



# Alternative Control Services

Explanatory Statement

January 2024

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## 1 PURPOSE AND SCOPE

The purpose of this explanatory document is to support Energex’s proposal for its alternative control services (ACS) set out in Chapter 11 of its 2025-30 Regulatory Proposal and Tariff Structure Statement.

This document provides context and details on the following:

- Energex’s proposed public lighting strategy, customer engagement to date, expenditure and revenue forecasts, public lighting tariffs and prices
- Energex’s proposed changes to its ancillary services
- Energex’s proposed changes to its security lighting services.

## 2 BACKGROUND

ACS are distribution services that are customer-specific or customer requested services. Some of these services have the potential to be provided on a competitive basis rather than by a regulated Distribution Network Service Provider (DNSP). ACS are akin to a ‘user-pays’ system as the whole cost of the service is paid by the customers who seek the service, rather than recovered from all customers through network charges.

In its Framework and Approach (F&A) determination issued for Energex, the AER classified the following customer specific services / service groups as ACS.

**Table 1: Service groups under the ACS service classification**

| Service group               | Description   |
|-----------------------------|---|
| Connection services         | <p>ACS Connection services encompass:</p> <ul style="list-style-type: none"> <li>• activities to facilitate major customer connections to the network,</li> <li>• connection application and management services which are specific to a connection point, and</li> <li>• enhanced connection services which are provided at the request of a customer or a third party.</li> </ul> <p>Refer to our proposed Energex 2025-30 Connections Policy submitted as part of our 2025-30 Regulatory Proposal.</p> |
| Ancillary network services  | Ancillary network services include services which are not covered by another service and are not required for the efficient management of the network, or to satisfy DNSP purposes or obligations.  |
| Auxiliary metering services | Auxiliary metering services include work initiated by a customer which is specific to a metering point.   |
| Public lighting services    | <p>Public lighting services relate to the provision, construction and maintenance of public lighting assets owned by us (conveyance of electricity to public lights remains an SCS).</p> <p>Includes energy efficient retrofits and new public lighting technologies, including smart cells and trials.</p>   |

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Our ACS are regulated under a price cap control mechanism. This means that the AER determines our efficient costs and approves a maximum price that we can charge for the service.

It should be noted that on 30 August 2023, the Australian Energy Market Commission (AEMC) published its Final Report on the Metering Services Review. Consistent with the guidance provided by the AER in the F&A issued for Energex, Energex will reclassify legacy metering services (Type 6 metering) as a standard control service from 1 July 2025. The change to legacy metering for 2025-30 is further discussed in Chapter 10 of our 2025-30 Regulatory Proposal.

### 3 PUBLIC LIGHTING SERVICES

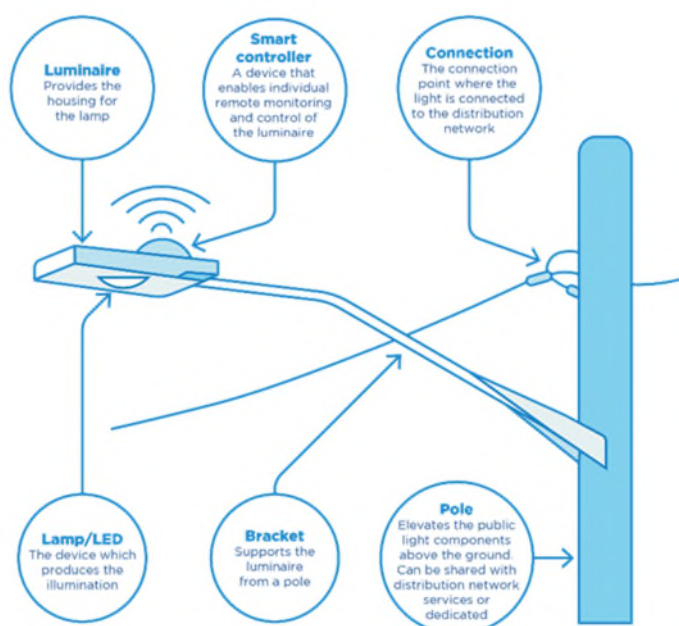
*This section outlines the types of public lighting services we provide to our customers, summarises our public lighting consultation and, in response to customer feedback (to date), sets out our proposed public lighting strategy for the 2025-30 regulatory control period.*

Energex owns, operates and maintains nearly 350,000 public lights and keeps billing records for another 48,190 public lights owned and maintained by councils and the Department of Transport and Main Roads. The provision of public lighting is a critical service that plays an important role in enhancing safety and security in public areas.

#### 3.1 Background

Public lighting systems include all the infrastructure associated with providing lighting in public spaces, including the point of connection to the electricity distribution network.

**Figure 1: Public Lighting Components<sup>1</sup>**



The equipment that provides public lighting typically includes a luminaire, lamp, photoelectric cell or control device, bracket and cabling, and in some circumstances a dedicated pole.

Currently, most public lights are controlled by photoelectric cells that use a photo-sensitive element which measures the ambient light levels and switches the light on (at times when light is required) and off (when no longer required).

<sup>1</sup> Smart controllers (or smart cells) will be offered by Energex from 1 July 2026.

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The adoption of LED for public lighting enables the use of smart control devices (also known as smart cells) which will provide a range of additional benefits that photoelectric cells are not designed for, including among other things:

- real-time monitoring of the asset's performance,
- ability to dim the light during off-peak periods in accordance with ambient light conditions, or to mitigate environmental impact on wildlife, and
- potential for metering actual energy consumptions rather than it being estimated as is currently the case.<sup>2</sup>

There are two types of costs associated with the provision of public lighting services:

- **capital expenditure** (capex) which are the costs to acquire the public light and the cost to replace either components of, or the entire, public light, and
- **operating expenditure** (opex) which are the costs to maintain and operate the public light asset.

The provision of public lighting assets (capex), and their installation and maintenance (opex) are classified as ACS. Akin to a 'user-pays' system, these costs are recovered through a daily charge for each luminaire billed monthly to councils and the Department of Transport and Main Roads.

The costs associated with the poles and wires used to transport electricity to the public light are classified as standard control services and are recovered through the network charge. The costs associated with the electricity used by the public light are the responsibility of the electricity retailer and are outside the remit of Energex. Because public lighting connections tend to be unmetered, network and electricity charges are recovered on a dollar per kilowatt hour basis using estimated (rather than actual) electricity consumption. These charges are known as Unmetered Supply Charges.

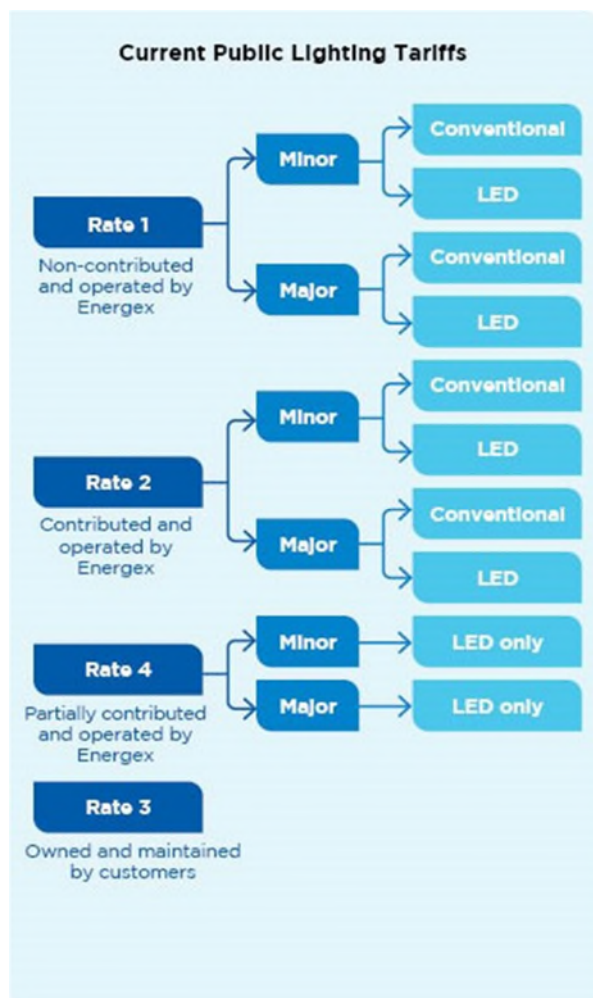
Different tariffs apply to public lighting assets depending on whether the customer or Energex paid upfront for the installation of the public light and whether the customer or Energex is responsible for the operation and maintenance of the public light.

Our current suite of public lighting tariffs offered during the 2020-25 regulatory control period is presented in Figure 2.

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<sup>2</sup> Currently the rules do not recognise smart cells as metering devices.

**Figure 2: Current suite of public lighting tariffs**



*Rate 1: Non-contributed assets* are those public lights where Energex has funded their upfront cost. These assets are owned, operated and maintained by Energex. Rate 1 assets attract a capital and operating charge.

*Rate 2: Contributed and gifted assets* are those public lights where the customer installs the public light (at their cost) and then gifts the light to Energex to operate and maintain. Rate 2 assets attract an operating charge and a 10 per cent replacement charge.

*Rate 3: Owned and maintained by customers* are those public lights where the customer owns, operates, and maintains the public light. This type of lights incurs no capital or operating charges associated with the assets. However, they still attract network and electricity charges (Unmetered Supply Charges).

*Rate 4: Hybrid arrangement* are those public lights where the customer pays to replace the conventional luminaires of Rate 1 lights with LEDs while still using the existing infrastructure (pole and cabling) initially funded by Energex. Rate 4 assets attract a capital expenditure charge relating to the legacy infrastructure and an operating expenditure charge.

In addition to the funding arrangements discussed above, Energex's public lighting tariffs also reflect whether the public lighting assets are located on minor or major roads. Public lighting assets on minor roads are used primarily for the visual requirements of pedestrians. They are typically the responsibility of councils. Public lighting assets on major roads are used primarily for the visual requirements of motorists (e.g. traffic routes). They are typically the responsibility of a state or territory road authority (e.g. Department of Transport and Main Roads).

Finally, our public lighting tariffs reflect the type of public lighting technology installed (i.e. legacy conventional assets or LED)

### 3.2 Public lighting customer and stakeholder engagement

The specific nature of public lighting service provision, combined with its relatively small number of customers, prompted us to implement a standalone, discrete and dedicated engagement process for public lighting. This approach enabled us to develop a consultation strategy tailored to the specific needs and concerns of our public lighting customers and provided them with an avenue to voice their views, be heard and shape the future of our public lighting services. Such focused engagement would not have been possible if public lighting had been included within the broader engagement activities for the Energex 2025-30 Regulatory Proposal.

Our public lighting engagement strategy ensures that Energex’s 2025-30 public lighting proposal meets the AER’s expectations set out in the Better Reset Handbook and is guided by the following principles:

- Engagement will be genuine.
- Engagement will seek to be inclusive.
- Engagement will seek to understand stakeholders’ expectations on the issues material to them.
- Engagement will look to be transparent, flexible, and responsive to best support quality engagement outcomes and influence opinion.
- Matters will be defined in terms of the levels of participation in accordance with the International Association of Public Participation (IAP2) consultation spectrum and clearly communicated at the start of the engagement process.

This approach also aligns with the approach adopted as part of our broader Regulatory Proposal process.

**Figure 3 – Customer engagement approach**



Depending on the stage of the engagement and the issue to be discussed, we have adopted the relevant level of engagement.

Starting 14 months ago, the initial sessions with councils and the Department of Transport and Main Roads focused on the ‘Inform’ part of the IAP2 consultation spectrum, allowing customers sufficient time to build understanding. The matters covered during these first few sessions included the Regulatory Proposal process, the mechanics of our revenue and tariff setting process, an update on our achievements and issues identified during the 2020-25 regulatory control period, and our proposed 2025-30 public lighting strategy (including a smart public lighting strategy).

Our engagement has gradually transitioned from information sharing to a more active, interactive, and engaged consultation with our customers and stakeholders.

Figure 4 below shows the various stages of our public lighting engagement over the past 14 months.



**Figure 4 – Public lighting engagement stages**



We have conducted a total of:

- 3 Energex/Ergon Energy combined customer engagement sessions during which we discussed the fundamentals of public lighting, our engagement strategy, the Regulatory Proposal process, and fundamentals on how we set public lighting expenditure and tariffs
- 1 shared learning session where customers shared their experience with and findings on smart public lighting trials
- 1 session with Energex’s customers to discuss options for our smart public lighting strategy
- 2 Energex-specific group customer engagement sessions to review the forecast expenditure and charges under various LED deployment scenarios
- 2 sessions with Energex customers to review feedback on the Public Lighting Issues (noted below) and the public lighting strategy set out in Energex’s Draft Plan
- 13 one-on-one customer sessions during which we reviewed and discussed how the deployment of LEDs would impact customers through individual customer impact analysis.

During individual and group sessions, as well as a number of Menti surveys, we provided customers and stakeholders the opportunity to influence our 2025-30 public lighting strategy that will shape our proposed public lighting services, capital and operating expenditure, revenue, and tariffs. To empower our customers with knowledge, in addition to information provided as part of our direct engagement sessions, we also published 6 fact sheets covering topics such as the regulatory determination process, how we derive our public lighting revenue and prices, options for our proposed smart public lighting strategy and a summary of the AEMC’s review of the metering arrangements pertaining to smart cells.<sup>3</sup>

In early July 2023, we published a Public Lighting Issues Paper seeking feedback on five key issues that would influence our 2025-30 public lighting strategy and Regulatory Proposal.<sup>4</sup> The matters on which we sought customer feedback included:

- customers’ preference for the pace of the LED deployment (an accelerated 100 per cent deployment by June 2030 or a moderate 65 per cent deployment)
- funding options to support the proposed strategy
- proposed changes to the public lighting tariffs
- recovery of the residual value of the legacy public lighting assets, and



<sup>3</sup> Our fact sheets can be found on our Talking Energy/Public Lighting forum webpage: [Public Lighting Forum | Talking Energy](#).

<sup>4</sup> Link to our Public Lighting Issues Paper on our Talking Energy/Public Lighting forum webpage: [RDP2025 Energex Public Lighting Issues Paper - July 2023](#).

- options for the deployment of smart control devices.





In line with the feedback received on the Issues Paper, we reflected our customers' views in our Draft Plan, published in September 2023, and sought further feedback.<sup>5</sup>

### 3.2.1 What you told us and how we are responding

We received submissions from most of the major councils in the South East as well as a submission from the Department of Transport and Main Roads. Respondents provided their unanimous in-principle support for the full deployment of LED lights by 2030 as customers see financial and environmental benefits associated with this strategy.



A summary of the feedback received from customers and our proposed responses are provided in Table 2.

**Table 2: Public Lighting Feedback and Proposed Response**

| Theme   | Public Lighting Issue and Draft Plan   | What customers have told us   | How we're responding   |
|---|--|---|--|
| Clean<br><br>Smart<br> | LED deployment scenarios: <ul style="list-style-type: none"> <li>• Accelerated 100 per cent deployment, and</li> <li>• Moderate 65 per cent deployment.</li> </ul> | <ul style="list-style-type: none"> <li>• The submissions provided in-principle support for full deployment of LED lights by 30 June 2030 due to the financial and environmental benefits.</li> <li>• One respondent had concerns about brightness of LED lights</li> </ul>  | <ul style="list-style-type: none"> <li>• We will adopt the accelerated 100 per cent LED deployment scenario.</li> <li>• With regards to LED light complaints, we are working with suppliers to develop standard glare shields for LED lighting. In addition, we are also looking at adjusting the light profiles in the design software to adjust the light while remaining code compliant. Finally, when available from 1 July 2026, smart cells can be used to address some of the glare issue through dimming.</li> </ul>   |
| Affordable<br>   | Funding of LED conversions of existing assets.   | <ul style="list-style-type: none"> <li>• Customers support the proposal for Energex to fund the LED conversions, including for Rate 2 assets.</li> <li>• Energex should not recover any capital charge on Rate 2 LED assets which have been or will be customer funded (mainly subdivisions).</li> <li>• Energex should allow flexibility in funding arrangements to support third party contributions (e.g. developer or councils) for an accelerated transition to LED technology.</li> </ul> | <ul style="list-style-type: none"> <li>• We will retain Rate 2 LED (Major and Minor) tariffs unchanged for LED lights which have been contributed by customers/developers.</li> <li>• We propose to recover the operating charge and a 10 per cent capital replacement charge for Rate 2 LED assets.<sup>6</sup></li> <li>• We will allow flexibility in funding for customers wishing to fund their Rate 1 conversions. However, instead of being reassigned to a Rate 4 tariff (as per current practice) these assets will be reassigned to the Rate 2 LED tariff and will no longer attract the residual cost of the legacy infrastructure. The reason for this is provided below.</li> </ul> |
| Affordable<br>   | Retain current suite of public lighting tariffs.   | <ul style="list-style-type: none"> <li>• Customers do not support the proposal to converge the Conventional and LED tariffs.</li> </ul>   | <ul style="list-style-type: none"> <li>• We propose to abandon the idea of converging the LED and Conventional tariffs.</li> </ul>   |

<sup>5</sup> Link to our Draft Plan on our Talking Energy/Public Lighting forum webpage: [RDP2025 Energex Draft Plan 2025-30 - September 2023](#) (refer to chapter 11 for Public Lighting Services).

<sup>6</sup> The 10 per cent capital replacement charge will cover the capital cost funded by Energex required to replace a Rate 2 LED asset at the end of its life or if it becomes faulty.

| Theme   | Public Lighting Issue and Draft Plan   | What customers have told us  | How we're responding   |
|---|--|--|--|
|   |  | <ul style="list-style-type: none"> <li>Customers want to retain the existing Rate 2 arrangements (see above).</li> </ul>   | <ul style="list-style-type: none"> <li>We propose to retain Rate 2 LED tariffs unchanged. The tariff will recover the operating cost component and a 10 per cent capital replacement charge.</li> <li>We propose to repurpose Rate 4 tariffs to recover the capital and operating cost components for the Rate 2 conversions funded by Energex. The reasons for this approach include:               <ul style="list-style-type: none"> <li>Rate 4 tariffs have had little uptake to date and customers are unlikely to have any appetite to self-fund LED conversions going forward in light of the adoption of the accelerated LED deployment option</li> <li>avoids adding new public lighting tariffs.</li> </ul> </li> <li>We propose that Rate 4 tariffs be relabelled Rate 2A to minimise confusion.</li> <li>On 1 July 2025, existing Rate 4 assets (installed prior to 30 June 2025) will be moved to Rate 2, thereby benefiting from a lower tariff rate.</li> </ul> |
|  | <p>Cost recovery of the residual value of the remaining conventional lights.</p> | <ul style="list-style-type: none"> <li>Customers expressed their support for the recovery of the residual value of conventional lights to be extended to 2035 to ensure customer impact is mitigated.</li> <li>Some customers requested that we provide as part of our engagement the modelling on revenue and charges beyond 2025-30, to include 2030-35.</li> </ul>  | <ul style="list-style-type: none"> <li>We will extend the cost recovery timeframe out to 2035 for the residual value of the remaining conventional lights.</li> <li>We will endeavour to provide forecasts to customers for 2030-35 prior to the submission of our Regulatory Proposal.</li> </ul>   |
|  | <p>Strategy for rolling out smart cells.</p>                                     | <ul style="list-style-type: none"> <li>Broad support from customers for a user-pays approach for the deployment of smart control devices. This approach is considered prudent as it would provide access to this technology to customers while there is still uncertainty on their use as metering devices.</li> <li>Mixed responses in terms of the benefits and interest associated with the technology.</li> <li>One respondent favours a gradual move to smart controls and suggests detailed modelling of operational and cost impacts for individual customers.</li> </ul> | <ul style="list-style-type: none"> <li>We will support the user-pays approach for smart control devices.</li> <li>We remain committed to focusing on this matter in the next phase of our customer engagement (refer to the discussion on our proposed Smart Lighting Strategy in section 3.3.2 below).</li> </ul>   |

As part of our engagement, we also sought customer feedback on the adequacy of our engagement approach and whether customers felt their feedback had been reflected in our

proposed public lighting strategy. Respondents were generally supportive of our approach and felt they had been adequately informed throughout the process and provided with opportunities to shape our proposed strategy. This view was echoed by the Reset Reference Group<sup>7</sup> in their submission to our Draft Plan.<sup>8</sup> Some respondents suggested that customer impact beyond 2030 be provided to ensure they are fully informed about the long-term effect of their decisions. We are pleased to confirm that we have now completed the modelling for both the 2025-30 and 2030-35 regulatory control periods, with the results presented in section 3.6.2 below.

### 3.3 Our proposed 2025-30 public lighting strategy

#### 3.3.1 LED deployment strategy

For the 2025-30 regulatory control period, our proposed public lighting strategy is to continue the deployment of LED lights to replace the remaining conventional lights to achieve 100 per cent LEDs by 30 June 2030. We believe this strategy is bold, simple and will ultimately benefit customers in terms of energy savings and opportunities when combined with smart control devices. It also supports the Queensland and Australian Governments' commitment to lower carbon emissions.

**Figure 5: Energex's estimated energy usage with LED deployment**

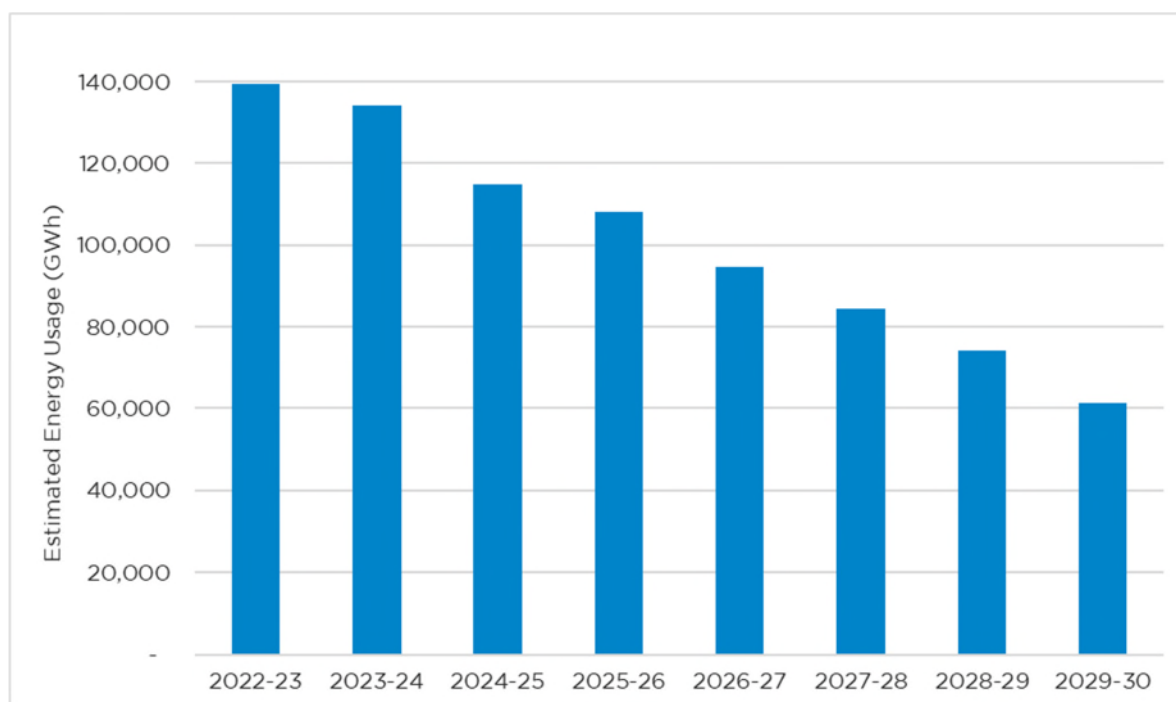


Figure 5 shows the potential energy reductions associated with 100 per cent LED deployment by 2030. Customers would see a reduction of about 56 per cent in energy usage in 2030 compared to current energy usage.

<sup>7</sup> Information on the Reset Reference Group can be found on our Talking Energy webpage: [Reset Reference Group | Talking Energy](#).

<sup>8</sup> Link to the Reset Reference Group's submission "[Response to the RDP2025 Energex Draft Plan](#)", October 2023.

Furthermore, the full LED deployment scenario represents a proactive initiative to pre-empt a shortage in our current inventory of conventional lights resulting from manufacturers across the world transitioning to LED technology and no longer making conventional lights available.

It should also be noted that full deployment of LEDs by 2030 would allow Energex to:

- capitalise on our current mercury vapour replacement program and, as a result, realise delivery efficiencies from internal and external resources, and
- develop a more efficient operating and maintenance program, ultimately benefitting customers.

We recognise that this strategy comes at a higher short-term cost to consumers, particularly in the initial stage of the LED deployment. This has led to a rethink of our revenue and tariff setting approach to ensure the transition to the new technology does not result in an unacceptable adverse impact for customers. The medium and long-term customer impact analysis presented in section 3.6 below has informed the shape of our indicative prices to smoothen our revenue recovery up until 2035 with a view to minimise as much as possible any step change between regulatory periods.

### 3.3.2 Proposed smart lighting strategy

Currently, most public lights are controlled by photoelectric cells that include a photo-sensitive element which measures the ambient light levels and switches the light on and off.

The adoption of LED public lighting will enable the use of smart control devices that provide additional benefits for which photoelectric cells are not designed.

As part of our initial customer engagement, we acknowledged the regulatory constraints when using smart control devices for metering purposes. The AEMC is reviewing the regulatory arrangements that could:

- permit the use of minor energy flow meters for street furniture, and
- allow DNSPs to own minor energy flow ‘street furniture’ meter devices.<sup>9</sup>

The AEMC’s Consultation Paper “National Energy Retail Amendment (Unlocking CER benefits through flexible trading) Rule” was published in December 2022. This was followed by a Directions Paper published in August 2023. The AEMC’s draft determination on this matter, initially expected in October 2023, has been delayed to the end of February 2024.<sup>10</sup>

Considering the uncertainty in the regulatory arrangements, we proposed in our Issues Paper, as our preferred option, a ‘user-pays’ approach whereby customers would fund the upfront capital cost for the provision of the assets and then gift the assets to Energex to operate and maintain. This approach is considered prudent as it would provide access to this technology to customers while there is still uncertainty on their use as metering devices.

Responses to the Issues Paper, and subsequently to our Draft Plan, provided broad customer support for this option. We acknowledged that we had a lot of work to do to be able to present a robust strategy for smart control devices and we committed to focusing on this matter in the next phase of our customer engagement.

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<sup>9</sup> Street furniture include, among other things, public lighting, traffic lights, and publicly provided part hotplates/barbecues.

<sup>10</sup> Refer to AEMC’s review of Unlocking CER Benefits through Flexible Trading. Link: [Unlocking CER benefits through flexible trading | AEMC](#).

Since then, we have engaged an external consultancy firm with expertise in smart lighting, Ironbark Sustainability<sup>11</sup>, to assist us with the development of a Smart Lighting Strategy which includes advice on an implementation plan for this new technology.

A customer engagement session dedicated to smart cells was run in late October 2023 in which we socialised our proposed smart public lighting strategy. We sought customer input on the following matters:

- Customers' views on their preferred asset and system procurement options
- Customers' views with regards to the operating protocols associated with smart cells
- Customers' views with regards to Energex becoming the metering provider and metering coordinator (subject to the AEMC rule change)
- Estimated uptake of smart cells for 2025-30.

To empower our customers with the necessary information, we published a customer friendly Smart Public Lighting Strategy on our Talking Energy/Public Lighting Forum webpage.<sup>12</sup>

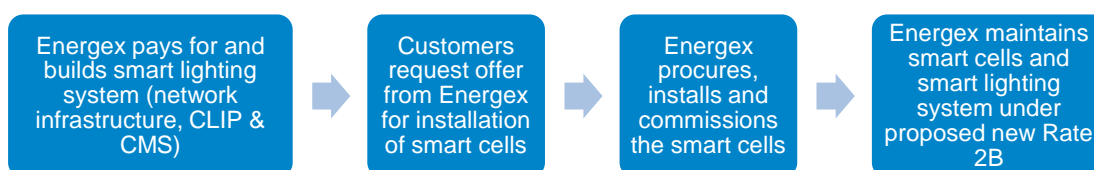
Following our customer engagement, we are pleased to submit our proposed Smart Public Lighting Strategy in Attachment Energex - 11.10 –Smart Public Lighting Strategy.

As part our proposed Smart Lighting Strategy we are proposing:

- A user-pays approach to smart lighting which will see customers contribute to the cost of the installation and hardware upfront. Customers will then gift the contributed assets to Energex to operate and maintain.
- The costs associated with the Control Management System (CMS), user interface, set up costs and labour costs associated with the replacement of faulty assets will be recovered through a new tariff, Rate 2B.

Figure 6 below provides a high-level overview of how this approach would operate.

**Figure 6: Overview of Ergon Energy's approach for smart cells**



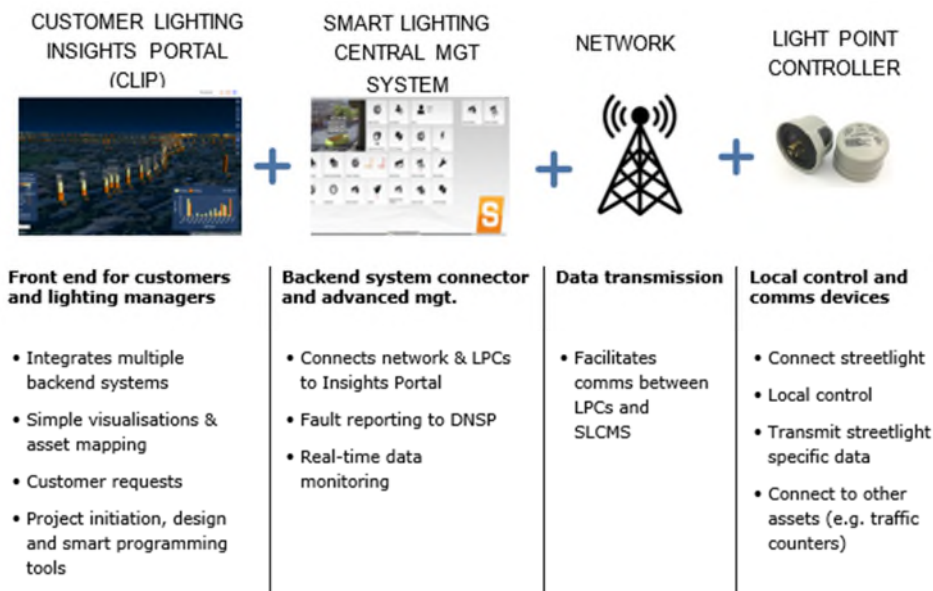
Energex is considering a system architecture with a user interface called a Customer Lighting Interface Portal (CLIP) to enable users to understand and manage the smart lighting system. The CLIP will be integrated with the smart lighting system to streamline the process of managing smart public lighting assets while providing a user-friendly experience for customers, offering intuitive tools for lighting design and compliance management.

Figure 7 presents the elements of our proposed smart lighting system.

<sup>11</sup> Please refer to Ironbark's website for further details on the services provided by the business: [Ironbark Sustainability - Ironbark Sustainability](#).

<sup>12</sup> Link to our draft customer friendly [Smart Public Lighting Strategy](#).

**Figure 7: Smart Lighting System Elements<sup>13</sup>**



This system will be supported by the development of an operating protocol. This operating protocol will outline the rules, responsibilities, and procedures governing the operation and management of Energex’s smart lighting system. It will ensure that the potential of smart lighting is harnessed effectively and responsibly. We intend to further consult with our customers in the development of the operating protocol.

To give us sufficient time to finalise our procurement contracts, develop digital systems, and conduct a pilot in 2024, we proposed to offer the service from 1 July 2026.

We see benefits in conducting a pilot during the delivery of our smart lighting strategy. This will allow further interrogation into the potential benefits of smart lighting and play a key role in ensuring that processes and systems are functioning correctly by the time smart lighting is offered to customers in July 2026.

### 3.3.3 Our proposed public lighting tariffs

With regards to our public lighting tariff strategy for the 2025-30 regulatory control period, we propose to keep Rate 1 and Rate 2 tariffs unchanged. This aligns with the feedback received from customers during our engagement. Rate 2 tariffs will only recover the operating costs associated with the maintenance of contributed assets gifted to Energex, and a 10 per cent capital charge to cover the cost of replacing the Rate 2 assets upon failure or when reaching end of life.<sup>14</sup>

We have decided to retire Rate 4 which has had very limited uptake during the 2020-25 regulatory control period and introduce two new tariffs, namely:

- **Rate 2A** to reflect Energex’s funding of the capital costs of the conversion of the Rate 2 conventional assets to LED assets - this tariff will recover the capex and opex charges through the ACS public lighting charges, and

<sup>13</sup> Source: Opticity and Streetlight.vision.

<sup>14</sup> This approach ensures that replaced Rate 2 assets remain on the tariff, rather than being reassigned to Rate 1 tariff, even though the asset replacement has been funded by Energex.

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- **Rate 2B** to reflect the introduction of smart control devices - this tariff recovers the cost of the Data Management System, user interface, set up digital costs and labour costs associated with the replacement of defective assets. Given that the capital cost of smart cells is contributed by customers, we will not recover any capital charge through this tariff. Unlike Rate 2 assets, we will not apply a 10 percent replacement charge to cover the capital cost associated with replacing failing assets or assets reaching their end of life. The reason for this stems from the fact that smart cells are new assets which are unlikely to fail in material numbers over the 2025-30 period. In light of our experience during the initial stages of implementing this new service, we will revisit this position for the next 2030-35 Regulatory Proposal and decide whether we need to apply an estimated replacement expenditure in our charges for the Rate 2B tariff.

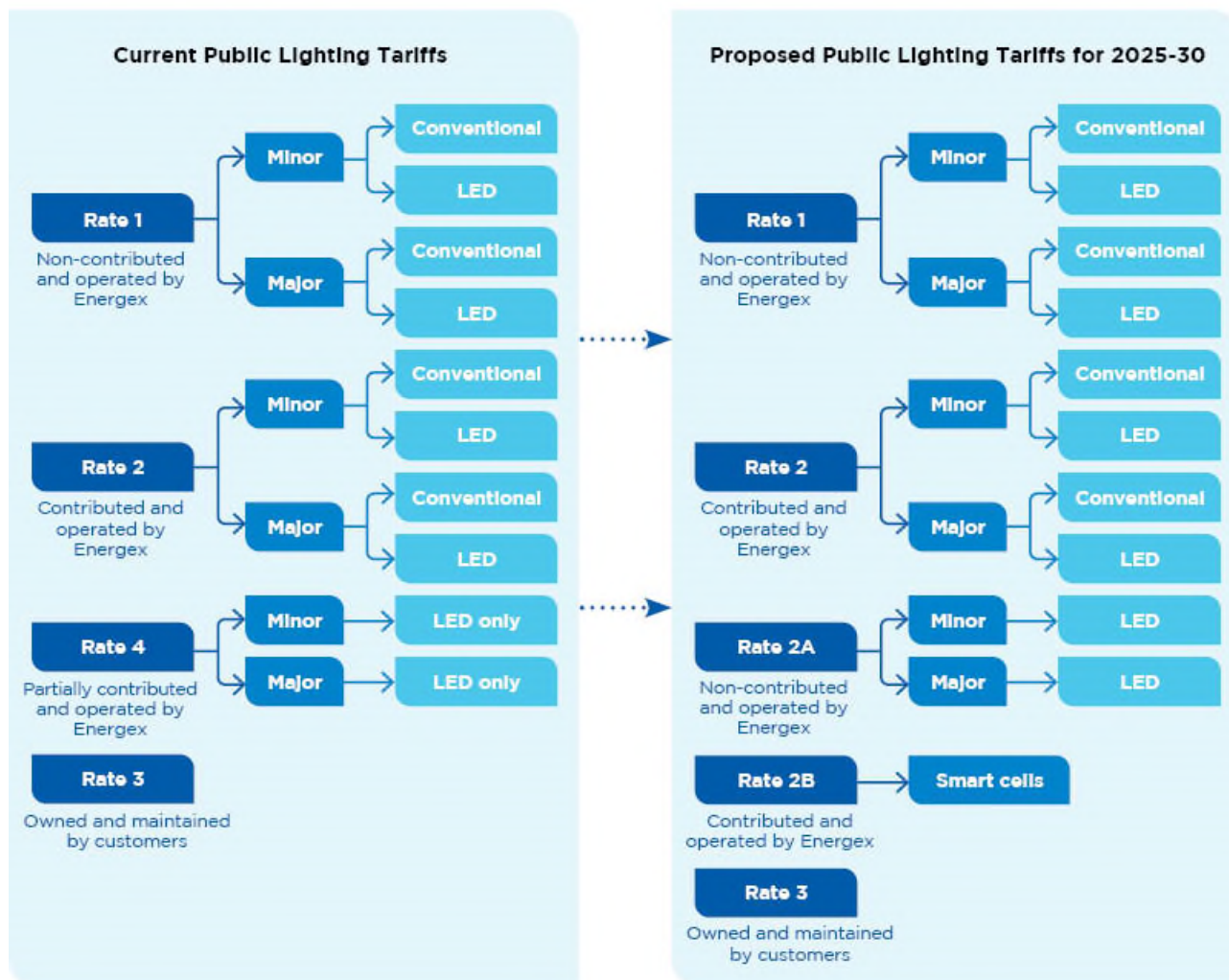
The new smart cell tariff, Rate 2B, will be offered from 1 July 2026 to give Energex sufficient time to develop standards and operating protocols, conduct a pilot, and to establish procurement contract with suppliers.

On 1 July 2025 the existing Rate 4 assets will be reassigned to a Rate 2 LED tariff and will no longer be charged the residual value of the non-contributed public lighting infrastructure. The reasons for this decision are provided in Table 2 above.

Our proposed changes to our public lighting tariffs are set out in Figure 8 below.



Figure 8: Current and proposed public lighting tariffs



Customers wishing to fund the capital cost of the conversion of their Rate 1 conventional lights to LED will have these assets assigned to a Rate 2 LED tariff, thereby benefitting from lower charges compared to Rate 4.

Reflecting customer feedback received throughout our engagement, the funding arrangements in Table 3 have been developed.

Table 3: Funding arrangements for public lighting services

| Tariff | Funding arrangement   |
|--------|---|
| Rate 1 | No change.<br>Energex funds 100 per cent upfront the capital cost of the lights and recovers the capital and operating expenditure through the tariff.  |
| Rate 2 | Customers fund the upfront capital cost of the LED lights. As current practice, we will continue to recover the operating expenditure only through the tariff.<br>We propose to apply a 10 per cent capital expenditure replacement rate for LED lights replaced upon failure or at the end of their lives. This ensures a Rate 2 LED asset remains on the same tariff despite Energex funding the capital cost of the replacement. |

| Tariff  | Funding arrangement  |
|---------|--|
| Rate 2A | Energex funds 100 per cent upfront the capital cost of the conversion of the Rate 2 conventional assets to LED assets and recovers the capital and operating charges through the tariff.           |
| Rate 2B | Customers fund the upfront costs of smart cells, then gift the assets to Energex to operate and maintain. We will recover the operating expenditure associated with the assets through the tariff. |

Details on our proposed public lighting tariffs are included in our Energex 2025-30 Tariff Structure Statement.

Details on our indicative prices for our proposed public lighting tariffs are provided in section 3.5 below.

### 3.4 Our proposed public lighting expenditure for 2025-30

#### 3.4.1 Our forecast operating costs

Energex has different maintenance activities consisting of cyclic replacements and in-service inspections. Each aspect has been reviewed and redesigned to suit the installation of LED lights (as LEDs require less frequent site inspections compared to conventional lights).

Key items considered when developing our proposed operating expenditure strategy are:

- night road patrol program
- pole inspection program, and
- in-service condition assessment – structural and electrical.

In recognition of the maintenance requirements associated with each technology, we have developed a maintenance strategy that reflects the estimated efficiencies that can be attributed to the legacy conventional and LED lights.

Based on the most recent estimate for the 2022-23 operating costs, our forecast opex has been developed using the AER's preferred Base Step Trend Approach. It is lower for the LED assets compared to conventional lights for the upcoming regulatory control period (refer to Table 4). This lower operating expenditure is the result of:

- the exclusion of material costs as the entire LED luminaires, when faulty, will get replaced, which are categorised as capital expenditure, and
- an annual efficiency factor to reflect the estimated reduction in maintenance requirements for the newly installed LED lights.

The full LED deployment strategy provides savings in operating expenditure which are partially offset by the impact of forecast inflation.

**Table 4: Forecast Operating Expenditure for public lighting (\$m, real 2024-25)**

| Forecast     | 2025-26 | 2026-27 | 2027-28 | 2028-29 | 2029-30 | Total         |
|--------------|---------|---------|---------|---------|---------|---------------|
| Conventional | \$8.7   | \$6.3   | \$4.4   | \$2.6   | \$0.00  | <b>\$22.0</b> |
| LED          | \$9.4   | \$11.2  | \$12.5  | \$13.7  | \$15.9  | <b>\$62.6</b> |

| Forecast     | 2025-26       | 2026-27       | 2027-28       | 2028-29       | 2029-30       | Total         |
|--------------|---------------|---------------|---------------|---------------|---------------|---------------|
| <b>Total</b> | <b>\$18.1</b> | <b>\$17.5</b> | <b>\$16.9</b> | <b>\$16.3</b> | <b>\$15.9</b> | <b>\$84.6</b> |

Our updated opex is 4.8 percent higher than the forecast in the Draft Plan. This modest increase is the result of adjustments in the overhead rates and refinement to the final actual 2022-23 opex used for the base year.

The forecast opex associated with smart cells is provided in Table 5 below. The proposed opex covers the following costs:

- System establishment: Infrastructure needed for the smart lighting system, including cyber-security.
- Installation and commissioning: Expenditures associated with deploying and configuring the smart lighting system. It includes expenses for labour, programming of adaptive lighting schedules, data integration and initial testing to ensure proper functionality of smart cells.
- Subscription and ongoing data: fees or subscriptions paid for continuous access to data services, platforms and communication networks that enable remote monitoring and control of the smart lighting system. This includes expenses related to data transmission, cloud services, and network connectivity.
- Maintenance and operation: Costs attributed to the routine upkeep and operational activities required to maintain the smart lighting infrastructure. They encompass tasks such as system monitoring, troubleshooting, asset repairs and replacement, software updates, smart metering management, user training and ensuring the system's smooth operation over time.
- Pilot costs: Estimated cost of conducting a pilot in 2025-26 to explore shortlisted system options and inform our future operating protocols.

**Table 5: Forecast Operating Expenditure for smart cells 2026-30 (\$m, real 2024-25)**

| Forecast    | 2025-26     | 2026-27 | 2027-28 | 2028-29 | 2029-30 | Total         |
|-------------|-------------|---------|---------|---------|---------|---------------|
| Smart cells | Not offered | \$0.19  | \$0.28  | \$0.41  | \$0.54  | <b>\$1.42</b> |

The licence costs included in the forecast are based on an estimated deployment of 20,000 smart cells by 30 June 2030.

### 3.4.2 Our forecast capital costs

The forecast capital expenditure required to execute our public lighting strategy for both Rate 1 and Rate 2A assets is a significant step change from the previous 2020-25 regulatory control period, with a total of \$196.8 million (\$, real 2024-25), compared to an estimated \$109.6 million (\$, real 2024-25) in net capital expenditure in the previous period.

**Table 6: Forecast Capital Expenditure (\$m, real 2024-25)**

| Forecast                          | 2025-26       | 2026-27       | 2027-28       | 2028-29       | 2029-30       | Total          |
|-----------------------------------|---------------|---------------|---------------|---------------|---------------|----------------|
| Proposed capex for Rate 1 assets  | \$14.2        | \$14.4        | \$14.6        | \$14.8        | \$15.1        | <b>\$73.2</b>  |
| Proposed capex for Rate 2A assets | \$24.6        | \$24.7        | \$24.7        | \$24.8        | \$24.8        | <b>\$123.6</b> |
| <b>Total capex</b>                | <b>\$38.9</b> | <b>\$39.1</b> | <b>\$39.3</b> | <b>\$39.6</b> | <b>\$39.9</b> | <b>\$196.8</b> |

Our proposed forecast capex was developed based on unit cost times forecast volumes, using actual 2022-23 installation costs per LED light, escalated to real 2024-25 value, multiplied by our forecast number of lights to be converted over the 2025-30 regulatory period. Our proposed forecast 2025-30 public lighting expenditure can be found in Attachment Energex – 11.01 – ACS Public lighting capex and opex forecasting model 2024-30.

It should be noted that Energex does not propose any new capital expenditure for conventional assets for the 2025-30 regulatory control period as these assets will be replaced with LED luminaires.

### 3.5 Our proposed revenue for 2025-30

The proposed forecast revenue to be recovered from the public lighting tariffs in 2025-30 is \$257.19 million (\$, nominal). This represents a step change from the total revenue of \$237.87 million (\$, nominal) to be recovered in the current 2020-25 regulatory control period.<sup>15</sup> This step change aligns with Energex's proposed investment in LED technology in both the Rate 1 and Rate 2A assets.

The proposed revenue is 1.9 percent higher than that included in the Draft Plan. This increase reflects some adjustments in our forecast opex, overhead rates and rate of return (also referred to as the Weighted Average Cost of Capital or WACC).

**Table 7: Forecast public lighting revenue for 2025-30 (\$m, Nominal)**

| Forecast             | 2025-26       | 2026-27       | 2027-28       | 2028-29       | 2029-30       | Total          |
|----------------------|---------------|---------------|---------------|---------------|---------------|----------------|
| Return on capital    | \$10.1        | \$11.6        | \$13.4        | \$15.1        | \$16.9        | <b>\$67.0</b>  |
| Depreciation         | \$15.5        | \$17.6        | \$19.6        | \$21.9        | \$24.4        | <b>\$98.9</b>  |
| Opex                 | \$18.5        | \$18.3        | \$18.2        | \$18.2        | \$18.1        | <b>\$91.3</b>  |
| <b>Total Revenue</b> | <b>\$44.1</b> | <b>\$47.5</b> | <b>\$51.2</b> | <b>\$55.1</b> | <b>\$59.4</b> | <b>\$257.2</b> |

#### 3.5.1 Residual value of conventional assets

Energex does not propose any additional capital expenditure for conventional lights in the 2025-30 regulatory control period. As we transition from legacy technology to new technology, Energex

<sup>15</sup> The proposed revenue in this section does not include the revenue associated with smart cells.

recognises the significant challenges this period presents to customers as they will experience increases in both conventional and LED lighting daily charges.

For legacy conventional lights, the residual value to be recovered remains significant while the number of conventional lights is expected to reach zero by 30 June 2030 under our proposed public lighting strategy, resulting in higher daily charges per light.

To mitigate this customer impact and to support the full deployment of LEDs during this transition period, we propose to extend the recovery of the residual value of conventional lights beyond 2030 until 2035. As noted in section 3.2, this approach has broad support from customers. Furthermore, we have also decided that when a conventional light is converted to LED, the residual value of the legacy infrastructure will be added to the LED asset base. As presented in section 3.7 below, the combination of these two proposed solutions has resulted in a well-managed customer impact for the next regulatory control period.

### **3.5.2 Revenue from Smart cells**

As noted in section 3.4.1, we are proposing to recover from our new smart lighting services a total estimated forecast opex of \$1.42m (\$, real 2024-25) which, once inflation is applied, will amount to an estimated total revenue of \$1.52m (\$, nominal) for the four year period from 1 July 2026 to 30 June 2030. This proposed revenue relates to the opex required for the set up costs, licences to operate the devices and labour costs associated with the replacement of the faulty devices. This proposed opex for smart cells will be recovered through the new Rate 2B tariff. The forecast 2025-30 daily charges for this tariff are included in section 3.6 below.

Our forecast public lighting revenue has been developed using the following AER models:

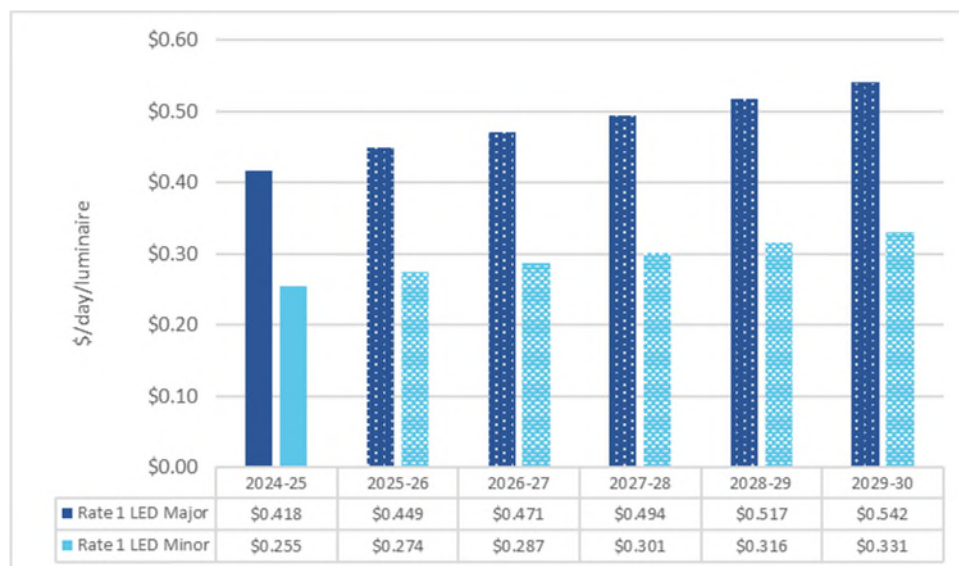
- Energex – 11.03 – ACS Public Lighting RFM 2025-30
- Energex – 11.04 – ACS Public Lighting PTRM 2025-30
- Energex – 11.05 – ACS Smart control pricing model.

## **3.6 Proposed indicative public lighting charges for 2025-30**

The impact of the LED deployment program on our forecast charges for all our tariffs is presented below.

Figure 9 shows our forecast daily public lighting charges for the Rate 1 LED tariffs.

**Figure 9: Forecast Daily Charges for Rate 1 LED Lights**

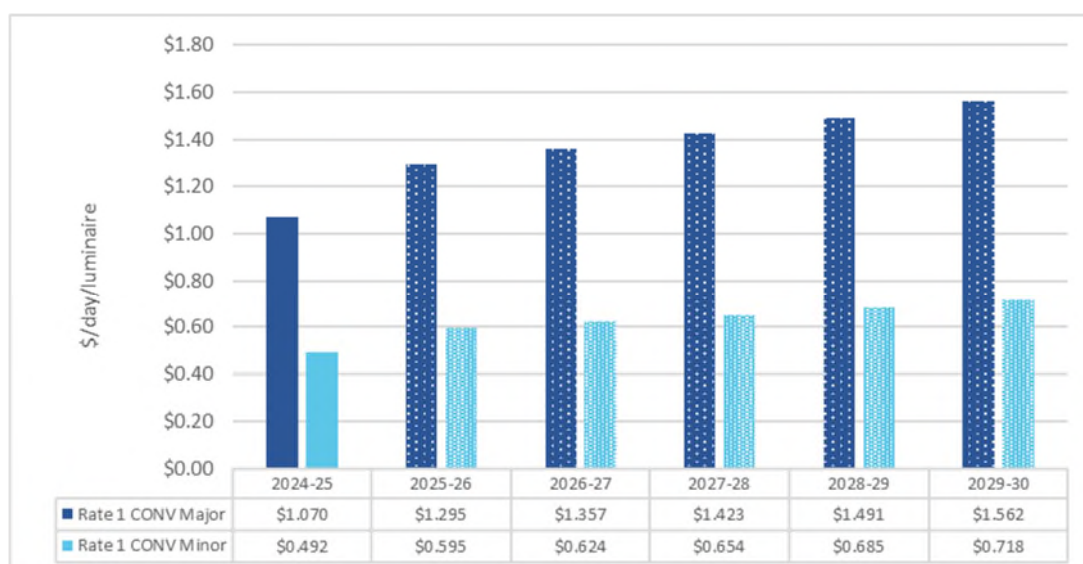


Compared to the 2024-25 charges, the increase in Rate 1 LED charges in the first year of the 2025-30 regulatory control period is expected to be 7.6 per cent, followed by an average annual increase of 4.8 per cent for the remaining four years.

As noted in section 3.3.3, we are not proposing to make changes to the Rate 2 tariffs. Customer funded Rate 2 assets will remain on the same tariff during the 2025-30 regulatory period.

Figure 10 shows our forecast daily public lighting charges for the Rate 1 Conventional tariffs.

**Figure 10: Forecast Daily Charges for Rate 1 Conventional Lights**



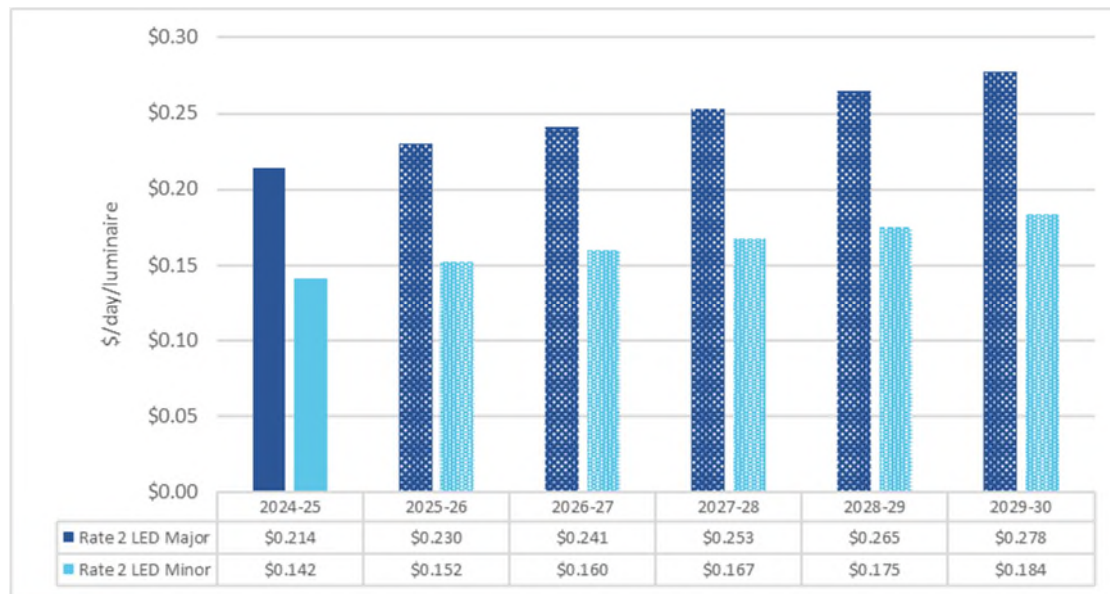
Compared to the 2024-25 charges, the increase in Rate 1 Conventional charges in the first year of the 2025-30 regulatory control period is expected to be 21 per cent, followed by an average increase of 4.8 per cent for the remaining four years.

It should be noted that the increase in prices for the Rate 1 conventional tariffs in the first year of the forthcoming regulatory control period will be offset by the conversions to LED. As assets are

converted to LED over the five-year period, customers will access the cheaper LED tariffs (see Rate 1 LED charges in Figure 9 above).

Figure 11 shows our forecast daily public lighting charges for the Rate 2 LED tariffs.

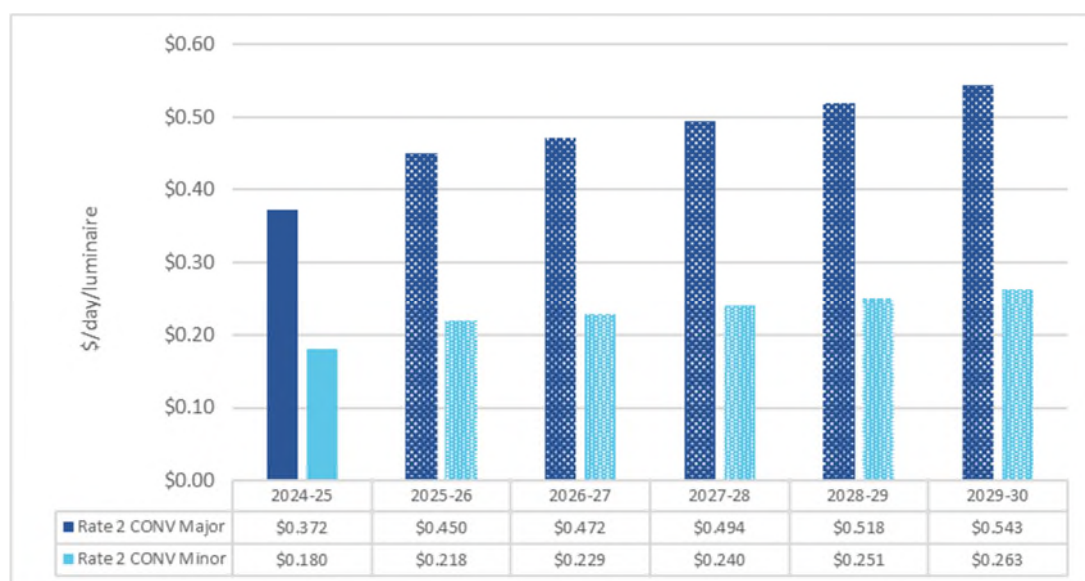
**Figure 11: Forecast Daily Charges for Rate 2 LED Lights**



Compared to the 2024-25 charges, the increase in Rate 2 LED charges in the first year of the 2025-30 regulatory control period is expected to be 7.6 per cent, followed by an average annual increase of 4.8 per cent for the remaining four years.

Figure 12 shows our forecast daily public lighting charges for the Rate 2 Conventional tariffs.

**Figure 12: Forecast Daily Charges for Rate 2 Conventional Lights**



Compared to the 2024-25 charges, the increase in Rate 2 Conventional charges in the first year of the 2025-30 regulatory control period is expected to be 21.1 per cent, followed by an average annual increase of 4.8 per cent for the remaining four years.

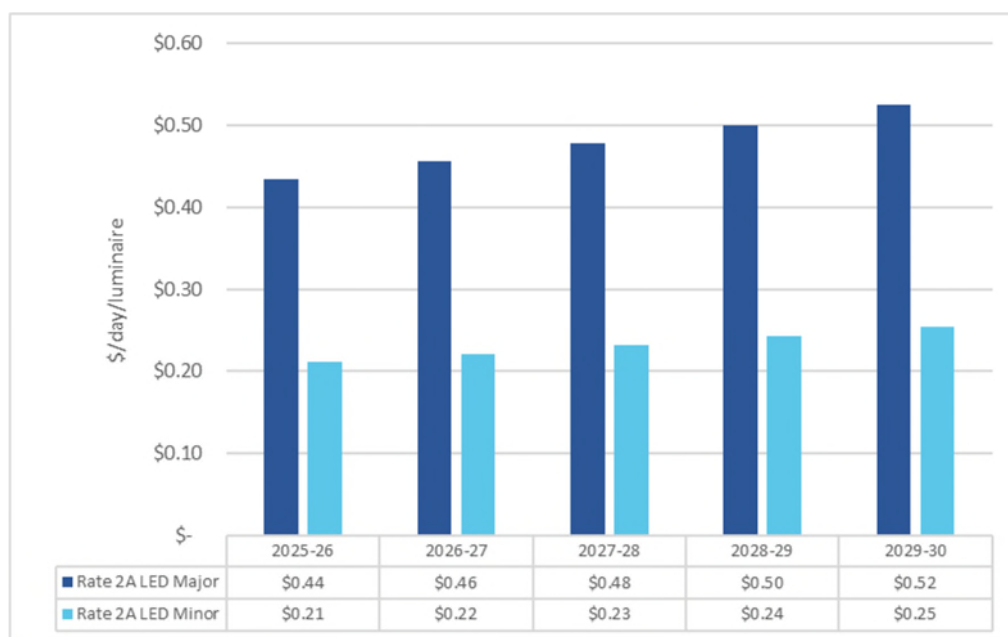
As noted previously, the 100 per cent LED deployment by June 2030 is premised on Energex funding the upfront capital cost of the Rate 2 conversions. These capital costs will be recovered through the Rate 2A tariff.

From 1 July 2025, there will be two streams of Rate 2 assets that would be reassigned to the Rate 2A tariffs:

- Legacy Rate 2 mercury vapour assets that were converted to LEDs and funded by Energex during 2020-25, and
- Conversion of all remaining Rate 2 conventional assets funded by Energex during the 2025-30 regulatory period.

Figure 13 shows our proposed forecast daily public lighting charges for the proposed Rate 2A Major and Minor LED tariffs.

**Figure 13: Forecast Daily Charges for Rate 2A LED Major and Minor Lights**



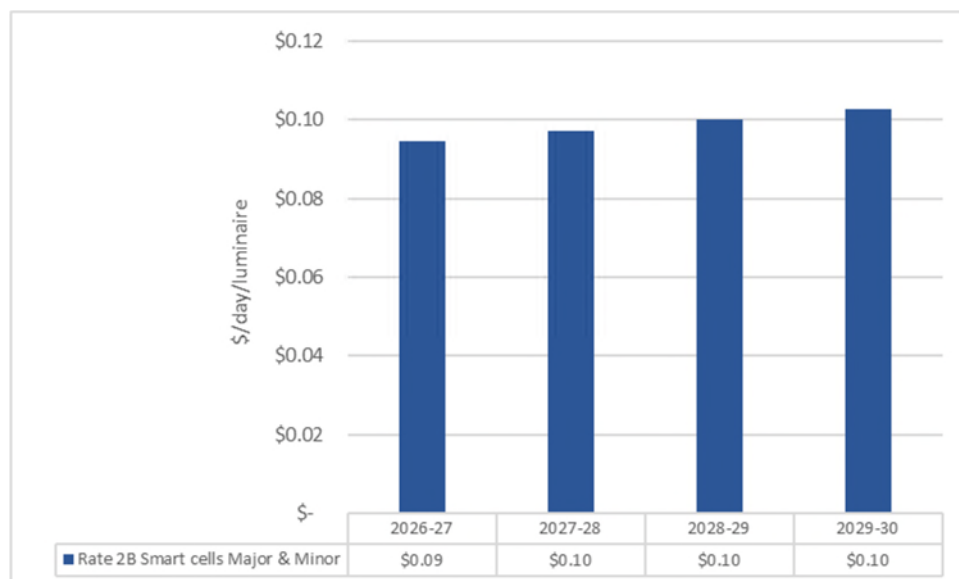
Compared to the Rate 2 Major Conventional charges, the Rate 2A LED charges represent a 3 per cent decrease. Under the Energex funded approach, customers should see some benefits when converting their Rate 2 Conventional lights to an LED funded by Energex.

Given that we are proposing to repurpose the Rate 4 tariffs to become Rate 2A, we will be re-assigning the Rate 4 assets to the cheaper Rate 2 LED tariff on 1 July 2025.

Figure 14 shows our proposed forecast daily public lighting charges for the Rate 2B Smart Cells tariff to be offered from 1 July 2026.



**Figure 14: Forecast Daily Charges for Rate 2B Smart Cells Major and Minor Lights**



The daily charge for smart cells is forecast to be 9.5 cents per day in 2026-27, expected to increase by 2.75% annually for the remainder of the 2025-30 regulatory control period.

Our forecast public lighting charges have been developed using the following models:

- Energex – 11.02 – ACS Public Lighting pricing model
- Energex – 11.05 – ACS Smart control pricing model.

Our charges for public lighting services (including smart cells) are presented in Attachment Energex – 11.08 – ACS Price Schedule 2025-30.

## 3.7 Customer impact

### 3.7.1 Customer impact for the 2025-30 period

To enable customers to evaluate the impact of the various options presented in this chapter, we have modelled the average impacts on Energex's customers. This analysis is conducted at a global level and includes all Energex public lighting assets. Being an average customer impact, this analysis should therefore be considered for illustrative purposes only. It reflects the impact of the replacement of all the Rate 1 and Rate 2 conventional lights to LED, and the reassignment of the Rate 4 assets to Rate 2 LED tariffs.

Figure 15 below presents the updated 2025-30 customer impact compared to that provided as part of the Draft Plan.

**Figure 15: Customer impact for Energex customers for 2025-30**

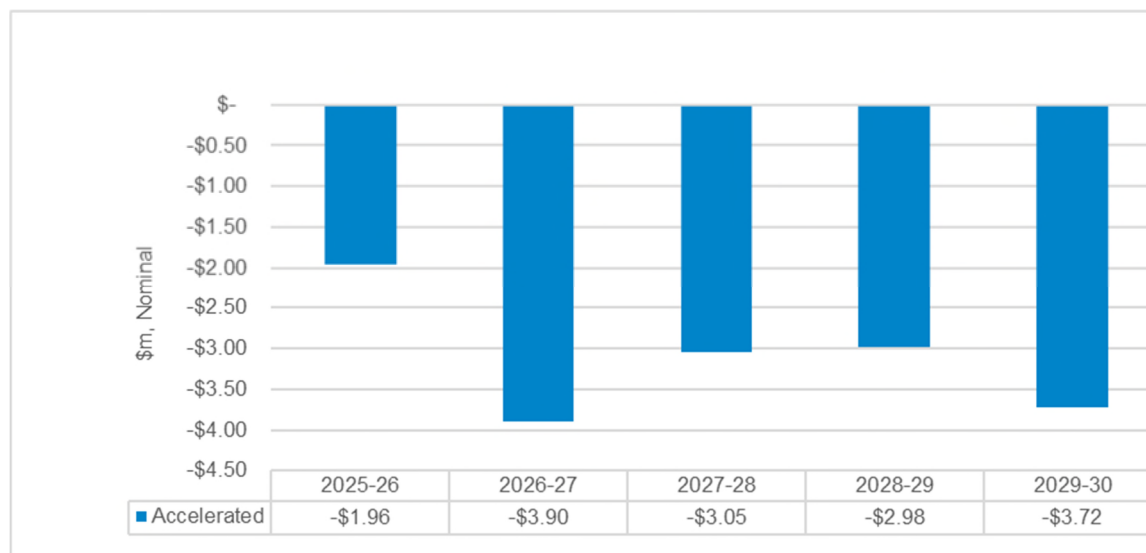


Having incorporated customer feedback in our modelling, on average, Energex customers will see an initial estimated increase of 18 per cent in the first year of the regulatory control period followed by an average 1 per cent annual decrease for the remaining four years. Compared to the customer impact presented in the Draft Plan, customers are expected to see a smaller step change on 1 July 2025.

It should also be noted that Energex customers will see total savings in Unmetered Supply Charges of an estimated \$15.6 million (\$, nominal) over the five year period. The annual estimated reduction in Unmetered Supply Charges for all Energex customers is presented in Figure 16 below.<sup>16</sup>

<sup>16</sup> Estimated savings based on the Unmetered Supply Tariff (Tariff 71 – street lighting) regulated by the Queensland Competition Authority (QCA) in the 2023-23 Regulated Retail Electricity Prices. Actual Unmetered Meter Supply charges from electricity retailers will differ.

**Figure 16: Customer impact for Energex customers for 2025-30**

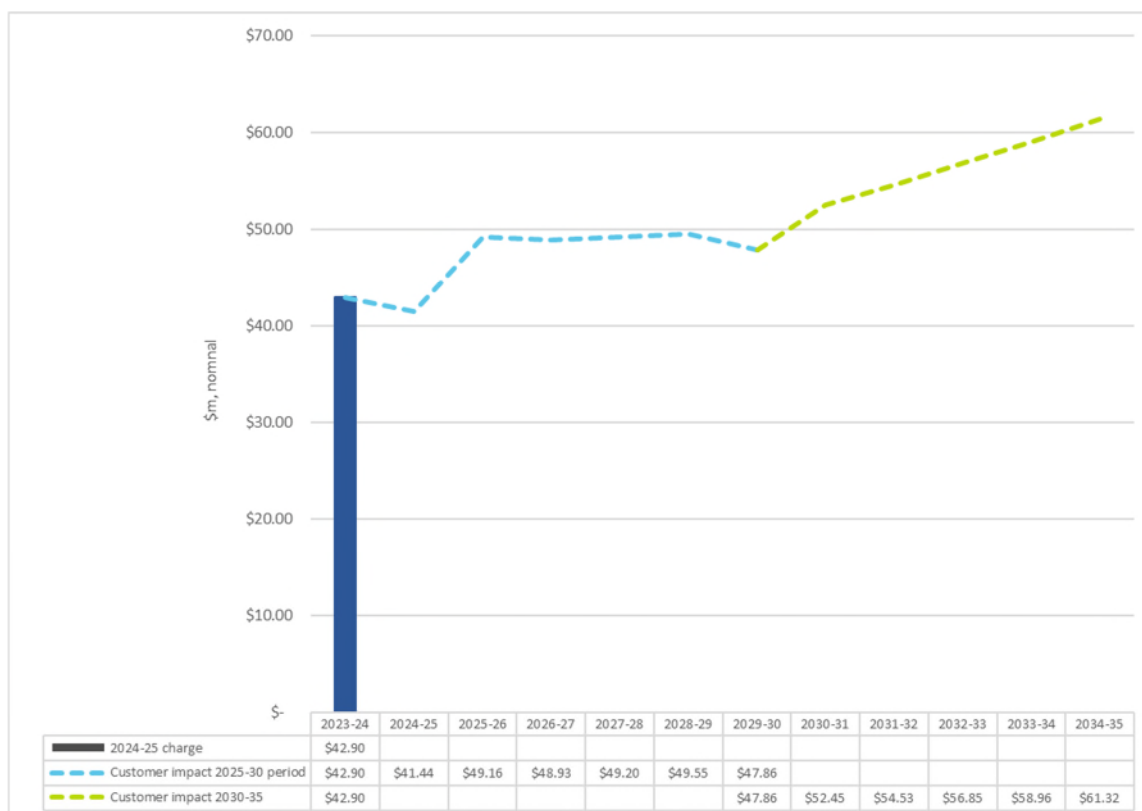


### 3.7.2 Long term customer impact beyond 2030

As part of our customer engagement, a number of respondents requested that we provide a longer term customer impact, extending our analysis beyond 2030. Based on early estimates and assumptions, Figure 17 below shows an estimated 10 percent increase in customers' average charges on 1 July 2030. This reflects the completion of the LED deployment by 30 June 2030, with the corresponding capex entering the Public Lighting Asset Base. In our analysis we have assumed an ongoing capex forecast based on an estimated 5% failure rate of the LED lights which will require replacement in 2030-35. We have also assumed the same level of opex (escalated to real \$2029-30) used in 2024-25, as it considered the most representative forecast of maintenance expenditure levels for 2030-35 as it is assumed full deployment of LED. Finally, as previously discussed in section 3.5.1, the recovery of the residual value of the conventional assets will be fully realised during the 2030-35 regulatory period.

Following the step change on 1 July 2030, it should be noted that customer charges will stabilise in 2031-32 onward, with a 4 percent annual increase over the remainder of the 2030-35 regulatory period.

**Figure 17: Customer impact for Energex customers for 2025-30 and 2030-35**

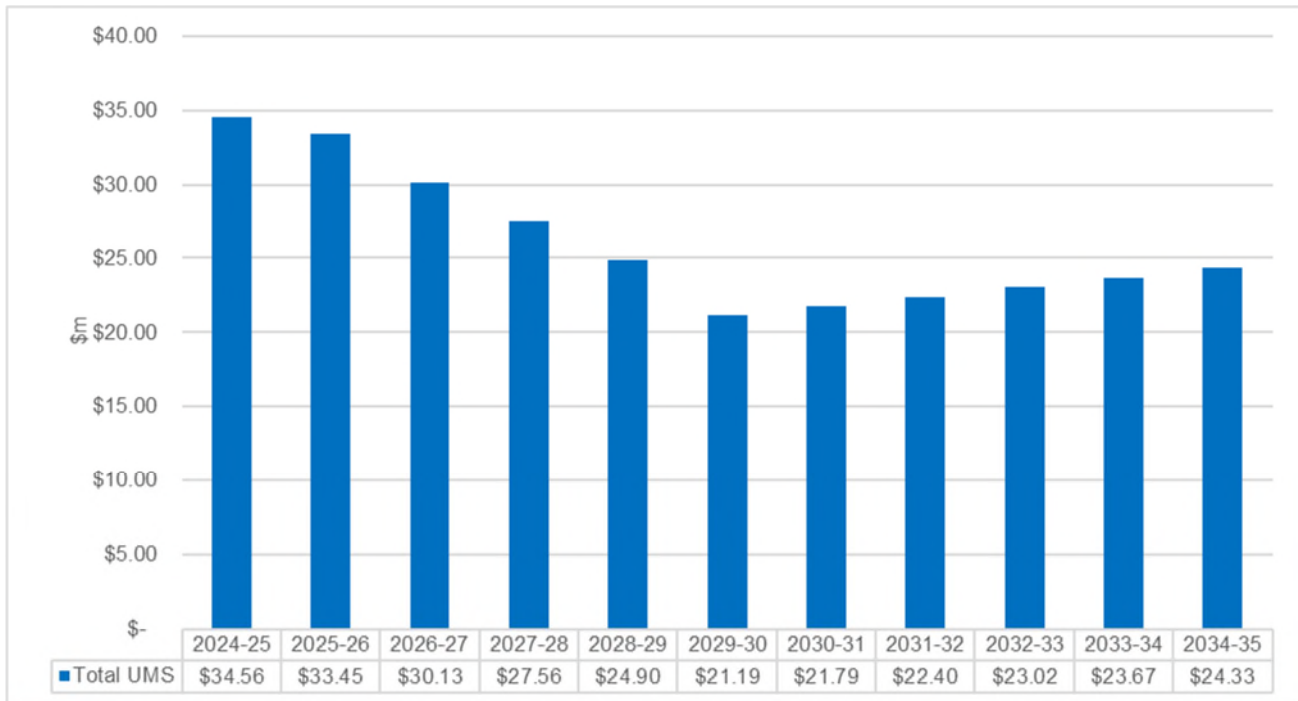


To smoothen the transition between regulatory control periods, we have used the smoothing factors in the Energex public lighting pricing model (Attachment Energex – 10.2 – ACS Public lighting pricing model) to shape the charges in a manner that will manage any step changes in the first year of 2025-30 and 2030-35 regulatory control periods.

It should also be noted that the savings in standard control services Unmetered Supply Charges made during the 2025-30 regulatory control period will continue in 2030-35 as these will be ongoing.<sup>17</sup>

<sup>17</sup> Forecast Unmetered Supply Charges are based on Tariff 71 – Street Lighting set by Queensland Competition Authority in the 2023-23 Regulated Retail Electricity Prices. Tariff 71 was CPI adjusted from 2024-25 to 2034-35.

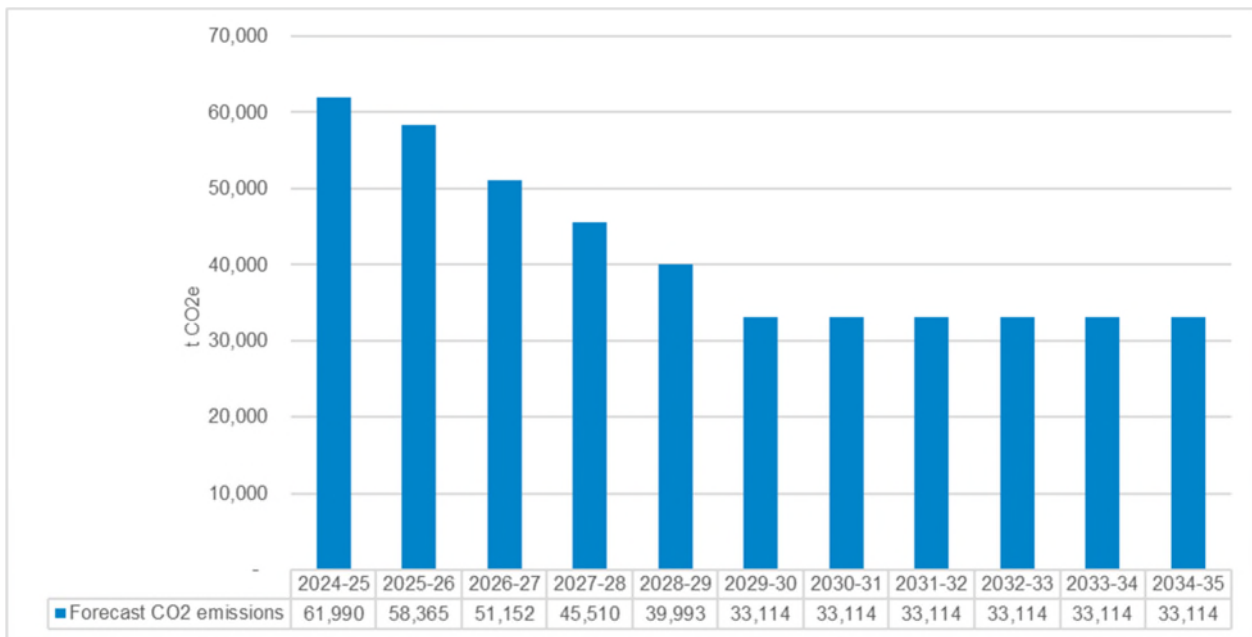
**Figure 18 – Energex’s Forecast Unmetered Supply Charges from 2024-25 to 2034-35**



Compared to 2024-25, Energex’s customers will on average make estimated savings in Unmetered Supply Charges of 39 percent when all public lights are converted to LEDs by 30 June 2030. These savings will continue to be realised during the 2030-35 regulatory period.

During our customer engagement we conducted modelling to forecast the estimated reduction in carbon emissions. Based on an estimated 0.54 ton of CO<sub>2</sub> emission per kWh, we estimate that by 30 June 2030, our public lights will achieve a 47 percent reduction in carbon emission compared to 2024-25.

**Figure 19: Energex’s estimated carbon emissions for public lighting 2024-25 to 2024-35**



These carbon emission reductions achieved in 2029-30 will be ongoing during the 2030-35 regulatory period.

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## 4 ANCILLARY SERVICES

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*This section outlines the types of ancillary services (fee-based and quoted) we provide to our customers, and summarises our proposed changes for the 2025-30 regulatory control period.*

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Ancillary services are non-routine services provided to individual customers as requested. These services do not form part of the suite of common distribution services considering that not all customers request or require them.

Ancillary services fall under the ACS service classification under the F&A determination by the AER. ACS services are customer specific, or customer requested and are akin to a 'user pays' system. Ancillary services are either charged on a fixed fee (fee-based services) or quotation basis (quoted services), depending on the nature of the service.

Due to their relative standardised nature, fee-based services are charged using prices developed (and submitted to the AER) prior to the start of the forthcoming regulatory period, in accordance with a cost build up approach (i.e., labour, contractor services, materials) and using standardised service assumptions.

Fee-based services fall under a price-cap control mechanism. This means that the AER sets the maximum efficient prices that Energex is permitted to charge for providing the services.

The costs of providing these services are recovered through tariffs and charges billed to electricity retailers who in turn pass on the charge to end customers.

Examples of ancillary services include temporary disconnections and reconnections, supply abolishment, re-arrangement of connection assets, auxiliary metering services and some public lighting services.

### 4.1 Fee-based services

The charges for fee-based services are set in accordance with specified service assumptions due to the standardised nature of the services.

Fee-based services are determined via a cost build up approach at the individual service level and relate to activities undertaken by us at the request of customers or their agents (e.g. retailers or contractors). The costs for these activities can be directly attributed to customers and service-specific prices can be charged.

The prices for fee-based services are determined using a cost build-up approach based on the following formula:

Price = Labour + Contractor services + Materials

Where:

- Labour - consists of all labour costs directly incurred in the provision of the service which may include, but is not limited to, labour on costs, fleet on costs and overheads. The labour cost for each service is dependent on the skill level of the employee(s), time of day in which the service is undertaken, travel time, number of hours, number of site visits and crew size required to perform the service

- Contractor services - reflects all costs associated with the use of external labour in the provision of the service, including overheads and any direct costs incurred as part of performing the service. The contracted services charge applies the rates under existing contractual arrangements. Direct costs incurred as part of performing the service, for example permits for road closures or footpath access, are passed on to the customer, and
- Materials - reflects the cost of materials directly incurred in the provision of the service, including material storage and logistics on costs and overheads.

Prices in subsequent years of the regulatory control period will be based on the cost build-up developed for 2025-26, escalated using inflation.

#### 4.1.1 What is Schedule 8?

In addition to the AER's role, prices for fee-based services are also subject to consumer protection measures set out by the Queensland Government in the Electricity Regulation 2006 (the Regulation). Schedule 8 of the Regulation provides the maximum prices customers can pay for certain services, including:

- special meter reads and testing of meters by Ergon Energy Network (Part 1)
- disconnection and reconnection of supply of electricity to premises in some circumstances, both during business hours and outside business hours (Part 2)
- some temporary connections of a supply of electricity (Part 3)
- some services for premises that are connected to a long rural feeder or an isolated feeder (Part 4).

Parts 1 to 3 of Schedule 8 include maximum price caps that are updated each year via an amendment to the Regulation (for example, see the Energy and Public Works Legislation (Fees) Amendment Regulation 2021).

#### 4.1.2 Interaction between the AER's oversight and Schedule 8

Energex submits its proposed fee-based service charges to the AER for approval through its Tariff Structure Statement and Annual Pricing Proposal process. These charges are cost reflective and consistent with the AER's standard methodology. The AER reviews these prices and approves them if they are thought to be efficient and consistent with the requirements set out in the National Electricity Rules (NER).

While the AER has general responsibility for regulating fee-based services, it has no role in setting the Schedule 8 price caps. Ultimately, the Queensland Government is responsible for the services that fall under the remit of Schedule 8. The Schedule 8 price caps are set independently of the AER process, generally at levels that are below the AER-approved prices for these services. As price caps in Schedule 8 take precedence over the AER-approved prices, the final prices paid by our customers reflect the Schedule 8 price caps.

#### 4.1.3 Our proposed changes for 2025-30

For the forthcoming 2025-30 period we are proposing a number of incremental changes to our fee-based services. Besides updating our forecast labour rates and overheads, we have also conducted a thorough review of the service dimensions (such as travel time, time to complete a job and number of crew to perform a task), use of internal resources or external contractors, and uptake of services over the past three years. The proposed changes are summarised below.



## Consolidation of services

Following guidance from the AER, we have considered consolidating our fee-based services as part of our forthcoming 2025-30 Regulatory Proposal. Currently, the number of core fee-based services comprises of 47 services but when considering the number of permutations, these increase to 142.

Following a review of our service offering, we are proposing to discontinue 27 services which have had little or no uptake for the past 3 years. For example, we are considering no longer offering the Anytime permutations.<sup>18</sup> We will also discontinue a small number of After Hour services which have not been requested for a number of years. We are of the view that these services are unlikely to be requested in future, and therefore do not need to be offered in the next regulatory control period. In the unlikely event of one of these discontinued After Hour services being raised during 2025-30, we will charge the Business Hour price.

Following our review of services, our service offering will be reduced to 115 service permutations.

We believe that streamlining our services down to a core group of services which are relevant to our customers would result in reduced confusion and administrative costs for retailers, customers and their agents.

## Travel time to a customer's site

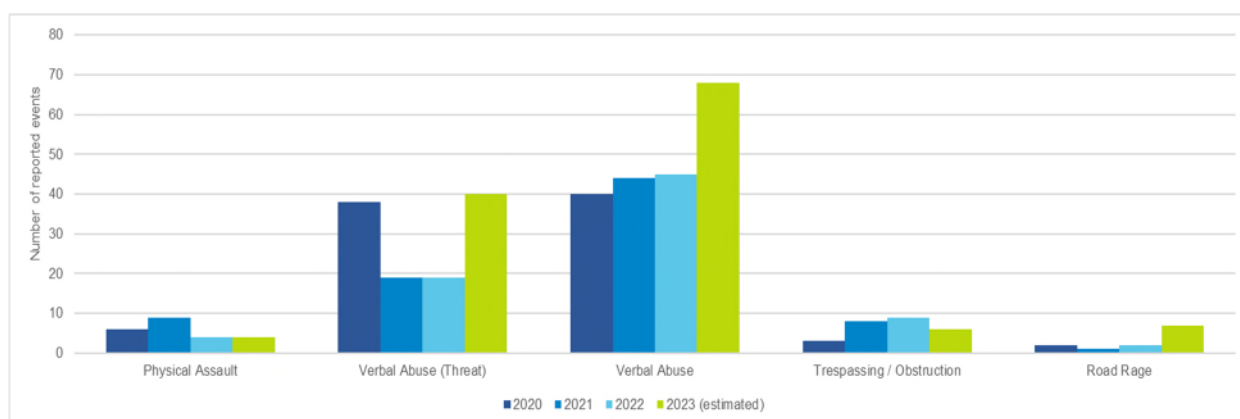
Due to increasing traffic congestion in the South East, it is no longer viable for our crew to attend our customers' premises within the current estimated time. In recognition of the increasing traffic issue experience by our staff, we are proposing a modest increase to the estimated average travel time from 30 to 33 minutes.

## Health and safety requirements

In light of recent events, we have updated our health and safety policy to provide greater protection to our staff.

Figure 20 below shows the increases since 2020 in workplace related violence and aggression experienced by our crews and contractors.

**Figure 20: Reported number of workplace related violence and aggressions 2020-23**



These incidents are reflected in the provision of certain sensitive jobs involving non-payment services and meter reading services. As a result, we have increased the number of staff from one

<sup>18</sup> The Anytime permutation was developed to treat urgently job requests raised after the 1pm cut off point (but prior to 2.30pm). After Hour fees apply to Anytime service requests.

to two persons per crew for jobs which are deemed high risk. The safety of our staff and customers is paramount and we believe this measure is necessary.

### Updated contractor rates

In 2023, we finalised new contract extensions with our existing external service providers which met our performance standards, particularly around safety and quality. The shortage of reputable and qualified external service providers in the market, coupled with a decline in meter reading services due to the uptake of smart meters, has meant that it is commercially appropriate for us to leverage contract extensions with our existing service providers rather than return to an open market in an environment where the likelihood of growth in this space is extremely low. The lack of opportunities in a declining market has led to substantial increases in contracted rates being negotiated for the forthcoming regulatory control period.

Furthermore, as noted above, following a series of recent reported incidents, we have raised our health and safety requirements, mandating that certain services be conducted by a two-person crew, rather than a single person. This has had a flow on impact on the negotiated schedule of rates with our contractors.

Despite the forthcoming increases in contractor costs, the use of external resources remains the most cost-effective option for Energex and our customers.

### New services

We are proposing to offer a small number of services on fixed fee basis due to their being reasonably standardised. These proposed new fee-based services include:

- Remote De Energisation: this is to accommodate changing work environment
- Property Searches (including complex property searches): under the current 2020-25 period, these services are charged on a quoted basis. Charging these services on fixed fee basis will reduce administration costs.

### New standardised AER model

The AER has developed a standardised ancillary services (ANS) model to improve consistency across the NEM and to streamline the resources and consultation required on ancillary services modelling. It is anticipated that this consistency will also provide stakeholders, such as retailers and end customers, with greater scope to engage with DNSPs in developing their proposals.

We will use the ANS model for the first time in our 2025-30 Regulatory Proposal. The use of this model means that we have had to adjust our overheads so that they will align with the structure of the model. These adjustments required the development of weighted average overhead rates outside the model. The adjusted rates accommodate the constraints of the new model while ultimately reconciling with our Cost Allocation Method (CAM).

A copy of our 2025-30 ANS model is provided in Attachment Energex - 11.06 – ACS Ancillary Services Model.

#### 4.1.4 Our customer and stakeholder engagement

As part of our customer and stakeholder engagement, we presented our proposed changes to our fee-based services at a Retailer Forum held in October 2023. Some questions from major retailers were raised about the reasons for discontinuing some of the After Hour services and the proposal to offer property searches as a new fee-based service, however no significant concerns were conveyed.

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Prior to submitting our 2025-30 Regulatory Proposal, we also had a number of meetings and presentations with the AER to discuss our proposed approach for fee-based services.

#### **4.1.5 Customer impact**

Our proposed indicative prices for our forthcoming 2025-30 fee-based services are presented in Attachment Energex – 11.08 – ACS price schedule 2025-30.

To ensure stakeholders are fully informed, Attachment Energex – 11.11 – ACS ANS Fee-based service comparison compares prices between the final year of the current regulatory period (i.e. 2024-25) and the proposed prices for the first year of the forthcoming 2025-30 regulatory period. We have also identified the services that are subject to Schedule 8 and included the estimated Schedule 8 maximum charges customers will see on their bills (noting that the forecast Schedule 8 prices are based on the 2022-23 charges and therefore subject to change).

In summary, de-energisations, re-energisations and auxiliary metering services will experience a material step change on 1 July 2025. However, these services are captured by Schedule 8 and customers will not therefore see these price increases in their bills.

Supply enhancement and supply abolishment services, which are not covered by Schedule 8, will see increases up to 30 percent on 1 July 2025.

## **4.2 Quoted services**

Prices for quoted services are based on quantities of labour and materials, with the quantities dependent on a particular task. Prices for quoted services are determined at the time of a customer's enquiry and reflect the individual requirements of the customer's request. For this reason, it is not possible to list prices for quoted services as part of our 2025-30 Regulatory Proposal.

### **4.2.1 Pricing methodology for quoted services**

The price for quoted services will reflect the approved labour and material cost escalators and the approved rate of return at the time the work is requested. The fee or price will be based on a cost build-up formula as follows:

Price = Labour + Contractor Services + Materials + Margin

The list of proposed quoted services for the 2020-25 regulatory control period is provided in Attachment Energex - 11.06 – ACS Ancillary Services Model.

### **4.2.2 Our proposed changes to quoted services for 2025-30**

For the forthcoming 2025-30 period we are proposing a number incremental changes to our quoted services. These proposed changes are discussed below.

#### **Labour costs specific to quoted services**

As noted in section 4.1.3 above, we will use the ANS model for the first time in our 2025-30 Regulatory Proposal. The structure of this model required that we make adjustments to our overheads to be able to derive the prices for our fee-based services. The adjustments entailed the use of weighted average overhead rates applied to our base labour costs.

Being calculated outside the AER's ANS model, the prices for our quoted services do not fall under the same constraints as fee-based services. While we intend to use the same base labour rates for both quoted and fee-based services, we propose to apply the unadjusted overhead rates as per our CAM to quoted services. This will ensure that Energex is able to recover its efficient cost

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of providing services. We consider that the use of the weighted average overhead rates for both fee-based and quoted services, would result in an under-recovery for our quoted services.

Our proposed labour rates (inclusive of on-costs and overheads) are provided in Attachment Energex - 11.06 – ACS Ancillary Services Model.

### **Introduction of a margin**

In line with our F&A, we propose to apply a margin to our quoted services. The inclusion of a margin is in line with other jurisdictions, noting that it is intended to promote competitive neutrality and enable distributors to recover their efficient costs.<sup>19</sup>

We note that the AER has proposed a uniform six percent margin in the draft decisions for the New South Wales, Australia Capital Territory, Tasmania and Northern Territory distributors. We consider that a fixed margin of six percent strikes the right balance between minimising administrative burden while promoting competitive neutrality.

### **List of quoted services**

In accordance with the requirements in the ANS model, our proposed list of quoted services are provided in Attachment 11.06.

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<sup>19</sup> AER Preliminary Position Paper: Framework and Approach Papers for Ergon Energy, Energex, SA Power Networks and Directlink 2025-30.

## 5 SECURITY LIGHTING SERVICES

*This section outlines our proposed approach for security lighting (also known as watchman lights) for the 2025-30 regulatory control period.*

Security lighting services generally involve installation, operation, maintenance and replacement of lighting equipment typically mounted to our distribution network poles and structures. Until the commencement of the 2020-25 regulatory control period security lighting services have been provided as an unregulated service, with Energex having full discretion in relation to the pricing methodology and charges applicable for this service.

With security lighting services becoming ACS from 1 July 2020, we decided to split the one-off installation charge from the on-going maintenance, operation and replacement charge and proposed to charge for this service on an 'as quoted' basis.

### 5.1 Pricing methodology

For the current 2020-25 regulatory control period, our charges for the on-going maintenance, operation, and replacement of security lights were developed on a cost build approach for the first year of the regulatory period, using CPI-X thereafter. These charges were designed to recover both the capital and non-capital components, with the capital costs incurred during installation as well as the luminaire replacement costs being recovered during the life of the lighting equipment. Our security lighting pricing model applied inputs (WACC, labour escalations and CPI) consistent with the AER's forecasting methodologies.

For the 2025-30 regulatory control period, we propose to develop our charges for security lighting services solely on the CPI-X approach applied to the previous year's prices. This would include the prices for the first year of the 2025-30 regulatory control period (i.e. prices for 2025-26) based on the 2024-25 prices. This is considered to be a simple and pragmatic approach. Given the minimal changes in some of the underlying costs and very low volumes, we believe that a cost build up approach for the first year of the regulatory period is not warranted.

### 5.2 Our security lighting tariffs

For our current 2020-25 regulatory control period, we introduced five new categories for maintenance, operation and installation charges. The new categories were based on the amount of illumination required and the type of lighting technology (i.e. Small LED, Medium LED, Small Conventional, Medium Conventional and Large Conventional). The proposed new categories for maintenance, operation and replacement charges were developed to provide Energex with flexibility to adopt different technologies as they become available. Further, the proposed LED rates were expected to encourage the transition to LED as capital costs are recovered over a

**Image 1: Example of security lighting**



longer period (i.e. 10 years for LED vs three years for conventional lights, which reflects the longer asset life), resulting in the lower charges in comparison to conventional lights.

For the 2025-30 regulatory period, we do not propose to make changes to our existing security lighting tariffs. These are listed in Table 8 below.

**Table 8: Security lighting tariffs for 2025-30**

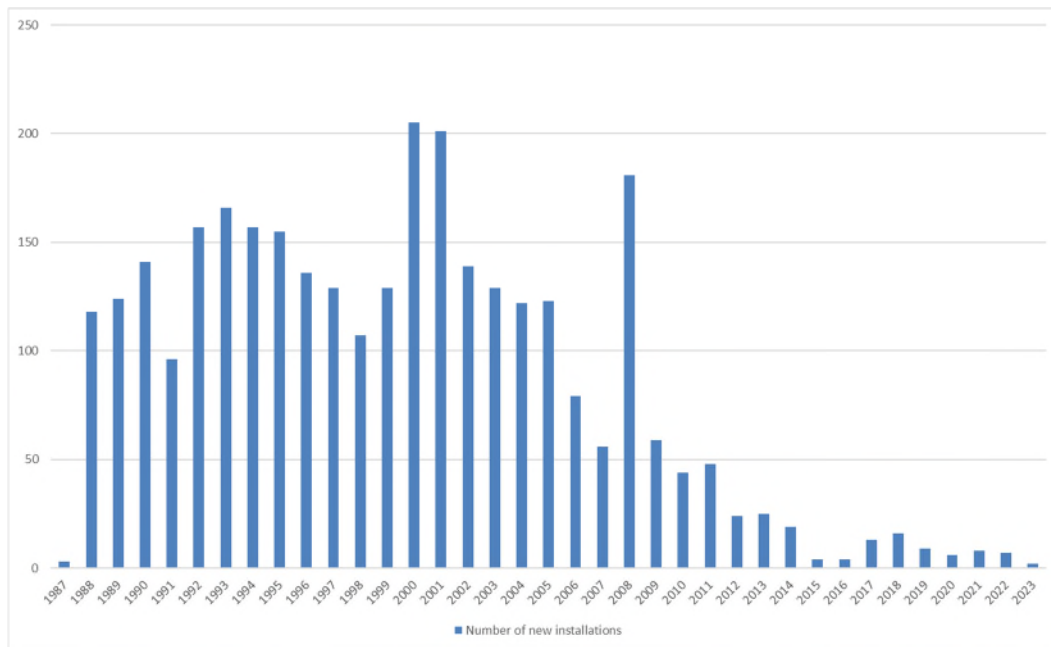
| Tariff grouping                        | Tariffs             | Description   |
|--|---------------------|---|
| Maintenance, operation and replacement | Small LED           | W70, W100   |
|  | Medium LED          | W200  |
|  | Small Conventional  | High Pressure Sodium and Metal Halide 150W  |
|  | Medium Conventional | High Pressure Sodium, Metal Halide or Mercury Vapour 250W   |
|  | Large Conventional  | High Pressure Sodium, Metal Halide or Mercury Vapour 400W   |
| Energy use                             | Unmetered supply    | Charges vary depending on the light type and size. Usage based on actual wattage according to the Australian Energy Market Operator (AEMO). |

### 5.3 Our proposed changes to security lighting for 2025-30

As part of our submission to the AER's 2025-30 F&A, we proposed to cease providing and installing security lights for new customers in the 2025–30 regulatory control period, and to continue to maintain and operate security lights for existing customers until they transition to alternative solutions.

As shown in Figure 21, the Energex security light installations have been declining since 2005, and the current low demand is likely due to alternative options available to customers.

**Figure 21: Volumes of security light installations**



In March 2023, the AER made the preliminary decision to support the proposal to cease providing security lights as a new service, on the basis that "it is costly for both consumers and businesses to maintain systems and processes for the provision of security lights. Importantly, cost effective and easy to install security lighting solutions are now widely available to customers, driving a decline in new services".<sup>20</sup>

<sup>20</sup> AER, Preliminary Position Paper, Framework & Approach Papers for Ergon Energy, Energex, SA Power Networks and Directlink 2025-30, March 2023

## 6 GLOSSARY

| Term  | Meaning  |
|---|--|
| \$, nominal                                       | These are nominal dollars of the day   |
| \$ real 2024-25                                   | These are dollar terms as at 30 June 2025  |
| 2025-30 regulatory control period                 | The regulatory control period commencing 1 July 2025 and ending 30 June 2030                               |
| ACS   | Alternative control service  |
| AEMC  | Australian Energy Market Commission  |
| AEMO  | Australian Energy Market Operator  |
| AER   | Australian Energy Regulator  |
| BST   | Base step trend  |
| CAM   | Cost allocation method   |
| Capex   | Capital expenditure  |
| CPI   | Consumer price index   |
| kWh   | Kilowatt hour  |
| LED   | Light emitting diode   |
| NEM   | National Electricity Market  |
| NER (or Rules)                                    | National Electricity Rules   |
| Next regulatory control period or forecast period | The regulatory control period commencing 1 July 2025 and ending 30 June 2030                               |
| Opex  | Operating and maintenance expenditure  |
| PLAB  | Public lighting asset base   |
| PTRM  | Post tax revenue model   |
| Regulatory Proposal                               | Energex's Regulatory Proposal for the next regulatory control period submitted under clause 6.8 of the NER |
| RFM   | Roll forward model   |
| RIN   | Regulatory Information Notice  |
| SCS   | Standard control service   |
| WACC  | Weighted average cost of capital   |



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## 7 REFERENCES

The list of related documents referenced within the body of this document include:

- Energex - 2025-30 Tariff Structure Statement
- Energex - 2025-30 Regulatory Proposal
- Energex – 11.01 – ACS Public lighting capex and opex forecasting model 2025-30.xlsm
- Energex – 11.02 – ACS Public lighting pricing model.xlsm
- Energex – 11.03 – ACS Public lighting RFM 2025-30-30.xlsm
- Energex – 11.04 – ACS Public lighting PTRM 2025-30.xlsm
- Energex – 11.05 – ACS Smart control pricing model.xlsx
- Energex – 11-06 – ACS Ancillary services model.xlsx
- Energex – 11-07 – ACS Security lighting pricing model.xlsx
- Energex – 11.08 – ACS price schedule 2025-30.xlsx
- Energex – 11.10 – Smart Public Lighting Strategy.docx
- Energex – 11.11 – ACS ANS Fee-based services comparison.xlsx
- Energex – Public Lighting Issues Paper (available on our Talking Energy webpage)
- Energex – Draft Plan (available on our Talking Energy webpage)