Appendix 1.21: Customer Initiated Works Report

Regulatory proposal for the ACT electricity distribution network 2024–29

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1. Executive Summary

The information in this Customer Initiated Works (CIW) Report focuses on Standard Control Services (SCS). All costs shown are in real $2023/24 (June 2024) and include direct costs only.

The CIW forecast for capital expenditure (capex) largely depends on land releases for development by residential, commercial and industrial customers, and special purpose developments. It also provides for large spot loads (classified as standard control) that are known and considered definite, likely or potential loads — depending on the timing of the developments.

In essence, CIW is non-discretionary. Evoenergy is obliged to ensure that adequate budget finances exist to meet all customer requests in a timely and cost-effective manner. Table 1 below provides the categorised forecast of customer-initiated work for the 2024–29 regulatory period. Additional information, commentary and trends for each category are discussed below.

Table 1 2024–29 regulatory period customer initiated works capex – Standard Control

	2024/25	2025/26	2026/27	2027/28	2028/29	Total
New Services	3.5	3.5	3.5	3.6	3.6	**17.7**
New Urban Development	6.1	5.2	4.7	4.4	3.5	**23.8**
Urban Infill	8.3	8.3	9.7	9.7	13.1	**49.1**
Commercial and industrial developments	6.0	6.0	6.1	6.1	6.1	**30.3**
Special Customer Requests	0.2	0.2	0.2	0.2	0.2	**1.1**
Rural Developments	0.1	0.1	0.1	0.1	0.1	**0.5**
Total capex	**24.2**	**23.3**	**24.3**	**24.1**	**26.6**	**122.5**

2. Overview

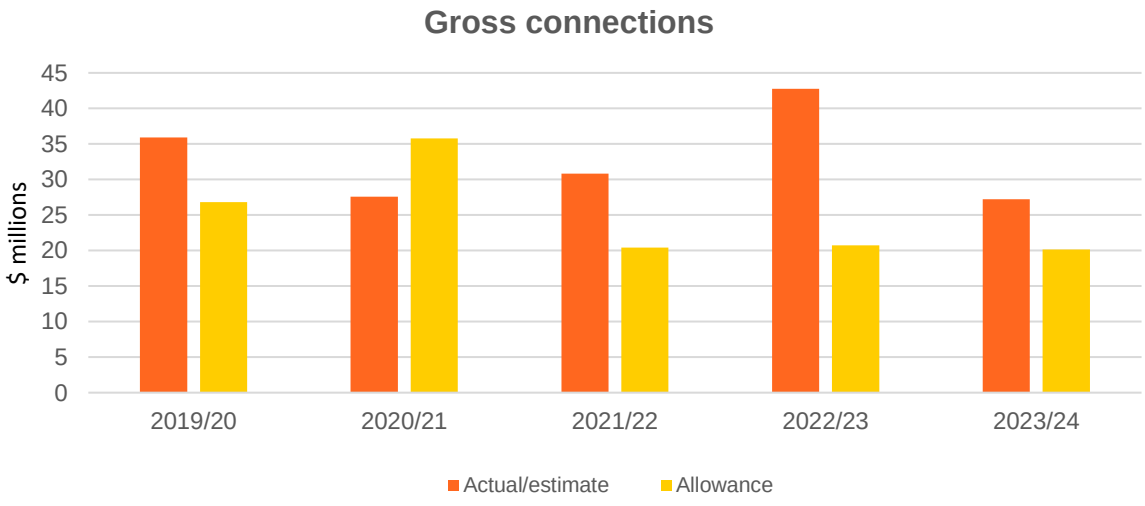
In developing the forecast CIW capex, Evoenergy takes into account a range of factors, including:

- direct customer or developer enquiries;
- major public and private development initiatives identified through public/media announcements;
- future development identified through ACT Government planning processes, including consultation;
- future development activity identified through ACT Government land release programs; and
- historic expenditure in the various customer initiated works categories, adjusted to reflect the anticipated broader short-term economic environment.

Figure 1 below outlines total (actual and forecast) Standard Control CIW capex against Australian Energy Regulator (AER) approved expenditure for the current 2019–24 regulatory period. Based on historical data for the first three years of the regulatory period (through to 2021/22 inclusive) and forecast connections capex for the remaining two years, Evoenergy is currently forecasting gross connections capex of $164 million. This compares to the allowance (scaled to $2023/24) of $124 million. As a result, Evoenergy is expecting to overspend its gross connections capex allowance by $40 million or 33 per cent.

However, as discussed in the *Appendix 1.1: 2019-24 period capital expenditure* of the 2024–29 regulatory proposal, Evoenergy is also expecting to recover higher capital contributions than the allowance for the 2019–24 regulatory period, such that the net connection capex variation is significantly different. However, the CIW Report focuses on gross connections capex only.

Figure 1 2019–24 gross connections capex; regulatory allowance vs. actual/forecast ($ million, $2023/24)



Note: 2021/22 is the last year of actual capex, with 2022/23 and 2023/24 forecasts.

Table 2 shows the concordance between Evoenergy's reporting categories for connections capex and the reported Regulatory Information Notice (RIN) categories. Evoenergy notes the alignment captures the most appropriate RIN category, or best fit applying to the Evoenergy category.

Table 2 Concordance between Evoenergy and RIN connection categories

Evoenergy	RIN Category
New Services	Residential
New urban development	Subdivision
Urban infill	Residential
Commercial and industrial developments	Commercial/industrial
Special customer requests	Commercial/industrial
Rural developments	Residential

3. Forecast

3.1. Commercial and industrial developments

Commercial and Industrial projects involve the network connection (and associated network extension works) required for new commercial development, industrial development, or redevelopments within established areas that already have reticulated services; for instance, high voltage (HV) and/or low voltage (LV).

Commercial and industrial activity levels largely correlate with activity levels in the construction industry due to newly constructed buildings typically requiring some form of network augmentation to provide new customer connection services.

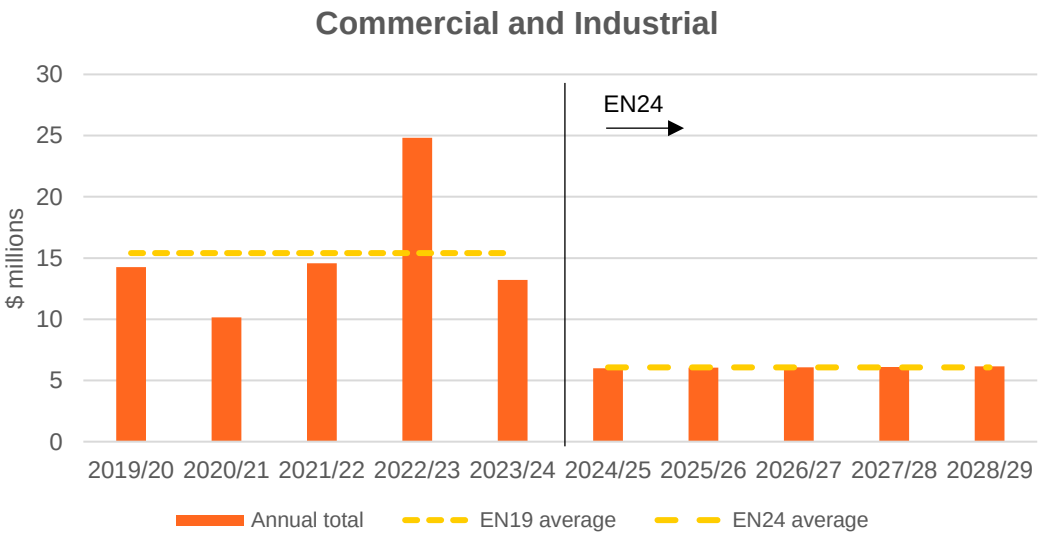
The forecast for the major commercial and industrial trend has been derived based on the following assumptions and calculations:

- Based on ACT Indicative Land Release Program 2021/22 to 2025/26 forecast numbers for area of commercial and industrial land release, available on the Australian Capital Territory (ACT) Government website.
- Average load densities for Commercial CBD, Commercial Other, Industrial, and Community development types.
- An average standardised commercial and industrial substation requirement required to service a single development, with consideration for likely additional Electric Vehicle (EV) charging capacity increasing throughout the period.
- A trend towards privately funded commercial and industrial chamber substations in the 24-29 regulatory period due to larger commercial customer types and their appetite for more control over design and supply timeframes.

- A trend towards larger, more bespoke commercial and industrial feeder and substation projects (e.g., HV customers) which do not contribute to standard control budget for chamber substations (reflecting their service classifications).
- Required new substations to supply expected load and sites multiplied by average standardised substation to arrive at total expenditure.

Figure 2 shows how the 2024–29 regulatory period forecast for commercial and industrial capex compares to current 2019–24 regulatory period (actual) capex for this category.[1] Forecast capex for Commercial and Industrial over the 2024–29 regulatory period is $30.3 million, which is substantially lower than the regulatory allowance for the 2019–24 regulatory period, which was $64 million ($2023/24) and forecast actual capex for the period of $77 million. This fall largely relates to classification related factors. The forecast assumes that the majority of commercial/industrial connection requests would be alternative control services because they are above the least cost technically acceptable solution (LCTAS) or 'enhanced connection services'.

Figure 2 2019–24 and 2024–29 capex for Commercial and Industrial ($ million, 2023/24)



3.2. New Services

The New Services category of expenditure covers supply and installation of overhead or underground services for new domestic residential installations where the load is less than or equal to 100 Amps and the service can be connected to existing LV mains reticulation without modification to the LV mains.

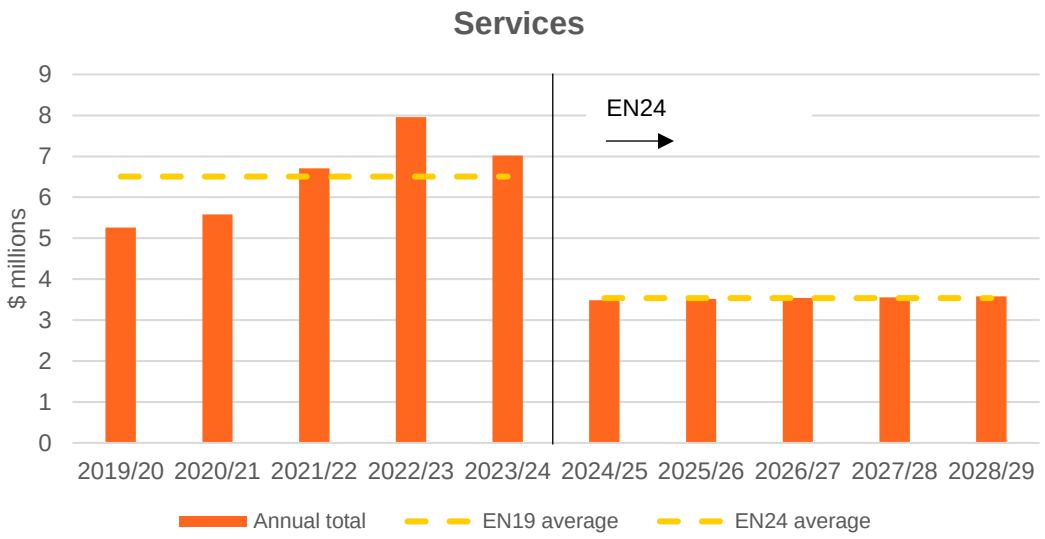
All new services in urban areas in the Evoenergy supply area are underground connection/services, whilst those in rural areas are overhead services.

The New Services connections capex is closely tied to the level of residential development in the ACT. The ACT tends to see relatively stable population growth compared to other jurisdictions in Australia, with net overseas migration (a variable series) of lesser important to population growth, and thus the demand for new residential activity. The amount of new services connections works is also dependent on what share of new residential development is urban infill versus greenfield. With urban infill forecast to continue to outweigh greenfield development, the forecast for new services connection capex is subsequently smaller compared to recent history.

[1] Note for all following charts, actual capex for the 2019–24 current regulatory period includes three historical observations and a forecast of the 2022/23 and 2023/24 years.

Forecast capex for New Services over the 2024–29 regulatory period is $17.7 million. This is an increase of around $7 million on the regulatory allowance for the 2019–24 regulatory period, however it is lower than current period actual capex ($32.5 million), indicating the current period allowance proved to be smaller than required.

Figure 3 2019–24 and 2024–29 capex for New Services ($ million, 2023/24)



3.3. New Urban Development

New Urban Development projects involve establishing the initial electricity network reticulation infrastructure for land within urban areas not previously reticulated/serviced. It is applicable to both residential and commercial/industrial estates. Residential estates typically involve more installed infrastructure than commercial/industrial, due to the higher certainty of proposed loads.

New urban development activity levels largely correlate with government land release targets for residential dwellings coupled with the planning targets for the area of new land designated for industrial use.

Consistent with the ACT Government's 2018 Planning Strategy, which contained a target of 70/30 split between urban infill and greenfield for new residential development, new land release has not been particularly strong in the ACT in the recent past. Evoenergy expects this trend to continue through the remainder of the 2020s, and this, combined with historical capex on new urban development, has been used to forecast New Urban Development capex.

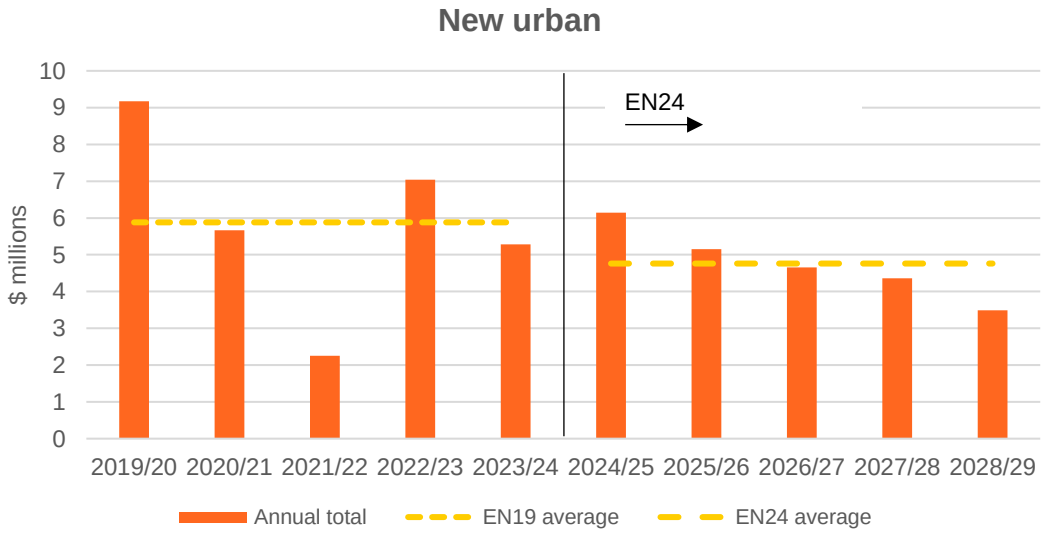
New urban development has been forecast based on the following assumptions and calculations:

- 1.3% annual population growth between 2022 and 2029;
- 2.0 people per household expected by 2029;
- current occupancy rates;
- ACT Indicative Land Release Program 2021/22–2025/26 forecast numbers for new dwellings, available on the ACT Government website;
- gradual trend away from single and multi-unit greenfield blocks toward brownfield multi-unit dwellings, to reflect urban intensification direction set by ACT Planning;
- delivery of large numbers of new dwellings between 2020 and 2022 due to COVID-19 and other macroeconomic factors that will result in spreading of new dwellings more evenly across entire decade up to 2029, accounted for by a 'growth factor';

- calculated oversupply in dwellings that will result in slow-down of development towards end of the decade;
- costs per block for single dwelling, mid-density single dwelling, and multi-unit dwellings based on historical information with a forecast outlook for required materials and labour to deliver to standard design principles overlaid; and
- required new dwellings and blocks multiplied by cost per block to supply to arrive at total expenditure.

Forecast capex for New Urban Development over the 2024–29 regulatory period is $23.8 million. This is a decrease of around $4 million on the regulatory allowance for this category for the 2019–24 regulatory period and lower than the $29.4 million forecast for actual capex in the 2019–24 regulatory period.

Figure 4 2019–24 and 2024–29 capex for New Urban Development ($ million, 2023/24)



3.4. Urban Infill

Urban Infill is defined as the use of land within a built-up area for further construction, especially as part of a community redevelopment or growth management program. It focuses on the reuse and repositioning of obsolete or underutilised buildings and sites. Redevelopment or land recycling is development that occurs on previously developed land. Infill buildings are constructed on vacant or underutilised property or between existing buildings.

Urban infill projects involve the network connection and directly associated network extension works (headworks) required for new multi-unit residential developments or redevelopments within established areas that have already been reticulated/serviced through the New Urban Development program (i.e. the HV and/or LV).

Urban infill activity levels largely correlate with the activity levels in the construction industry because newly constructed buildings will typically require some form of network augmentation to better cater to the new load demand.

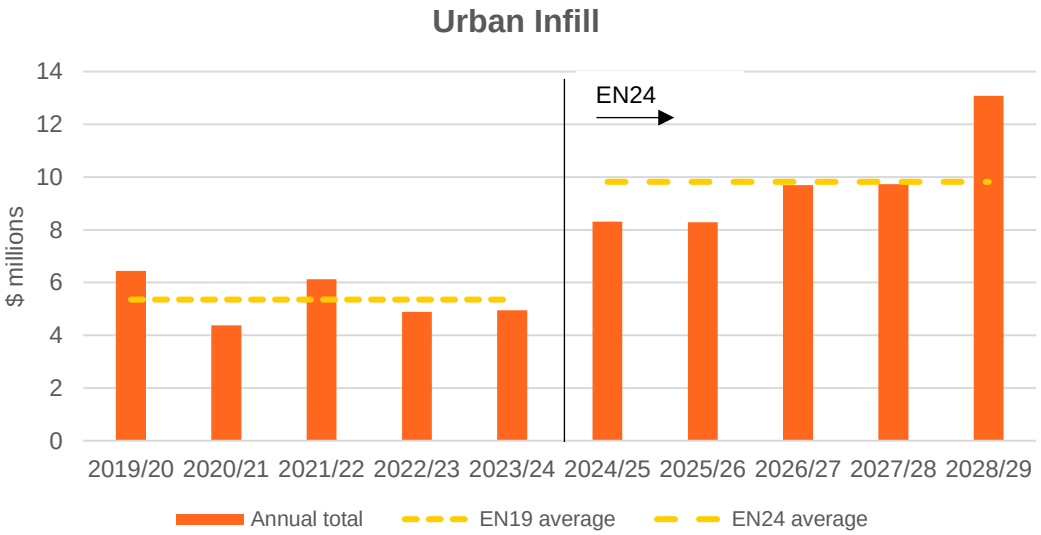
The amount of land released by the ACT Government is an important driver for Urban Infill capex. Consistent with the ACT Government's 2018 Planning Strategy, which contained a target of 70/30 split between urban infill and greenfields for new residential development, new land release has not been particularly strong in the ACT. The corollary of this is higher urban infill development to service the growing population. Evoenergy expects this trend to continue and this, combined with historical capex for Urban Infill, has been used to forecast Urban Infill capex.

Some more detailed assumptions around major Urban Infill forecasts include:

- Negligible brownfield single dwelling land releases will occur.
- Average multi-unit complex load and physical spacing requirements. A larger number of smaller, more standardised chamber substations are assumed, with consideration for increased capacity requirements for EV charging, as this will result in greater flexibility, deliverability, and lower unit cost.
- Required new substations to supply expected load and sites multiplied by average standardised substation to arrive at total expenditure.

Forecast capex for Urban Infill over the 2024–29 regulatory period is $49 million. This is an increase of around $21 million on the regulatory allowance for this category for the 2019–24 regulatory period and $22 million for forecast actual capex.

Figure 5 2019–24 and 2024–29 capex for Urban Infill ($ million, 2023/24)



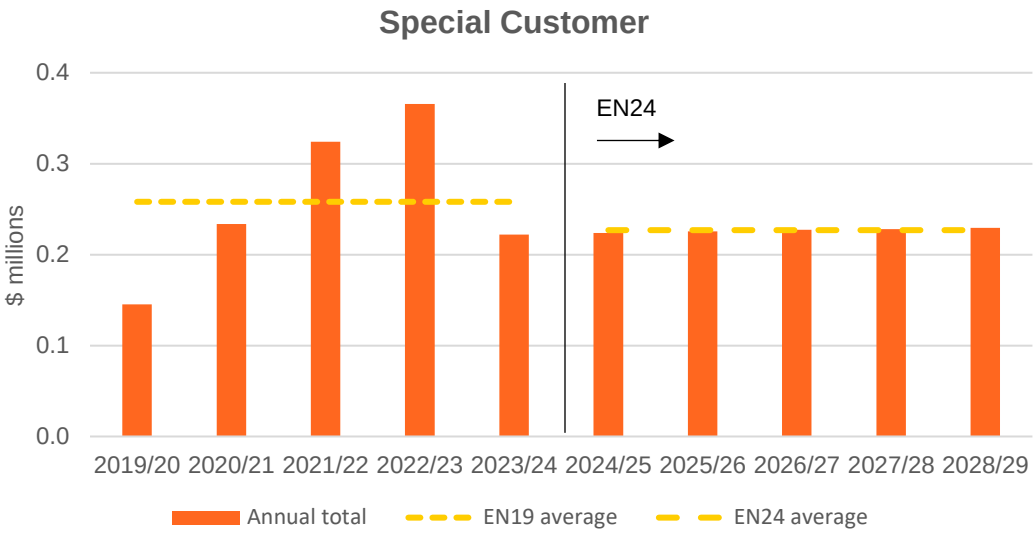
3.5. Special Customer Requests

Special Customer Request works undertaken by Evoenergy involve small to moderate expenditures and are typically identified through direct approaches from developers, government developers, government departments, telecommunications providers and members of the public.

There is no clear economic driver by which to forecast special customer requests activity levels. Since historical capex on this category has been low but volatile, Evoenergy has determined a historic average (comprising the first three years of the 2019–24 regulatory period) is the most appropriate approach to forecast.

Forecast capex for Special Customer Requests over the 2024–29 regulatory period is $1.1 million. This is a decrease of around $2 million on the regulatory allowance for this category for the 2019–24 regulatory period. However, it compares more closely with forecast actual capex for the period of $1.3 million.

Figure 6 2019–24 and 2024–29 capex for Special Customer Requests ($ million, 2023/24)



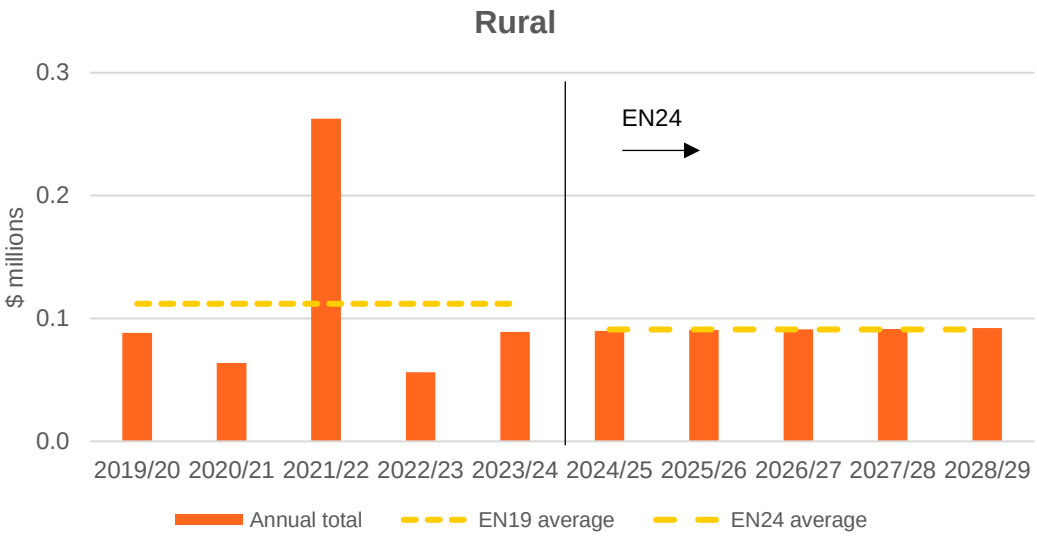
3.6. Rural Developments

Rural Development projects involve establishing the electricity network reticulation infrastructure for rural land not previously reticulated/serviced or individual rural customers/loads. They are applicable to residential, agricultural and commercial/industrial customers.

There is no clear economic variable which drives the amount of rural development activity levels. Since the category has a relatively low amount of capex, Evoenergy has determined a historic average is the most appropriate approach to forecast. The averaging period chosen was eight years, comprising the 2014–19 regulatory period and the first three years of the 2019–24 regulatory period.

Forecast capex for Rural Development capex over the 2024–29 regulatory period is $0.5 million. This amount is little changed from the regulatory allowance for this category for the 2019–24 regulatory period (also $0.5 million) and forecast actual spend of $0.6 million.

Figure 7 2019–24 and 2024–29 capex for Rural Developments ($ million, 2023/24)



4. Policy factors

Announcements by the ACT Government around restrictions on gas connections and registration of internal combustion engine vehicles will have a large impact on customer connection works.

The uptake of solar PV rooftop installations, community and residential batteries, and EVs present the following challenges:

- Installations as a component of the building construction provides some level of uncertainty in forecasting the actual metered electricity consumption due to the variables in the actual PV and battery generation, and battery and electric vehicle consumption.[2]
- Installations post building construction that have not had an allowance made during the customer contribution calculation for the provision of an electricity supply to the building (i.e., the actual received by Evoenergy will likely be different from what was allowed for, resulting in Evoenergy cross-subsidising this component of the connection).

Similarly, where Evoenergy provides for the uptake of new technologies and associated load and generation that do not eventuate, there is a risk of stranded assets, over-engineered solutions, and uneconomic investment. Land developers are also exploring the concept of “micro-grids”, which may limit the required new service from an estate to a high voltage connection. While micro-grids have not yet been applied in practice in the ACT, their emergence is forecast to lead to a significant reduction in the New Urban Development portfolio expenditure.

Evoenergy’s Connection Policy revision looks to incorporate flexibility to cater to the above scenarios and achieve fair results for all parties while delivering customer and community needs.

[2] Although the Average Daily Output figures available from the Clean Energy Council have removed some of the uncertainty.