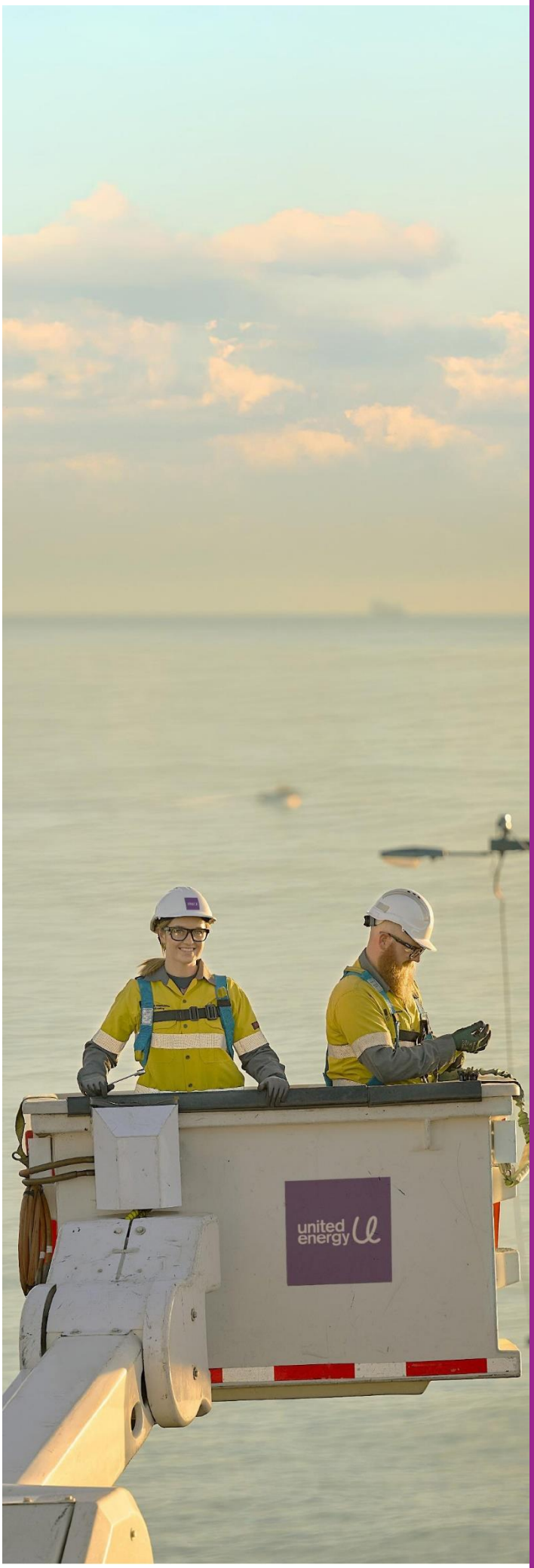

PUBLIC LIGHTING

PUBLIC LIGHTING – 2026-31 REVISED PROPOSAL

UE RRP ATT 6.01 – PUBLIC
2026-31 REVISED PROPOSAL

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1. Public lighting

1.1 Draft decision

Our initial public lighting proposals was not accepted by the AER. The draft decision made several amendments to the inputs of our public lighting modelling:

- PE cell replacement cycle for MV80 and T5 (2x14W) lights
- labour rates
- hourly rates for elevated platform vehicles (EPV)
- hourly rates for patrol vehicles
- weighted average cost of capital (WACC)
- consumer price index (CPI) and labour escalators
- 2025–26 prices
- actual net capex figures

In their draft decision, the AER encouraged us to further engage with stakeholders on the following issues informed by a submission from the Victorian Greenhouse Alliances (VGA) on our draft proposal:

- accelerated LED rollout
- separate prices for customer-funded and DNSP-funded assets
- new tariff for Category P LED lamps (corn cobs)
- smart lighting rollout
- wildlife-sensitive 3000K lighting options and lighting fixtures
- transitioning legacy lighting schemes.

1.2 Our revised proposal

1.2.1 Public lighting modelling inputs

We accept the draft decision on the following inputs:

- PE cell replacement cycle for MV80 and T5 (2x14W) lights
- labour rates
- hourly rates for elevated platform vehicles (EPV)
- hourly rates for patrol vehicles
- weighted average cost of capital (WACC)
- consumer price index (CPI) and labour escalators
- 2025–26 prices

- actual net capex figures

We have made the following updates to inputs:

- 2025-26 public light volumes which has a flow on impact to forecast public light volumes
- 2024-25 net capex updated with actual values

1.2.2 Further consultation

In May 2025, the Victorian Greenhouse Alliance (VGA) submitted a local government response to the Australian Energy Regulator's (AER) Electricity Distribution Price Review (EDPR) to provide input on the Victorian electricity distribution businesses' future energy network plans on behalf of member Councils.

The VGA partnered with Ironbark Sustainability for the 2026-31 EDPR submission, which made recommendations in relation to public lighting, the energy transition, regional supply and stand-alone power systems, vegetation management, climate resilience and voltage management.

The public lighting issues covered by the submission included:

- changes to the Victorian Public Lighting Code (the Code)
- DNSP investment in LED replacements – DNSPs are proposing to replace 150,000 streetlights with LEDs over the period
- recognising customer funded assets within pricing models
- detailed analysis of the DNSP's cost models indicates other areas where best practice should be implemented.

August 2025 consultation

Following the VGA submission, in August 2025, we organised another webinar consultation with public lighting stakeholders.

Invitations were sent to 134 stakeholders, in the webinar there were 25 participants.

Issues discussed:

- LED accelerated replacement
- smart PE cell infill
- separate tariff for Category P LED lamps (i.e. corn cobs)
- optionality for choosing LED luminaires' colour temperature (e.g. 3000K luminaires)
- opex savings for major road lights moved to LED through smart lighting
- transitioning legacy lighting schemes to the management of the municipalities.

We distributed the webinar presentation pack to all municipalities and Department of Transport and Planning (DTP) in our distribution areas and asked for their participation in a survey focusing on issues raised by the VGA and discussed in the webinar.

Out of the six issues in the consultation webinar we asked stakeholders to fill out a survey on the first four issues with targeted questions.

The other two issues were also discussed but they have no implications on the modelling and the OM&R charges. These two issues are discussed in a separate section below.

Detailed results of the survey

We received 22 responses (from 21 municipalities and a representative of the DTP) with the following outcome:

LED accelerated replacement program with separate pricing for CPU/self-funded lights

Support for standardising the colour temperature of our Category P LED lanterns

In a recent submission to the AER it was requested that we standardise our Category P LED (for residential areas) to have a colour temperature of 3000K. Further, Councils wished to be able to also specify 4000K for specific locations (such as traffic signals and pedestrian crossings). Major roads would continue to retain the current colour temperature of 4000K

- **Option 1**
  Yes, I support the request for 3000K to be the standard Cat P LED lanterns used in residential roads
- **Option 2**
  No, I do not support 3000K and our preference is to maintain the existing colour temperature of 4000K for all roads

64% of stakeholders support the use of 3000K colour temperature for residential roads

64% of respondents want an LED rollout and 78% of the Councils/DTP that want an LED rollout wanted cost recovery to be targeted at the lights that are replaced.

Where Councils had already completed the removal of all HPS, their response tended to be no rollout as this question did not impact them.

Additional comments included preference for replacement of decorative lights to be funded by the responsible Councils/DTP as standalone projects, whereas standard lights should be replaced by the DNSP and costs recovered through a separate charge. Councils/DTP acknowledged that these costs would be recovered during the next regulatory period and offset by savings realised from OM&R and energy savings.

Smart PE cell infill

Support for the smart PE cell infill program proposal

We tested three options with our customers:

- **Option 1**
  Yes, I am supportive of the distributor delivering the smart PE cell infill program
- **Option 2**
  No, I am not supportive of the distributor delivering the smart PE cell infill program
- **Option 3**
  Other – respondent to provide alternative

91% of stakeholders support distributors delivering the smart PE cell infill program

91% of respondents want a smart PE cell infill program, i.e. rollout of smart PE cells to those existing LED major road lights (Category V LED lights) that lack smart cells currently.

Some Councils/DTP voiced a preference that the infill program also include Category P (residential and minor road LED lights). As an alternative they would like the option to "supply CitiPower, Powercor and United Energy with smart PE cells so when the Category Ps are replaced with LEDs in the coming years, the new LED streetlight and smart PE cell can be installed at the same time, i.e. avoid having to come back in a few years to install smart PE cells."

Separate tariff for Category P LED Lamps (i.e. corncobs)

Support for a separate charge for decorative non-standard lanterns fitted with LED lamps

We tested three options with our customers:

- **Option 1**
  Yes, I am supportive of lanterns fitted with LED lamps having a separate charge due to their increased planned maintenance obligations
- **Option 2**
  No, I am not supportive of lanterns fitted with LED lamps having a separate charge
- **Option 3**
  Other – respondent to provide alternative

55% of stakeholders support a separate charge for LED lamps

55% of respondents want a separate Category P LED lamp (corncob) charge for decorative non-standard lanterns due to their increased maintenance requirements.

The responses generally reflected the Councils that have already funded the replacement of decorative lanterns with LED alternatives. Based on this feedback, we propose the creation of a new Category P LED Lamp OM&R charge for decorative non-standard lanterns retrofitted with LED lamps

to better reflect customers wishes to reflect the additional cost of maintaining decorative non-standard lanterns fitted with LED lamps due to the increased maintenance cycles.

Optionality for choosing LED luminaires colour temperature (e.g. 3000K luminaires)

Support for accelerated LED rollout and replacement of remaining HPS lanterns

We tested three options with our customers:

- **Option 1**
  Smeared recovery rollout with distributor to recover costs by incrementally increasing existing charges
- **Option 2**
  Targeted recovery rollout, each impacted Council to fund the replacement program and costs are recovered by an additional charge
- **Option 3**
  No rollout, my preference would be to continue replacement of HPS lanterns on failure
- **Option 4**
  Other – respondent to provide alternative

64% of stakeholders support the rollout and 79% of those prefer targeted cost recovery

64% of respondents want to be able to choose the colour temperature of Category P LED lights.

We heard respondent comments:

“Suggest if 3000k Cat P lights are rolled out, they are done at a minimum street-wide scale to avoid complaints about single streets having multiple light spectrums.”

“Request that the standard Cat P is 3000K and the standard Cat V is 4000K. For all standard options we request there be both a 3000K and 4000K option that customers can select where a nuanced design is required.”

In addition, there were requests to also provide the option for Category V lights with 3000K for particular areas.

Other issues discussed in the consultation

Opex savings for major road lights moved to LED through smart lighting

Delivery of a smart lighting Customer Management System (CMS) will be completed next year with costs self-funded by CitiPower, Powercor and United Energy.

We believe that savings can be achieved when all major road lights have transitioned to LEDs with smart technology. Our obligations to patrol major roads three times per year remains until completion of the proposed rollout and infill programs.

Transitioning legacy lighting schemes to the management of the municipalities

In our consultation with our public lighting customers, we discussed the opportunity to transfer the management and control of public lighting in non-trafficable parks, gardens and laneways to help ensure safety and access back to Councils.

This consultation was envisioned to initiate discussion and be voluntary.

Exact details of the process and applicable standards are to be defined on a case-by-case basis between us and the relevant Councils.

1.2.3 Our proposed actions following the consultation

Acting on the clear direction we had been given by the survey respondents, we propose to make the following changes to our public lighting submission:

PROPOSED CHANGE	DESCRIPTION
Category P LED lamps (corncobs) charge	We accept the consensus result of the stakeholder consultation and propose to introduce the new Category P LED lamp (corncob) charge for decorative non-standard lanterns. The OM&R price assumption is based on the Category P LED light type with a price factor of 2.0 to allow for the higher material cost of LED lamps (corncobs), higher maintenance requirements and shorter life cycle.
Smart PE cell infill program – Category V lights	We accept the consensus result of the stakeholder consultation and propose to proceed with the smart PE cell infill program for all Category V LED lights and targeted Category P LED lights.
Accelerated LED replacement program	We accept the consensus result of the stakeholder consultation and propose to replace all non-LED major road lights with the corresponding Category V LED equivalent lights. We propose a targeted cost recovery program by establishing a targeted accelerated replacement charge. This charge applies to replaced non-LED lights and is payable monthly from the time of replacement to June 2031, at which point the replacement cost will have been recovered and would not continue into the next regulatory period. If the OM&R costs of the lantern are shared with DTP, this would also extend to the targeted recovery charge, i.e. 40% Council and 60% DTP. When the new lantern is installed and updated in our asset inventory, the new LED lantern will shift from the existing OM&R tariff to the appropriate energy efficient LED OM&R tariff which will be billed monthly. In addition to the OM&R tariff savings, Council would also benefit from energy savings that would be passed through to the Council's retailer. The last payment of the targeted recovery charge will be in July 2031 for the month of June 2031. Lanterns replaced prior to the regulatory period starting on 1 July 2026 would not be included in the targeted recovery charge.
Optionality for choosing LED luminaires colour temperature	We accept the consensus result of the stakeholder consultation and we propose to standardise future replacement programs to Category P lights with 3000K in residential areas and Category V lights with 4000K in non-residential areas, reflecting the majority of Council responses.

1.2.4 What we propose not to do

Below we summarise the changes considered by the VGA but we propose not to do. We also provide justification for not following through with these changes.

CHANGE NOT PROPOSED	DESCRIPTION
Smart PE cell infill program – Category P lights	We do not propose go ahead with smart cell infill for Category P lights. This is primarily due to the reduced benefit of fitting smart cells to Category P lights and the significant cost increase to fund the smart cells. We understand that some Councils may wish to issue smart cells as part of bulk replacement programs.
Separate RAB for Council founded accelerated transition	We also do not propose to introduce a separate RAB for Council founded accelerated transition because we believe our approach: • ensures full rollout of LED lights as requested by the VGA and supported by most Councils • supports Councils planning to replace their LED lights now, as they are not required to fund the full cost of the luminaires upfront. CitiPower, Powercor and United Energy cover 57 Councils and less than one-third have funded a partial or full bulk lamp replacement to date. Many Councils do not have the funding for a bulk lamp replacement • maintains fairness for Councils that have already undertaken bulk LED replacements, ensuring they are not disadvantaged by higher charges and can benefit from a lower OMR charge • avoids upfront establishment costs associated with creating and maintaining a separate RAB • eliminates the need for ongoing administrative effort to track and manage which luminaires are allocated to each RAB • ensures the cost recovery period is completed by June 2031, removing the requirement to operate a separate system over a 20-year horizon • • ensures that by the end of the 2026-31 regulatory period, all lights will be incorporated into a single RAB, simplifying the overall framework rather than introducing an additional RAB stream that would maintain complexity.

1.3 Modelling approach

For each network, we conducted modelling under two distinct scenarios:

1 Base Case: Implementation of the LED lamp (corncob) and smart PE cell infill program, excluding the accelerated rollout of major road LED luminaires.
2 Accelerated Rollout Case: Building upon the Base Case assumptions, this scenario incorporates an accelerated rollout of major road LED luminaires.

OM&R charges in the Accelerated Rollout Case are set equal to the charges calculated in the Base Case.

All incremental costs associated with the accelerated rollout are to be recovered through the proposed Accelerated Replacement Charge only charged when we replace a non-LED light with an LED light, and ending on 30 June 2031.

This approach ensures that full cost recovery for the accelerated rollout occurs by 30 June 2031 and avoids the need for a separate RAB.

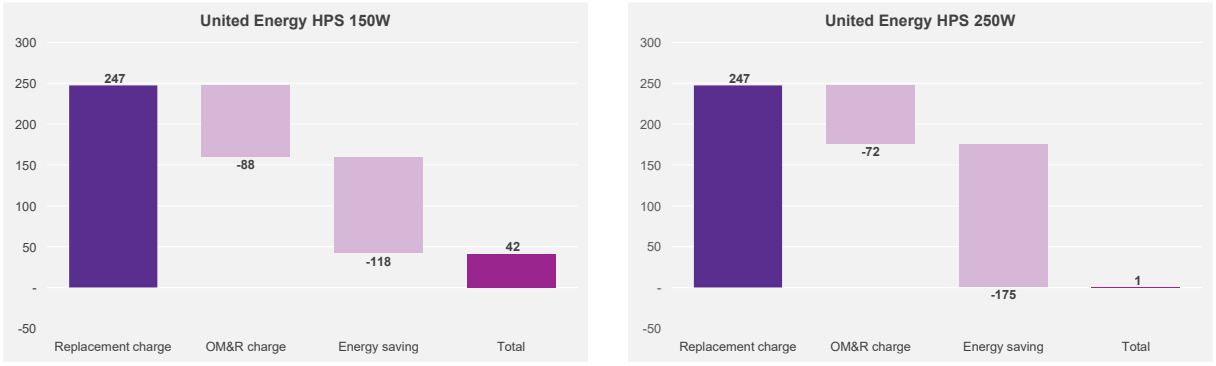
1.4 Modelling results

A council would see the following cost changes commencing when non-LED major road lights are replaced with the corresponding Category V LED equivalent light with smart PE cell:

- start incurring the Accelerated Replacement Charge
- OM&R charge will reduce from the non-LED rate to the LED rate
- energy savings will increase with reduced lamp energy usage.

The net cost will be small and potentially a saving depending on the cost of energy, lantern type OM&R, energy savings and timing of replacement.

FIGURE 1 ESTIMATED COST SAVINGS FOR HPS 150W AND HPS 250W LIGHTS



The above charts demonstrate how savings on the OMR charges and on the lower energy consumptions of Sodium High Pressure 150W and 250W LED lamps offset the Accelerated Replacement Charge[1].

1.5 Price calculation

Our proposed prices and X factors have been calculated by building up updated opex, capex and volume forecasts and then calculating the revenue requirement and price caps which are forecast to achieve the required revenue.

We have applied the same placeholder rate of return and inflation as for Standard Control Services. These will be updated in the AER's final determination.

We are not proposing to change depreciation asset standard lives.

We propose that depreciation which is used to roll forward the Regulated Asset Base (RAB) in the next regulatory period is based on actual net capital expenditure.

[1] We assumed average OMR charges ($ real, 2025/26) over the five years period, 25c/kWh energy cost and 12 hours/day operation.

Our cost-build up and RAB roll forward model are calculated in UE RRP MOD 6.05 - Public lighting cost model - Dec2025 - Public.

Our prices have been calculated using the AER's standard post tax revenue model (PTRM) which is model attachment UE RRP MOD 6.04 - Public lighting PTRM - Dec2025 - Public.

Table 1 shows our proposed prices for 2026-27.

TABLE 1 PROPOSED 2026-27 PUBLIC LIGHTING PRICES ($ NOMINAL, GST EXCLUSIVE)

LIGHT TYPE	PER LIGHT CHARGE $
Mercury vapour 80 watt	99.76
Sodium high pressure 150 watt	153.86
Sodium high pressure 250 watt	154.80
Sodium high pressure 400 watt	195.03
Metal halide 250 watt	208.97
Metal halide 400 watt	208.97
T5 2X14W	59.43
T5 2X24W	59.43
CF32	59.43
CF42	59.43
Category P LED Lamp	69.11
Category P LED Standard Output	34.56
Category P LED High Output	34.56
Category V LED L1 Standard Output	65.86
Category V LED L2 Medium Output	82.77
Category V LED L4 High Output	87.24
Accelerated Replacement Charge	253.75
WDV	181.30
Avoided cost	-24.11

WDV and avoided costs have been taken from the Base Case Model. There is no incentive for any Council to undertake a bulk replacement in the 2026-31 regulatory period and therefore we don't expect that WDV and avoided cost to be applied.

We propose to use the same X factors for all light types. Our proposed X factors for the subsequent four years are shown in Table 2.

TABLE 2 PROPOSED X FACTORS FOR PUBLIC LIGHTING

	2027-28	2028-29	2029-30	2030-31
X factor	-1.28%	-1.28%	-1.28%	-1.28%

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