MCs, according to the AER-approved LMRP schedule.

While the LMRP requirements impose material additional costs on Evoenergy and other DNSPs, the AEMC considered a coordinated roll-out of smart meters in the NEM would be expected to unlock greater market efficiencies, while enabling benefits for customers, DNSPs and electricity retailers.¹⁴ The accelerated deployment of smart meters is expected to promote economies of scale through lower installation costs. Smart meters will also reduce information asymmetry between consumers and market participants.

Data management obligations

Evoenergy is required under the National Electricity Rules (the Rules) to receive, store, process, and manage meter data for network billing purposes.¹⁵ The accelerated replacement of legacy meters with smart meters under the rule change will require Evoenergy to manage a significant increase in the volume of meter data.

Each Type 5 and Type 6 meter typically represents between four and twelve meter reads per year on average (occasionally, an additional out-of-cycle meter read is required where a retailer requests a move-out or move-in read). However, once each of these meters is replaced with a smart meter, energy consumption for every single five-minute period in a year will be received by each installed smart meter, representing 105,120 reads per year per meter,¹⁶ which is approximately a 26,280-fold increase in data storage and management requirements from meters currently read quarterly.

For Evoenergy to continue to meet existing obligations relating to the management of meter data, we will need to significantly uplift our data storage and processing capabilities to accommodate the growth in data from replacing manual meters with smart meters.

¹⁴ AEMC, Review of the regulatory framework for metering services, Final report 30 August 2023, pp. 33-52
¹⁵ NER 6.20.2

¹⁶ 105,120 reads = (60 minutes per hour / 5 minutes) * 24 hours * 365 days of the year

2.3 Smart meter roll-out forecast

The ACT currently has 90,677 electricity customers with smart meters (Type 4) at the end of 2022/23. The remaining (136,323 at the end of 2022/23) are Type 5 and Type 6 meters (both induction disc and electronic accumulation types), which currently includes most ACT electricity customers. To date, smart meter uptake in the ACT has been slow and predominantly customer-initiated.

The AEMC’s metering review recommended universal deployment of smart meters, aiming to ensure that every small customer either receives a metering upgrade or has an opportunity to have their meter upgraded by 2030.¹⁷ Evoenergy is forecasting an increase in smart meters and a commensurate decline in the number of Type 5 and Type 6 metering customers over the 2024–29 regulatory period.¹⁸ Table 2 provides Evoenergy’s meter type forecast between 2024/25 and 2028/29 to enable 100 per cent smart meter penetration by the end of the 2030 calendar year, which falls into the 2029–34 regulatory period.

Table 2 Forecast change in meter types at the end of each Financial Year (number of meters)

	2024/25	2025/26	2026/27	2027/28	2028/29
Total meters (all types)	234,000	237,500	241,000	244,500	248,000
Legacy meter retirements	(10,997)	(22,652)	(22,652)	(22,652)	(22,652)
Total Type 5 and Type 6 meters remaining	113,261	90,609	67,956	45,304	22,652
Total Smart Meters (Type 4)	120,739	146,891	173,044	199,196	225,348
Smart meter penetration	52%	62%	72%	81%	91%

Despite the AEMC’s 2030 universal smart meter uptake target, there is likely to be a small number of legacy meters in service beyond the roll-out end date. Residual sites with Type 5 and Type 6 meters may eventuate where:

- there are labour or supply constraints with MCs, given the volume of work that the meter industry will be required to deliver;
- customers have refused to provide access to replace the meter;
- there are technical, access or safety issues associated with replacing the meter;
- a retailer becomes insolvent near the 2030 end date, and the Retailer of Last Resort cannot schedule all replacements in time;
- a MC becomes insolvent and doesn’t complete their allocated roll-out responsibilities; or
- other future scenarios unable to be reasonably anticipated.

¹⁷ AEMC, Final report review of the regulatory framework for metering services, August 2023 P. 30

¹⁸ The smart meter demand forecast has been developed so that a decrease in Type 5 and Type 6 meters results in an increase in smart meters, consistent with the AER’s forecasting methodology applied in the draft decision.

Management of residual sites is presently unclear and will be assessed closer to the LMRP's completion when more information is available.

2.4 Document scope

This proposal details the itemised costs, assumptions, and justifications used to quantitatively assess the impact of the AEMC's final report and the subsequent rule change on Evoenergy's opex requirements over the forthcoming 2024–2029 regulatory period.

This step change proposal is supported by calculations in Appendix 5.3.1 Smart meter step change (confidential).

Unless stated otherwise, all costs presented in this proposal are in real 2023/24 dollars.

The scope of the smart meter opex step change is to meet the new regulatory obligations. Evoenergy proposes that all costs included in this smart meter opex step change proposal be classified as Standard Control Services (SCS). It is appropriate to classify these costs as SCS because the beneficiaries of the accelerated roll-out are all electricity users in the ACT. Any potential Alternative Control Service (ACS) costs that can be attributed to an individual customer have been excluded from the smart meter step change. Evoenergy has developed the smart meter step change consistent with the Rules, Electricity Distribution Service Classification Guideline, the Forecast Expenditure Assessment Guideline, and the Better Resets Handbook.

The scope of this step change proposal excludes:

- Costs to manage the remaining legacy metering fleet of type 5 and 6 meters, owned and maintained by Evoenergy. Costs of managing the legacy metering fleet are classified as an ACS and recovered from customers through separate metering charges regulated by the AER.
- Costs that some individual customers may face if Evoenergy is required to attend a site to perform an ancillary network service, such as a request for service marking and other quoted services, to enable the installation of a smart meter and ensure that connection standards are compliant. These are non-routine customer-initiated services, charged directly to the customer requesting the service on a per-service basis. The price of these services are an ACS regulated by the AER.
- Costs that some customers may face to remediate defects on the customer side of the network boundary. These defects may need to be rectified to enable the installation of a smart meter. Examples of site remediation may include costs to replace defective meter cabinets, meter boards, unsafe wiring, asbestos in the meter panel, replacement of a fuse to comply with current jurisdictional safety requirements, and defective fascia or barge boards at the customer connection point. These remediation services are contestable and would not be undertaken by Evoenergy. Fees for contestable services are charged to customers by the relevant contestable service provider.

Evoenergy has accepted the AER's draft decision to allow for opex step change costs, enabling customer energy resources (CER) to be captured in our CER step change. Smart meter data is a key input for improving customer safety outcomes, facilitating enhanced viability of the LV network, and enabling greater penetration of customer energy resources to integrate with the electricity network. The costs to invest in technology and capabilities to extract greater value from smart meter data to enable CER are captured in the CER opex step change. This is further detailed in section 3.2.

3. Smart meter step change forecast methodology

The smart meter step change is derived based on the incremental costs incurred from 1 July 2024 to deliver on the outcomes of the AEMC final report on its metering review and the proposed rule change. Forecast costs to facilitate the AEMC’s targeted universal uptake of smart meters will have a material impact on the costs of providing prescribed network services and is not able to be managed through the existing opex allowance or the rate of change. Our forecast smart meter step change does not double count costs.

The step change costs to meet new regulatory obligations include:

- Labour costs required to develop, implement, and operationalise the LMRP; and
- Data management costs to receive, process, manage, and store smart meter data.

The smart meter step change also includes procurement of basic power quality data for the first few years of the forthcoming regulatory period (until data becomes free of charge) to improve safety outcomes for customers, along with the costs for the software and necessary IT system integrations to improve network safety outcomes for our customers related to neutral safety. Improved safety outcomes include the detection of neutral faults in the wiring to consumer premises that pose a risk of electric shock and will reduce voltage excursions that result in abnormalities in the voltage level and may cause electronic equipment to malfunction.

The following sections explain the basis of the forecast costs for each of these components.

3.1 Labour costs

The labour costs reflect the effort Evoenergy is required to undertake to resource the development and delivery of a LMRP. The development and delivery of a LMRP will require a combination of project management, IT, and compliance management support. Table 3 provides a summary of all incremental labour costs that arise due to the accelerated smart meter roll-out during the 2024–29 regulatory period. The following sections describe the responsibilities of each function.

Table 3 Summary of incremental labour costs (\$ million, 2023/24)

Labour costs	2024/25	2025/26	2026/27	2027/28	2028/29	Total
LMRP development	█	█	█	█	█	█
Program management – LMRP delivery	█	█	█	█	█	█
Information technology function	█	█	█	█	█	█
Compliance management function	█	█	█	█	█	█
Total labour costs	\$1.49	\$1.41	\$1.17	\$1.01	\$1.02	\$6.10

Note: Totals may not sum due to rounding.

Legacy Meter Retirement Plan development

Evoenergy will be required to develop a LMRP to facilitate the accelerated roll-out of smart meters. Evoenergy will engage with key stakeholders, such as retailers and MCs, to develop the plan before the LMRP is submitted to the AER for approval.

To allow for a sufficiently robust engagement, Evoenergy has allocated nine months for the development of the LMRP. Given the urgency, the commencement will see three months of effort falling in the 2023/24 financial year (excluded from this step change proposal), with the remaining 6 months falling in the 2024/25 financial year. The activities required for the development of the LMRP include but are not limited to:

- internally planning for the most effective and equitable roll-out strategy that will realise the highest scale efficiency, subject to feedback from affected parties;
- meeting with retailers and MCs through a comprehensive consultation approach and reconciling different perspectives;
- sourcing, coordinating, and providing detailed meter site information to stakeholders to enable effective engagement in the development of the plan, as specified in the final report;
- program development for the coordination of change with industry stakeholders; and
- preparing documentation for consultation and submission to the AER by early 2025.

The development of a LMRP is an additional responsibility, with costs that Evoenergy would have otherwise not incurred.

Program management function – LMRP delivery

Evoenergy needs additional resources to coordinate with market participants and deliver on the scope of work outlined in the LMRP. The program management function will be responsible for the following:

- oversee, coordinate, and manage the implementation of the LMRP;
- provide information on the roll-out schedule to industry participants using a consistent, standardised and accessible format – including coordinating development and agreement on the format across industry participants in the jurisdiction and across DNSPs;
- source, coordinate and provide detailed information to retailers and MCs on the legacy meter sites, including the NMI and its location, meter age, the type and make of the meter, building type (residential or business), a description of issues that may hinder safe access (such as the presence of menacing animals and industry locks), the likely configuration of the meter board, and a high-level assessment to identify shared fusing or site remediation issues (such as the presence of asbestos);
- liaise with stakeholders, including industry participants and AER, throughout the LMRP delivery phases and manage customer complaints; and
- report to management on progress against key milestones and escalate arising issues for resolution.

Evoenergy anticipates the program management function will be a recurrent cost for the first 1.5 years of the 2029–34 regulatory period (that is, to the end of 2030) to finalise the smart meter roll-out program for universal uptake. The program management function enabling the delivery of the LMRP to facilitate the accelerated roll-out is a cost that Evoenergy would have otherwise not incurred.

Information Technology function

All labour effort for the IT function pertains to the procurement and integration of IT systems and data to enable the facilitation of the accelerated deployment of smart meters and the utilisation and management of that data to improve network safety outcomes for our customers related to neutral safety. The IT function will be responsible for the following:

- managing billing software (Velocity) enhancements to manage and utilise the increased volume of smart meter data for billing purposes;
- managing and enhancing system integrations across the relevant IT systems/platforms to ensure the accurate and seamless flow of large volumes of smart meter data from receipt through to processing and storage;
- support the extraction of detailed meter site data in a standardised format for provision to retailers and metering coordinators to facilitate the LMRP delivery; and
- implementation and integration of software to improve network safety outcomes for our customers related to neutral safety.

IT labour costs are expected to be highest in the initial years of the LMRP delivery, reflecting the need to implement and uplift IT system capabilities. There will also be a component of recurrent costs for the IT function, capturing the ongoing system administration of new software platforms and databases. Evoenergy would not have otherwise incurred these IT costs.

Compliance management function

Labour effort for the compliance management function pertains to the validation and remediation of smart meter data issues. The increased volume of smart meter data results in increased meter data substitution and estimation volumes and increased billing reversal and re-bill costs due to the exponentially increased volumes of data substitution and estimation.

The compliance management function will resolve smart meter data issues and liaise with other business roles and delivery partners to ensure efficiency and continual improvement of data management to ensure compliance with Evoenergy's regulatory obligations pertaining to meter data. The compliance management function will also resolve smart meter data issues and remediation activities related to network neutral safety.

Compliance management with additional smart meter data is a cost that Evoenergy would otherwise not have incurred. Compliance management will be a recurrent cost in future regulatory submissions for ongoing validation and remediation of smart meter data issues.

Labour rates

Labour rates are derived for each function based on the composition of skills, experience, and seniority needed to meet the requirements of the respective function. Labour rates have been compared with, and capped at, the AER's maximum labour rates based on Hayes' Salary Guide, where applicable.

Labour rates are escalated through the 2024–29 regulatory period using the AER's standard approach of taking an average of two consultants' forecasts of the Electricity Gas and Waste Water Services Wage Price Index, including the Superannuation Guarantee.¹⁹ Table 4 provides the composite hourly labour rates by function.

¹⁹ The derivation of real labour growth rates is described in Attachment 3 Operating Expenditure.

Table 4 Labour rates, \$ per hour, real 2023/24

Function	Labour rate
LMRP development and delivery - program management function	█
Information Technology function	█
Compliance management function	█

3.2 Data management and software costs

The additional costs for smart meter data management are driven by the significant increase in data that will be received, processed, and stored by Evoenergy to meet its regulatory obligations relating to the management of meter data for billing purposes.²⁰ The additional data management costs include increased software and storage costs.

Each Type 5 and Type 6 meter typically represents between four and twelve meter reads per year on average. Occasionally, an additional out-of-cycle meter read is required when retailers request a move-out or move-in read. However, once each of these meters is replaced with a smart meter, then energy consumption for every single five-minute period in a year will be received by each of these meters, representing 105,120 reads per year per meter, which is approximately a 26,280-fold increase in data storage and management requirements from meters currently read quarterly.

Table 5 summarises incremental data management costs that will arise due to the accelerated deployment of smart meters in the 2024–29 regulatory period. The following sections provide further explanation of these items.

Table 5 Data management and software costs (\$ million, \$2023/24)

	2024/25	2025/26	2026/27	2027/28	2028/29	Total
Data procurement	█	█	█	█	█	█
Data storage	█	█	█	█	█	█
Software costs	█	█	█	█	█	█
Total data and software costs	\$0.71	\$0.78	\$0.63	\$0.36	\$0.38	\$2.86

Note: Totals may not sum due to rounding.

²⁰ As required under the NER 6.20.

Data storage

Data storage represents the additional costs to store smart meter data for billing purposes. Each Type 5 and Type 6 meter typically represents between four and twelve meter reads per year on average. Occasionally an additional out-of-cycle meter read is required where a retailer requests a move-out or move-in meter read. However, once each of these meters is replaced with a smart meter, then energy consumption for every single five-minute period in a year will be received by each of these meters, representing 105,120 reads per year per meter, which is approximately a 26,280-fold increase in data storage and management requirements for meters currently read quarterly.

Once meter data is received and used for billing purposes, it must continue to be stored by Evoenergy for seven years to meet data and record-keeping compliance obligations.

Additional storage costs have been calculated based on the following:

- unit costs for data storage per meter per annum, based on the current market rate from our service provider; and
- annual growth in meter data volumes based on the smart meter deployment forecast.

The volume of smart meters is forecast commensurate with the decline of legacy meters based on the approach adopted by the AER in the draft decision. Calculations of smart meter data storage costs are provided in Appendix 3.2.1.

The costs proposed for smart meter data storage will be a recurrent cost.

Software costs

Evoenergy currently licences 'Velocity' billing and customer relationship management (CRM) software from Gentrack. The Velocity software manages the end-to-end process of customer data, customer billing, and CRM for Evoenergy.

To manage the significant uplift of smart meter data, Evoenergy needs to augment the existing Velocity system to manage the end-to-end process. Evoenergy will also incur upgrade costs for internal IT build and platform integration with Evoenergy's internal database for managing smart meter data.

We have also included costs for the procurement of software and necessary IT system integrations to improve network safety outcomes related to neutral safety for our customers.

Data procurement

The smart metering step change includes some costs for the procurement of basic power quality data (PQD) required to undertake neutral safety analysis until the data becomes free of charge for DNSPs. The rule change request for accelerating the deployment of smart meters and unlocking their benefits proposes to amend the Rules *"to implement a Basic PQD access framework that provides DNSPs access to a defined Basic PQD service at no direct cost"*.²¹

Neutral integrity failures can cause hazardous voltages to be present in accessible areas and can cause equipment failure. The detection of neutral integrity failure is a significant benefit identified as part of the AEMC's metering review,²² and we have included costs for the procurement of basic power

²¹ Intellihub, SA Power Networks, Alinta energy, Rule change request: Accelerating the deployment of smart meters and unlocking their benefits, September 2023, p. 14

²² Oakley Greenwood, Costs and Benefits of Accelerating the Rollout of Smart Meters, September 2022 **16**
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quality data and the software and necessary IT system integrations to improve network safety outcomes for our customers related to neutral safety.

To allow for improved safety, Evoenergy's smart meter step change includes expenditure for the procurement of basic power quality data. Only a fraction of data procurement costs are included in the smart meter step change. Importantly, all voltage data, load detection, and CER compliance (processing, analytics, and software) expenditures have been accounted for in the CER step change, ensuring that costs are not double counted across the two step changes.

The AEMC's final report acknowledged that improvements in network safety would provide a benefit to customers from the accelerated smart meter roll-out.²³ Since receiving PQD service through the Advanced Metering Infrastructure roll-out in Victoria, DNSPs have delivered significant improvements in network safety through analysis of PQD. Most notably, the Victorian DNSPs have materially reduced the incidence of customer electrocutions.²⁴

Therefore, the AEMC's final report recommended power quality data be provided to DNSPs free of charge to enable the development of the roll-out program, neutral integrity testing, and many other network benefits.²⁵

To maintain the safety of the network for our customers, we propose procuring basic power quality data for the initial years of the 2024–29 regulatory period until it becomes free of charge.²⁶ Evoenergy does not consider it would be prudent to defer the acquisition of basic PQD until it becomes free of charge. The safety benefits to customers of avoided electrocutions through the proactive detection of potential electrical faults far exceeds the small investment required to procure the data.

Notably, only a fraction of power quality data procurement is included in the smart meter step change, with the remainder in the CER integration step change to improve the visibility of the low voltage network to optimise network planning, investment, and utilisation. As advanced power quality data is also proposed to be sourced under our approved CER integration step change, Evoenergy has allocated 14.3 per cent of the PQD costs to the smart metering step change and the remaining 85.7 per cent to the CER enablement step change included in the initial regulatory proposal. This approach ensures no double counting of PQD procurement costs, as shown in Table 6 below.

Detecting neutral integrity is a critical use case that requires continuous access to all smart meters in a local network area. Access to 'basic' PQD under the final AEMC recommendation will allow DNSPs to identify and resolve neutral integrity issues – improving consumer safety. The AER estimates that 0.2 per cent of installations per annum are affected by neutral integrity issues, which could be as many as 15,000 customers each year in the competitive metering states²⁷.

²³ AEMC, Final report, Review of regulatory framework for metering services, August 2023, pp. 13, 17

²⁴ AEMC, Final report, Review of regulatory framework for metering services, August 2023, pp. 115-119; Operational Technology Solutions, Powercor - Revised Regulatory Proposal - 2021-26 - ATT37 - OTS - AMI data for network management - December 2020.pdf (aer.gov.au), p. 14

²⁵ AEMC, Final report, Review of regulatory framework for metering services, August 2023, pp. 115-119

²⁶ AEMC, Final report, Review of regulatory framework for metering services, August 2023, pp. 110-111

²⁷ AEMC, Final report, Review of regulatory framework for metering services, August 2023, pp. 119

Table 6 Proposed data procurement arrangement

	Smart meter step change	CER step change
Basic PQD	Yes	No
Advanced PQD	No	Yes

Service classification

The smart meter step change is for SCS opex and excludes ACS costs. The step change has been developed consistent with the AER’s Electricity Distribution Service Classification Guideline, which was developed in September 2018. Evoenergy has considered whether this smart metering step change should be captured in SCS opex based on the factors that the AER must have regard to under the Rules, with considerations detailed in Table 7.

Table 7 Classification of services for a smart metering step change

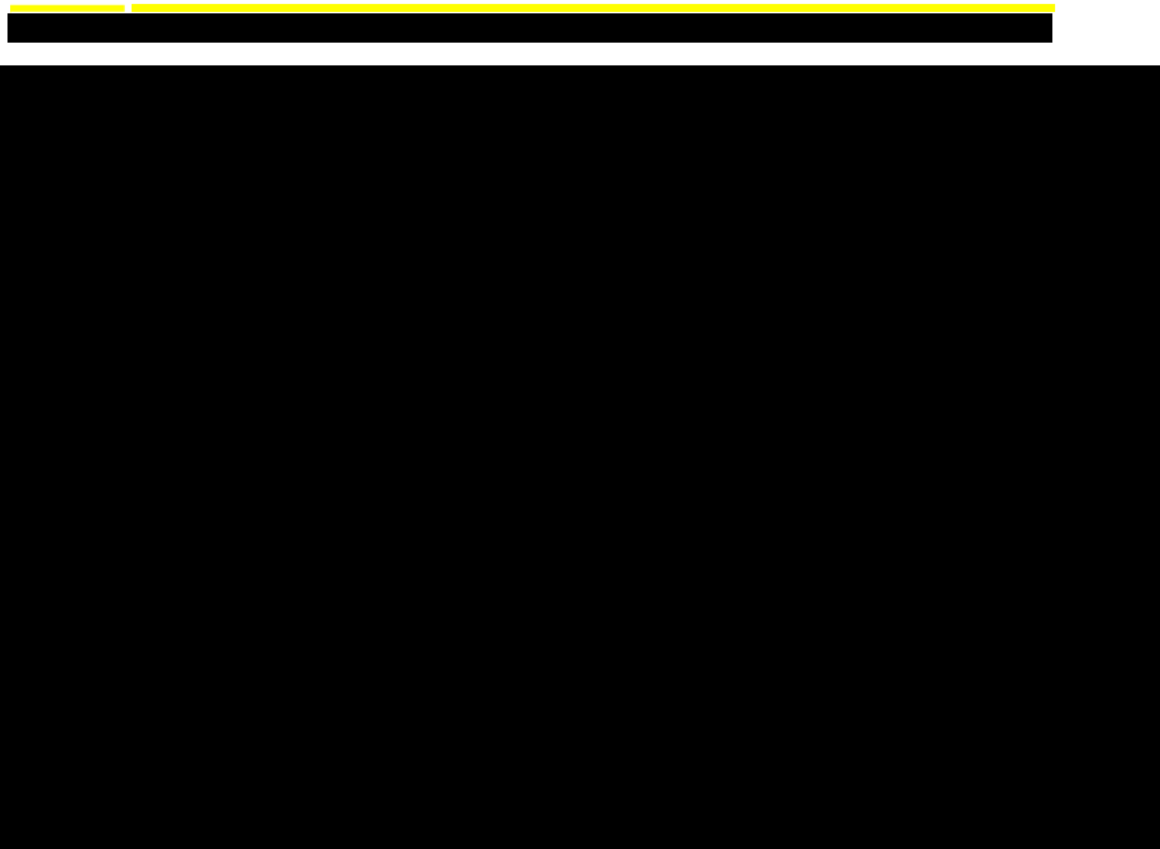
National Electricity Rules 6.2.2(c)	How we have considered the relevant factor when developing the smart meter step change
(1) the potential for development of competition in the relevant market and how the classification might influence that potential	Evoenergy provides electricity distribution services and has an obligation to store billing data to ensure that customers are accurately charged. We do not consider that there is potential for competition to develop in the provision of existing services or in relation to new regulatory obligations that may be imposed on Evoenergy.
(2) the possible effects of the classification on administrative costs of the AER, the Distribution Network Service Provider and users or potential users of the relevant service	The rule change requires that DNSPs develop a LMRP in consultation with industry participants, which needs to be approved by the AER. Given the regulatory obligation, administrative costs will be incurred, and Evoenergy does not consider that the costs should be charged to an individual customer as the AEMC targets universal uptake.
(3) the regulatory approach (if any) applicable to the relevant service immediately before the commencement of the distribution determination for which the classification is made	<p>The AER has classified Type 5 and Type 6 legacy meters as ACS because services are provided to individual customers, the classification is administratively efficient, it is consistent with previous regulatory decisions, and it provides consistency across jurisdictions. Smart meters are considered a contestable service, and DNSPs cannot install Type 4 meters.</p> <p>Evoenergy has a new regulatory obligation to facilitate the delivery of a LMRP, with most costs not attributable to an individual customer, such as software implementation costs and the making of the LMRP. Further, the AEMC's review found the benefits of the accelerated roll-out would accrue to all energy users and as such, any new regulatory obligations should be classified as a SCS.</p>
(4) the desirability of a consistent regulatory approach to similar services (both within and beyond the relevant jurisdiction)	Given the material change in circumstances and the different approaches adopted by jurisdictions to enable smart meter roll outs, Evoenergy does not consider a consistent regulatory approach is required between jurisdictions.
(5) the extent the costs of providing the relevant service are directly attributable to the person to whom the service is provided	Evoenergy will incur costs outlined in the smart meter step change to develop a LMRP, coordinate parts of the roll-out, and implement software and billing system upgrades. The benefits and costs of the new regulatory obligations are not attributable to an individual customer. As the accelerated deployment of smart meters benefits all NEM participants, Evoenergy considers smart meter costs not attributable to an individual customer should be treated as SCS opex.
(6) any other relevant factor	

4. Conclusion

The AEMC’s final report on its review of metering services and the subsequent rule change process, to target a universal uptake of smart meters by 2030 in the Rules, introduces new obligations on Evoenergy to:

- develop and deliver a LMRP to rapidly retire Evoenergy’s fleet of legacy Type 5 and Type 6 meters in coordination with electricity retailers and MC who will replace these with new smart meters; and
- receive, store, and process smart meter data for network billing purposes. The volume of data received by Evoenergy from smart meters compared with manual meters will result in a 26,280-fold increase in data storage and management requirements.

Further, we have included costs for the procurement of basic power quality data (until this data is free) and the software and necessary IT system integrations to improve network safety outcomes for our customers related to neutral safety.



The costs to meet these new obligations and improve network safety outcomes are shown in Figure 1. Smart meter costs needed to meet our new responsibilities are not reflected in Evoenergy’s 2022/23 opex base year and, therefore, require a step change in expenditure allowances for the forthcoming 2024–29 regulatory period. Evoenergy procured the assistance of the Aurecon Group, an external engineering consultancy, to provide independent advice in developing our smart meter step change proposal. Evoenergy considers that the prudent and efficient costs to deliver on the additional regulatory obligations, including to improve customer safety, for the accelerated deployment of smart meters, is \$8.96 million.